

E D U C A T I O N    1 9 6 7

A STATEWIDE STUDY OF ELEMENTARY, SECONDARY, AND  
AREA VOCATIONAL-TECHNICAL EDUCATION IN MINNESOTA

by the

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## CHAPTER I

### O V E R V I E W   O F   T H E   S T U D Y

Education is important in a modern society, whatever its political or economic form. But a democratic society such as ours, dedicated to the worth of the individual and committed to the development of free, rational, and responsible men and women, has special reasons for valuing education. Education is essential not only to individual fulfillment but also to the vitality of our national life. The vigor of our free institutions depends upon educated men and women at every level of society. As Alfred North Whitehead has stated, "In the conditions of modern life the rule is absolute: The race which does not value trained intelligence is doomed."

There is no question that our society has accepted the idea of the value of education. The issue which is currently being debated centers around the type of education necessary to meet the greatly varying (or very diverse) needs of our present society. Many individuals and groups are calling for drastic changes in our educational system; others are asking for an examination and reappraisal in light of current conditions.

Although the Minnesota Constitution charged the legislature with the establishment of a general and uniform system of public schools and established the State Department of Education to carry out this mandate, the operation of public schools in Minnesota has been primarily a local matter. As long as local districts meet the minimum requirements established by the legislature, the State Department of Education has given them a free hand. In some cases, the Department has even been unable to enforce minimum standards due to inadequate power, shortages of funds and personnel, and the tradition of local autonomy.

While the concept of absolute local control of education is still prevalent in Minnesota, there is a growing awareness that education is, in fact, a state and even a national concern. The mobility of our population is such that the majority of the adult citizens of a community are products of schools in other communities or even other states. A community can no longer assume that it is educating its future residents; not in a nation where less than one adult in five is living in the same community in which he was born or received most of his education.

A second major reason for increased emphasis on viewing education as a state function is due to the increasing proportion of state funds being spent for education. In the days when the local district paid almost all of the cost, there

was more reluctance on the part of the state to become involved. However, with the current trends toward greater state support there must be assurances that these funds are being efficiently and effectively spent.

A third reason for greater state involvement in education stems from the increasingly complex nature of education. Small local school units cannot provide the specialized personnel and facilities now so necessary. The State Department of Education is playing an ever expanding role in providing leadership in those areas where local districts cannot operate.

One of the major problems facing the State Department of Education has been the absence of long-range planning. The Department has been essentially providing service on a current basis but has not had the human and financial resources to do extensive planning. In some areas there has been a lack of information available concerning the present status of education in Minnesota; thus there was no basis from which to project plans.

Another aspect of the changing educational situation is the increased activity of the Federal government. Although federal legislation pertaining to education began in 1785, the total contribution of the Federal government to public elementary and secondary education has been minimal when compared to state and local financial support. In recent years, however, there has been an increase in federal funds for education, culminating in the Elementary and Secondary Education Act of 1965 (ESEA).

The various sections of ESEA were intended to improve the level of elementary and secondary education in the United States by providing support for programs in specific areas. Title V, ESEA, provides financial resources to assist state departments of education in developing their leadership capacities and improving their services to local school districts. Each state department of education developed its own program for improvement and submitted it to the United States Office of Education for approval.

The Minnesota Department of Education decided to use Title V funds to develop needed long-range planning. Two aspects of the problem were identified: (1) the assessment of the current status of public education in Minnesota and (2) the development of long-range plans for providing an optimum educational program.

The Minnesota request for Title V funds was based on guidelines and priorities developed by the Department with assistance from a Title V Advisory Committee. This Committee was composed of members representative of diverse geographical locations, occupations, and educational involvements. Acting upon the Committee's recommendations, the Department developed a comprehensive proposal for improvement which included provisions for assessment of the current educational situation, expansion of existing activities, and development of new programs. The assessing of current status included a statewide study of public elementary and secondary education in Minnesota, a comprehensive educational information study, an evaluation of the leadership role of the State Department of Education, and an examination of the professional development of Department personnel.

### PURPOSE AND SCOPE OF THE STUDY

The Minnesota State Board of Education contracted with the Regents of the University of Minnesota for the Bureau of Field Studies and Surveys of the University of Minnesota to conduct the study of elementary and secondary education. The major purposes of the study, as outlined in the contract, were to determine (1) the current status of public education in Minnesota; (2) the strengths and weaknesses in the major areas of educational program, organization, professional personnel, and finance; and (3) the criteria and recommendations for immediate and long-range action and planning to organize, operate and finance an effective educational program to meet the needs of the people of Minnesota.

The study encompassed all public education in Minnesota under the jurisdiction of the State Department of Education, including kindergarten, elementary, secondary, and area vocational-technical schools. This included the following types of school districts:

<u>Type of District</u>	<u>Number</u>
Districts operating no schools	20
Districts operating only ungraded elementary schools	815
Districts operating only graded elementary schools	26
Districts operating elementary and secondary schools	452
Districts operating area vocational-technical schools	24

The emphasis of this study was on the 452 districts operating both elementary and secondary schools for two basic reasons. First, these 452 districts enroll over 95 per cent of the public school pupils in the state and employ 95 per cent of the teachers. Secondly, all districts which do not operate secondary schools will be closed by July 1, 1971 and will have to join districts offering elementary and secondary education.

In addition, it was necessary for the study to examine some aspects of non-public education and post-high school education as these programs affected the study of public education. Consideration was also given to the operations of the State Department of Education as they affect the public schools.

Although this study was made under a contract with the State Board of Education and for the State Department of Education, this report is directed at a much wider audience. The findings, conclusions, and recommendations of this report have implications not only for the State Board of Education and the Department but also for the legislature, local school districts, educational

organizations, institutions of higher education, teachers, administrators, other school personnel, and the citizens of Minnesota. Implementing the recommendations of this report demands a variety of methods: legislation, action by the State Board of Education and the Department of Education, action by local boards of education and their administrators, action by individual teachers, and action by teacher-preparing institutions.

### CONDUCT OF THE STUDY

One of the provisions of the contract was that the survey director would obtain the services of consultants to assist in the direction and conduct of the study. In accordance with this provision a general consultant and four special consultants were selected. The consultants chosen represent several different states, occupy a variety of educational positions, and have broad backgrounds in public education and survey work. The consultants selected were:

General Consultant: Dr. W. R. Flesher, President, Cooperative Educational Enterprises, Inc., Columbus, Ohio.  
Director of numerous local surveys and state studies in Ohio, Maine, Oregon, and South Carolina.

Consultant in Educational Program: Dr. Herbert L. Coon, Professor of Education and Principal of University Laboratory School, Ohio State University.

Consultant in Organization: Dr. Marion McGhehey, Executive Secretary, Kansas School Boards Association.

Consultant in Finance: Dr. W. Monfort Barr, Professor of Education and Director of Bureau of School Surveys and Administrative Studies, Indiana University.

Consultant in Professional Personnel: Dr. Stanley Niehaus, Superintendent of Schools, Community High School District No. 309, East Peoria, Illinois.

All consultants made regular visits to Minnesota, each spending an average of three days a month in the state over a period of a year. They assisted in making plans, developing questionnaires, preparing the survey report, and formulating conclusions and recommendations. Their knowledge and experience were great assets to the study.

Work on the study was begun July 1, 1966. The survey staff, working with the consultants, developed an overall plan for conducting the study. The study was divided into eight major areas: elementary school program, secondary school program, area vocational school and adult education, professional personnel,

population and enrollment, State Department of Education, school district organization, and finance. The survey staff carefully studied each area to determine the existing situation, problem areas, and data available and then formulated a plan for each area of the study.

One of the basic assumptions made by the survey staff was that the maximum success of the survey necessitated involvement of as many Minnesota educators and interested lay citizens as possible. Various methods for accomplishing this were examined; and the merits of each alternative, including time and cost factors, were considered. It was decided that the survey staff would have representation at as many meetings of educational groups as possible and would also make extensive inquiries of Minnesota educators and school board members through questionnaires.

The survey staff was represented at numerous meetings including all 24 Minnesota School Board Association area fall meetings; regional and/or state conferences of Minnesota Association of School Administrators, Minnesota Association of Secondary School Principals, Minnesota Elementary School Principals Association, Minnesota Area Vocational-Technical School Directors, and Minnesota School Board Association; Title V Review Visitation of the Department of Education; many legislative hearings; and numerous meetings of Department staff and advisory committees. In addition to the above meetings the survey staff made detailed presentations at meetings dealing specifically with the survey. These included five hearings before legislative committees and subcommittees, meetings with the Title V Advisory Committee, a presentation to the Educational Research and Development Council of the Twin Cities Metropolitan Area, and meetings with administrators and board members from St. Paul and Minneapolis. Members of the survey staff also had numerous contacts and conferences with individual board members, teachers, administrators, legislators, and officials of educational organizations.

The data upon which this report is based came from many sources. Extensive use was made of official records and reports of the Department of Education. The knowledge and experience of Department of Education personnel represented an invaluable source. Information was also obtained from educational organizations such as the Minnesota Education Association, Minnesota Federation of Teachers, Minnesota School Board Association, Minnesota Association of School Administrators, Minnesota Elementary School Principals Association, Minnesota Association of Secondary School Principals, Parent-Teacher Association, the Junior College Board, the Minnesota Citizens Committee on Public Education, and the Citizens League of Minneapolis. Previous studies made by the Bureau of Field Studies and Surveys were a valuable source of data. These included several statewide studies and individual studies of several hundred Minnesota school systems.

Because these data came from many different sources, there was not always complete agreement. This was true even of official Department reports, due in part to compilation at different times and by different sections of the Department. For this reason statistics presented in different chapters, and even within chapters, may show some small degree of variation.

Data obtained from a variety of questionnaires are an important aspect of the study. Questionnaires were used to obtain two types of information: (1) data which were not readily available from official reports, and (2) opinions and judgments of board members, administrators, and teachers regarding present conditions and future directions for Minnesota education.

Table 1 presents a summary of the number of questionnaires sent to and returned by the various groups. The inquiries sent to superintendents, principals, and directors of area vocational-technical schools were directed to collecting necessary factual information to a greater degree than were the other questionnaires; thus these inquiries were more extensive and a follow-up was conducted.

TABLE 1

## SUMMARY OF THE NUMBER OF QUESTIONNAIRES SENT TO AND RETURNED BY SCHOOL PERSONNEL

Group	Contacted		Returns		Follow- Up	Length of Questionnaire in Pages
	Number	Per Cent	Number	Per Cent		
District superintendents	452	100	448	99	Yes	10
County superintendents	43	100	41	95	Yes	4
Board chairmen in districts with elementary and secondary schools	452	100	200	44	No	4
Board chairmen in districts with only elementary schools	850	100	238	28	No	4
Secondary school principals	620	100	548	88	Yes	18
Elementary school principals	945	100	821	87	Yes	18
Directors of area vocational- technical schools	24	100	21	88	Yes	13
Secondary teachers	1,937	10	1,343	69	No	4
Elementary teachers in districts with elementary and secondary schools	1,725	10	1,078	62	No	4
Elementary teachers in districts with only elementary schools	179	10	95	53	No	4
Teachers in area vocational- technical schools (full time in day programs)	427	100	264	62	No	5

SOURCE: Survey office records.

Questionnaires were sent to all district superintendents, county superintendents, directors of area vocational-technical schools, board chairmen, secondary school principals, and elementary school principals as listed in the Minnesota Educational Directory and other official reports. Staff lists were obtained for each school district for use in selecting the sample of teachers. A sample of 10 per cent of all teachers was selected. The sample included at least one elementary and one secondary teacher in each district maintaining both elementary and secondary schools. Thus six or more persons in each of the 452 districts maintaining both elementary and secondary schools were given an opportunity to participate in the study. Questionnaires were also sent to at least one teacher in each district maintaining only a graded elementary school, and at least one teacher from each county having districts maintaining only ungraded elementary schools.

Because of the great variety in background and assignment of teachers in area vocational-technical schools and because of incomplete data in Department records, the decision was made to contact a larger percentage of these teachers than at other levels. Staff lists were obtained and questionnaires were sent to all full-time personnel who spent the majority of their time in post-high school, day programs.

The response to the questionnaires was excellent; for example, returns were received from all but four of 452 superintendents. A total of 5,096 usable questionnaires were returned. Responses to survey questionnaires were transferred to punch cards so that electronic data processing methods could be used for analysis of data.

Data collected were analyzed in many ways. Many comparisons were made of the questionnaire responses in terms of the position of the respondent; i.e., superintendent, board chairman, principal, teacher. Data were compared on the basis of type of school maintained by the district; i.e., ungraded elementary, graded elementary, or both elementary and secondary. Analysis was frequently made in terms of size of district. All districts operating programs through grade 12 were divided into 11 size groups on the basis of secondary enrollment. Secondary school enrollment includes students in grades 7 through 12 except in a very few districts operating four-year high schools. Table 2 shows these 11 size categories and indicates the number of districts, certificated staff, and pupils in each category.

Certain finance and enrollment data were compared in terms of geographical divisions of the state. For these comparisons the five geographical divisions of the state made by the State Department of Taxation were used. Figure II on page 156 shows these divisions.

This survey report not only describes education in Minnesota but also evaluates existing programs and practices. This evaluation includes comparisons with neighboring states, the nation as a whole, and practices reported in the literature. Eleven other Midwest states were selected for comparative purposes: Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. These states were selected because of their geographical proximity, the similarity of economic and educational conditions,

and the fact that many published reports use this grouping. Data for making these comparisons were obtained from the United States Office of Education, the National Education Association, published materials, and from departments of education in the 11 selected states. The knowledge and experience of the survey staff and consultants also provided important sources of comparison data.

TABLE 2  
SIZE CATEGORIES USED IN ANALYSIS OF SURVEY DATA  
(BASED ON 1965-66 DATA)

Secondary Enrollment of District by Size Category	Number of Districts	Number of Certificated Staff in Grades 1-12	Number of Pupils in Grades 1-12
Under 150 (1)	49	919	12,235
150-199 (2)	56	1,171	18,888
200-249 (3)	48	1,368	20,831
250-299 (4)	44	1,346	22,721
300-399 (5)	61	2,260	40,656
400-499 (6)	46	2,179	39,186
500-699 (7)	41	2,617	46,646
700-999 (8)	38	3,294	60,725
1,000-1,499 (9)	21	2,680	50,402
1,500-2,499 (10)	21	4,062	80,173
2,500 and Over (11)	<u>27</u>	<u>17,107</u>	<u>351,033</u>
TOTAL	452	38,859	743,496

SOURCE: Questionnaire responses and survey records.



This study deals primarily with the 1966-67 school year, and most of the data collected are for the current year. However, some types of data, primarily finance, were available only through the 1965-66 school year. Many of the comparative data for other states and the nation as a whole were also not available for 1966-67. In those cases the most recent available data were used.

#### ORGANIZATION OF THE REPORT

Although members of the survey staff and consultants had primary responsibilities for specific areas of the study, the survey report represents the judgment of the total staff and is more than the report of a group of specialists working independently.

The remaining chapters of the report present the descriptions, evaluations, findings, conclusions, and recommendations prepared by the survey staff. Chapter II is an appraisal of the program in the elementary schools of the state. Chapter III deals with the instructional program of the secondary schools. Chapter IV discusses vocational-technical and adult education. Chapter V reviews trends in population and school enrollment. Chapter VI presents an analysis of the professional personnel in Minnesota. Chapter VII reviews the operation of the State Department of Education. Chapter VIII is a study of school district organization. Chapter IX presents an analysis of public school finance. Chapter X is a summary of the major findings and conclusions of the study; a listing of specific recommendations designed to assist the State Department of Education, the legislature, and local school districts in planning the educational future of Minnesota; and a look at some of the major implications which would result from adoption of the recommendations presented.

## CHAPTER II

### E D U C A T I O N A L   P R O G R A M   I N   M I N N E S O T A E L E M E N T A R Y   S C H O O L S

A primary historical aim of elementary education -- to reach all children -- has now in large measure been accomplished, and emphasis is now upon the educational program within the school.

First priority, almost universally, is given to the development of fundamental processes, the "three R's plus," for their inherent value and as preparation for a secondary education which is also becoming universal. Additional purposes of the elementary school have been to develop appreciation of the aesthetic, the beautiful, and the good, to encourage creativity, and to provide for participation in art and music.

The development of the individual has received increasing attention in recent years, with emphasis upon special classes for the retarded, upon remedial instruction, and lately upon provisions for more adequately teaching the highly able child. A ripple of national interest in physical fitness caused some minor modifications to be made in many physical education programs. Now the schools may be on the threshold of an era of great adaptation to individual differences through use of computerized instruction and programmed materials.

The school has accepted such additional purposes as those mentioned above because of the pressures of a changing society. Increased attention is given to the development of good citizenship and to preparation for tomorrow's world of more complex technology and greater amounts of leisure time.

This section of the statewide study of education in Minnesota presents a summary of the present status of the educational program of elementary schools as evidenced by a number of such factors as school and classroom organization, the uses made of staff and facilities, and various aspects of the curriculum. It does not directly concern itself with the important but ancillary factors of finance, transportation, building design, and the like. This profile of the elementary school in Minnesota illustrates the complexity of the undertaking of the elementary school and some of the means being used to achieve its aims.

### THE CHARACTERISTICS OF EXCELLENCE IN ELEMENTARY EDUCATION

The curriculum or program of studies is of first importance in any discussion of the quality of education. It need not be a rigidly imposed set of regulations about what should be taught, but rather gains strength when freedom of teacher and pupil initiative is encouraged. The extremes of the "subject centered curriculum" and the core system organized around social problems are not readily adaptable to conditions of individual differences among children, the various philosophies of teachers, and the desires of communities.

Curriculum design should not be so vague as to cause the teacher to feel insecure or so restrictive that it cannot be adapted to the needs of children in a changing world.

The school should have a locally developed curriculum plan which serves as a framework within which individual planning in the classroom can occur. In an area of expanding knowledge in all fields, priorities in content areas should be established and provisions made to articulate instruction so that previous learning may be reinforced and needless duplication avoided.

A major characteristic of a good school is the emphasis it places on adapting instruction to the needs of children. The varying abilities and needs of children require modification of organization by such arrangements as homogeneous grouping, special classes, individual and small class instruction, and independent study. An adequate testing program should serve as one basis for determining student needs, for assigning pupils to classes and special services, and for evaluating the school's educational program.

Essential to good elementary education is a well-educated, enthusiastic faculty. Teachers and administrators with such characteristics can develop an educationally valid curriculum and put it into effective practice, if given encouragement and the time necessary to do the job. On-the-job improvement of skills and its corollary, growth in professional knowledge and understanding through additional college course work, are necessities in today's world of change.

Teachers must have the tools with which to teach. These include buildings, designed for education and adaptable to the variety of types of learning experiences needed in a flexible curricular program, and adequate facilities, equipment, and materials. The day of the single textbook as the source of knowledge is past. Teachers and pupils must have easy access to a wide range of supplemental materials and the equipment necessary for their effective use.

Whatever the general curriculum type followed by a school, good education mandates thorough instruction in subject content areas. Instruction in reading and language arts skills warrants the emphasis it currently receives, as does mathematics instruction. Social studies, less developmentally structured in today's schools, has the importance and potential to merit its being more carefully planned and should not be deemphasized in order to allow more time for emphasis on other content areas. Science has in the last decade become a respected part of elementary education, and physical education is less a recess period and more a planned program of skills development.

A testing program for the purpose of measuring pupil growth and for curriculum evaluation is mandated, as are guidance services, with their composition left to local initiative. A system of pupil grading, achievement marking, and reporting pupil progress to parents is required. Its design is also the responsibility of the local school.

Library service appropriate to the enrollment and educational program is required, as is the provision of qualified librarians in elementary schools. Minimum numbers for collections of books and periodicals are specified, as is the general design of library quarters.

The modified self-contained classroom is mandated by a regulation that teachers shall be responsible for all the instructional activities in their respective classrooms and recommendations stipulating that each teacher instruct her own group under a supervisor's direction.

All schools are directed to provide textbook series in nine subject areas including that of reading, where text and workbook requirements are quite specific.

The minimum length of the school day is set at two and one-half hours in the kindergarten, five hours in grades 1-3, and five and one-half hours in other elementary grades.

Combination classes are restricted to two consecutive classes except for kindergarten, which may not be combined with first grade. The acceptable maximum class size for any elementary grade is 30 pupils.

In three areas, special classes for the handicapped, health and safety instruction, and physical education, state regulations and directives are specific and detailed. For example, in the provision of services for the handicapped it is required that each child be approved by the commissioner of education as a recipient for such services to be provided. Time allotments and courses of study are prescribed for health and safety instruction and physical education, although not for other subject areas.

Regulations and directives regarding staff allocation are lenient except in a few areas. Principals of elementary schools responsible for 200 or more children must devote at least half time to administration and supervision, and those with over 400 children are to be full-time nonteaching administrators. Similarly, superintendents of districts employing less than ten teachers must devote at least one-half of the school day to administration and supervision, and those with more than ten teachers must devote at least two-thirds of the day to such activities. The directive for the allocation of librarians is also specific, with one full-time librarian required for each 500 pupils and at least a half-time librarian in schools of 200 to 350 pupils.

Although state regulations lack specificity in many areas of the curriculum, with the result that schools vary widely in the degree to which they comply with them, the regulations comprise what might be described as the minimum program of education in Minnesota.

STATE AND DISTRICT ORGANIZATION OF ELEMENTARY EDUCATION

Elementary school education in Minnesota public schools has experienced major organizational changes in recent years. During the last 15 years, while enrollments increased 37 per cent, the number of school districts responsible for educating these children declined from 6,485 to 1,028. Table 3 presents these and other pertinent data relating to these changes.

TABLE 3

DISTRIBUTION OF MINNESOTA PUBLIC ELEMENTARY SCHOOL PUPILS  
1950-51 AND 1965-66

Type of District	Number of Districts	Number of Pupils Enrolled		
		Kindergarten*	Elementary	Total
Cities of First Class				
1950-51	3	11,979	63,540	75,519
1965-66	3	16,107	65,787	81,894
Other Districts Operating Elementary and High Schools				
1950-51	430	11,671	142,978	154,549
1965-66	449	47,513	311,759	359,272
Districts Operating Only Elementary Schools				
1950-51	3,722	1,006	114,364	115,370
1965-66	959**	377	32,133	32,510
Districts Operating No Schools				
1950-51	2,330	--	--	--
1965-66	17	--	--	--
Total for State				
1950-51	6,485	24,656	320,882	345,438
1965-66	1,028	63,997	409,679	473,676

SOURCE: Minnesota Educational Directory, 1966-67, St. Paul, Minnesota: State Department of Education, 1967.

\*Does not include children in spring primary classes.

\*\*Includes two districts operating a junior high school.

Elementary school enrollments increased by 37 per cent during the past 15 years. The number of children experiencing kindergarten instruction has jumped almost 160 per cent in the same period.

A most significant shift involves the reduction in enrollment and the number of districts operating elementary schools only. These are predominantly the small rural schools, usually limited to one or two teachers. For example, the one-teacher rural schools declined from 3,690 to 737 since 1950-51. The districts operating no school have practically disappeared. While the enrollments in the districts operating elementary schools only have declined drastically and those in the three first-class cities (Duluth, Minneapolis, St. Paul) have grown modestly, the number of elementary pupils in the other 449 districts operating elementary and secondary schools has more than doubled.

Another program contrast, not revealed in the data presented in the table, relates to the number of grade levels contained in the elementary school. In 1950-51, more than 20 per cent of the elementary schools in the cities of the first class and in the other districts operating elementary and secondary schools, and a majority of those in districts operating only elementary schools, included the seventh and eighth grades. By 1965-66, an elementary school extending beyond the sixth grade was a rare exception.

A more intensive analysis of the current status (1965-66) of elementary education may be useful. Attention is first directed to the 959 districts which operate elementary schools only. Their 32,510 pupils were enrolled in 1,065 schools. Almost 70 per cent of these schools were limited to one teacher, as indicated in the following tabulation:

<u>Number of Teachers</u>	<u>Number of Schools</u>
1	737
2	99
3	43
4	33
5	18
6	8
7-17	27

These are predominantly rural schools, with almost 80 per cent having one or two teachers only. Less than 4 per cent are large enough to have one teacher per grade. Only seven schools offered kindergarten instruction. With the limited staff, subject-matter specialists and administrative personnel are generally unavailable. The instructional program in the vast majority of these schools is limited to whatever one teacher is able to do for three to eight grades of pupils. Many very small schools are included in this group. For example, in the 737 one-teacher schools, 132 enrolled fewer than 10 pupils each and in 434 schools the enrollments were 10 to 19 pupils.

Fortunately all districts in this entire category have a limited existence. The Minnesota Legislature, recognizing the inadequacies of most of these schools, passed a law at the 1967 session requiring all areas of the state, after July 1, 1971, to be included in an independent or special school district maintaining schools extending from grades 1 through 12.

Over 93 per cent of the elementary pupils in Minnesota public schools are enrolled in districts which operate both elementary and secondary schools. However, substantial differences exist in the size and organization of these elementary schools. The number of elementary schools per district varies widely, as illustrated in Table 4. Of the 1,061 elementary schools in these districts, 168 are in the three first-class cities, 219 are in the 32 districts suburban to Minneapolis-St. Paul, and 674 are in the other 417 districts. Minneapolis has 75 elementary schools; in contrast, 320 districts have only one elementary school each.

TABLE 4  
NUMBER OF ELEMENTARY SCHOOLS BY DISTRICTS, 1965-66

Number of Elementary Schools*	Districts by Location			
	First-Class Cities	Suburban to Minneapolis- St. Paul	Rest of State	Total for State
1	--	1	319	320
2	--	4	52	56
3	--	4	15	19
4	--	1	9	10
5	--	6	7	13
6	--	2	3	5
7	--	2	5	7
8	--	2	1	3
9	--	3	1	4
10	--	3	--	3
11	--	--	2	2
12	--	1	--	1
13	--	--	1	1
14	--	--	1	1
15	--	--	1	1
16	--	--	--	--
17	--	1	--	1
18	--	2	--	2
19 and Over	<u>3</u>	<u>--</u>	<u>--</u>	<u>--</u>
TOTAL	3	32	417	452

SOURCE: Minnesota Educational Directory, 1966-67,  
St. Paul, Minnesota: State Department  
of Education, 1967.

\*Twenty-nine districts operate one or more outlying schools with one or two teachers. These small units are not included in this tabulation of schools.

The size of the elementary school is another significant factor that affects the educational program. Table 5 presents the distribution of the 1,061 elementary schools by size of teaching staff. The staff, for this purpose, includes classroom teachers, principals, and specialists (all certificated personnel).

TABLE 5  
DISTRIBUTION OF ELEMENTARY SCHOOLS BY SIZE OF STAFF

Number of Certificated Staff Members	Number of Elementary Schools by Type of District			Elementary Schools in Entire State	
	First-Class Cities	Suburban to Minneapolis- St. Paul	Rest of State	Number	Per Cent
6 or Fewer	11	9	146	166	15.6
7-11	31	13	204	248	23.4
12-17	54	33	174	261	24.6
18-23	43	58	87	188	17.7
24-29	20	64	41	125	11.8
30 and Over	<u>9</u>	<u>42</u>	<u>22</u>	<u>73</u>	<u>6.9</u>
TOTAL	168	219	674	1,061	100.0

SOURCE: Minnesota Educational Directory, 1966-67, St. Paul,  
Minnesota: State Department of Education, 1967.

The size of Minnesota elementary schools varies widely, with 15.6 per cent having six or fewer teachers as contrasted to 6.9 per cent having 30 or more teachers. The patterns of school size show some interesting variations. Large elementary schools are most prevalent in the suburban districts, almost half of their schools having 24 or more teachers as compared to 17 per cent of the schools in the three first-class cities and less than 10 per cent in the rest of the state. The very small elementary schools (six or fewer teachers) are predominantly located in "outstate" districts, with 146 such schools being in those areas as contrasted to 11 in the first-class cities and nine in the suburban districts. The median size elementary school in the suburban districts has 23 certificated staff members; in the three first-class cities the median drops to 16; and in the remainder of the state the median is only 11 certificated staff members. Of the 16,518 certificated staff members in these 1,061 elementary schools, 2,813 are in the first-class cities; 5,068 are in suburban districts; and 8,637 are in the outstate districts.



Special attention may appropriately be directed at the elementary schools in districts which have only one school. Table 4 reported 320 such schools. An analysis of the size of these schools is presented in Table 6. In each of 68 elementary schools the entire certificated staff consists of six or fewer persons; more than 55 per cent of these elementary schools have fewer than 12 certificated staff members. Thus for 178 districts there is practically no possibility of having a nonteaching principal, a librarian, or specialists to supplement the work of the classroom teachers. In these 178 districts, enrollments and personnel do not permit two teachers per grade. Thus the instructional program depends largely on the ingenuity and ability of the individual classroom teacher, working in isolation. Less than 30 per cent of the districts with one elementary school offer kindergarten instruction; among the smaller schools (less than 12 teachers) only 11 per cent provide kindergarten.

TABLE 6

SIZE OF ELEMENTARY SCHOOLS IN DISTRICTS HAVING ONLY  
ONE ELEMENTARY SCHOOL, 1965-66

Number of Certificated Staff Members	Number of Elementary Schools		Total Schools	
	Without Kindergarten	With Kindergarten	Number	Per Cent
6 or Fewer	65	3	68	21.2
7-11	92	18	110	34.4
12-17	49	29	78	24.4
18-23	15	19	34	10.6
24-29	2	17	19	6.0
30 and Over	<u>2</u>	<u>9</u>	<u>11</u>	<u>3.4</u>
TOTAL	225	95	320	100.0

SOURCE: Minnesota Educational Directory, 1966-67,  
St. Paul, Minnesota: State Department  
of Education, 1967.

### CLASSROOM ORGANIZATION

As would be expected, there is a great deal more similarity than dissimilarity in the schools of the state. A similarity of programs is an advantage to students who transfer from one school to another, to high schools and colleges which receive the products, and to a society which expects its citizens to have some commonality of background. The similarity is fostered by State Board of Education and State Department of Education regulations, teacher transiency, methods of computing state aids, tradition, and a variety of other factors.

A disadvantage of the widespread uniformity is its resistance to change, to adapting to local conditions, and to modifying practices which are inefficient or ineffective. In the absence of strong central leadership from the State Department of Education, the teacher preparation institutions, research centers, or others, there is strong adherence to the status quo. This resistance to change is encouraged by local community conservatism -- what was good enough for me is good enough for my children -- and a perennial shortage of money with which to experiment, to employ research personnel, and to update teachers.

The typical classroom in Minnesota is one in which approximately 30 children spend the day with one teacher. This is the concept of the self-contained classroom. In the self-contained classroom the teacher has direct responsibility for a group of children for the full school day. Except for times when subject specialists take her class for short periods of time, she typically has little or no opportunity to prepare materials or to analyze the children's work. She may do these things when pupils are studying as a group -- a questionable practice -- or before and after school, but she does not have the preparation hour which is typically available for high school teachers. In many cases her lunch hour is considerably longer than that of the secondary teacher, which compensates for some of this lack of scheduled preparation time. Nevertheless, a common complaint of elementary principals is that their teachers have too little time for class preparation.

About two-thirds of Minnesota's elementary school teachers have less than an hour per week free from classroom duties, according to their principals. Another one-fourth of the elementary teachers have between one and two hours per week, and 16 per cent have over two hours. Hopefully, it may be assumed that as principals are freed from teaching duties, most of the clerical and bookkeeping chores are being shifted from the classroom to the school office and that teacher aides are also performing some of them. More is expected from elementary education than in the past in terms of individualization of instruction, ability grouping within the classroom and the like, all requiring teacher time and energy, but it is unrealistic to expect that today's self-contained classroom organization is capable of meeting these expectations fully. Other types of organization, notably team approaches and subject departmentalization, have potentials which should be explored.

The popularity of the self-contained classroom is due to a number of reasons, among them economy of cost, a dearth of research which could determine the best organization for teaching, and -- in Minnesota -- mainly the fact that its use is mandated. Where schools are varying from this arrangement in grades 1 through 6, it is as experimentation. The state regulation for experimental programs stipulates:

Teacher Instructional Assignment. In the first six grades and in grades seven and eight when instruction is not departmentalized, teachers shall be responsible for all the instructional activities in their respective classrooms or to which they have been assigned.<sup>4</sup>

This regulation would appear to forbid specialists, such as in foreign language or music or art, teaching in the elementary classroom, although their use is common.

The self-contained classroom has several disadvantages. The major one is that, as a result of this requirement, the teacher must teach all subjects. Teachers are forced to act as generalists who may be well informed in few or none of the subject areas. Beyond this drawback, serious in these modern days when it is recognized that many children have special interests and that some may have technical backgrounds in scientific and other areas which go beyond those of their teachers, is the impracticality of expecting all teachers to be adequately prepared to teach such various subjects as art, music, physical education, and science. This impracticality is recognized on the secondary level where regulations against the self-contained concept are as rigorous as those promoting it on the elementary level.

Experimentation and research in televised, programmed, and computerized instruction and in the various forms of organization such as team teaching and departmentalization are needed.

Principals report some variation in classroom organization for 1965-66. The completely self-contained classroom was used in only 27 per cent of the schools, with the bulk of the remaining schools providing some assistance to the teacher. A music teacher, for instance, might instruct the class once a week. Twenty per cent of the elementary schools were partly departmentalized, almost always in the upper grades, and one per cent were completely departmentalized. Eleven per cent used team teaching to some degree and 3 per cent contained an ungraded primary organization. The movement away from the self-contained classroom is found in neither the smallest nor the largest districts, but in schools of medium to large size.

Some of these variations are experimental programs operating under the aegis of the State Department of Education while others have been developed locally without regard to the previously quoted regulation and subsequent directives in the Department's Administrative Manual. The local initiative may be a result of a variety of conditions. Among them are the stimulus of successful programs in other schools, the emphasis of colleges upon remedial instruction (especially in reading), an increase in specialization by teachers, the limited supervision by the State Department of Education, and a nationwide emphasis upon individualizing instruction.

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4. Ibid., p. 19.

### LENGTH OF SESSIONS

The state sets these minimum lengths of the school day,<sup>5</sup> exclusive of the noon intermission:

	Not less than:
Kindergarten	2½ hours
Grades 1, 2, and 3	5 hours
Grades 4 through 6 (in schools maintaining six-year elementary schools)	5½ hours
Grades 4 through 8 (in schools maintaining eight-year elementary schools)	5½ hours

The minimums for the primary grades are exceeded in most school districts, where the typical school day is five and one-half hours. To avoid the costs and scheduling problems of operating separate elementary and high school bus routes, similar beginning and ending times for elementary and secondary schools are common in Minnesota districts.

The knowledge explosion, the increased emphasis being given such subjects as science, mathematics, and foreign language, time losses due to faculty meetings and religious instruction, and public clamor for improved instruction indicate a need for more and more time in the classroom.

On the other hand, in this age of the eight-hour day and the 35-hour work week (in some areas), is it rational to expect children to work longer days than their fathers? With homework this is often the case.

### LENGTH OF YEAR

Minnesota's school year is typically 170 to 172 days in length and is one of the shortest in the nation. State aids are paid in full if classes are in session 170 days, an effective spur to meeting this low minimum.

The arguments for a long school day are perhaps even stronger when used to justify a longer year. Some districts have lengthened their school year, notably those whose senior high schools are in session 175 days for purposes of meeting the requirements for North Central Association accreditation. These tend to be the larger schools.

A school year which was built to fit a bygone era when children were needed for farm work is an anachronism.

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5. Ibid.

While there has been some modification and experimentation in the school year here and there in the United States, such as the eight-hour day, 11-month year of Nova School in Florida, there has been nothing of comparable significance in Minnesota. Few, if any, significant modifications are likely to be made unless leadership is provided on the state level, and then only if power is given to a body charged with making recommendations and changes. It is more probable that the leadership will come from the federal level, as it did for the improvement of science, mathematics, and foreign language instruction, education for the deprived child, the provision of teacher aides, and in the further past, for home economics and agriculture education.

A factor working against local initiative in lengthening the school year is the method by which state aids are computed. This method precludes payment of state aids for the added time. The total cost is thus borne by the local district. That money aids would be an effective incentive is shown by the recent growth in Minnesota of summer school programs, where full foundation aids are paid, and of special classes for the retarded, where up to two-thirds of total costs are reimbursed the local district by the state.

Superintendents in Minnesota are mixed in their beliefs that the school year should be lengthened or that the state support program should encourage longer school terms, with 30 per cent opposed to such encouragement and only 33 per cent strongly in favor of it. Elementary principals are less in favor of a longer year than are superintendents, with only 21 per cent strongly recommending an increase. Principals and superintendents think that only small proportions of school patrons and teachers would prefer a longer school year, and board chairmen of both common and independent districts concur in this belief.

An alternative proposal to a lengthened school year is the "flexible system" analyzed by Harbo<sup>6</sup> and advocated by Bauman,<sup>7</sup> in which the school plant is used 11 months of the year, but with students attending nine-month sessions. Three-fourths of the students are in attendance at any one time, with one-fourth on vacation. Advantages of this plan would be mainly financial, but at least some students could extend their school year by taking courses during the scheduled vacations. The disadvantages of the plan are such that its adoption by school systems will probably be infrequent.

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6. Alf F. Harbo, A Longer School Year, Research Project No. 12, St. Paul, Minnesota: State Department of Education, May 1958.

7. W. Scott Bauman, The Flexible System, Toledo, Ohio: Business Research Center, College of Business Administration, University of Toledo, 1966, p. 27.

## CLASS SIZES

The maximum class size established by the State Board of Education in the elementary school is 30 pupils,<sup>8</sup> with allowances made for emergency cases. There has been considerable emphasis in recent years on decreasing the sizes of elementary classes throughout the state, and some improvement has been made overall, but the average class size is but little less than 30.

The State Department of Education reports an increase in the number of school districts which do not have overenrollments; that is, more than 30 pupils in the elementary classroom. In 1965-66 this number was 236, and in 1966-67 it had reached 254, an increase of 18 districts.<sup>9</sup> While the number of districts with overenrollments decreased, the number of individual school buildings where there were classes of more than 30 pupils remained constant. The problem of overenrollments is most severe in suburban districts where the number of large classes continues to grow, but progress is shown by the fact that the percentage of classes with enrollments exceeding 30 pupils is declining.

Table 7 shows the number of teachers having classrooms with more than 30 pupils.

TABLE 7

## NUMBER OF TEACHERS WITH CLASSES EXCEEDING THIRTY PUPILS

School Year	G r a d e s 1 - 6		Kindergarten (Entire State)
	Cities of the First Class	Remainder of the State	
1964-65	818	1,655	475
1965-66	780	1,604	424
1966-67	716	1,573	363

SOURCE: Summary Reports on Overenrollments,  
1965, 1966, and 1967, St. Paul,  
Minnesota: State Department of  
Education.

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8. Administrative Manual for Minnesota Public Schools, op. cit., p. 21.

9. Summary Report on Overenrollments, St. Paul, Minnesota: State Department of Education, 1967.

The table indicates that the number of oversized classes is declining in all categories. However, in the three cities of the first class (Minneapolis, St. Paul, and Duluth) over one-third of the classes still exceeded 30 pupils.<sup>10</sup> Thus while progress has been made the situation is still serious. For the remainder of the state, 11 per cent of the teachers had classes exceeding 30 pupils.<sup>11</sup> The manner of reporting does not separate the suburban schools and thus conceals their problem. For the 1966-67 school year there were 13 suburban systems in which 15 per cent or more of the teachers had more than 30 pupils per class and in two of these districts nearly one-half of all teachers had more than 30 pupils in their classes.<sup>12</sup>

Research in the area of determining optimum class size is unclear, but practitioners generally agree that smaller classes are preferred. Elementary principals rated reduced class size high in priority in their responses to the survey questionnaire.

### THE BASIC CURRICULUM

The school district in Minnesota has considerable freedom in setting its educational program. In almost all instances, state-developed curriculum guides are advisory only and are purposely general to discourage their use for regimenting instruction across the state.

The State Department of Education does impose some restrictions on experimentation, but as no specific curriculum or organization is set which all schools must follow and as there is little evaluation or supervision of local schools by State Department personnel, considerable latitude exists for curriculum change. Thus the restrictions have little practical effect.

In the absence of prescriptive state requirements, a system of state inspection has not developed. This has its drawbacks since, as one consequence, the job of evaluation then devolves upon the local school. Conservatism, satisfaction with the status quo, and lack of improvement on the local level often result. The resistance of faculty and local school patrons to change takes dynamic leadership to overcome, and dynamic leaders are often in short supply.

Some state regulations have a peripheral effect upon the educational program in the elementary school. Building codes, transportation regulations, the requirement of half days rather than full days of kindergarten, and class size maximums are examples.

Elementary education in Minnesota is subject-matter oriented. It stresses "the three R's plus" -- mathematics, language arts, science, social studies, health, and especially reading. To a lesser degree it emphasizes the cultural

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10. Ibid., p. 13.

11. Ibid., p. 5.

12. Ibid., Table IV, p. 5.

areas of art and music and physical development. State requirements specify the constant subjects in the elementary school curriculum which shall be a part of instruction in grades 1-6 and in grades 1-8 in those few remaining schools which include grades 7 and 8 in the elementary school structure. Time allotments within the grade levels for these subjects are not prescribed. Curriculum Bulletin No. 1, Better Instruction, written two decades ago and still in use, does list daily time allotments but these are not enforced or recommended today.

The constant subjects are language arts, mathematics, social studies, science and conservation, the fine and practical arts, and health, physical education and safety.

Restrictions on local school systems in the manner in which these or other subjects are taught are minimal. A directive does require that textbooks be provided for reading, mathematics, social studies, handwriting, health, language and grammar, music, science and conservation, and spelling, but the selection of texts is the prerogative of the local school. Minnesota does not follow the practice of state adoption of textbooks as do some states. Except for reading instruction, where workbooks to accompany the textbook are required, workbooks are not required or recommended.

Other directives specify the type and number of encyclopedias, dictionaries, maps and globes, atlases, and almanacs which are to be provided in each classroom. Dictionaries, encyclopedias, and atlases must be state-approved publications and must have been copyrighted within the past ten years.

Instructional programs in the schools of Minnesota are quite similar although time allotments and textbooks are a local option. Textbooks are available from a limited number of publishers and while they vary somewhat in content and design (for instance in science where both reader-type and experiment-type are available) they are more similar than dissimilar. A transition from traditional arithmetic to modern mathematics is almost complete, so differences among schools in this area are again minimal.

The state curriculum outlines and the suggested courses of study have had a standardizing effect on instruction throughout Minnesota because of their availability to classroom teachers. Although State Board of Education regulations stipulate that they be modified to adapt them to local needs, their general effect has encouraged uniformity.

The restructuring of content matter and the innovations in teaching methods which have taken place in most of the subject areas on the secondary school level are not found to the same extent in the elementary school grades. With a few exceptions, notably in instruction in mathematics and foreign language, changes have been in the nature of minor additions rather than major reorganizations.

Some of the significant changes and newer emphases found in elementary education are briefly considered here.



## READING

Instruction in reading is given the most emphasis and time of any subject in the elementary school day. Ability grouping within the classroom is usual, and reliance is generally on the commercial textbook and teacher's manual. Most principals report that their schools make extensive use of more than one method of teaching reading, with instruction in phonics the most common as indicated in the following tabulation:

<u>Method</u>	<u>Percentages</u>
Phonics	73
Word recognition	53
Phrase	31
Sentence	25
Story	25
Look-say	24
Sight or silent	20
Alphabet	9
Structural linguistics	6
Initial teaching alphabet	1

## LANGUAGE ARTS

In language arts instruction there has been increasing recognition and acceptance of variant levels of usage in differing situations, greater emphasis upon inductive approaches to the learning of grammar, language structure, punctuation and capitalization, and diversification in instruction to provide for differences in language backgrounds, abilities and needs among children. A wider range of special equipment and materials is used to enrich, motivate, and evaluate the pupil's program. These include such items as the tape recorder, radio, television recordings, motion pictures, and filmstrips. Spelling and handwriting skills are increasingly applied by pupils in all subject areas.

## MATHEMATICS

Minnesota elementary schools have overwhelmingly adopted the "new math." In current programs it is difficult to separate method and content as the spirit of experimentation and discovery may well be considered not only the process but also the substance of much of today's mathematics instruction. An important aspect of mathematics instruction today is the recognition that mathematics is interrelated with nearly every area of study and activity.

Among the recent trends in elementary school mathematics are: greater emphasis on developing the pupil's understanding of basic concepts; increased emphasis upon providing opportunities for the pupil to learn through discovery and experimentation; greater emphasis upon developing the pupil's ability to express ideas and relationships in accurate and precise mathematical language; and the introduction of algebraic and geometric concepts early in the elementary school grades.

## SCIENCE

In recent years there has been an increased emphasis upon pupil participation in science instruction. Reader-type science textbooks are losing favor as experiment-centered texts gain acceptance. Some of the latter stress the use of materials commonly found in the home rather than in the laboratory. Specialized equipment and materials designed for use on the elementary level have become available in greater variety in the past decade due to federal subsidization. Scientific progress in the world outside the school has caught the fancy of the present generation and lessened the problem of motivation of pupils. There has been a growing recognition of the need for elementary teachers to become increasingly knowledgeable in the content and processes of science and in the planning of meaningful science activities.

## SOCIAL STUDIES

Efforts are being made in some school systems to develop continuity in social studies programs from kindergarten through grade 6 and into the high school. A wider variety of resources is becoming available as a result of increased emphasis upon libraries, instructional materials centers, and audio-visual departments.

The placement of certain areas of study in the instructional program of one grade level or another causes minor differences among schools, notably in social studies. Minnesota history, for example, is presented in grade 4 by many school staffs and in grade 6 by others, presenting problems for pupils transferring from one school to another and for publishers who attempt to adjust the reading difficulty of their texts to approximate the levels of reading skill which children in the various grades are assumed to possess.

## ART

The traditional concept of art instruction was a restricted one -- in fact often limited to pencil, paper, and use of the primary colors. An increasing appreciation of creativity in children, together with the use of materials heretofore reserved for secondary school use, has changed that situation in many classrooms. Elementary pupils in at least some schools have opportunities to experiment with ceramics, pottery, lapidary equipment and materials, and to learn from films, slides, filmstrips, reproductions, and exhibits.

## MUSIC

Like instruction in science, music programs vary from classroom to classroom according to the ability, training, and interest of the teachers. A widespread practice is that of assigning a skillful teacher to teach music in classrooms other than her own, and where this is done continuity in the program is more apt to be achieved. Where this is not done, music instruction tends to consist of mere rote singing with developmental aspects neglected. Instruction in instrumental music is often made available to interested pupils in grades 5 and 6.

## PHYSICAL EDUCATION

Over the years there has been a trend away from "recess" in which children are sent out to play, sometimes under supervision and sometimes not, to physical education as a planned program of skills development and body improvement. Elementary principals report that 63 per cent of the state's schools now stress the educational and physical health aspects, rather than recess from academic study. There is a difference between the two activities, but some teachers list physical education as a part of the daily program, sending students outside for a recess period in the belief that the two are the same thing.

Similar problems occur in other subject areas. One teacher may rigorously teach music fundamentals while another uses the music period for rote singing throughout the year; what is a library to one teacher is a few books in a spare room to another. These differences in attitude and values make it difficult to compare programs or describe elementary education in the state of Minnesota.

## FOREIGN LANGUAGE

One of the few additions to the elementary curriculum in recent years is the study of a foreign language. This was available to children in only 18 per cent of the state's schools in 1965-66, almost always in grades 4, 5, and 6. Large schools are three times as likely to offer foreign language instruction than are small schools. The usual procedure in schools providing instruction in a foreign language is for all children in the classroom to be exposed to it. Typically, the school offers only one foreign language. Nearly all present FLES (Foreign Language in the Elementary School) programs are based on televised instruction and the teachers involved are typically regular classroom teachers.<sup>13</sup> A sizable number of elementary principals, notably in suburban schools, would prefer to eliminate the language if it is taught only by television as it now is in 12 per cent of the state's schools.

## PROVISIONS FOR INDIVIDUAL DIFFERENCES OF CHILDREN

A variation of the self-contained classroom is the special class for handicapped children. Since the legislation of 1957 which made public education of the educable handicapped (those within the limits of 50 to 80 IQ) mandatory and that of the trainable retarded (less than 50 IQ) permissive, the growth of special classes has been impressive. This has been due in great part to the highly effective Special Education Section of the State Department of Education.

While growth has been steady and although interdistrict cooperation is an acceptable way of providing services with one class serving two or more districts, many districts make no provision for complying with this requirement of the law.

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13. Foreign Languages in the Elementary Schools -- A Status Report, St. Paul, Minnesota: State Department of Education, 1966.

Many more do an incomplete job, as they do not adequately identify pupils who should be placed in such classes. A few schools follow a policy of retaining these children in regular classes for social or other reasons, with individual attention given by the teacher when possible. This is a generally unsatisfactory arrangement which does not honor the wide range of abilities and problems or allow time for the instruction necessary.

Growth of classes for the trainable retarded has been slow because of the permissive nature of the law, and because the role of the school has not been clearly defined. Questions rise at many board of education meetings whether training of children of this level of ability is really education as commonly defined, and whether the tax dollar, always in short supply, should be stretched to cover the district's share of the cost. Title I of Public Law 89-10 had only a small impact upon the provision of special education services. Only 1 to 2 per cent of Title I money spent in Minnesota in 1966 was allocated to special education.<sup>14</sup>

At the other extreme of the mental ability range, that of the highly able, less organizational modification is made, probably because the capable child does not stand out in the classroom as does the retarded child. Money aids are not provided to support special provisions for his education, and he is usually not specifically identified. There are almost no adequate screening and placement facilities for such children on the elementary school level, and Minnesota colleges do not have special programs for preparing teachers for them. A rising interest in this area is shown by the recent establishment of a staff position, State Consultant for the Gifted, in the State Department of Education. The present situation in Minnesota, where 70 per cent of the independent school districts enroll fewer than 1,200 children, is one in which only limited improvement can be expected. With 50 per cent of the student population located outside the metropolitan area, the 5 per cent who can be classified as gifted cannot be adequately provided for under the present district organization. Their wide distribution, like that of the blind and other physically handicapped, makes provision for their education by small districts economically unfeasible.

Provision for individual differences of students is made in ways other than by special classes. A third of Minnesota's elementary schools assign children to multiple sections of a grade level on the basis of ability or achievement, while the majority assign students to heterogeneous classes. The practice of placement by ability or achievement has been increasing with 29 per cent of the state's elementary school principals reporting an increase in the last five years and only 8 per cent saying that there has been a decrease. Another 23 per cent report that placement by these criteria is not used in their schools.

Grouping students because they differ infers a need for differentiated instructional materials. Eight out of ten principals believe their teachers are adapting their materials to at least a minimum extent, 35 per cent believe that much adapting is done for the gifted, and 42 per cent think that much is done for slow learners.

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14. Annual Report Advisory Committee on the Education of the Gifted to the State Board of Education, St. Paul, Minnesota: State Department of Education, 1967. (Mimeographed)

Other provisions for the gifted, as reported by the elementary principals, include early entrance to kindergarten or first grade, practiced by 39 per cent of the state's schools; acceleration or grade-skipping by 44 per cent; content enrichment by 81 per cent; Saturday classes by 4 per cent; independent study by 70 per cent; and summer classes by 57 per cent.

Principals report provision of the following for slow learners: delayed entrance into kindergarten or first grade, 57 per cent; retention in grade, 88 per cent; content enrichment, 79 per cent; Saturday classes, 3 per cent; independent study, 52 per cent; summer classes, 72 per cent; and an extended school day, 10 per cent. In all cases, except retention in grade where the extent of use was similar in all sizes of schools, the larger schools made more use of the devices for individualizing instruction than did smaller schools, and in some cases strikingly so.

Within the regular classroom, ability grouping by level of reading skill is very common with 91 per cent of elementary principals reporting this practice in their schools. Text authors and teachers in colleges of education almost unanimously recommend this practice, so its widespread acceptance is understandable. There is less agreement about grouping for instruction in other subjects. Only 60 per cent of Minnesota schools group for mathematics, with large schools more apt to do so than small schools.

For pupils who are unable to attend school for long periods of time, the provision of instruction varies in form from school to school. Much reliance is placed on the time-honored practice of sending textbooks and assignments home to the absent child in the hope that he will learn by himself or with the help of parents and siblings. With a generous system of money aids by the State Department of Education for instruction of the "homebound" student, there has been an increase in recent years in this aspect of instruction and 89 per cent of Minnesota's school districts now provide this service. Similar aids help to reimburse the cost of instruction by telephone but this method of instruction, while effective and inexpensive, has at least two major factors working against its universal use. Many teachers oppose having class activity open to outside observation via a speaker in the home, and the all-day tie-up of the home telephone line precludes the method's use on party lines.

#### SUPPLEMENTARY SERVICES

Schools provide a number of services which may be considered peripheral to the curriculum. Among these are the lunch programs which provide 440,000 meals each day and are available to most elementary school pupils in the state. Recreation programs and health service are also common. A small beginning has been made toward providing nursery education, counseling, and the services of social workers. State and federal money aids and the development of mental health centers throughout the state have been the major factors in the growth of almost all services of these types.

### THE LIBRARY

The library is commonly called "the heart of the school." While this is an overstatement in terms of the use made of it by teachers and students, and in terms of its often inadequate facilities, it is a vital part of the book-oriented school.

The dedication of superintendents and school boards to the library is frequently lipservice. This contention is supported by elementary principals, who responded to a question about the needs of their libraries by listing a full-time librarian as the number one need and more books as the second. These being the two basic aspects of adequate library service, it is evident that the library is not a high priority item in school budgets.

Only one-fourth of Minnesota's elementary school principals rate their libraries as very adequate, with a direct relationship between school size and extent of satisfaction. These principals, low as the proportion is, do not appear to demand very much of a library before terming it very adequate. The following list shows the percentages of libraries adequately providing various important services, as rated by elementary school principals.

<u>Equipment and Services</u>	<u>Per Cent Rated Adequate</u>
Picture and pamphlet files	16
Listening center	2
Filmstrip collection	17
Professional library	14
Photocopy equipment	1
Microprinting	0
Records and tapes	8
Library open summers	15
Access to larger library	23
Is a fullscale instructional materials center	12

Larger districts are much more likely to provide these facilities in their elementary libraries than are small districts, especially picture and pamphlet files, records and tapes, and a professional library.

A large proportion (82 per cent) of Minnesota principals rated their libraries as average or better. The extent to which basic services are provided by Minnesota's libraries does not bear out such ratings. The following list shows the responses of principals to questions about the adequacy of specific aspects of the libraries in their schools.

<u>Selected Factors</u>	<u>Per Cent Rated Adequate</u>
Book collection meets American Library Association standards	36
Book collection meets state standards	41
Magazine collection meets American Library Association standards	31
Magazine collection meets state standards	36
Librarian is used as a resource person by teachers	27
Teachers participate in materials selection	26
Library is "weeded" regularly	25
Library improvement program	34
Library use instruction is given to students	31

A rather large majority of the libraries lack features which should be available in every library worthy of the name. Many of these features do not depend on the availability of money nor even upon the existence of district policy; but could be initiated and carried out on a building level. Examples include the use of the librarian as a resource person by teachers, teacher selection of materials, the development of a library improvement program, and the provision of instruction in the use of the library.

A library may increase its usefulness and effectiveness by being open when teachers and students are free of class responsibilities. Less than half the elementary schools open their libraries to any extent in the summer months and less than a third of them do so to any great degree. Also, most libraries are not open beyond school time during the school year. Pupils and teachers wishing to use the library before or after school, or during the lunch period, are unable to do so in about half the schools in the state. Only 26 per cent of the elementary school principals reported that the library was open for five or more hours beyond school time each week. These poor showings can be accounted for -- but not excused -- by the fact that only a fourth of the elementary libraries in the state are served by full-time librarians.

The usefulness of a school library may also be increased by access to the collections of larger libraries. These may be libraries in the local high school, local or nearby public libraries, or combinations of libraries in an area. Approximately a fifth of the state's elementary schools have access to larger libraries of one type or another, with larger schools more apt to have such an arrangement. With the wide range of interests of children, the increasing supply of materials on the market, and the modest size of the usual elementary library collection, it is regrettable that so little effort is made to increase the availability of books and other library materials by means of interlibrary loans and other measures of cooperation.

Classroom libraries are sometimes used instead of, and frequently in addition to, the central library. The classroom library is, typically, a small collection of books assigned to the classroom for a short period of time and serves the purposes of encouraging reading and providing resources to supplement the text in a subject area. While almost all schools, 95 per cent, have classroom libraries of some degree of adequacy, only 6 per cent of the principals think that their classroom libraries are completely adequate for the needs of their instructional programs. The inadequacy perhaps reflects the attitude that first priority should be given to building up central libraries which themselves are inadequate.

#### COUNSELING SERVICES

Counseling and guidance services are typically not available in the elementary schools of Minnesota, although regulations of the State Board of Education specify that all schools shall provide guidance to assist pupils in making satisfactory personal adjustments and appropriate educational and vocational plans. Perhaps the greatest barrier to compliance with the regulation is the lack of sufficient preparation programs in the institutions of higher learning in the state and the absence of certification procedures by which counselors might become eligible to work in the elementary schools. There are at present only 12 counselors in the elementary schools of the state.

#### HEALTH SERVICES

Health services are growing rapidly in Minnesota with many new programs of various types begun under Title I of Public Law 89-10 in the 1966-67 school year. At present 175 school districts operate nursing programs, including a number of the smaller districts, some of which cooperate with other districts in the financing and sharing of services. A shortage of public health nurses has been one of the reasons for the development of many programs which use registered nurses or aides for screening, clerical, and first aid duties.

The extent of services offered by schools varies widely. Immunization programs may or may not be provided by the school, as some physicians prefer such work to be done in their own offices. Schools without nursing programs of their own have some access to the facilities of county nursing services. These, however, tend to be limited in staff and time.



## RECREATION PROGRAMS

Recreation programs are provided in a variety of ways in over 80 per cent of the state's school districts. The typical program is one of eight to ten weeks in the summer, although almost 100 school districts offer full-year programs. In approximately half of the cases, the school operates the program. In the other half, the school shares responsibility and costs by cooperation with a community program. Both boys and girls participate, with 363 programs providing for the former and 333 for the latter. Preschool children are included in recreational programs in 146 communities. Certificated teachers, typically secondary physical education instructors, are involved in the programs of 232 communities in the state.

## PROFESSIONAL PERSONNEL

The typical elementary teacher in Minnesota is a generalist, teaching all or almost all subjects in the self-contained classroom.

Teachers and principals agree that additional teachers are needed, both in the specialized areas to help the classroom teacher and in the general area as a means to reduce class size, and that paraprofessional help is also desirable.

There has been an increase in the number of specialists, notably special (i.e., mentally or physically handicapped or gifted) class teachers, psychologists, and audio-visual directors, but according to teachers and principals many more are needed, especially librarians and subject matter specialists who actually teach in the classroom. Paraprofessional teacher aides have increased strikingly in numbers, due to the financial aid of Public Law 89-10, and may be expected to continue to increase as principals are satisfied with the job they have done and indicate a need for more.

In 1965-66, there were 1,115 kindergarten teachers, 241 spring primary teachers, and 16,150 elementary teachers to teach 63,997 kindergarteners, 8,340 children in spring primary and 383,133 children in grades 1-6.<sup>15</sup> Their allocation is shown in Table 8. Some districts which do not have kindergarten provide pre-first grade instruction for children of kindergarten age in spring primary classes which meet for eight to twelve weeks.

The proportion of men in elementary education has increased to 15 per cent of the total, due perhaps to the prevalence of single salary schedules as much as any other factor. The proportion of male principals has also increased to 62 per cent in 1965-66.

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15. Minnesota Educational Directory, 1966-67, St. Paul, Minnesota: State Department of Education, 1967, p. 103.

TABLE 8

## TEACHERS AND ENROLLMENTS (GRADES K-6) IN MINNESOTA PUBLIC SCHOOLS IN 1965-66

Type of District	T e a c h e r s					E n r o l l m e n t				
	K	Primary	Graded Elem.	Ungraded Elem.	Total	K	Primary	Graded Elem.	Ungraded Elem.	Total
Cities of the First Class	270	--	2,529	121	2,650	16,107	--	63,454	2,333	65,787
Outside Cities of the First Class	<u>845</u>	<u>241</u>	<u>13,115</u>	<u>385</u>	<u>13,500</u>	<u>47,890</u>	<u>8,340</u>	<u>308,558</u>	<u>8,788</u>	<u>317,346</u>
TOTAL FOR STATE	1,115	241	15,644	506	16,150	63,997	8,340	372,002	11,121	383,133

SOURCE: Minnesota Educational Directory, 1966-67, St. Paul,  
 Minnesota: State Department of Education, 1967, pp. 104-5.

In the chapter of this study dealing with the personnel in Minnesota's schools there is a discussion of the infrequency with which professional assistance is provided to the teachers by the elementary principal. The provision of an assistant principal or administrative intern would increase the elementary principal's effectiveness as an educational leader if only by relieving him of routine or clerical-type administrative duties. The small size of the typical elementary school in Minnesota is not likely to allow these to become common. The consolidation of small districts to provide schools of sufficient size to warrant assistant principals and interns and -- more importantly -- to allow principals to devote full time to administration and leadership by freeing them from classroom teaching obligations would be a step in the right direction.

#### NONPROFESSIONAL PERSONNEL

In recent years there has been an increase in the use of noncertificated people to assist or relieve classroom teachers, usually in nonteaching duties.

The most common assistance has been in the supervision of lunchrooms and playgrounds during the lunch period. While half of the schools report little or no help of this type, over a fourth provide "very much." Incentives have been the state regulation stipulating that each teacher be provided a duty-free lunch period and the financial assistance provided by Public Law 89-10.

Becoming more common is the provision of secretarial and clerical help for teachers. Principals report that over half the schools provide this service to some degree, but only 15 per cent provide "very much" help. Thirty per cent of Minnesota schools provide the teacher considerable assistance in the preparation

of instructional materials, and 15 per cent provide it for checking and grading the written work of pupils. Three-fourths of the principals have clerical assistance as do 40 per cent of the librarians and 30 per cent of the nurses.

The position of teacher's aide is a recent one, with almost all of its rapid growth resulting from the impact of Public Law 89-10. Over half the elementary schools now provide aides to some extent. Elementary principals expressed their approval of the use of teachers' aides by giving a high priority to the increase of such workers in a free response section of the survey questionnaire.

#### STAFF EFFORTS IN THE IMPROVEMENT OF INSTRUCTION

The regulations restricting the amount of time that principals may teach in the classroom, in order that time may be allowed for administrative and supervisory duties, are a recognition of the changing role of the principal from that of "principal teacher" to one of coordinator and leader. As specialists -- psychologists, speech therapists, social workers, and other specialized personnel -- appear in increasing numbers and variety, as students leave the classroom to accept the services of these specialists, and as the need is more clearly seen for curriculum revision, organizational change and administrative planning, elementary school principals are beginning to accept a new role. In that role, they have set as a primary goal the improvement of instruction.

#### EFFORTS OF ELEMENTARY PRINCIPALS IN IMPROVING INSTRUCTION

For a variety of reasons, among them their present or recent teaching experiences, elementary principals give classroom supervision a high priority in the allocation of their time.

In a small number of schools, 11 per cent, class visitations are performed by central office personnel, and by the assistant principal in another one per cent of the schools, but typically the principal does this work, spending a large proportion of his time in direct observation of classroom teaching and follow-up contact with teachers. This facet of school administration, the personal involvement in instructional methods and procedures, increases the usefulness of the principal as team member, inservice training leader, and catalyst of ideas.

Fewer than 15 per cent of all principals visit each teacher at least once a week. This practice is more common in medium-size districts, where over 30 per cent of the principals reported visiting this often. Where schools are smaller, teaching duties of the principals preclude their performance of this function so often; and where schools are much larger, almost all of the week would be absorbed by the one activity if each teacher were to be visited each week.

When schools of all sizes are included, the questionnaire responses indicate that 33 per cent of the principals visit each classroom once a month, 29 per cent twice a year, 6 per cent at the teacher's request only, and 7 per cent only in emergencies. Where teachers are visited primarily by central office personnel it is usually in the smallest schools, where elementary principals teach full days and the superintendent assumes many of the tasks normally carried out by the principal.

The majority of principals is satisfied that supervisory contacts serve to improve instruction, especially in medium-size districts. Here half the principals indicate a high degree of satisfaction, about twice the incidence found in other sizes of schools in Minnesota. Sixty per cent of the state's principals are somewhat satisfied, and in only the smallest districts do principals indicate complete dissatisfaction to any significant degree. In these districts, three-fourths of the principals teach at least three-fourths of the day, and therefore have insufficient time to do an adequate job of classroom supervision.

Teachers do not share their principals' views on the helpfulness of class visitation. Eighty-five per cent of all teachers see the visits as of some, little, or no helpfulness; another 10 per cent think they are of much help; and fewer than 5 per cent considered them very helpful. In the five smallest sizes of districts (more than 55 per cent of all districts operating elementary and secondary schools) only one per cent of the teachers think that administrator supervision is of very much help, and 33 per cent believe it is of no help at all.

The teacher's belief, or lack of it, in the helpfulness of classroom visitation depends upon things besides the effectiveness of the principal. The presence of a superior, especially if unannounced and unplanned for, is probably threatening to most people. It would be surprising if most teachers felt it very helpful, and especially as teaching is typically a closed-door activity.

Other methods of improving instruction such as faculty meetings should be sought and developed to supplement classroom supervision as an improver of teaching quality. When asked how many such meetings were held during the 1965-66 school year devoted primarily to inservice training of the staff, 14 per cent of the principals indicated that none were held. The most commonly reported number was two such meetings per year, found in 16 per cent of the schools; but the range was wide, with 15 per cent having ten or more inservice training meetings, most of these in the larger schools.

When teachers were asked the number of these meetings helpful to them in the improvement of instruction, about 30 per cent in each size district said that none of them had value. Larger percentages, ranging around 40 per cent, saw value in more than three meetings during the year, except in the smallest districts where the percentage was markedly lower.

#### EFFORTS OF TEACHERS TOWARD IMPROVING INSTRUCTION

One method by which teachers might improve their instruction is through observing the activities of other teachers. While provision for interclassroom visitation is commonly found in district policies in Minnesota, few teachers avail themselves of it, and well over two-thirds of the teachers never visit another teacher. In only about 2 per cent of the schools of the state does each teacher visit more than two other teachers in her own or another district.

Where permissive policies exist, principals are in a position to influence teachers to sit in on other classes, but they do not appear to be doing this. A reason may be the cost of providing substitute teachers. If so, it is a false

saving of money. An interesting experiment in providing demonstration teaching is the Helpmobile series of area meetings conducted in 1967 by the Northeast Minnesota Research and Development Council, in which master teachers conduct Saturday classes which other teachers are invited to observe.

Teachers may improve the quality of their instruction in other ways, such as through additional college course work. Akin to this is attendance at special institutes during the summer or school year, something more prevalent since enactment of the National Defense Education Act in 1958 which provides stipends for those attending. Principals of at least three-fourths of the state's elementary schools report the attendance of at least one teacher at these or other institutes during the last calendar year.

A potentially important means of improving instruction is through local curriculum revision. While it has its basic value in the creation of materials suited to the children of the community, it has the important fringe benefit of teaching the teacher. The research, reading, and study necessary for the writing of a curriculum guide, for instance, are valuable kinds of inservice education for participating teachers.

A very small proportion of Minnesota's schools use this promising technique. In most districts considered in the survey, only a tenth or fewer had any elementary teachers involved in formal curriculum development or revision during summers when teachers might have the time to do this sort of work, and in those schools which did, usually only one or two teachers were so occupied. In the largest districts, a greater proportion of elementary schools participated in this type activity but still had only a few teachers involved.

It would appear that the great bulk of the schools of the state are on the one hand leaving the determination of curriculum to textbook publishers, the daily planning to teachers who as a group are transient, and to state curriculum bulletins which were designed only to guide curriculum development and organization, not to set it for each district; and on the other hand ignoring a valuable method of increasing and updating the knowledge of teachers.

The reasons for inaction probably include the cost of salaries, the desire of teachers for an uninterrupted summer vacation, and a low opinion on the part of administrators of the ability of their teachers to do the job. While these reasons may be valid, the possible advantages are of such value that a fair trial should be provided and careful evaluations made.

#### ADEQUACY OF MATERIALS AND FACILITIES

The last decade has seen a great increase in the availability of materials and equipment designed for school use. The expanded variety of tools has had as important an effect on instruction as concurrent revisions in the curriculum have had. Both point the way to increased provision for individual differences among children, for more efficient use of teacher time, and to ways of bringing the outside world into the classroom.

### TEXTBOOKS

Basic to teaching almost all subjects, as it has been for decades, is the textbook. With the long-standing emphasis on this type of material, and because of its relatively low cost per pupil, one could expect that schools would be adequately supplied with textbooks. It is somewhat surprising to find that only 39 per cent of the elementary principals rate their textbook collections as very adequate. The extent of agreement among principals is consistent in all sizes of schools in the state, and undoubtedly indicates more than mere satisfaction or dissatisfaction with the numbers of texts available. In some subject areas, Minnesota history for example, the selection of texts is limited. In others, content may lag behind current development, and in still others, texts may not be available to fit the local method of instruction. Social studies textbooks, for instance, are not designed for students with varying reading abilities and vocabularies. As publishers print only what they can sell, principals and teachers can effect desired changes through careful evaluations and purchases which provide the evidence writers and publishers need that improvement is necessary.

### MAPS AND CHARTS

Maps and charts are second only to textbooks as basic items in classroom instruction. As there has long been an adequate selection of high quality maps and charts available at reasonable cost, the proportion of principals rating their schools as very well supplied (31 per cent) appears low. Their evaluation may reflect the long-time effort in education to stretch the dollar as far as possible by providing the necessary maps, but in insufficient quantity. The State Department of Education, in stipulating minimum collections, has had a beneficial effect, as have the inventories provided at no cost by most map publishers, in which knowledgeable salesmen report the condition, age, and needs of the school's map collection.

### GENERAL INSTRUCTIONAL MATERIALS AND EQUIPMENT

About one-fourth of the principals reported that their schools are very adequately supplied with general materials and facilities and over nine-tenths think that their schools are at least average in this respect. The basics of furniture, construction paper, chalk, etc. are being provided in the elementary schools in the state with almost no differences apparent in different sizes of schools. Teachers are more satisfied than are their principals with the equipment and supplies available.

### SCIENCE FACILITIES

Seventy-seven per cent of the principals are satisfied that their science facilities are adequate but only 7 per cent say that they are very well equipped in this important area of instruction. It is shocking to have 23 per cent of the principals report that they are poorly equipped in science, although federal aid

under the National Defense Education Act has been available for this purpose since 1958. Specialized science facilities are rare in the state's elementary schools. Typically, equipment and materials are centrally stored and are brought into the classroom when needed. Should a departmentalized organization become common, with science instruction by specialists, the need for specially-equipped classrooms or science areas would be more acutely felt.

#### MUSIC, PHYSICAL EDUCATION, AND ART FACILITIES

Most principals think their schools are adequately supplied and equipped for instruction in music and physical education, with 84 per cent and 88 per cent, respectively, reporting at least average facilities and 17 per cent and 20 per cent, respectively, reporting excellent facilities.

Sixty-five per cent of all principals consider their art facilities average or above but only 6 per cent state that they are excellent. There is an increasing satisfaction with the adequacy of these specialized facilities as the school size increases.

#### FOREIGN LANGUAGE INSTRUCTIONAL FACILITIES

In spite of the national emphasis on the teaching of foreign languages since 1957's Sputnik, less than one-fifth of Minnesota's elementary schools provide such instruction. Half of the principals of these schools report that the foreign language is taught in inadequate facilities. The reliance upon infrequently televised language programs; the absence of locally available films, videotapes, and other materials; and the use of unprepared teachers to instruct while they themselves learn have caused many principals to question the worth of such foreign language instruction in their schools as is currently available.

Foreign language instruction is found in the three smallest sizes of schools to only one-fifth or one-fourth the extent to which the larger schools provide it. The medium-size school district is most likely to offer a foreign language -- 35 per cent of these schools offering at least one language.

Elementary schools rarely have language laboratories, but in some cases where elementary schools are in buildings which house secondary schools, the high school equipment is used by the elementary school pupils.

#### THE INSTRUCTIONAL MATERIALS CENTER

The well-equipped instructional materials center, or IMC, is more of a rarity in elementary schools than it is in secondary schools. A relatively recent development, depending as it does on technological tools newly available to schools, it has various meanings for principals and teachers, being in some cases merely a book and pamphlet collection but in others a complex center containing films, videotapes, slides, charts, transparencies, copying machines, and elaborate equipment for programmed instruction. Of the 11 per cent of elementary

schools which, according to principals, have very well equipped centers, a large proportion probably could not be classed as true IMC's because of limited facilities and equipment and an inadequate staff available to provide services.

#### NONSCHOOL FACILITIES

All but one per cent of the schools use resources outside the school but in the community to at least a minimal extent, with larger schools making a little more effort in this direction than do the smaller schools. Education's longstanding complaint that it is unable to afford the tools it needs, plus its unique position of being able to borrow with altruistic motives, should suggest to teachers and administrators this method of providing learning experiences which would not be otherwise available. Teachers of subjects which reflect community activities -- industrial arts, homemaking, and business education especially -- should be aware of and use opportunities to improve their teaching through local borrowing or renting of equipment.

#### AUDIO-VISUAL FACILITIES

Recent years have witnessed great increases in the variety and use of audio-visual devices in the classroom. The impetus for this movement came from both inside and outside the field of education, with the search by teachers for ways to make subject matter more real to students being an important factor. Technological developments -- the transistor and resulting miniaturization, the photocopy machine and thermal devices for reproduction of printed materials, the videotape recorder in a price range which schools could afford, and especially the overhead projector -- are so striking in their possibilities for education that they ought not be ignored by even the most conservative teacher or administrator. The highly successful use by the military of some types of audio-visual equipment, notably the language laboratory (during a period of their development when costs were so high that only the armed services could afford to experiment with them) indicated that schools had a need for them too.

The National Defense Education Act of 1958 came at an opportune time to provide funds to local schools for purchase of large quantities of these tools. The dissatisfaction with traditional education which followed the arrival of the space age established an environment conducive to instructional change. In the ensuing years, educators have had the time and money to develop plans for using such equipment, to accumulate the equipment necessary, and to instruct teachers in its operation. With this history, it could be expected that audio-visual equipment and supplies would be available in adequate amounts to all teachers, who would make much use of it. This is not the case. Only five types of equipment appear to be in good or very good supply in even a majority of elementary schools, with four of these being the old standbys: the 16 mm. projector, the bulletin board, the filmstrip projector, and the tape recorder. The fifth, the overhead projector, has become a standard piece of equipment in 90 per cent of Minnesota's schools in the ten years since it became available in portable form, although it is found in adequate numbers in only about 60 per cent of the schools.



Ungraded rural schools are more poorly supplied, with only two types of equipment, the filmstrip projector and the bulletin board, being adequately available in a majority of schools.

In many cases there is a relation between the size of the school and the adequacy of its facilities: the larger school providing a better supply. An exception to this is sometimes found in the smallest schools, where their principals and teachers reported certain facilities to be more adequate than in the next three or four larger sizes of schools. This may be explained in most instances by the fact that a single piece of equipment may be highly adequate for a very small staff, but the same unit may be inadequate for a staff twice as big. While one 16 mm. projector is essential, in the minds of most principals, the need for a second one at \$600 must often be carefully evaluated in terms of other needs, with the result frequently being a decision to defer purchase. The demand on the one machine results in scheduling problems, and the staff rates its adequacy as insufficient.

Table 9 shows how teachers and principals in Minnesota perceive the adequacy and use made of audio-visual facilities in their schools.

TABLE 9

PRINCIPAL AND TEACHER JUDGMENTS (IN PERCENTAGES) CONCERNING THE EXTENT  
TO WHICH SELECTED ITEMS OF AUDIO-VISUAL EQUIPMENT  
ARE ADEQUATE AND WELL USED IN THEIR SCHOOLS

Equipment	Elementary Principal		Graded Elementary Teachers		Ungraded Elementary Teachers	
	Availability	Use	Availability	Use	Availability	Use
16 mm. projector	78	68	74	52	39	22
Film library	44	44	51	43	28	23
Overhead projector	61	34	65	24	26	18
Opaque projector	44	23	50	18	13	13
Filmstrip projector	77	64	79	59	70	54
Tape recorder	62	28	56	23	17	7
Listening facilities	10	7	28	20	20	14
Television receivers	26	14	37	20	3	2
Bulletin boards	84	74	84	84	78	79
Drymount press	7	3	12	5	3	4

SOURCE: Survey questionnaires.

## METHODS OF CURRICULUM CHANGE

Principals reinforce the contention that school size has an important bearing upon the methods used for curriculum change. The use of committees of teachers for this work is more frequent in large schools than in small, while reliance upon the textbook as the basis of the curriculum is more common in the smallest schools. The following list indicates the percentage of principals who reported the use of various methods of curriculum change.

<u>Method</u>	<u>Per Cent</u>
Teacher committees	64
Textbook outline	46
Department heads	12
Central office	16
Building administrator	22

Many schools, of course, use more than one technique.

The emphasis upon text outlines as determiners of the curriculum in the local school is evidence of an abdication of responsibility for adapting instruction to community needs and conditions, and reinforces a dependence upon the single text as the basis of instruction. This weakness is recognized by a growing number of educators, and some attempts are being made to correct it.

## CURRICULUM GUIDE DEVELOPMENT

The development of locally-written curriculum guides is a step in the right direction. A little more than a third of Minnesota's elementary school principals report that their schools have guides of some type for all or most subject areas, but in only the three largest sizes of districts are these developed locally to any great degree. Table 10 shows the striking variation in emphasis given this important aspect of curriculum development.

Fewer than 10 per cent of any schools in any size category have adopted most of their guides from other schools, and a slightly higher percentage uses commercially-developed guides.

The great bulk of the state's schools have available for the use of their teachers the curriculum bulletins, or guides, developed by the State Department of Education, but fewer teachers use these guides than would do so if the collection were more complete and up to date. In a free response section of the survey questionnaire which solicited suggestions for improving elementary education, principals listed the updating of these guides as more critical than that of any other single need.

TABLE 10

PERCENTAGES OF SCHOOLS WITH LOCALLY-DEVELOPED CURRICULUM GUIDES  
OR WITH SUCH GUIDES IN THE PROCESS OF DEVELOPMENT

District Size Category	Most Guides Locally Developed	One or More Guides Being Locally Developed
1	0	0
2	2	0
3	0	5
4	0	0
5	0	6
6	2	15
7	10	21
8	11	19
9	29	25
10	30	28
11	61	53
Total for State	29	28

SOURCE: Survey questionnaires.

As expected, the smaller schools, and especially those which are ungraded, rely upon State Department of Education guides and textbook outlines more so than larger districts which develop some of their own guides.

#### THE USE OF OUTSIDE SPECIALISTS

It would be logical to assume that districts which, because of small size, could not afford to hire full-time personnel to be responsible for curriculum revision and development would be the ones most apt to bring in specialists and generalists on a part-time basis. Such is not the case. In fact, the reverse is true. It may be that schools with personnel involved in curriculum review quickly see the need of outside assistance.

#### STATE DEPARTMENT OF EDUCATION CURRICULUM SERVICES

It is noteworthy that State Department of Education staff members are involved in curriculum development work in a large number of school systems, as may be seen in Table 11. It is also noteworthy that the largest schools in the state, which make use of district-employed and college-employed specialists, make least use of State Department of Education employed personnel.

TABLE 11

PERCENTAGES OF ELEMENTARY SCHOOLS USING OUTSIDE  
SPECIALISTS FOR CURRICULUM DEVELOPMENT

District Size Category	District- Employed	State Department of Education Employed	College- Employed	Industry- Employed	Other Specialists
1	13	13	6	9	6
2	4	7	0	7	4
3	5	27	2	7	5
4	9	17	0	9	6
5	12	35	0	10	2
6	22	20	9	15	7
7	26	33	13	15	13
8	28	38	17	13	15
9	17	29	10	23	12
10	47	24	12	20	10
11	70	7	17	9	8
Total for State	38	19	11	12	8

SOURCE: Survey questionnaires.

Although considerable use is made of State Department of Education personnel by local schools, the image of the Department as seen by elementary principals is not strong. In the area of the services of the State Department of Education relating to the educational program in the elementary schools, the principals responded to three specific items. The effect of the State Department of Education upon improving education in local districts was rated highly adequate by 10 per cent and inadequate by 34 per cent of the elementary principals. The provision of consultative services was characterized as highly adequate by 12 per cent and inadequate by 31 per cent of the elementary principals. Visitations and supervisory services of the State Department of Education were rated as highly adequate by only 6 per cent and inadequate by 42 per cent of the elementary school principals.

An aspect of curriculum improvement is the coordination or articulation of one teacher's planning with that of another. This may be done among teachers of the same or other grade levels in the same buildings, and principals report that this is done to a considerable degree in 68 per cent of Minnesota's elementary schools. The coordination or articulation may be with teachers in other schools. The record here is poorer, with only 13 per cent of the principals stating this to be done to any great extent with junior high school teachers. Five per cent of the principals report such articulation with senior high teachers and 6 per cent with teachers in nearby parochial schools.

The lack of articulation of subject content results in unnecessary repetition in many cases and gaps in others. Perhaps little can be done for the fifth grade transfer student who misses the study of Minnesota history when leaving a school where it is offered in grade 6 and entering a school where it is taught in grade 4, as placement of the study of Minnesota is a local decision. Much can be done, on the other hand, to insure a carefully coordinated program within the school. State Department of Education leadership in solving both problems is desirable and needed.

### INNOVATIONS

In recent years, and especially since the space race began, the schools of the nation have been under sharp and often critical scrutiny. A questioning of the historical effectiveness of American education by people outside the walls of the school has resulted in criticisms of the school and in recommendations for change. The recommendations take many forms -- organizational, technological, etc. -- and where instituted, they may be regarded as innovations.

The outside criticism, together with agreement with much of it by educators, when abetted by extensive money aids by federal and state governments, has caused many innovations to be made. Some of these have been valueless and, where evaluation was made, have been discarded. Francis Keppel, former United States Commissioner of Education, warns:

Change is not automatically for the better. In education's history new fads and cults have often given the appearance of progress, while failing to transform education for the good of the individual and for the good of society. It is imperative to review all programs for change with a critical eye for consequence, particularly in a time of revolution when the pace of change discourages cause for reflection. We must be sure that the means, the techniques of change, serve the necessary goals of equality and quality in education.<sup>16</sup>

Some innovations have proved valuable, either as improvements in the curriculum itself or as tools. The most important recent modification of the curriculum, in terms of its affecting the greatest number of schools and pupils, has been mathematics revision. The "new math," which varies somewhat in content from textbook author to textbook author, is in full-scale use in 85 per cent of Minnesota's schools and in pilot programs in another 8 per cent, a remarkable feat considering the few years since it became available.

Other curriculum changes lag behind those in mathematics. Approximately 27 per cent of the state's schools are involved in Project Social Studies either on a full-scale or pilot basis, 17 per cent in Project English, 34 per cent in some form of creative writing plan, and 12 per cent are using the aural-lingual form of foreign language instruction.

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16. Francis Keppel, The Necessary Revolution in American Education, Evanston, Illinois: Harper and Row, 1966.

One-half of the elementary school principals report a marked change in science content in recent years, a third in music and health and physical education, a fifth in English, and a sixth in art. These changes indicate that the dissatisfaction with education which swept the country in the late 50's resulted in the reevaluation and revision of traditional instruction in all or most subject areas.

During the time when changes were being made in content, other modifications were made in the placement of subject content, typically presentation at lower grade levels. The elementary principals report that this has been the case in arithmetic in 56 per cent of the schools, in science in 35 per cent, in social studies in 17 per cent, in English and language arts in 16 per cent, and in foreign language in 5 per cent.

Only 3 per cent of the schools offer personal typing instruction at the elementary school level, although present equipment, especially the electric typewriter, makes this feasible. With junior and senior high school schedules such that they make the acquisition of this skill difficult, especially for the college-bound who have an increasing need for it, attention will undoubtedly be given to the possibility of such instruction in the upper elementary grades.

Programmed instruction, either with or without teaching machines, is reported as being in full-scale use in only 5 per cent of the schools, but is found in pilot programs or in use with small groups in a significant 40 per cent more. Only one per cent have tried and abandoned this method of instruction, so the experience of the early 60's, when commercial interests flooded schools with machines without programs, has not appeared to have had any serious deleterious effect.

Computer teaching, in any form, is reported in 5 per cent of the schools, all in larger districts.

Five aspects of organizational innovation were investigated in this statewide study of education. It has been mentioned that elementary schools in districts with senior high schools accredited by the North Central Association<sup>17</sup> tend to have longer school years than others in the state. Elementary principals report that 9 per cent of the state's schools have extended their sessions in recent years, either permanently or on a trial basis. This is a significant number in view of the fact that all costs must be borne locally by these schools. The larger the system, the more likely it is to have extended its school year.

Fifteen per cent of Minnesota's elementary schools are involved in independent study programs, most of them on a trial or partial basis, and again usually in the larger schools. Summer sessions in elementary schools have increased dramatically since 1962, when 16 districts conducted classes qualifying for state aids. In 1966, 97 districts conducted such classes, and others held classes for which no aids were received.<sup>17</sup> Eighty per cent of Minnesota's elementary school principals reported that some type of summer classes are offered in their schools.

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17. Trends in Minnesota Education, St. Paul, Minnesota: State Department of Education, 1967, p. 23.

Almost no schools use correspondence courses as an integral part of their instructional program, perhaps due in part to a narrow range of available courses.

Team teaching is not a common form of instructional organization in Minnesota's schools. Only 20 per cent of Minnesota's elementary schools use team teaching to any degree, and only 6 per cent involve at least a quarter of the teachers and students in this type of class structure.

As rather large numbers of students on each grade level are necessary for the operation of any plan of team teaching, the existence of the many small schools precludes any extensive use of this promising organization in most school districts.

#### THE ACHIEVEMENT OF THE OBJECTIVES OF ELEMENTARY EDUCATION

As is noted elsewhere in this chapter, teachers rely heavily upon textbook outlines as guides in planning their instruction. Perhaps a major reason for this is a lack of schoolwide objectives around which they might develop their plans.

According to elementary school principals, half the schools of the state have written objectives for the instructional programs of their schools, but the proportion varies from a fourth of the smallest schools to two-thirds of the three largest sizes. Teachers in small schools are thus doubly handicapped by a lack of specialized personnel who, in larger systems, can be assigned to the development of statements of objectives for instruction in content areas as well as to classroom teaching in these areas.

The survey questionnaire attempted to discover the objectives of elementary principals, written and unwritten, toward which the educational processes of their schools are directed. There was a high degree of unanimity of replies, regardless of the sizes of the districts in which the principals are employed. Ranking first was the attaining of knowledge -- facts, ideas, and concepts -- considered a major objective by 78 per cent; followed by skills acquisition, considered major by 76 per cent. Three other objectives rated high: the development of values and attitudes by 64 per cent; the promotion of reflective thinking by 55 per cent; and the development of sensitivities and feelings by 48 per cent. There were almost no free responses to the section of the questionnaire which requested information on other objectives of their schools.

Similar proportions of principals reported that teachers in their schools stressed these objectives in their evaluation of student learning and in reporting of this learning to parents. If principals have accurately gauged the thinking of teachers, it appears that the stereotype of a "three R's" school no longer represents elementary education in Minnesota.

Elementary school principals believe that their schools are adequate for the average pupil, but less so for atypical children. Thirty-five per cent believe their schools are doing a very adequate job for the average child, and 97 per cent think that their programs are as good as, or better than, those of other schools in the state.

Programs for the mentally retarded are thought to be average or better by 72 per cent of the principals with 23 per cent considering these programs to be very adequate.

The proportion of principals satisfied with their programs for the talented is 65 per cent, with only 4 per cent believing them to be highly adequate. Less than two-thirds, 61 per cent, think their provisions for the physically handicapped are adequate. Principals in the larger schools are more satisfied with their programs for atypical children than those in the smallest, especially in the education of the mentally handicapped.

The opinions of other school administrators and those of the school board members are quite similar to those of elementary school principals. Superintendents of independent districts tend to be a little less satisfied in all areas, chairmen of independent district boards less satisfied than superintendents, and chairmen of common districts least satisfied. In these last districts of small size and without high schools, 92 per cent of the board chairmen think their schools do an adequate or better job for the average student, 52 per cent for the talented, 45 per cent for the mentally handicapped, and 35 per cent for the physically handicapped.

The recent increase in concern across the nation for atypical pupils has no doubt had an effect on programs provided in Minnesota for such children. Highly desirable continued improvement in programs for atypical children can be facilitated by enlargement of school districts. Specialists in the education of exceptional children may economically be added to elementary school staffs, through increased leadership by the State Department of Education and colleges, and by such means as interdistrict cooperation and encouragement through the offering of money aids for special programs.



### CHAPTER III

#### E D U C A T I O N A L   P R O G R A M   I N   M I N N E S O T A S E C O N D A R Y   S C H O O L S

The quality of secondary education is one of the major, if not the major issue in Minnesota education. The whole issue of school district organization, for example, is basically a question of what size secondary school is needed to provide a quality program. In this chapter the following aspects of secondary education will be examined: the current setting for secondary education; the characteristics of a good secondary school program; the present program of secondary education in Minnesota; and the resources available for secondary education in the state.

#### T H E   C U R R E N T   S E T T I N G   F O R S E C O N D A R Y   E D U C A T I O N

Secondary education in Minnesota has undergone radical changes in the current century. The overriding factor in this change has been the tremendous increase in enrollments. Part of this increase is attributable to a growing population but of even greater significance is the growing percentage who attend high school. While at one time secondary education was a privilege of a selected few, it is now regarded as an absolute necessity for all. In 1900, for example, slightly over 1,500 students graduated from Minnesota secondary schools while in 1966 the graduates numbered over 50,000.

#### TRENDS AFFECTING SECONDARY EDUCATION

The state of Minnesota, through its Constitution, is charged with providing for all persons of secondary school age an educational program which will not only prepare them for the diverse roles they will play in society, but which will also constitute one of the most significant factors affecting their selection of these various roles. From the early decades of this century and continuing to the present, one of the major ways in which this charge has been fulfilled has been the process by which students have selected and have been encouraged to take courses which were viewed as either preparation for college or those which do not have as their primary aim preparation for post-high school study, in other words, "college-prep" or "terminal" courses.

Educational programs have been developed to provide mainly for two types of students: the college bound and those not planning further formal education. In recent years, however, educators have noted the decreasing clarity of the line which once separated programs for the two types of students:

. . . the school must realize that a sharp line can no longer be drawn between liberal education and what has been traditionally regarded as the sphere of "vocational" or "technical" education. In an age of automation, the two types of education can not be kept completely apart. If vocational educational needs the support of liberal education, the liberal studies are today incomplete without some understanding of what technology is and the role it is going to play in the future. . . . Modern society cannot tolerate lack of technological knowledge any more than it could permit illiteracy.<sup>1</sup>

Several other trends can be related to the breakdown of the clear and simple distinction between academic and vocational or terminal education. Among the most important of these has been the steady increase in the proportion of persons of secondary school age enrolled in the schools and in the proportion of high school graduates. On a nationwide basis, more than 90 per cent of this age group are now enrolled whereas in 1940 the proportion enrolled was 67 per cent<sup>2</sup> and in 1900 it was only 11 per cent.<sup>3</sup> This is a small indication of the much larger trend toward the ideal of extending education to every group in the population. One analyst has noted that the concomitant creation of new schools and colleges to satisfy this extension has been both recognized and deplored. He argues that it is less often noted that this drive to extend education has been accompanied by efforts to improve the quality of what was being offered.<sup>4</sup>

The function of secondary education has also been affected by the increase in our society in both the quantity and complexity of industrialization. The significance of this has been widely noted and, for example, is well summed up in the following statement:

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1. The Forward Looking School, Albany, New York: State Department of Education and the University of the State of New York, 1966, pp. 5-6.

2. J. Steele Gow, Jr., Burkart Holzner, and William C. Pendleton, "Economic, Social, and Political Forces," The Changing American School, Chicago: National Society for the Study of Education, 1966, p. 186.

3. Harold B. Gores, "Schoolhouse in Transition," The Changing American School, Chicago: National Society for the Study of Education, 1966, p. 136.

4. Francis S. Chase, "School Change in Perspective," The Changing American School, Chicago: National Society for the Study of Education, 1966, p. 286.

The application of new technologies in business, industry, and government results in the steady replacement of occupations which make small demands on literacy or on the higher mental abilities by jobs requiring precise communication, skill in quantitative thinking, and the exercise of judgment. . . . Moreover, the mounting need for personnel with highly developed linguistic, mathematical, scientific, and other specialized abilities in government, industry, and the professions has put pressure on education at all levels to discover and develop unusual talents.<sup>5</sup>

A third trend affecting the charge to secondary educational programs has been the vast growth in the number of new jobs and other changes in the occupational structure of our economy. This has created something of a dilemma particularly for those concerned with secondary education because while "the economy demands new and expensive skills, it withholds the promise that workers will indefinitely be able to exercise them. Well before the supply of key-punch operators has caught up with the demand, we are warned that the next decades will render this occupation obsolete."<sup>6</sup> While knowledge is becoming more and more salable, the probabilities that workers will have to be retrained are also increasing.

Examination of the growth of our economy reveals changes in the occupational structure which will heavily influence the charge to secondary education. Extractive industries such as agriculture and mining have failed to grow as fast as the economy and have come to represent a smaller proportion of our national output. While the two largest sectors, manufacturing and trade, have grown they have not kept pace with aggregate growth. The increase in the proportion of national output has been largest in the service industries such as finance, communications, public utilities, and the public sector. All of these have expanded faster than the total output, thus increasing in their relative importance.<sup>7</sup> Table 12 summarizes these changes.

Viewed from a somewhat different angle, it can be seen in Table 13, that the number of white-collar workers surpassed the blue-collar group for the first time in history during the period 1950-1962. With respect to the distinction between programs for college and vocational preparation in secondary education, these changes should help to point out that "higher standards of literacy and articulateness" will increasingly be in demand in the labor force not only on the basis of increased use of technology, but also due to the proliferation of service industries.<sup>8</sup>

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5. Ibid., p. 293.

6. Gow, et al., op. cit., p. 185.

7. Ibid., p. 181.

8. Ibid., p. 185.

TABLE 12  
INDUSTRIAL COMPOSITION OF GROSS NATIONAL PRODUCT  
1947 AND 1963

Type of Industry	Per Cent of Total	
	1947	1963
Agriculture, forestry, fisheries	9.1	4.0
Mining	2.7	2.0
Contract construction	3.8	4.6
Manufacturing	28.4	27.5
Wholesale and retail trade	19.8	17.6
Finance, insurance, and real estate	9.4	12.3
Transportation	5.9	4.2
Communications	1.4	2.1
Public utilities	1.7	2.6
Services	9.1	11.3
Government	8.2	11.2
Other	0.3	0.5

SOURCE: United States Department of Commerce,  
Office of Business Economics, Survey of  
Current Business, XLII, No. 10 (October  
1962), p. 14; and XLIV, No. 9 (September  
1964), p. 20.

A fourth trend related to the function of secondary education is the significant growth in both the number of post-high school training institutions (e.g., junior colleges, vocational-technical schools, etc.) and in the variety of occupational and social roles for which they furnish preparation. Not only must it be recognized that enrollments in post-high school education will grow, but it should also be noted that Minnesota is now at a stage of educational development where every high school student can be considered a potential student in the colleges or in other institutions for post-high school education.

The trends and other factors noted previously help to emphasize the fact that the actual job of secondary schools in Minnesota is itself undergoing change. Indeed, it can be said almost without qualification that one of the greatest challenges to educational planners centers around the extent to which they will become cognizant of and able to assess the changes which affect the function of secondary education. Moreover, there seems to be little reason to predict that the rate of these changes will reach a plateau in the foreseeable future.

TABLE 13  
EMPLOYMENT IN MAJOR OCCUPATIONS, 1950 AND 1962

Occupational Groups	Number (Millions)		Per Cent of Change 1950-1962
	1950	1962	
White-collar workers			
Professional, technical, etc.	4.5	8.0	+78
Managers, officials, proprietors	6.4	7.4	+16
Clerical, etc.	7.6	10.1	+33
Sales	3.8	4.3	+13
TOTAL	22.4	29.8	+33
Blue-collar workers			
Craftsmen, foremen, etc.	7.7	8.7	+13
Operatives, etc.	12.1	12.0	- 1
Laborers	3.5	3.6	+ 3
TOTAL	23.3	24.3	+ 4
Service workers	6.5	8.8	+35
Farm workers	7.4	4.9	-35
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TOTAL EMPLOYMENT	59.6	67.8	+14

SOURCE: National Industrial Conference Board, The Economic Almanac, 1964, pp. 44, 46.

Consideration must also be given to the fact that the job of secondary education in Minnesota involves more than the preparation of students for the economic aspects of living. Indeed, a series of statements outlining national goals for education over the past century have clearly posed preparation for economic life as but one aspect of the function of secondary education. One of the most frequently quoted statements was that of the Commission for the Reorganization of Secondary Education which set down in 1918 the well-known seven cardinal principles as proper areas in which secondary education should function: (1) health, (2) command of fundamental processes, (3) worthy home-membership, (4) vocation, (5) citizenship, (6) worthy use of leisure, and (7) ethical character.<sup>9</sup>

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9. Commission for the Reorganization of Secondary Education, The Cardinal Principles of Secondary Education, Washington, D.C.: United States Bureau of Education, Government Printing Office, 1918.

Increasingly, however, statements such as this have become subject to qualifications. Questions are raised with respect to some of these areas on the basis of economic changes in our society as, for example, in the case of vocational education. Efforts to define more specifically goals having to do with family life and leisure time have raised questions about broader social changes. Disagreements about social values remain as obstacles to the formulations of specific objectives having to do with areas such as ethical character and citizenship.

Coming out of all of this is at least the understanding, however, that with the growth in the number of students who partake in some kind of post-secondary education, the job of the educational program in our junior and senior high schools must be determined with reference to the job of the total spectrum of educational activities in the state, in the nation, and even in the world. In other words, changes in the task of the overall institution of education in this country affect heavily the function of secondary education in this and the other states. Thus, for example, when consideration is given to the growing proportion of persons in the 17-21 age group that will receive further education and training not only in colleges and universities but, also, as a result of the educational efforts of the armed forces, business and industry, and the vocational and commercial schools, the nature of public education during the secondary years takes on different characteristics. One analyst, in reviewing only the data on enrollment projections for college enrollments, foresees some striking changes in what he calls the "Second Transformation of American Secondary Education":

. . . much the same forces which made for the development of the mass secondary system in this country are now at work creating a system of mass higher education. . . . this development is rapidly changing the function of the secondary system. Secondary education in the United States began as an elite preparatory system; during its great years of growth it became a mass terminal system; and it is now having to make a second painful transition on its way to becoming a mass preparatory system. . . . And as a further complication, during these long decades of transition, the secondary schools are going to have to continue to perform the old terminal-education functions for very large if decreasing proportions of students who are not equipped, motivated, or oriented toward college.<sup>10</sup>

Changes of this fundamental sort clearly demand long-range curriculum planning based upon information gathered by state and national agencies. The task of ascertaining the types and amounts of formal education to which present high school graduates -- and dropouts -- will be subjected other than that conducted under the auspices of colleges and universities in order to undertake more sophisticated and comprehensive planning with regard to the function of secondary education in preparing people for further schooling has yet to be visualized, let alone started.

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10. Martin Trow, "The Second Transformation of American Secondary Education," International Journal of Comparative Sociology, September 1961, p. 154.

THE CHANGING SIGNIFICANCE OF THE SECONDARY SCHOOL PROGRAM

One of the most used ways of measuring the significance of secondary education has been that of relating the number of years of education with personal income. Some writers have called the association between the number of years of school completed and income bracket "unambiguous."<sup>11</sup> Figures such as those shown in Table 14 point up this relationship.

TABLE 14

EDUCATION AND LIFETIME EARNINGS FOR MEN  
(EARNINGS FROM AGE 18 TO 64)

Highest Grade Completed	Earnings
Elementary School	
Less than eight years	\$143,000
Eight years	184,000
High School	
One to three years	212,000
Four years	247,000
College	
One to three years	293,000
Four years	385,000
Four years or more	417,000
Five years or more	455,000
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Average lifetime earnings for all education groups	\$229,000

SOURCE: United States Senate, Eighty-eighth Congress, First Session, Hearings Before the Committee on Labor and Public Welfare on Bills Relating to Equal Employment Opportunities, Washington, D.C.: Government Printing Office, July and August 1963, p. 335.

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11. Gow, et al., op. cit., p. 184.

In addition to this rather clear association between amount of education and income, it is also interesting to note that high school graduation pays off even if one is going into an occupation which does not typically require post-high school education.<sup>12</sup> Table 15 shows the annual earnings of white males in their prime years. (Nonwhites and men in other age groups are not included in order to focus exclusively on the effect of education on earnings.) The data show that for many jobs the high school diploma is worth about \$1,000 a year or an additional \$40,000 in lifetime earnings.

TABLE 15

## DIFFERENCES IN EDUCATION AND INCOME FOR SELECTED OCCUPATIONS

Occupation	Educational Attainment and Annual Salary		Annual Income Difference
	Eighth Grade	Twelfth Grade	
Bricklayers	\$5,100	\$6,300	\$1,200
Carpenters	4,800	5,700	900
Electricians	6,100	6,600	500
Mechanics	5,000	5,900	900
Painters	4,400	5,100	700
Plumbers	5,700	6,700	1,000
Toolmakers	6,700	7,300	600
Bus drivers	4,400	5,400	1,000
Truck drivers	5,200	5,700	500
Firemen	5,300	6,100	800

SOURCE: United States Census of Population: 1960,  
Volume II, Part 7B, "Occupation by Earnings  
and Education," (Data are for white men aged  
 35 to 44).

12. Herman P. Miller, Rich Man, Poor Man, New York: Thomas Y. Crowell Co., 1964, pp. 144-146.



Education generally pays less for nonwhite and other minority group workers. For example, it has been shown that nonwhites who have completed four years of college can expect to earn about the same as whites with only an eighth grade education.<sup>13</sup> Yet, it is important to point out that within this group, there is also an association between amount of education and income similar to that discussed previously. In short, schooling does pay off for nonwhites "even though the amount is far less than for whites."<sup>14</sup>

A final point to be made is that the educational attainments of the American working force have risen faster than that of the adult population as a whole during the past two or three decades.<sup>15</sup> The situation is summed up more specifically as follows:

In 1940 males 18 to 64 years of age in the labor force had a median educational attainment of 9.3 years of school. In 1957, according to a Census Bureau survey, this had risen to 11.8 years. For females, the comparable figures were 10.2 and 12.2 years.<sup>16</sup>

This change occurred while educational attainment for adult males in the population as a whole went from 8.6 to 10.3 years and from 8.7 to 10.9 years for females.<sup>17</sup> It can be concluded, then, that the economic significance of secondary education is changing and there seems to be no reason to expect these trends to reverse themselves.

In support of this contention, one analysis has predicted, for example, that the more persons with greater amounts of education there are in the labor force, the greater should be the demand for more highly educated personnel.<sup>18</sup> In slightly different terms, it can be said that "education is a crucial type of investment for the exploitation of modern technology."<sup>19</sup> The trends that

13. Ibid., p. 140.

14. Ibid., p. 141.

15. Edmund deS. Brunner and Sloan Wayland, "Occupation, Labor Force Status and Education," Education, Economy, and Society, New York: The Free Press, 1961, p. 55.

16. Ibid.

17. Ibid.

18. Peter F. Drucker, "The Educational Revolution," Education, Economy, and Society, New York: The Free Press, 1961, p. 18.

19. Jean Floud and A. H. Halsey, "Introduction," Education, Economy, and Society, New York: The Free Press, 1961, p. 1.

currently characterize changes in the occupational structure of the labor force are, as was noted earlier, reducing the proportions of the labor force engaged directly in the production of goods and services while a great expansion is taking place in the proportions of persons who work in large organizations and in communications and service types of employment. Accompanying this is fast growth involving heavy investment in research and a seemingly never satisfied demand for scientists and technologists. "Education attains unprecedented economic importance as a source of technological innovation. . . ."20

The point that most clearly emerges is that the significance of secondary education is best seen from a dual perspective. On the one hand, secondary education (and for that matter just about any sort of education) is obviously of increasing worth to both its possessor and the nation. On the other hand, the significance of secondary education is coming to be viewed more and more in terms of its value as preparation for further education rather than as a direct and terminal preparation for entry into the labor market. Moreover, entry into the labor market is increasingly coming to mean further formal education under the auspices of an employer.

This latter aspect of the perspective on the importance of secondary education is at present difficult to comprehend largely because complete data showing the proportions of students for whom secondary education is literally terminal and not followed by any form of further formal schooling have not yet been compiled.<sup>21</sup>

A final point related to the changing significance of secondary education has to do with the utilization of talent. Since education is growing in its importance with respect to economic and many other kinds of necessities, it becomes more and more important to maximize the effectiveness of the secondary program as a cultivator and stimulator of available talent. Evidence on the national level indicates that there is much room for improvement in this regard.<sup>22</sup> It is shown, for example, in Table 16 that approximately 25 per cent of a sample of high school seniors in the top quartile of scholastic ability do not rank in the upper one-half of their classes by grade average.

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20. Ibid., pp. 1-2.

21. See for example, Harold F. Clark and Harold S. Sloan, Classrooms in the Factories, Rutherford, New Jersey: Institute of Research, Farleigh Dickinson University, 1958; Classrooms in the Stores, Sweet Springs, Missouri: Roxbury Press, 1962; and Classrooms in the Military, New York: Bureau of Publications, Teachers College, Columbia University, 1964.

22. Natalie Rogoff, "Local Social Structure and Educational Selection," Education, Economy, and Society, New York: The Free Press, 1961, pp. 241-251.

TABLE 16  
CLASS STANDING AND SCHOLASTIC ABILITY

Scholastic Ability Quartile	Per Cent in the Top Half of Their Senior Class by Grade Average	Number of Cases
4 (Top)	75	1,558
3	56	1,614
2	40	1,689
1	17	1,561

SOURCE: Natalie Rogoff, "Local Social Structure and Educational Selection," Education, Economy, and Society, New York: The Free Press, 1961, p. 245.

Although many forms of post-high school education probably constitute effective ways by which to optimize the use of talent in the population, one of the most commonly used measures of this effectiveness is that of determining the proportions of high school students of high scholastic ability who plan to attend college. In Table 17, this relationship for a national sample of approximately 35,000 high school seniors is shown. Approximately 48 per cent of those in the upper half of scholastic ability were not planning to attend college.

These data point up the necessity of considering at least two factors in educational planning to improve the extent to which talent is utilized: the school and the family. While 83 per cent of the seniors from the highest status families whose ability is in the top quartile plan to attend college, only 43 per cent of those in the lowest status families have similar ambitions.

The significance of secondary education is changing insofar as it is becoming increasingly important to discover the talent in all the various sectors of our population in order that the proliferating types of post-high school education might further develop this state and national resource and enrich the many lives involved.

TABLE 17

PER CENT OF HIGH SCHOOL SENIORS PLANNING TO ATTEND COLLEGE, ACCORDING  
TO SCHOLASTIC ABILITY AND SOCIO-EDUCATIONAL STATUS OF FAMILY

Scholastic Ability Quartile	Family Status Quintile by Per Cent					All Quintiles
	(Top) 5	4	3	2	1	
4 (Top)	83	66	53	44	43	61
3	70	53	37	29	29	44
2	65	41	31	20	21	33
1	53	30	22	16	18	24
TOTAL GROUP	72	47	35	26	24	40

SOURCE: Natalie Rogoff, "Local Social Structure and Educational Selection," Education, Economy, and Society, New York: The Free Press, 1961, p. 246.

#### THE BREADTH OF FACTORS WHICH AFFECT THE SECONDARY SCHOOL PROGRAM

With a slightly different purpose at hand, it would be possible to list and discuss many factors which influence the secondary program. The purpose here, however, is not so much to attempt broad comprehensiveness but, instead, to identify some of the major factors which provide both insights into why secondary education is presently what it is in Minnesota and to outline some of the necessities for future progress in the development of secondary school programs.

Minnesota, as in most of the nation, has a secondary educational program which is overwhelmingly a product of historical accumulation. Examination of the program will reflect to a much lesser degree provisions founded upon projections into the future or even contemporary developments. This is to say that education in Minnesota as well as elsewhere is essentially a conservative institution.

It can be shown quite clearly that the program of studies in Minnesota secondary schools in its very structure has been remarkably stable over several decades. The organization of instruction in secondary schools has increasingly come to embrace what has come to be known as the "separate subjects" approach. As in past decades, today's students typically study mathematics in one classroom under one teacher for a period of time somewhat shorter than one hour after which they pass to a different room and teacher to attend a course in some other subject until the school day is filled up with five, six, or seven periods.

At the very foundation of this stability in curriculum organization has been the concept of the Carnegie unit, the formal definition of which has been a central concept of education since 1906-07. This definition is well summed up as follows:

A Carnegie unit consists of 120 hours of classroom instruction spread over 36 weeks of school time and includes required out-of-class preparation. States vary in the number of units required for graduation, but the largest number (34) require 16 units. Such courses as physical education, art, and industrial arts are sometimes given one-half or one-quarter credit toward graduation.<sup>23</sup>

The pattern into which these graduation requirements were molded was determined in large part by the subjects covered in college entrance examinations designed before the turn of the century by the elite private colleges. These courses became the constant elements in the college-preparatory programs of secondary schools and as more students sought entrance into institutions of higher learning the Carnegie unit brought some order to the admissions process.<sup>24</sup>

The current regulations of the State Board of Education for Minnesota secondary school programs reflect clearly this early influence. Specifically, the program of constant subjects that must be maintained for all students in any secondary school are shown in Table 18.

In order to make the Carnegie unit operational, it has been necessary to base requirements such as these on a standardized class hour of 50 minutes. This practice has, in turn, received wide condemnation because of the clear limitations imposed upon the types of activities that may be undertaken during classes in science, home economics, vocational courses, and social studies.<sup>25</sup>

Two additional points must be noted here. Firstly, while most schools offer in addition to these subjects widely varying arrays of elective courses, the requirements noted above have comprised a large part of each pupil's program, especially in grades 7-9. Additionally, the growth in the number of elective courses offered by secondary schools has been structured into a separate subject type of curricular organization founded almost exclusively upon the 50-minute hour as a result of the way in which the common core of required offerings were organized to conform with the influence of the Carnegie unit.

During the past ten years a number of educational "innovations" have received unprecedented public and professional attention: team teaching, flexible scheduling, newly-developed content and organizations of information in the various subjects such as science, English, mathematics, and social studies, independent study, computer-assisted-instruction, and others.

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23. Jean D. Grambs, "What Do We Know About the High School?", The Adolescent Citizen, Glencoe, Illinois: The Free Press, 1960, p. 26.

24. Ibid., p. 27.

25. Ibid., pp. 27-28.

TABLE 18

## REQUIRED COURSE OFFERINGS IN GRADES 7-12 FOR MINNESOTA SCHOOLS

Course Offering	Grades In Which Required
English	7, 8, 9, 10, 11, 12
Social studies	7, 8, 9, 10, 12
Science	7, 8, 9
Mathematics	7, 8, 9
Physical and health education	7, 8, 9, 10
Music and art*	7, 8
Home economics or	7, 8
Industrial arts (or agriculture)	7, 8

SOURCE: Administrative Manual for Minnesota Public Schools, St. Paul, Minnesota: State Department of Education, 1966, p. 23.

\*Each shall be required a minimum of one semester or the equivalence in grades 7 or 8.

Nearly without exception these efforts have represented attempts not to alter the basic stability of the pattern of course offerings but, instead, to elaborate and improve instruction within the enduring organization of the secondary program.

While it is easy to explain this stability of the educational program as "tradition" it should be pointed out that a host of provisions both within our state and nationally have developed over the years which support and reinforce this pattern. Some of the more obvious of these can be noted here.

An important source of stability in this respect is to be seen in the general patterns of teacher education which conform, as might be expected, quite closely with the separate subjects organization of the curriculum. Moreover, there is some indication that teachers generally are in favor of this separateness in the program.<sup>26</sup> This can be seen more clearly if it is recalled that the only program

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26. Ibid., p. 29.

for the preparation of "core" teachers in Minnesota was discontinued. The core curriculum, while subject to a wide variety of definitions, was essentially an attempt to integrate learning by combining two or more subject areas within an extended period of class time under one teacher who had a broad background of training. It was based on the idea that students would develop a better understanding of areas such as the social sciences, language arts, and science if the concepts of each were taught in relation to one another by a teacher who had more than one period per day with the class.

The core movement, which began in the 1930's and evolved for the most part into a double-period class for English and social studies, exists today in but a small minority of junior high schools. Curriculum experts are agreed that the idea has not survived in these situations. The more or less simultaneous vogue and demise of both the teacher preparatory program and the core movement shows the two-way influence between the secondary program and the lack of interdisciplinary organization among teachers and their training programs.

Presently, secondary school teachers are prepared almost without exception in one specific subject area. They form into associations identified with particular disciplines. Interests are protected and, since the number of periods in the school day has not until recently been viewed as flexible, the introduction of newly emerging disciplines into the curriculum has been more of a problem in the secondary program than at the college level where the creation of new courses and departments has become commonplace. Even with the advent of new techniques for flexible scheduling, computerized instruction, and plans for extending the school day and year, it is quite likely that any structural changes in the patterns of courses offered in the secondary program will necessitate close cooperation with the various factions which now have a "stake" in the present structure of the program.

As was noted previously, college entrance requirements have long exercised important influence upon the secondary school program. While, in recent years, the requirement of taking specific courses for admission has been somewhat replaced by the practice of granting admission on the basis of high school achievement test scores and class rank information, the general reinforcement of the present structure of studies in the traditional subjects has remained strong. Achievement tests most notably assess knowledge and skills that are attained in the usual college preparatory courses: English, science, mathematics, history, and foreign languages.

Programs of curricular experimentation which attempt to change, for example, the relative proportions of time devoted to these areas in favor of other subjects which are not assessed by these tests present the risk that some students will not be granted the increasingly important prize of admission to "prestige" colleges. Few of the present curriculum innovations have seen fit to take this chance. As the problem of securing room in colleges becomes more severe in Minnesota and elsewhere, future curriculum planning will entail closer cooperation with college personnel in understanding this problem.

Within the context of the present framework of the secondary program, much of the expert leadership and development in various subject areas has come from

academic and professorial personnel. Expansion in their work with respect to consultation, development, research, and inservice education has been an important source of influence. While there is support for stability in the secondary school's program from college admissions offices, the academic community nevertheless is populated by many who constantly advocate and stimulate change and diversity.

Another source of influence upon secondary school programs emanates from the State Department of Education. While its diverse functions will be dealt with more comprehensively elsewhere in this report, it is pertinent here to focus upon the Division of Instruction. Without passing judgment, there seems to be little doubt that the enduring structure of the secondary curriculum within the context of the foregoing discussion has been generally reinforced by this agency. In other words, the leadership that has come from this source has been directed in large part at upgrading program deficiencies within the context of the present framework of courses. To change this agency's role with respect to stability as opposed to change in the secondary program would require more adequate staffing inasmuch as more personnel and resources seem to be required for stimulating innovation than for preserving order among the diverse schools of Minnesota. In addition, it is at the state level where a broad perspective with regard to stability and change in the curriculum must be maintained. One of the more visibly successful activities of this division toward change has been encompassed in its efforts at coordinating a variety of interests and organizations. There are good grounds for maintaining that this ought to be continued and increased.

One of the most conspicuous factors which has affected secondary programs during recent years has been the expansion of the Federal government's role. In the wake of recent legislation, colleges, state departments of education, and local school districts have been stimulated. The expressed purpose of this movement has been change in both the social framework in which education exists and directly within secondary school programs.

If the increased federal involvement continues, there is good reason to believe that the basic patterns of course offerings in the secondary schools may change. Several of the present innovations may eventually produce the framework. Firstly, the diversity of efforts to "individualize" instruction (computer-assisted-instruction, scheduling experimentation, team-teaching, etc) are receiving heavy attention, nationally, through a variety of funded projects. Prominent among the possibilities here are the introduction of "new" disciplines into the program of studies through more efficient use of the time in the school day and the combination of information from diverse fields of study through new staffing combinations and curriculum writing.

Secondly, the field of educational research is being revitalized. The possibility of conducting large-scale and long-range curriculum research involving the cooperation of secondary schools, colleges, area vocational schools, and other agencies engaged in post-high school education seems less and less to be held back by either the lack of funds or of agencies capable of coordinating such projects.



Nationally, the increase in the interest of large corporations in the market for educational technology is too recent to adequately take into account here. Interestingly, however, such organizations have out of necessity devoted a much larger share of their resources for the development and dissemination of innovations than has been characteristic of education. Moreover, the probabilities of cooperation between these interests and other agencies of educational research seem to be high. One prospect that seems to stand out lies in the revolutionary implications that might result from the application of marketing techniques to the dissemination of new developments.

A final source of influence to be mentioned here, although the list is far from complete, is that of the public and the larger society. That we are witnessing a new wave of public interest in education is clear. The efforts of the mass media to inform the public about educational developments seem to increase daily. Educators now deal with parents and other laymen who are not only more informed about education, but who are also better educated and more motivated to be concerned about the secondary school program. There seems to be good grounds for predicting that public concern and involvement with education will increase in the future, thus affecting the secondary program even more than in the past.

#### C H A R A C T E R I S T I C S   O F   A   G O O D S E C O N D A R Y   S C H O O L   P R O G R A M

A large part of educational thinking during the past few decades in America has been addressed to the problem of compiling a list of factors that are known to characterize and underpin a quality program of secondary education. It is possible to identify at this time a group of characteristics that have been of enduring concern to both educational and civic leaders and which, furthermore, are of increasing significance as the future of Minnesota education is examined.

Before discussing these factors, it should be noted that the term, "educational program" is being used in a broad rather than restrictive sense here. Specifically, then, a good secondary school program must be viewed as including in addition to its courses a complex array of supporting factors which a quality school district is able to feed into its instructional process.

#### CONTINUOUS PROGRAM DEVELOPMENT

Foremost among factors associated with a quality program of secondary education are the provisions which work to make the school responsive not only to the past and present but, also, to the future. The problem of determining the appropriate balance between stability and change is becoming increasingly complex for educators. While new developments in nearly every sector of society are constantly taking place, the ability of school districts to assess trends and to respond selectively to the most significant by changing the program of the school varies far too much. There is little doubt that in the large majority of school districts the problem of balancing the curriculum between the past and the future has been dealt with primarily by retaining traditional patterns of instruction.

A factor of growing importance in good secondary school programs is the complex of efforts and resources available to examine present programs and to make the school responsive to new developments and needs.

It will be seen subsequently that some Minnesota school districts have locally at their disposal extensive numbers of curriculum improvement personnel who work constantly with teachers, administrators, and parents to build quality into the program and to implement long-range plans. In other districts, provisions such as these are, however, noticeably lacking.

One of the most important parts of a good secondary school program is the existence of a system by which curricula are developed, adapted to local needs, implemented, evaluated, refined, and replaced. Educational development, as is the case with industry, military, and other fields, is a large and significant task which requires continuous support. In recent years national committees of scholars and schoolmen have been assembled to remove the vast gaps between what is being discovered in the natural sciences, humanities, behavioral sciences, mathematics, and other fields and the pedestrian fare offered daily in many secondary school classrooms.

To look for a quality educational program, the search must go behind the scenes of the classroom to where instructional decisions of at least equal importance are being made. Virtually by definition, a good secondary school program must have as an integral part a framework and ongoing process, staffed and supplied with experts and supported with rich resources, to perform functions such as the following:

1. Identification of educational goals based on the examination of national, state, and local developments.
2. The making of decisions relative to selecting, deleting, and combining courses, materials, and methods.
3. Inservice education of teachers in efforts to update and improve instruction.
4. Relating the parts of the secondary school program both to each other and to educational efforts taking place outside of the school.

The significance of these provisions at the local level is becoming more rather than less important in light of the newly emerging influences upon the curriculum, for it is at this level where the unique needs of the students and community can be determined.

#### SUPERVISION AND CONSULTATION FOR TEACHERS

It is a common misconception that teaching is a simple task. Educators have become accustomed to hearing phrases such as, "Anyone can teach," or, "Those that can, do; those that can't, teach." Furthermore, ideas such as these seem to be supported by the feeling that the spread of instructional technology (educational

television, programmed materials, computer-assisted-instruction, etc.) will cause teaching to become even easier -- or even eliminate the work altogether.

Closer examination, however, shows that the converse of these ideas is closer to the truth. Teaching never was a simple task and it is becoming more complex. It is common knowledge, for example, that knowledge in all fields is exploding with new findings and concepts. The complexity of the task of selecting from this flood of information that which is most relevant to the function of the school and for the particular students who daily confront the teacher in the classroom is increasing at least as fast as this explosion of knowledge.

Education itself has become more complex due to the fact that the solvers of social problems (e.g., civil rights, highway safety, drug usage, crime, etc.) increasingly seek to expand the role of public education beyond its former dimensions. The incipient growth in the use of instructional technology will expand demands for teacher time in the production and selection of "software" materials. Technology is currently enabling the few teachers to whom it is available to conserve their time and to improve their instruction, but it has yet to simplify their work.

Concomitant to the growth in the complexity of teaching and the expansion of the school's function has been the need for increased supervisory and consulting leadership. More specifically, it is clear that a good secondary school program exists only in schools which are able to make available to their teachers expert personnel whose main function is to support the teacher in the classroom. They make sure that the teacher is able to utilize in his work the most recent and valid information and help him to impart it in ways consistent with both the most recent information about how students learn and with broader educational objectives.

With many developing educational projects on the national level in recent years, there has been a tendency to overlook the fact that implementing the best ideas in educational thinking is still wholly dependent upon the ability of the local school district to make them operational behind the classroom door. One of the most striking variations among school districts is to be seen in the extent to which they are connected by direct "pipeline" to what is going on. While some schools are constantly subjected to the scrutiny of university personnel and employ elaborate supervisory staffs, in others the teacher is virtually isolated both from other personnel in his school and from outside experts. Educators, irrespective of how optimistic they may be, are not yet able to guarantee that the new large-scale efforts to improve the program have affected what transpires in all or even most classrooms.

#### PUPIL PERSONNEL SERVICES

Many of the newly emerging efforts have been so clearly directed at the problem of updating the content of various secondary school subjects and at ways of more effectively providing accurate information to students that the responsibility of education for the personal and emotional progress and well-being of

students has been ignored. The best publicized of the current educational innovations seemingly are concerned primarily, if not exclusively, with intellectual development.

Yet, this very tendency provides the basis for again emphasizing the significance of guidance, counseling, and other noninstructional services for pupils. Furthermore, there is strong reason to believe that the ability of a school district to provide a wide array of such services, staffed by specially-trained personnel, and backed up with adequate resources, will be an even more important factor in high quality school programs of the coming years.

Some of the trends that were identified earlier in this chapter serve to emphasize this point. For example, while a major problem for guidance personnel in the past was that of merely helping students to decide whether or not they should prepare for college, they are now faced with a growing variety of post-high school institutions augmented with large numbers of industrial and military educational alternatives. In addition to this, the choices that students will have to make relative to their post-high school years are also made more complex by changes in the occupational structure and the emergence of new jobs.

The task of just providing each student with information about the expanding numbers of post-high school alternatives, apart from the many other functions of pupil personnel work, is increasing geometrically. This is no mere part-time job that can be handled in a manner that even approaches adequacy by an already overburdened principal or teacher, although persons in these positions are important to the success of the guidance program.

The responsibility of the school for the emotional and social well-being of students while they are in the secondary grades is based in large part upon the desire to guarantee that the potential of no student shall remain undiscovered during these years. In brief, it has become increasingly clear that cultural, social, and emotional factors may prevent a student from performing adequately in school. Thus, a good secondary school program includes a counseling program whose functions in part are to ensure that obstacles to school success such as these are considered and, when possible, removed.

This amounts to another instance of what Gardner has called the "principle of multiple chances."<sup>27</sup> He believes that a unique feature of American education is the principle that a "youngster should have many successive opportunities to discover himself."<sup>28</sup> Society cannot afford to have its schools discontinue their efforts at stimulating students even after many years of academic mediocrity or failure. Since guidance is in part directed at this function, a secondary school program which does not apply sufficient resources in this direction is just as remiss as one which in earlier times allowed pupils to drop out of school in the third grade if they were not successful.

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27. John W. Gardner, Excellence: Can We Be Equal and Excellent Too?, New York: Harper and Row, 1961, p. 69.

28. Ibid.

### PROFESSIONAL COMPETENCIES OF PERSONNEL

Traditionally, the occupations of education have been conceived to be those of teaching and administration. As we move into the future the occupational structure of education is undergoing changes. From the foregoing, it has been clear that the local school district must have personnel trained in curriculum work and guidance. Less clear is the rising demand for personnel with research skills and expert background in instructional technology, social work, and in relations with state and federal educational agencies.

In addition, the success of introducing innovative ideas and stimulating reconsideration of older ones is becoming dependent upon the district's ability to add to its resources the services of outside experts. One example of this lies in the team evaluations that are periodically conducted by North Central Association representatives in cooperation with the personnel of member schools. In visits such as these, university scholars and recognized administrators make available to the local school their insights. Unfortunately, many schools in the state are insulated from this kind of help and examination.

The research and development efforts of schools are notoriously small compared to those of industry. Furthermore, it is only a small portion of school districts that do what little is accomplished here. Additionally, districts vary widely in terms of the personnel they are able to allocate to the increasing amounts of time that are necessary in order to secure financial backing from the Federal government, foundations, and for participation in state and regional projects.

In short, an important characteristic of a good secondary school program is to be found in the availability of the various kinds of educational competencies that ensure constant evaluation of its program, the development of new programs, and participation in other projects of improvement. Increasingly, it is becoming clear that these functions cannot be considered merely to be another minor administrative duty.

### THE PRESENT PROGRAM OF SECONDARY EDUCATION IN MINNESOTA

Secondary education in Minnesota is characterized by a large number of districts operating small high schools. During the 1965-66 school year a total of 452 districts offered programs of secondary education through grade 12 and two additional districts had junior high schools. Table 19 shows the number of districts divided on the basis of secondary enrollment, the number of secondary schools operated by these districts, and the secondary enrollment of the districts in each size category. Over two-thirds of the districts enroll fewer than 500 secondary students but the combined enrollments of these schools is less than one-fourth of the total state enrollment; thus one-third of the districts enroll over three-fourths of the secondary students in the state.

TABLE 19

NUMBER OF SECONDARY SCHOOL DISTRICTS, SECONDARY SCHOOLS,  
AND ENROLLMENT, 1965-66

Secondary Enrollment of District by Size Category	Districts in Category		Secondary Schools in Category		Secondary Enrollment in Category	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Under 150 (1)	49	10.8	49	8.1	5,402	1.6
150-199 (2)	56	12.4	56	9.2	9,755	2.7
200-249 (3)	48	10.6	49	8.1	10,703	3.1
250-299 (4)	44	9.7	46	7.6	12,006	3.3
300-399 (5)	61	13.5	61	10.1	21,112	5.8
400-499 (6)	46	10.3	47	7.7	20,388	5.6
500-699 (7)	41	9.1	44	7.3	24,524	6.8
700-999 (8)	38	8.4	47	7.7	31,094	8.6
1,000-1,499 (9)	21	4.6	34	5.6	25,349	7.0
1,500-2,499 (10)	21	4.6	47	7.7	38,254	10.5
2,500 and Over (11)	<u>27</u>	<u>6.0</u>	<u>127</u>	<u>20.9</u>	<u>163,347</u>	<u>45.0</u>
Total for State	452	100.0	607	100.0	361,934	100.0

SOURCE: Minnesota Educational Directory, 1966-67 and survey records.

COURSE OFFERINGS IN MINNESOTA SECONDARY SCHOOL PROGRAMS

A significant part of the history of education in America can be described as a never ceasing effort to compile a list of factors that characterize a quality educational program. Prominent among such efforts has been the attention directed at the variation among secondary schools with respect to the numbers of courses and subjects that they offer students.

Since the turn of the century, secondary schools have tended to add new courses to their offerings far more often than to drop courses and this has resulted in a continuous growth in the number of subjects in secondary programs. A recent study of the situation in Minnesota revealed that, similarly, most high schools increased their offerings during a ten-year period from 1951-52 through 1961-62.<sup>29</sup>

In Table 20 data are presented which show, generally, that the number of courses available to students in grades 7 through 12 is likely to range from a total of 40 separate courses in schools from districts with secondary enrollments of less than 150 students to over 100 courses offered by schools in districts with 1,500 or more secondary students. While it is important to notice that there exists considerable variability among schools within the various size categories it should also be pointed out that, as seen in the "median" column, there is a clear association between the size of a district's secondary enrollment and the number of courses offered in its secondary grades.

This association was stated even more strongly and in greater detail by Hill in his analysis of curricular changes in Minnesota senior high schools over a ten-year period:

In all subject fields there was a direct, positive relationship between school size and number of credits offered. Throughout the decade (1951-1962), this relationship was more noticeable in language arts, foreign languages, industrial arts, and fine arts. While it was less pronounced in social studies, mathematics, and science, in 1951-52, a definite relationship in these subject fields had emerged by 1961-62.<sup>30</sup>

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29. Russell N. Hill, "An Analytical Survey of Curricular Changes in Minnesota Senior High Schools, 1951-1962," Unpublished doctoral dissertation, Minneapolis: University of Minnesota, 1963, p. 171.

30. Ibid., p. 85.

TABLE 20

TOTAL NUMBER OF COURSES OFFERED IN GRADES 7-12 BY SCHOOL  
DISTRICT ENROLLMENT SIZE IN 1965-66

Secondary Enrollment of District by Size Category	Total Number of Courses	
	Range	Median
Under 150 (1)	19-53	40*
150-199 (2)	25-54	45*
200-249 (3)	39-59	52
250-299 (4)	36-63	54
300-399 (5)	42-65	59
400-499 (6)	51-79	64
500-699 (7)	50-84	67
700-999 (8)	56-94	75
1,000-1,499 (9)	64-106	82
1,500-2,499 (10)	82-134	105
2,500 and Over (11)	102-192**	129**

SOURCE: Survey records.

\* These figures are slightly deflated because some of the districts in these categories have reported figures for four-year rather than six-year secondary schools.

\*\* Excludes Minneapolis, St. Paul, and Duluth.



## COURSE OFFERINGS IN TYPICAL SCHOOLS OF VARYING SIZE

A major implication of these facts is simply that where a student happens to reside within the state governs considerably the extent of variation in educational opportunities available to him. This can be illustrated by examining the specific course offerings available to students at the various secondary grade levels in Minnesota districts. In the following pages the course offerings for each grade level are shown for typical districts of varying size. The small school selected (School No. 1) has an enrollment of 200 secondary students and 13 teachers. The medium size school selected (School No. 2) has a secondary enrollment of 600 students and 33 teachers, while the large district (School No. 3) has a secondary enrollment of 1,750 students and a faculty of 91 teachers.

In Table 21 it can be seen that there are similar, if not identical, opportunities for selecting courses from among the offerings. This, and the comparable situation which exists with respect to grade 8 and to a lesser degree, grade 9, is attributable in large part to the heavily prescriptive character of the State Board of Education regulations with respect to specifying 95 per cent of the course work that shall be taken by all students in grades 7-9.

TABLE 21

COURSES OFFERED TO SEVENTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u>	<u>Required</u>	<u>Required</u>
English	English	English
Social Studies	Social Studies	Social Studies
Science	Science	Science
Physical Education and Health	Physical Education and Health	Physical Education and Health
Mathematics	Mathematics	Mathematics
Music (General)	Music (General)	Music (General)
	Industrial Arts or Home Economics	Art
	Art	
<u>Electives</u>	<u>Electives</u>	<u>Electives</u>
Chorus	Chorus	Band
Band	Band	Orchestra

SOURCE: 1966-67 master schedules from survey data.

The differences between the courses that are offered to eighth grade students are similarly quite minimal. Thus, the main course advantage that stems from attending the largest school lies in the somewhat greater variety of music offerings from which to choose. Again, this lack of variation can be attributed to state regulations for this grade level. This comparison is presented in Table 22.

TABLE 22  
COURSES OFFERED TO EIGHTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u>	<u>Required</u>	<u>Required</u>
English	English	English
Geography	Social Studies	Social Studies
Physical Education	Science	Science
Mathematics	Physical Education	Physical Education
Music (General)	Mathematics	Mathematics
Industrial Arts or	Music (General)	Music (General)
Home Economics	Industrial Arts or	Industrial Arts or
	Home Economics	Home Economics
		Art
<u>Electives</u>	<u>Electives</u>	<u>Electives</u>
Band	Band	Band
Chorus	Chorus	Chorus
		Orchestra
		Foreign Language

SOURCE: 1966-67 master schedules from survey data.

The ability of the larger school district of the three to furnish more options to its students begins to show itself more clearly in grade 9, as illustrated in Table 23. It should be pointed out, also, that all schools must offer a mathematics course in the ninth grade. In the case of School No. 1, algebra has been offered to meet this requirement while in the other two schools, where this requirement is satisfied by offering general mathematics, the algebra offering is classified as an elective.

TABLE 23

COURSES OFFERED TO NINTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u>	<u>Required</u>	<u>Required</u>
English	English	English
Social Studies	Social Studies	Social Studies
Science	Science	Science
Physical Education	Physical Education	Physical Education
Algebra	Mathematics (General)	Mathematics (General)
<u>Electives</u>	<u>Electives</u>	<u>Electives</u>
Home Economics or Industrial Arts	Algebra	Algebra
Band	Home Economics or Industrial Arts	Home Economics or Industrial Arts
Chorus	Band	Band
	Chorus	Chorus
	Agriculture	Orchestra
		Music Rudiments
		Agriculture

SOURCE: 1966-67 master schedules from survey data.

At the tenth grade level, the proportion of the school day that is prescribed by state regulation is abruptly reduced and this is reflected in a considerable increase in the variation among the courses offered in the three schools. Students at this level are required to take only three courses by the state: English, social studies, and physical education or health. Therefore, tenth grade students are able to select from one to three other subjects, depending upon the scheduling policy of the school. The increased variation in the number of choices open to these students in various sized schools is illustrated in Table 24.

With reference to this table, it should be noted that the areas in which students at the larger schools have more from which to select are in language arts, foreign languages, music, and vocational courses. In terms of raw numbers, tenth grade students at School No. 1 have available to them seven electives; students in School No. 2 can choose from 11 courses; and those enrolled at School No. 3 are able to select from 18 electives.

TABLE 24

COURSES OFFERED TO TENTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u>	<u>Required</u>	<u>Required</u>
English	English	English
Social Studies	American History	World History
Physical Education	Physical Education	Physical Education
<u>Electives</u>	<u>Electives</u>	<u>Electives</u>
Plane Geometry	Plane Geometry	Plane Geometry
Biology	Accelerated English	Journalism
Band	Speech	Speech
Chorus	Biology	Biology
Typing	Band	College Biology
Home Economics	Chorus	French I
or Industrial Arts	Typing	Latin I
	Agriculture	Art I
	Home Economics or	Band I
	Industrial Arts	Band II
	Metals and Motors	Choral Club
		Vocal Ensemble
		Orchestra
		Typing
		Home Economics IV
		Agriculture
		Woodworking
		Machine Shop

SOURCE: 1966-67 master schedules from survey data.

Much more dramatic differences are to be noted when the courses offered to eleventh grade students are compared as in Table 25. It is at this level that the state regulations play the most minimal part in determining the courses that students will take inasmuch as the only required course is English. In nearly every content area, there is a greater number of offerings in the larger schools, but this is especially striking in the practical arts area. More pointedly, eleventh grade students at School No. 3 can fill in their program from a pool of 23 electives and those at School No. 2 can choose from 14 options as compared to those in School No. 1 who are faced with a more limited choice from 11 electives.

In addition to these figures, it should also be noted that larger schools nearly always offer multiple sections of the courses most in demand thus precluding the possibility that scheduling conflicts will prevent students from getting the courses out of these electives that they desire to take. In the small school, by way of contrast, it is often the situation that all the electives listed are not available to all the students who desire to take them because of the necessity to offer only one section of many courses thus aggravating scheduling conflicts. In smaller schools many of the electives are offered only in alternate years which presents additional scheduling problems.

TABLE 25

COURSES OFFERED TO ELEVENTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u> English	<u>Required</u> English	<u>Required</u> English
<u>Electives</u>	<u>Electives</u>	<u>Electives</u>
Speech	Accelerated English	College English
Social Studies	World History	United States History
Physical Science	Consumers' Economics	Advanced Placement
Advanced Algebra	Chemistry	History
Spanish	Practical	Economic Geography
Band	Mathematics	Physics
Chorus	Advanced Algebra	College Physics
Office Practice	Spanish	Physical Education
Shorthand	Band	Advanced Algebra
Home Economics or	Chorus	Band I
Industrial Arts	Art	Band II
	Shorthand	Chorus
	Home Economics or	Vocal Ensemble
	Industrial Arts	Orchestra
	Agriculture	Office Practice
		Bookkeeping
		Retailing
		Trigonometry
		Solid Geometry
		Technical Drawing
		Agriculture III
		Latin II
		French I
		Art II

SOURCE: 1966-67 master schedules from survey data.

As can be seen from Table 26, the trends noted for differences in offerings at grade 11 also continue into the twelfth grade offerings for the three schools. The versatility of the largest school stands out in both of these higher grades and again its superiority in the practical arts is noticeable.

It is common practice to permit students to select elective courses from the previous grade as well as from those listed for the specific grade. Thus, during the tenth, eleventh, and twelfth grades students in School No. 1 may choose from 22 electives, in School No. 2 from 38 electives, and in School No. 3 from 67 electives.

TABLE 26  
COURSES OFFERED TO TWELFTH GRADE STUDENTS IN  
THREE SIZES OF SCHOOL DISTRICTS

School No. 1 (200 Enrollment)	School No. 2 (600 Enrollment)	School No. 3 (1,750 Enrollment)
<u>Required</u> English Social Studies	<u>Required</u> English Social Studies	<u>Required</u> English Social Science
<u>Electives</u> Physics Trigonometry Band Chorus	<u>Electives</u> Physics Solid Geometry Trigonometry Spanish Band Chorus Office Practice Stenography Bookkeeping Home Economics or Industrial Arts Electronics Agriculture	<u>Electives</u> Economic Geography College English Chemistry College Chemistry Physical Education Consumers' Mathematics Calculus College Algebra Technical Mathematics French II Band I Band II Chorus Vocal Ensemble Orchestra Note Taking and Typing Record Keeping Elementary Accounting Home Economics V Distributive Education Occupational Relations Vocational Machine Shop Cabinet Making Architectural Drawing Trades Farm Mechanics

SOURCE: 1966-67 master schedules from survey data.

## COURSE OFFERINGS IN SMALL DISTRICTS

The problem of limited course offerings is most serious in the very small secondary schools. While this point has been made in the previous pages it is of such importance that further analysis is warranted. A sample of class schedules for the 1966-67 school year of high schools enrolling fewer than 300 students was examined. Table 27 indicated the percentage of schools offering various elective courses in grades 9-12. Grades 7 and 8 were not included because required courses constitute almost all of the program.

TABLE 27

ELECTIVE COURSE OFFERINGS, GRADES 9-12, IN A SAMPLE OF 138  
MINNESOTA HIGH SCHOOLS ENROLLING FEWER THAN 300 STUDENTS

Course	Per Cent of Schools Offering	Course	Per Cent of Schools Offering
Beginning Algebra	100	Business Law	41
Biology	100	Home Economics IV	36
Bookkeeping	97	Agriculture IV	30
Beginning Typing	95	Advanced Mathematics	22
Plane Geometry	92	German	22
Home Economics I	91	Speech	16
Higher Algebra	79	Advanced Typing	15
Chemistry	77	Spanish	14
Shorthand I	75	Other Science	12
Industrial Arts I	72	Agriculture Shop	12
Home Economics III	71	Consumer Education	9
Physics	69	Art	9
Industrial Arts III	67	Office Machines	7
Home Economics II	66	French	7
Clerical Office Practice	64	Psychology	5
Industrial Arts II	60	Geography	4
Agriculture I	53	Economics	4
Solid Geometry and Trigonometry	52	Latin	3
Agriculture III	51	Journalism	3
General Math 9	49	Notehand	2
Agriculture II	49	Music (other than band or chorus)	2
Shorthand II	47	Physical Education 11-12	1
General Math 10-12	44	Russian	1
Industrial Arts IV	43		

SOURCE: Survey questionnaires and 1966-67 master schedules.

Table 27 shows that these small schools tend to have more complete offerings of a college preparatory nature, especially when one considers that most required courses are in this category. An exception is foreign language. For example, only 22 per cent of these schools offered even one course in German. Other foreign languages were offered in very few schools.

Courses in the arts and humanities are found in few of these schools. Only 9 per cent offered at least one art course and only 2 per cent offered a music course other than band and chorus.

Small schools can face the problem of a limited enrollment in several ways. One possibility is to hire as many teachers as are needed to offer a broad program and operate many small classes. Such a policy is very expensive and not possible in most districts. However, an examination of the class schedules of Minnesota high schools enrolling fewer than 300 students produced the following examples:

4 students in an office practice class

4 students in a home economics I class

4 students in a Latin I class

4 students in a shorthand II class

5 students in a home economics II class

4 students in a shop 11 and 12 class

An agriculture program with 22 students in three classes

An industrial arts program with 27 students in five classes

A Latin program with eight students in two classes

A home economics program with 26 students in four classes.

Such conditions not only result in extremely expensive education but also often result in the lack of a competitive situation for the student and provide limited possibilities for an exchange of different viewpoints.

Another response is to provide only a limited number of courses, thus reducing the number of electives a student has. Such a procedure increases class sizes but has serious drawbacks. Students are not alike in their capabilities, interests, backgrounds, or ambitions and requiring all to take the same classes will ignore the needs of many. Examples of such procedures found in the sample were:

All students in grade 9 taking algebra

All students in grade 10 taking geometry



20 of 31 students in grades 11 and 12 taking advanced algebra

20 of 43 students in grades 11 and 12 taking solid geometry  
and trigonometry

31 of 35 students in grades 11 and 12 taking bookkeeping

24 of 45 students in grades 11 and 12 taking chemistry.

In such situations one of two things is likely to happen. The level of the material will be adjusted to accommodate the slower students and will be of limited value to the more academically talented, or the class will be geared to the abilities of the able students and the slower student will be lost. While this is always a problem in all classes it is most acute when subjects which normally enroll only the better students are expanded to enroll all or nearly all.

The problem of the range of abilities within a single class is a constant one in small schools which cannot offer more than one section of any class. Student scheduling is also a problem in such schools and students are denied taking a course because of conflicts. While such a problem can also exist in larger schools, it is much less likely with multiple sections.

One commonly used procedure for broadening the program in small schools is to offer elective courses only in alternate years. Courses commonly alternated are: chemistry-physics, higher algebra-solid geometry and trigonometry; bookkeeping-office practice; and the junior and senior year courses in home economics, industrial arts, and agriculture. While this procedure expands the offerings of a small school, it also presents several problems.

The schedule must be carefully developed so that students are not denied taking courses they desire. This situation also demands a greater degree of planning on the part of the student who must plan his schedule for at least two years at one time. There is need for a great deal of guidance to assure that each student develops a program to meet his needs. Unfortunately, these small schools seldom have trained guidance personnel to assist students.

Another problem arises for the student who moves from one district to another. Such students may miss courses because the schools involved are not offering the same subject in a given year.

When the practice of alternating classes is followed there will often be the problem of different levels of preparation on the part of the students. For example, some of the students in solid geometry and trigonometry will have taken advanced algebra and some have not. This difference in preparation presents a problem to the teacher who must either repeat material which some of the class has previously studied or else deprive part of the class of this material.

### VOCATIONAL EDUCATION IN THE PRESENT PROGRAM

One of the most striking developments in American secondary education during the past 25 to 30 years has been the increasingly important position that vocational education has assumed. During this time, schools have added greatly to their offerings in this area and numerous pieces of federal legislation culminating in the Vocational Education Act of 1963 have been passed.

Vocational education first made its appearance in Minnesota during the latter part of the nineteenth century when special vocational classes in agriculture and other "practical" subjects were added to the general high school program. Since then vocational courses in business, home economics, and industrial arts have been added in many secondary schools of the state.

In recent years some secondary schools have added distributive education and trade and industrial education to their vocational offerings. Agriculture and home economics have received federal aid for grades 9 through 12 since the passage of the Smith-Hughes Act of 1917, but only since the Vocational Education Act of 1963 have business and office programs received federal aid. Secondary school industrial arts departments have never received federal aid.

### APPROVED SPECIAL DEPARTMENTS

One measure of the adequacy of a secondary school program, particularly in meeting the needs of the noncollege bound, is the presence of approved special departments. Table 28 shows the percentage of districts in each size category that had approved special departments in agriculture, business education, home economics, and industrial arts. The table shows that the presence of special departments is directly related to school district size. The exception is agriculture departments. Many large districts are urban or suburban where there is less student interest in agricultural courses.

TABLE 28

PER CENT OF DISTRICTS HAVING APPROVED SPECIAL DEPARTMENTS, 1965-66

Special Department	Per Cent by Size Category											Total For State
	1	2	3	4	5	6	7	8	9	10	11	
Agriculture	24	62	52	68	85	76	80	68	52	57	41	62
Business education	51	84	85	91	97	93	98	100	95	90	93	88
Home economics	73	98	98	95	93	100	98	95	100	100	100	95
Industrial arts	53	54	73	75	88	96	95	100	100	95	96	81

SOURCE: Minnesota Educational Directory, 1966-67.

Table 29 shows the number of districts in each size category having a specified number of approved departments. Nearly one-fourth of the districts in the smallest size category have no approved departments. Ten per cent of all districts with secondary schools enrolling fewer than 300 students have two or fewer special departments.

TABLE 29  
PER CENT OF DISTRICTS HAVING SPECIFIED NUMBER OF  
APPROVED SPECIAL DEPARTMENTS, 1965-66

Number of Approved Special Departments	Per Cent by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
None	24	--	--	--	--	--	--	--	--	--	--	3
One	2	2	2	--	--	--	--	--	--	--	--	1
Two	25	16	15	9	3	4	3	5	10	10	7	10
Three	45	64	56	52	30	26	24	29	38	38	56	42
Four	4	18	27	39	67	70	73	66	52	52	37	44

SOURCE: Minnesota Educational Directory, 1966-67.

Although some schools do offer courses without having approved departments, there is ample evidence to cast doubt on the quality of such courses. Since approved departments must meet minimum standards regarding course offerings, staffing, time allotments, equipment, materials, and facilities, any program which is not approved must be deficient in one or more of these areas.

Table 30 shows the growth of approved special departments during the past ten years. This growth includes the establishment of new junior and senior high schools as well as additions to the programs of existing schools. While the number of approved departments has increased in all fields, agriculture has shown a smaller gain than the others.

TABLE 30  
APPROVED SPECIAL DEPARTMENTS, 1956-1966

School Year	Approved Special Department			
	Agri- culture	Business	Home Economics	Industrial Arts
1956-57	289	310	471	341
1957-58	295	320	481	352
1958-59	290	341	497	370
1959-60	299	354	506	377
1960-61	301	362	514	385
1961-62	303	370	528	397
1962-63	305	381	539	431
1963-64	305	383	549	445
1964-65	306	389	560	459
1965-66	309	400	575	463

SOURCE: Trends in Minnesota Education, 1967, St. Paul,  
Minnesota: State Department of Education.

#### CURRENT STATUS OF VOCATIONAL EDUCATION IN SECONDARY SCHOOLS

According to a policy statement of the State Board for Vocational Education, vocational programs in secondary schools of Minnesota are more directly concerned with preparation for competence in useful skills than they are in providing preparation for entrance into a specific occupation.<sup>31</sup> The industrial arts and home economics programs in the high schools of Minnesota are considered by most as not preparation for wage-earning occupations but rather as parts of a general education program.

Long established as an objective of secondary education, the function of equipping each student with competencies by which to support himself is still surrounded by many problems. For example, there has been a tendency to dichotomize secondary students into two groups: college bound and those not headed for further education. Note was also taken of the fact that while large proportions of the student population do not go on to college, the exact figures on the numbers that do receive post-high school education of varying types, noncollege or nonuniversity, are not at all clear. In short, the extent to which secondary school programs must take exclusive responsibility for preparing students to make a living is not definitively established although it is inescapably clear that

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<sup>31</sup>. Policy Statement on Vocational-Technical Education in Minnesota, St. Paul, Minnesota: State Board for Vocational Education, 1966, p. 1.

some responsibility now exists and, moreover, that this will continue into the future.

Equally clear, however, with the rising probabilities that students well trained in a particular field will have to be prepared to undergo further vocational education for different occupations at various stages in their working lives is the fact that the function of secondary schools in preparing students to continue to learn is also increasing in its significance. In relation to this, one writer recommends that the dichotomy between the "useful and useless" in education be abandoned to be replaced by thinking of the components of education in terms of "more immediately or less immediately useful."<sup>32</sup>

Minnesota secondary school principals were asked in a survey questionnaire what they would like to add to their programs to better meet the needs of "non-college bound" students given the existence of no budgetary or other restrictions. Table 31 shows the responses and the percentages of principals who suggested each.

TABLE 31  
SUGGESTED PROGRAM ADDITIONS FOR "NONCOLLEGE  
BOUND" STUDENTS

Type of Activity	Per Cent of Principals Responding
Vocational education	38
Industrial arts	24
Business and/or commercial	14
Electronics	5
Home economics	5
Auto mechanics	4
Distributive education	4
Agriculture	4
Typing	2
Power mechanics	2
Vocational course in English	1
Welding	1

32. Maxwell H. Goldberg, "Introduction: Automation, Education, and the Humanity of Man," Automation, Education, and Human Values, New York: School and Society Books, 1966, pp. 13-14.

The most frequently expressed desire was that of "vocational education" or an increase in these offerings, with 38 per cent giving this response for the state as a whole. This proportion did not associate itself with the various district size categories but ranged from 27 per cent in districts with more than 2,500 secondary students to 54 per cent for schools in districts with between 400 and 499 such students. Accompanying this relatively strongly expressed desire was the wish to augment programs for terminal students with more "industrial arts offerings," with 24 per cent giving this response. Interestingly, this terminology as opposed to vocational offerings was more prevalent among districts with fewer than 200 secondary students than elsewhere and noticeably so.

Combining the two responses, however, shows that 62 per cent of Minnesota's secondary school principals would like to add more vocational and industrial arts programs to their offerings. This figure takes on particular significance because it is the only area in which such a large proportion showed substantial agreement with respect to the kinds of additions that should be made to secondary education in their schools.

A number of specific additions were also mentioned, but by considerably smaller proportions of principals. Fourteen per cent indicated that courses in business education or commercial subjects were needed and the relative numbers expressing this desire were considerably smaller among schools in districts with 1,500 or more secondary students.

Twenty-two per cent of the principals across the state also indicated that the general area of vocational industrial arts is in need of revision or updating. This too raises a thorny problem for studies in other regions have found, for example, that "many of these programs are not based upon employment opportunities and employer preferences for training in job skills by the high schools."<sup>33</sup> There is reason to believe that, like other subjects in the secondary school program, specific areas of training and vocational subjects have persisted and continued to claim educational resources far beyond the point when they could have been replaced, combined with other courses, or updated. In short, the stability and resistance to change that has been characteristic of secondary education has not been monopolized by academic subjects in any sense. Whether or not this problem is more acute with respect to vocational offerings remains a moot question, but it is a more visible problem than is the case with other areas of the program.

One of the major problems adding to the others which surround the suitability of vocational education offerings is the relative instability of career choice by high school students. Table 32 shows the results of a recent study in which students were contacted one year following graduation in order to ascertain

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33. James W. Whitlock and Billy J. Williams, Jobs and Training for Southern Youth, Nashville: Center for Southern Education Studies, George Peabody College for Teachers, 1963, pp. 33-34; cited by J. Galen Saylor and William M. Alexander, Curriculum Planning for Modern Schools, New York: Holt, Rinehart and Winston, 1966, pp. 325-326.

the proportions which had entered the careers of their choice. The career, one year after graduation, agreed more closely to initial choice as selected in the eleventh grade than when the choice was made in the ninth or tenth grade. However, only 29 per cent of the males and 37 per cent of the females were in the career which they had selected as eleventh graders.

TABLE 32

## STABILITY OF CAREER CHOICE FOR HIGH SCHOOL STUDENTS

Grade of the Individual When the Initial Choice Was Indicated	Number in Per Cent	
	Males	Females
9	19	27
10	22	31
11	29	37

SOURCE: J. C. Flanagan, Stability of Career Choice: Ages 14 to 19, Paper read at American Psychological Association, Chicago, September 1965; cited by Robert M. Gagne, Research on General Vocational Capabilities, Pittsburg: American Institutes for Research, Final Report, 1966, pp. 2-3.

Combined with this general lack of predictability are the findings with respect to the proportions of students who, after receiving high school training in specific areas, go on to work in completely unrelated fields. The data in Table 33 portray the results of a recent study of this kind. The first job for 33 per cent of the vocational graduates of the vocational high school and 44 per cent of the vocational graduates of the comprehensive high school was completely unrelated to their trade training.

From figures such as these, it can readily be seen that solving the problems of the vocational education program in secondary schools is not a mere matter of adding courses but depends heavily on the ability of school districts to engage in curriculum development. It is of interest, in this regard, to take note of a conclusion stemming out of one such effort:

. . . we would contend that the very core of a curriculum having general occupational relevance is missing from the experiences of most American students and still will be when curriculum efforts which have been launched to date come into use. We would call this central core of a vocational curriculum something like "basic job

technology" and set as its purpose the inculcation of a broad spectrum of capabilities. . . .we would contend that substantive progress (toward developing such a curriculum) will require time and talent of the order devoted to modern overhauls of basic academic curricula."<sup>34</sup>

TABLE 33

## RELATEDNESS OF FIRST JOBS FOR VOCATIONAL GRADUATES (ALL MALES)

Relation of First Job to Trade Training	Per Cent by Type of High School	
	Vocational	Comprehensive
Same trade	34	24
Highly related trade	20	17
Slightly related trade	14	16
Completely unrelated trade	33	44

SOURCE: M. U. Eninger, The Process and Product of T and I High School Level Vocational Education in the United States, Pittsburgh: American Institute for Research 1965; cited by Robert M. Gagne as stated in the previous source citation for Table 32, p. 91.

CLASSROOM METHODS

A problem common to most large-scale surveys of education is that of obtaining information about what takes place within classrooms -- about how teachers teach. Since it was beyond the scope and resources of this study to send teams of observers out to the schools of the state, items were designed and included in the questionnaires sent to teachers and administrators which would make information available about the extent to which certain selected practices are used.

There is general agreement among educators that good teaching is characterized by the use of a variety of instructional practices and techniques, based in part on the fact that people differ in the ways, processes, and activities by which

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34. Robert M. Gagne, et al., Research on General Vocational Capabilities Pittsburgh: American Institute for Research, 1966, p. 84.



they learn. The practices which were selected for inclusion in this study were included primarily to determine the extent of variation in teaching procedures.

Table 34 shows the per cent of secondary school teachers who indicated on the survey questionnaire that they used various procedures "much" or "very much." Percentages are shown for all responding teachers and for those in districts with secondary enrollments under 250 students and those with secondary enrollments of more than 1,000 students. No one single teaching procedure predominates but demonstration, class discussion, and teachers working individually with students are emphasized by nearly one-half of the responding teachers. There were some relationships between practices used and school district size with teachers in small districts using lecturing and textbook reading to a greater degree than did teachers in larger districts. On the other hand, teachers in larger districts make greater use of independent research projects, reading assignments other than in textbooks, small group and committee work and class discussion.

TABLE 34  
PERCENTAGE OF SECONDARY TEACHERS IN VARIOUS SIZE DISTRICTS  
REPORTING "MUCH" OR "VERY MUCH" USE OF  
SELECTED TEACHING PROCEDURES

Teaching Procedures	Per Cent of Teachers		
	Enrollment Under 250	Enrollment Over 1,000	Total for State
Working individually with students	43	49	49
Class discussion	43	51	49
Demonstration	46	50	47
Textbook reading	47	39	41
Independent research projects and practice	24	37	33
Lecture	39	28	31
Written assignments	31	30	28
Other reading	21	28	27
Small group and committee work	17	26	23
Individual oral reports	15	14	14

SOURCE: Survey questionnaires.

### OBJECTIVES AND GOALS

Current educational opinion maintains that a primary fault of many instructional programs is rooted in the failure to explicitly formulate educational objectives. Moreover, it has been argued that in many schools and classrooms the teaching-learning process used is appropriate for only one or two of the nationally agreed upon aims of education that have been stated.

In this study procedures were included to assess the extent to which the programs of Minnesota secondary schools reflect various types of educational objectives. Table 35 shows the percentage of secondary principals who indicated "much" or "very much" as to the extent to which various objectives were pursued by programs in their schools. Principals indicate that objectives having to do with learning of factual information exert a strong influence in three-fourths of the schools of the state. Objectives relating to skill development and those relating to the development of attitudes and values were emphasized in over one-half of the schools, with skill development receiving very strong emphasis in the larger schools.

TABLE 35

PERCENTAGE OF SECONDARY PRINCIPALS REPORTING THE DEGREE TO WHICH  
THE PROGRAM OF THEIR SCHOOLS IS DIRECTED "MUCH" OR "VERY MUCH"  
TOWARD ATTAINING CERTAIN EDUCATIONAL OBJECTIVES

Type of Objective	Per Cent of Principals		
	Enrollment Under 250	Enrollment Over 1,000	Total for State
Content knowledge -- facts, ideas, and concepts	75	83	79
Skills	41	70	58
Values and attitudes	59	53	53
Reflective and/or critical thinking	34	53	40
Sensitivities and feelings	32	31	29

SOURCE: Survey questionnaires.

Objectives relating to reflective and critical thinking were perceived by the principals to be less influential, especially in smaller schools. This is upsetting since the Educational Policies Commission of the National Education Association has stated that the central purpose of American education is to foster the ability to think.<sup>35</sup>

#### PUPIL EVALUATION

Whatever relative emphasis school personnel decide is appropriate for each of these types of objectives should also be reflected in the processes of evaluating the work and progress of students. If a teacher wishes to give equal emphasis to objectives having to do with learning information and with learning critical thinking then it would be desirable to give equal attention to each in measuring, evaluating, and reporting progress. If the report to parents lacks information in one of the areas, or if students are not aware that they are being evaluated in one of the areas, they are likely to focus most of their effort toward achievement in the area in which they are clearly being evaluated and reported.

Secondary school principals were asked to estimate the extent to which their teachers emphasize various types of objectives, both with respect to evaluating student progress and in reporting that progress to parents. Table 36 presents a comparison of these responses with data presented earlier showing the objectives which principals reported were emphasized in their programs.

TABLE 36

COMPARISON OF THE DEGREE TO WHICH OBJECTIVES STRESSED IN THE  
INSTRUCTIONAL PROGRAM ARE STRESSED IN EVALUATION AND  
REPORTING AS REPORTED BY PRINCIPALS

Type of Objective	Per Cent Reporting Much Emphasis In	
	Instructional Program	Evaluation and Reporting
Content knowledge -- facts, ideas, and concepts	79	82
Skills	58	63
Values and attitudes	53	39
Reflective and/or critical thinking	40	32
Sensitivities and feelings	29	22

SOURCE: Survey questionnaires.

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35. Educational Policies Commission, The Central Purpose of American Education, Washington D.C.: National Education Association, 1961, p. 12.

The data presented indicate discrepancies between what is stressed in the instructional program and the evaluating and reporting processes. Undue emphasis appears to be given to evaluating and reporting achievement in terms of content knowledge and skills whereas other types of objectives receive less emphasis in evaluation and reporting than they are given in the instructional program. There also was a definite tendency, as indicated by the principals' responses, for schools in large districts to emphasize objectives relating to learning information to a greater degree than in smaller districts.

#### PROGRAMS FOR EXCEPTIONAL STUDENTS

Educators talk a great deal about providing instruction to meet the needs of every child but in actual practice this ideal is very difficult to achieve. Minnesota secondary school principals were asked to estimate the extent to which programs in their schools were adequate for various types of pupils. Table 37 is based on their responses.

TABLE 37

ADEQUACY OF PROGRAMS FOR VARIOUS TYPES OF PUPILS AS REPORTED  
BY PRINCIPALS IN VARIOUS SIZE DISTRICTS

Type of Pupil	Per Cent Reporting Adequate Programs		
	Enrollment Under 250	Enrollment Over 1,000	Total for State
Average	72	73	73
Specially talented	20	47	34
Mentally handicapped	15	54	34
Physically handicapped	8	28	19

SOURCE: Survey questionnaires.

Nearly three-fourths of all principals indicated that their schools were providing programs which were very adequate to meet the needs of average pupils, with little variation in districts of differing sizes.

Only one-third of all principals responded that their programs were sufficient, for the specially talented or the mentally handicapped. However, in both cases the percentage of principals reporting adequate programs increased markedly as district size increased. Less than one-fourth of the principals reported adequate programs for the physically handicapped; again the larger districts reported more adequate programs.

The responses from principals indicate that Minnesota high schools are doing a good job for the average student but less well for those with special talents or problems. However, this must be considered in the light of other findings noted elsewhere in this chapter indicating that secondary programs in Minnesota are overbalanced in favor of the minority of students who go to college. The question then arises as to which students the principals had in mind when the term "average" is used.

One commonly used procedure for providing of students with differing needs and capabilities is the use of various types of ability grouping. Over 90 per cent of the secondary schools of the state use some form of ability grouping. While the practice is more frequent in larger school systems, it should be noted that in the small systems the limited pupil enrollments preclude the use of grouping. Nearly one-half of the principals reported the use of ability grouping has increased in their schools in the past five years, while only 10 per cent indicated a decline in the practice over the same period.

Of decided importance relative to the practice of ability grouping is the extent to which different materials and methods are used in the various groups. For example, a conclusion drawn from a recent research study states that:

. . .narrowing the range of ability (on the bases of group intelligence tests per se), without specifically designed variations in program for the several ability levels, does not result in consistently greater academic achievement, for any group of pupils.<sup>36</sup>

Minnesota principals were asked to estimate the extent to which differentiated materials are used in ability-group classes. For the state as a whole, 42 per cent indicated "much" or "very much" but it is worth noting that while 61 per cent of those from schools in districts of 1,000 or more pupils gave these responses only 18 per cent of the principals from schools in districts of fewer than 250 secondary pupils responded similarly. It is apparent from these data that schools in districts with large secondary enrollments are better able to support grouping procedures when they are used. The question also arises as to what extent the greater variety of demands made upon teachers in small districts discourages the use of differentiated materials.

Another aspect of providing for exceptional students is the nature of practices by which the students are then identified. It is of rather little use, for example, to have separate -- and sometimes elaborate -- programs if this selection process is haphazard. In this regard, approximately 50 per cent of Minnesota secondary school principals reported that the extent to which systematic procedures are used for identification of gifted students is "much" or "very much."

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36. A. Harry Passow, Miriam L. Goldberg, and Joseph Justman, The Effects of Ability Grouping, New York: Teachers College Press, Columbia University, 1966, p. 1.

Furthermore, it should be noted that a larger proportion of principals in districts of more than 1,000 pupils indicated this to be the case than did respondents from districts of the three smallest sizes, with the respective figures being 62 and 38 per cent.

Systematic procedures for identifying slow learners were somewhat more developed, with 60 per cent of the principals indicating their schools had well-developed procedures. Again the larger districts showed a much more favorable situation.

The most common special provision for both gifted students and slow learners, as shown in Table 38, was a differentiated course load with the gifted taking a heavier load than normal and the slow learner a lighter load. Summer school was the second most common provision for both types of students. Most principals reported a greater number of provisions for the gifted than for the slow learner and in both cases the larger districts utilized a greater number of methods to a greater degree.

TABLE 38

PER CENT OF DISTRICTS REPORTING MUCH USE OF SPECIAL PROVISIONS  
FOR GIFTED STUDENTS AND SLOW LEARNERS

Special Provision	Per Cent Provided For Gifted Students	Per Cent Provided For Slow Learners
Differentiated course load	49	31
Honors courses	18	--
Advanced placement	11	--
Accelerated programs	19	--
Independent study	13	6
Contract plans	4	2
Correspondence courses	3	3
Special Saturday classes	1	2
Summer school	20	30
Cultural enrichment	--	6

SOURCE: Survey questionnaires.

### INNOVATIONS IN THE PRESENT PROGRAM

A catchword that has been of growing consequence for secondary education in the past ten years has been "innovation." The literature has abounded with articles which both report the nature of innovational projects and seek to show school personnel how to bring about changes in their programs.

There has been good reason for this interest in educational change because the schools had become literally swamped by charges that they were overly immune to change and innovation. One of the most frequently cited studies in this regard charged, for example, that an innovation which is designed for all schools is usually found in only 3 per cent of the schools 15 years after it makes its initial appearance within a state. Another 20 years are usually required for "almost complete diffusion."<sup>37</sup> More recently, however, it was concluded in a survey of the innovations being used in all the schools accredited by regional associations that this diffusion rate has increased, although schools and states vary greatly in this respect. "Change in American education has moved from a crawl to a walk."<sup>38</sup>

In this section, a look will be taken at the extent to which Minnesota secondary schools have adopted certain selected practices that come to be called innovations.

Minnesota secondary school principals were asked in this survey to estimate the extent to which their curriculums had been modified during recent years by moving content which had been taught in the later grades to earlier grades in five subject areas. Principals reported that in the following subjects content had been moved "much" or "very much":

Mathematics	54 per cent
Science	46 per cent
Foreign Languages	25 per cent
English	16 per cent
Social Studies	11 per cent

Except in foreign languages, where the larger districts showed more activity, there was little variation between large and small districts.

Data from the questionnaires to secondary school principals indicated that there is, for all practical purposes, no use of correspondence courses either to

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37. Paul R. Mort, "Educational Adaptability," Administration for Adaptability, New York: Metropolitan School Study Council, 1958, pp. 32-33.

38. Gordon Cawelti, "Innovative Practices in High Schools: Who Does What -- and Why -- and How," The Nation's Schools, April 1967, pp. 56-60.

enable students to make up or repeat courses or to provide courses that are not otherwise available in the school's regular program of offerings. This is undoubtedly a reflection of the principals' low opinion of correspondence courses. Over two-thirds of the principals responding indicated that correspondence courses were inferior to regular classes as regards benefits to students.

Instead, however, a considerable number of Minnesota secondary schools fulfill these purposes by operating during the summer months. Specifically, 74 per cent of all secondary schools offer remedial and makeup courses at this time and this proportion ranges to 86 per cent in the largest districts. Considerably more variation associated with district size seems to be the case with respect to the proportions of schools that offer enrichment or acceleration courses during the summer. While the overall proportion is 51 per cent, only 22 per cent of the schools in districts with fewer than 250 secondary students offer these courses compared with 81 per cent in districts with 1,000 or more secondary enrollment.

By and large, the most commonly offered summer program is driver education with 84 per cent of the principals reporting its existence in their offerings. There seems to be relatively little that now obstructs small schools from offering this program inasmuch as 76 per cent of the principals in the three smallest sizes of districts responded positively compared to 85 per cent of those in districts of the three largest sizes. Music is offered during the summer by somewhat more than one-half of the secondary schools in the state and this proportion ranges from 45 per cent in districts with fewer than 250 students to 70 per cent in districts with 1,000 or more secondary students.

Across the nation, there is recent evidence to indicate that new patterns in staff utilization -- specifically called team teaching -- are becoming more and more widely disseminated. During this year, a national survey of all regionally accredited schools indicates that 41 per cent are using some form of this innovation, which appears to be nearly double the proportion that existed two or three years ago.<sup>39</sup> The high schools accredited by the North Central Association that are using some form of this innovation comprise about 40 per cent of the total responding to the innovational survey.

In the questionnaire to Minnesota secondary principals, somewhat more detailed information on the status of this important innovation was gathered. Table 39 shows that nearly three-fourths of the principals reported none of their teachers were involved in team teaching. Only 5 per cent of the principals reported that over 10 per cent of their staff was so involved and only 14 per cent reported a similar degree of involvement by students.

For the state as a whole, 27 per cent of the secondary schools reported some proportion of their staff as being involved in team teaching. It is important to note, however, that out of these, 69 per cent were schools in districts with 1,000 or more secondary enrollments while schools from districts with fewer than 250 students accounted for only 10 per cent of the total innovating group.

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39. Ibid., p. 59.



TABLE 39  
PERCENTAGE OF STUDENTS AND TEACHERS PARTICIPATING  
IN TEAM-TEACHING SITUATIONS

Per Cent of Group Involved	Per Cent of Principals Reporting Involvement of:	
	Teachers	Students
None	73	74
1-10	22	12
11-25	4	8
26-50	1	4
51-75	*	1
75-100	*	1

SOURCE: Survey questionnaires.

\*Less than one per cent.

Various ways of grouping students for instruction have also been associated with team teaching. In this regard, it was found that 20 per cent of all Minnesota secondary schools use large group instruction or lectures in which the class size is increased in order to save time-consuming repetitions of lectures and otherwise improve efficiency in teaching. Schools with large enrollments were considerably more likely to do this.

The use of small discussion groups was reported in 17 per cent of the schools and this, too, was more prevalent in large districts. Fifteen per cent of the principals also reported that independent study is in operation in their schools and this proportion ranged from 7 per cent in districts with less than 250 enrollment to 28 per cent of the districts with 1,000 or more secondary enrollment.

Table 40 shows the status of various innovations in Minnesota high schools. Among the innovations of great interest to educators have been the increasing number of projects wherein newly-written courses of study have been made available. Mathematics is the field in which a very large dissemination has occurred to date in Minnesota. Specifically, 89 per cent of the secondary schools in the state reported that they are using one of the new courses of study in this subject. Moreover, better than 70 per cent of these schools have adopted this innovation on a full-scale basis.

TABLE 40  
STATUS OF VARIOUS INNOVATIONS AS REPORTED BY  
SECONDARY SCHOOL PRINCIPALS

Innovation or Practice	Per Cent of Principals Reporting Certain Status				
	In Use on Full-Scale Basis	In Use on Limited Basis	Plan to Adopt It Next Year	Tried But Abandoned	Not in Use
Curriculum:					
New chemistry	21	17	1	*	61
New physics	17	17	2	1	63
New science	31	21	2	*	46
New mathematics	72	17	*	*	11
New humanities courses	5	6	2	*	87
Project social studies	2	9	1	1	87
Project English	4	12	1	*	83
Advanced placement program	4	6	1	1	88
Aural-lingual foreign language	29	10	1	0	60
Technology:					
Educational television	6	20	2	4	68
Closed circuit television	*	3	1	0	96
Programmed instruction	4	32	1	5	58
Language labs	25	10	2	*	63
Computer scheduling	10	1	4	1	84
Teaching by or with computer	1	4	1	*	94
Telephone amplification	1	3	*	*	96
Organization -- Miscellaneous:					
Flexible scheduling	7	9	4	1	79
Nongraded school	1	3	*	*	96
Optional class attendance	*	1	*	*	99
Extended year	2	1	*	*	97
Student exchange	7	4	*	1	88
Work-study program	12	8	3	*	77
Independent study	2	15	2	*	81

SOURCE: Survey questionnaires.

\*Less than one per cent.

While these figures compare quite favorably to the ones obtained by the North Central Association's inventory of innovations, the proportions cannot be compared in the strict sense. On a national basis, for example, it was found that 41 per cent of the regionally accredited high schools had adopted either the School

Mathematics Study Group program (36 per cent) or the University of Illinois Committee on School Mathematics materials (5 per cent). The respective figures for Minnesota were 50 per cent in the former of these and 4 per cent in the latter.<sup>40</sup> However, data gathered in the statewide questionnaire to secondary principals asked simply whether or not they had adopted "new mathematics" and, since there are more than two such programs, the figures obtained from all the Minnesota secondary principals are larger than those obtained from respondents in the regionally accredited high schools.

Fifty-two per cent of the secondary school principals reported that their schools are using new science materials and three out of five of these indicated that this innovation is in full-scale use. While this proportion compares favorably with the 56 per cent of the regionally accredited schools across the nation,<sup>41</sup> the comparison must again be qualified by the fact that, whereas the respondents in the statewide survey were indicating the presence of any new science program, those responding to the North Central Association's questionnaire were asked to indicate the presence of three specific programs.

None of the other innovations were in use in at least one-half of the schools although new chemistry, physics, and foreign language and language laboratories were in use on some basis in at least one-third of the schools. In addition, the use of programmed instruction was reported in 36 per cent of the schools, but almost completely on a limited or pilot basis.

#### EXTRACURRICULAR ACTIVITIES

One of the principal ways in which the secondary school program has grown during this century has been through the addition of activities into what is called the extracurricular program. Based upon the idea that the school should endeavor to provide for social and emotional needs as well as build academic and vocational competencies, educators have come to view with considerable importance this part of the program.

Yet a recurring issue in secondary education has centered around the extent to which all students participate in these activities. It has been discovered, for example, that in many schools students who must work and those from low income families participate much less than those more fortunate since participation is usually voluntary. Numerous studies have shown also that one of the most persistent and obvious factors among school dropouts is their lack of participation in extracurricular activities.<sup>42</sup>

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40. Ibid.

41. Ibid.

42. Jack R. Frymier, The Nature of Educational Method, Columbus, Ohio: Charles E. Merrill Books, 1965, pp. 120-121.

As a part of this survey, secondary school principals were asked to indicate the extent of their general satisfaction with extracurricular participation. For the state as a whole, slightly more than one-half indicated "much" or "very much" satisfaction. It is interesting to note that, despite the frequent assumption that small districts provide opportunities to more students with respect to these activities, the proportions of principals from the various sizes of school districts who indicated these degrees of satisfaction did not vary appreciably.

Secondary school principals were also asked to indicate which activities were offered in their school. As might be expected there were some activities that were offered by nearly all schools, irrespective of size, including interscholastic athletics, band, chorus, yearbook, school paper, plays and drama, and student government. On the other hand, some activities were offered to a much greater degree by schools in larger districts:

<u>Activity</u>	<u>Per Cent of Small Districts</u>	<u>Per Cent of Large Districts</u>
Intramural athletics for boys	45	91
Intramural athletics for girls	45	90
Subject area clubs	37	71
Service clubs	24	61
Debate	19	50
Hobby clubs	13	49

Principals were also asked if there was any aspect of their extracurricular program which they felt was being overemphasized. Slightly over one-half of the principals indicated there was no problem of overemphasis in their school. However 36 per cent either indicated athletics in general or specified a sport, usually basketball or football. The only other area mentioned by more than one per cent of the principals was music where 8 per cent listed either music or band as being overemphasized in their school. There was little variation in the responses of principals in districts of varying size.

The whole topic of the extracurricular program has many important implications. Foremost among these is concern with the variety of offerings. It is quite apparent, for example, that schools in districts with large secondary enrollments are able to offer a wider array of such activities. In addition, there is little doubt that this variety is desirable inasmuch as this is yet one more way by which the general program of the school can be made suitable to varying student interests and needs. A primary problem in this regard has to do with the relative efforts schools make to provide equally for both sexes. The previously summarized data indicate, for example, that most schools offer interscholastic athletics for boys and music activities for both boys and girls. It should be noted, however, that the relative amount of support for these two activities is

likely to be considerably larger for the former. This situation represents a paradox, particularly when consideration is given to Coleman's findings in a study on adolescent interests:

The general pattern of these leisure pursuits, showing considerably more activity among the boys is indicative of something which seems to be quite general in the adolescent community: boys have far more to do than girls have. Whether it is athletics or cars or hunting or model-building, our society seems to provide a much fuller set of activities to engage the interests of boys than of girls. Thus when girls are together they are much more often just "with the gang" than are boys (one of their frequent afternoon activities being simply "going to town" to window shop and walk around).<sup>43</sup>

The problem of providing a suitable array of extracurricular activities, in order to encompass the interests of all students is not, however, simply a matter of enlarging the secondary enrollment of a school district. This can be noted, for example, by pointing out that it is possible to have a school in which many activities are offered but in which a very small proportion of the students actively participate. Moreover, while most large schools sponsor a wide variety of activities, it is often necessary to have several sections of some of these activities, meeting at various times, in order to elicit wide student participation. While the small secondary school, when it includes in its program a large variety of activities, does seem better able to encourage broad participation, there are several reasons to view this with some skepticism. Firstly, there is the prospect that certain students tend to be overtaxed with respect to amount of effort they are expected to devote in order to sustain the school's image. In short, these schools often face a severe problem in maintaining "respectable" athletic teams, music groups, and other organizations. Irrespective of school size, the concentration among a small group of students of leadership responsibilities in the extracurricular program tends to restrict the broad participation that is desirable.

A further implication stemming from these data has to do with demands upon teachers. It is apparent, for example, that many small schools make a truly admirable effort at providing a comprehensive extracurricular program. It must also be recognized, however, that the limited numbers of teachers, with their diversified teaching loads, are more frequently subject to unreasonable loads of afterschool work than is the case in schools with large numbers of students and teachers.

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43. James S. Coleman, "Academic Achievement and the Structure of Competition," Education, Economy, and Society, New York: The Free Press, 1961, pp. 369-370.

### PROVISIONS FOR THE LIBRARY

Educators are in wide agreement that a foundation-stone of the secondary school program is the quality of library services. Provisions in this area are at the very center of educational quality because a primary function of secondary education is that of providing all with comprehensive, up-to-date information. Constant reminders of the fact that knowledge is doubling and tripling in quantity over short periods of time in the various fields of inquiry also make more urgent the need for every school to be availed of the finest resources in this respect. Yet the problems related to providing library services are not confined to securing mere conformity with present standards but encompass also those entailed in ascertaining and building for the needs of the future.

Most of the information in this section is, however, aimed at assessing current library services. One of the key factors in this regard has been the persistent problem of staffing Minnesota secondary school libraries with full-time professionals. It is unfortunate that, at present, nearly 40 per cent of these libraries do not meet this criterion. The implications of these data seem especially severe since it has been maintained for decades that no secondary school should operate under this handicap. This situation prevails more often in the case of schools in districts with small secondary enrollments. While 73 per cent of the schools in districts with 1,000 or more secondary students reported that at least one such person is employed, this proportion drops to 29 per cent of the schools in districts with fewer than 250 secondary students.

Secondary principals were asked to indicate the extent to which certain provisions are characteristic of libraries in their schools and these data are presented in Table 41. Of primary importance is the extent to which secondary school libraries vary in meeting the requirements of both the State Department of Education and the American Library Association. Here it can be seen that while 72 per cent of the respondents indicated that the extent to which book collections in their libraries meet state standards is "much" or "very much", this proportion falls to 64 per cent in the case of A.L.A. criteria. In both cases, considerable differences between these proportions can be noted in schools in large as opposed to small enrollment districts. With respect to meeting state standards, the proportion of principals in districts above 1,000 enrollment was 88 per cent, while the comparable figure in districts below 250 enrollment was 53 per cent. In the case of meeting A.L.A. standards, the former proportion was 62 per cent as compared with 39 per cent in the latter.

For the state as a whole, slightly better than two-thirds of the secondary principals indicated that the extent to which librarians act as resource persons, to teachers is "much" or "very much." This proportion also seemed to be associated with secondary enrollment size inasmuch as 72 per cent of the principals in districts with 1,000 or more secondary students gave these responses compared with 54 per cent of those in districts with 250 or fewer pupils. When consideration is given to the finding, cited earlier, relative to proportions of schools in these categories that employ full-time librarians, there would seem to be some justification for viewing the figure of 54 per cent in districts of the three smallest sizes with some skepticism because it is difficult to visualize situations in which full-time librarians were lacking as settings in which teachers could receive this kind of resource help to any important extent.

TABLE 41

PER CENT OF PRINCIPALS, IN DISTRICTS OF VARIOUS SIZE, INDICATING  
THE EXTENT TO WHICH CERTAIN PROVISIONS ARE CHARACTERISTIC  
OF LIBRARIES IN THEIR SCHOOLS

Library Characteristics	Per Cent of Principals		
	Less Than 250 Enrollment	Over 1,000 Enrollment	Total for State
State standards met for books	53	88	72
State standards met for periodicals	59	84	71
Teachers help select materials	68	72	71
Program for continual improvement	66	71	69
Librarian a resource to teachers	54	72	64
A.L.A. standards met for periodicals	42	85	64
A.L.A. standards met for books	39	62	64
Instruction given in library use	40	76	60
Serves only secondary students	33	78	60
Library "weeded" to remove outdated materials	47	73	57
Picture and pamphlet files	29	63	46
Filmstrip collection	28	35	33
Full-scale instruction materials center	32	52	45
Professional library	15	43	32
Library open in summer	26	25	27
Classes scheduled in library	6	41	26
Phonograph records and tapes	12	24	18
Study halls scheduled in library	14	7	10
Study carrels	8	11	10
Listening center	6	11	8
Serves as community library	10	2	5
Photocopy equipment	4	7	4
Microprinter and microreader are used	1	1	1

SOURCE: Survey questionnaires.

In Table 41 it can be seen that nearly seven out of ten principals in the state indicated "much" or "very much" as the extent to which their schools have a program for continuous library improvement. While it appears in these data that these efforts are nearly as likely to be found in small districts as in large ones, again some reservations would seem to be in order because considerably larger proportions of schools in the small enrollment categories lack the services of full-time librarians than is the case in large districts. In short, whatever

program for continuous improvement of the library exists in small schools is probably more dependent upon persons other than professional librarians or library clerks than is the case in large schools.

The lack of full-time librarians in small schools probably affects, also, the proportions of principals indicating "much" or "very much" as the extent to which instruction is given in their schools for library use. In districts with 1,000 or more secondary students, over 75 per cent of the principals gave these responses while in districts with less than 250 secondary students this proportion drops to 40 per cent.

The need most frequently expressed by the principals was that of increasing or improving the physical facilities of secondary school libraries. More than one out of three principals gave this response. Second in priority, in the eyes of the secondary school principals, is the need to employ more professional librarians. It is interesting to note that 22 per cent of the principals in districts with 1,000 or more secondary students expressed this need as compared with only 4 per cent of those in districts with less than 250 secondary enrollment. For the state overall, 17 per cent felt this would improve library services in their schools.

Sixteen per cent of the principals reported that their libraries could benefit from improving audio-visual equipment, materials, and services. In addition to this, approximately 15 per cent of the principals would like to improve library services through the addition of study carrels while another 14 per cent would like to add listening stations or centers.

Somewhat smaller proportions of principals expressed interest in improving their libraries through the addition of more clerical or paraprofessional personnel, books and other materials, and through the extension of library hours.

#### PUPIL PERSONNEL SERVICES

The role of guidance and other pupil personnel services in secondary schools has increased greatly in recent years. Since the passage of the National Defense Education Act in 1958, schools have received considerable assistance from the Federal government in establishing and strengthening guidance programs. Yet at the beginning of the 1965-66 school year over one-half of all Minnesota secondary school districts did not have a certificated counselor.

In those districts not having a counselor the guidance function is usually handled by the principal or even by the superintendent. This factor influences the type of guidance activities which are emphasized in the school. Table 42 lists various types of guidance activities in terms of the frequency with which they were mentioned by principals as being used to a great extent in their schools.

There is some degree of distortion in the figures in that the respondents included junior high school principals whose counselors would not be directly concerned with placement activities. Thus the rank of these items is probably too low, especially for the larger districts.



TABLE 42

RANK ORDER OF EMPHASIS OF VARIOUS GUIDANCE  
ACTIVITIES IN DISTRICTS OF VARYING SIZE

Activity	Under 250 Enrollment	Over 1,000 Enrollment	Total for State
Individual counseling	3	1	1
Testing	2	3	2
Information services	4	2	3
College placement	1	6	4
Orientation activities	11	4	5
Coordination and referral to outside agencies	9	5	6
Vocational placement	5	9	7
Group counseling	8	7	8
Teaching special units	12	11	9
Administrative duties	6	12	10
Research and follow-up	13	10	11
Inservice for teachers	10	8	12
Discipline	7	13	13

SOURCE: Survey questionnaires.

These data indicate that in small schools testing and placement are the dominant activities whereas individual counseling and information services are the most common activities in larger districts. Counselors in larger districts also spend much less time on administrative duties, such as scheduling, and on discipline.

FACILITIES, EQUIPMENT, AND MATERIALS

It was not possible to send observers into the schools of the state to inspect the facilities. However, data were collected from teachers and administrators as to the adequacy of conditions. Table 43 reports the percentage of principals who reported that various facilities in their schools were adequate. There is a definite increase in adequacy of facilities as size of the district increases. This holds for all areas except agriculture, where many of the larger schools in sub-urban and urban areas do not offer the program, and business education, where the larger districts have separate junior high schools which do not have business education departments.

TABLE 43

PERCENTAGE OF PRINCIPALS IN VARIOUS SIZE DISTRICTS WHO INDICATED  
THAT FACILITIES ARE ADEQUATE IN THEIR SCHOOLS

Type of Facility	Per Cent by Size of Districts		
	Enrollment Under 250	Enrollment Over 1,000	Total for State
Home economics	66	79	72
General classrooms	57	64	60
Music	53	63	58
Science	52	66	58
Industrial arts	42	73	58
Physical education	49	65	57
Business education	61	48	53
Agriculture	30	24	33
Foreign language	12	49	28
Fine arts	8	50	28

SOURCE: Survey questionnaires.

Increasingly, the quality of educational programs has come to depend upon the purchase, implementation, and utilization of instructional equipment ranging from the traditional simplicity of mere bulletin boards to the vast complexity and sophistication of such items as videotape recorders and even computers. This growing importance and expansion is well put in the following statement:

. . .another asset in present-day curriculum change is extensive inclusion of materials other than textbooks in the total instructional package: films, filmstrips, programmed exercises, living creatures, and realia of many kinds. It often is impossible for teachers to offer the (new curriculum) courses without using the new audio-visual media. As a consequence, they are discovering that modern technology can carry

instruction far beyond the almost exclusively telling-and-listening activity still characterizing teaching and that a considerable amount of it can be put to work merely by pressing buttons and switches.<sup>44</sup>

Of concern in this study, then, was the situation with respect to the availability and utilization of audio-visual equipment. Table 44 shows comparisons which have been drawn for the state as a whole and in districts with large and small secondary enrollments between the per cent of principals and teachers indicating "much" or "very much" as the extent to which these devices are available and used. Here it can be seen, for example, that while 84 per cent of the total group of principals reported these degrees of availability for 16 mm. projectors, only 39 per cent of the teachers indicated a similar extent of use. In other words, it would seem that the use made of this equipment does not approach its availability. It is also important to note that while the percentage of principals indicating adequate availability was larger in districts of the three smallest sizes than in the large districts, the responses of teachers indicating heavy utilization was somewhat smaller. It would appear, then, that schools in large districts use more efficiently the equipment that is available to them although it seems that they are at somewhat of a disadvantage in supplying these machines.

Recent years have seen the increased popularity of single concept (8 mm.) projectors. In Minnesota, less than 20 per cent of the principals indicated satisfactory availability for this device but this appeared to be somewhat less the case in small districts. The use of these projectors, according to the teachers, is however nearly nonexistent.

Table 44 also shows that better than eight out of ten principals reported "much" or "very much" availability of filmstrip projectors and, again, this percentage can be seen to be somewhat larger in the small schools. With respect to utilization, however, only slightly more than one out of three teachers indicated "much" or "very much" use.

If projecting equipment generally seems to be adequately available, estimates of the principals indicate that this situation is not matched in the case of providing films. Slightly less than one-third indicated "much" or "very much" availability of films in contrast to the 80 per cent indicating these degrees of availability for projectors across the state. Especially striking is the gap between the percentages of teachers from the large and small districts reporting this utilization. While 27 per cent of those in districts with 1,000 or more secondary enrollment reported "much" or "very much" use, this figure was 8 per cent in districts with fewer than 250 secondary enrollment.

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44. John I. Goodlad, "The Curriculum," The Changing American School, Chicago: National Society for the Study of Education, 1966, p. 47.

TABLE 44  
 AVAILABILITY AND USE OF AUDIO-VISUAL EQUIPMENT

Equipment	Per Cent of Principals Indicating "Much" or "Very Much" Availability			Per Cent of Teachers Indicating "Much" or "Very Much" Utilization		
	In Districts With 250 Or Less Secondary Enrollment	In Districts With 1,000 Or More Secondary Enrollment	In All Districts	In Districts With 250 Or Less Secondary Enrollment	In Districts With 1,000 Or More Secondary Enrollment	In All Districts
16 mm. projectors	80.3	64.1	84.2	30.2	43.4	39.0
8 mm. (single concept) projectors	19.1	14.9	16.8	--	--	--
Library of films	22.8	39.9	31.1	8.4	26.8	22.4
Overhead projectors	80.2	78.1	80.8	32.7	39.6	39.6
Opaque projectors	41.4	43.5	41.3	12.2	10.3	11.1
Filmstrip projectors	80.6	78.3	81.0	39.0	36.0	35.9
Tape recorders	69.2	67.2	68.9	18.5	26.7	25.3
Language laboratories/ electronic classrooms	10.3	40.3	25.0	--	--	--
Closed circuit television	0.7	4.9	3.2	--	--	--
Educational television	12.9	10.5	10.8	--	--	--
Listening facilities for pupils	5.6	10.7	7.8	6.9	12.0	10.7
Videotape recorder	5.8	3.3	4.3	--	--	--
Regular television receivers	13.1	16.3	14.9	1.1	1.8	2.1

SOURCE: Survey questionnaires.

More than 80 per cent of the principals also indicated adequate availability of overhead projectors and, again, small districts seem to have a slight advantage over the largest ones. However, it can also be noted that the percentage of teachers indicating "much" or "very much" use is higher in districts of the three largest sizes. This discrepancy between availability and use also extends to opaque projectors. Roughly 40 per cent of the principals indicated good availability but only 10 per cent of the teachers indicated similar degrees of utilization.

Table 44 also showed that a similar state of affairs exists in regard to tape recorders with a considerably smaller percentage of teachers reporting good utilization than the percentage of principals indicating adequate availability. The use of these machines seemed somewhat enhanced in larger districts.

With the lack of foreign language instruction in small districts throughout the state, it comes as no surprise that schools in large districts report better availability of language laboratories. Yet, it should be noted that only one out of four secondary schools in Minnesota reported "much" or "very much" availability here. Utilization is extremely difficult to assess because the sample includes only a small percentage of foreign language teachers and the figure in the table, therefore, is unrealistically low.

As pointed out earlier, the use of educational television in Minnesota secondary schools is still in the embryonic stages. Consequently, the number of principals reporting adequate availability of this equipment can probably be expected to grow. In addition, teacher-use of television appears to be quite limited.

Minnesota superintendents were asked to estimate the extent to which their districts cooperate with others in providing and using audio-visual materials. Interdistrict cooperation of this sort, however, appears to be minimal inasmuch as only 6 per cent responded "much" or "very much". Contrary to what might be expected, practices of this type are not widespread in extremely small districts although the percentage is greater (13 per cent) in districts with fewer than 150 secondary students.

More superintendents indicated "much" or "very much" cooperation with other districts in providing educational television. Specifically, 8 per cent throughout the state gave these responses and this percentage ranged from 8 per cent in districts with fewer than 250 secondary students to 15 per cent in districts with 1,000 or more students.

Finally, note should be taken of the fact that approximately 60 per cent of the teachers in the state indicated "much" or "very much" as the extent to which instructional equipment available to them is adequate. Of particular interest is the range which went from 43 per cent in districts with fewer than 250 secondary students to 66 per cent in districts with 1,000 or more secondary enrollment. Reversing the figures yields the conclusion that four out of every ten teachers may feel somewhat hampered in this regard.

Minnesota secondary schools seem, according to teachers, to do a slightly better job of providing teaching materials and supplies. Sixty-three per cent indicated that the extent to which these items are adequate for their work is "much" or "very much" and the gap between schools in large and small districts was also smaller ranging from 52 per cent in districts of the three smallest sizes to 67 per cent in districts of the three largest categories.

## R E S O U R C E S   F O R   T H E   S E C O N D A R Y S C H O O L   P R O G R A M

One of the prime difficulties entailed in studies of educational programs among secondary schools is that of taking stock of the many resources which comprise the foundation upon which good education is built. There has been a tendency, in the past, for example, to equate the quality of education being offered by programs in schools which are able to offer similar numbers and types of courses and, as a consequence, conclusions and recommendations are severely circumscribed.

Therefore, as a part of the effort expended in this study, a brief picture of how Minnesota secondary schools vary with respect to the factors which govern heavily not the numbers of courses they offer but, instead, the quality of what goes on within classrooms was assembled and is reported upon in this section. Specifically, a look will be taken at both the availability of various types of resources and at factors inhibiting or enhancing their usefulness to instruction and teaching in secondary schools.

### THE PRINCIPAL AS A RESOURCE:   VARIATIONS IN ROLES AND COMPETENCIES

There is widespread agreement among educators with respect to the significance of the principal to a school program. While it is not possible to undertake an exhaustive review of the various duties attached to this role, some review of the factors supporting his effectiveness will be of help.

One such factor having to do with the effectiveness with which principals are able to carry out their responsibilities in the area of program is the amount of time that they are assigned to classroom teaching. Table 45 shows that there is an inverse relationship between the size of school districts and the teaching load of principals.

Sixty-seven per cent of the principals reported that they do not have a classroom teaching assignment. Twenty per cent reported spending between one and 25 per cent of their time teaching and 11 per cent reported teaching assignments ranging from 26 to 50 per cent of their time. From Table 45 it can be seen that principals in the smallest districts are the most likely to have portions of their time allocated to classroom teaching.

TABLE 45  
PER CENT OF PRINCIPALS HAVING CLASSROOM TEACHING DUTIES  
BY SIZE OF SCHOOL DISTRICT

School District Size Code	Per Cent of Time Principal Assigned to Classroom Teaching			
	More Than 50	26-50	1-25	None
1	18	45	37	0
2	0	42	43	15
3	3	23	52	22
4	3	14	28	55
5	0	11	25	64
6	0	8	17	75
7	0	2	5	93
8	0	0	14	86
9	0	0	6	94
10	0	5	18	77
11	0	0	5	95
Total for State	2	11	20	67

SOURCE: Survey questionnaires.

Also related to the effectiveness with which the secondary principal is able to carry out his role is the availability of supporting personnel to assist him. Of primary importance among such positions is that of assistant principal. In this regard, data from the survey revealed that no school in a district with less than 400 secondary students had the full-time services of one assistant principal. There is even a scarcity of part-time assistant principals in the smaller schools in Minnesota. In contrast to this, 63 per cent of the schools in districts with 2,500 or more secondary students employ one full-time assistant principal and another 15 per cent reported that they employ two. In short, at least 78 per cent of the schools in this size category enhance the usefulness of their principal by employing administrative assistants. It is important to note, also, that this proportion drops sharply in moving down but one size category. Forty-five per cent of the schools in districts with between 1,500 and 2,499 secondary students employ one full-time assistant principal and another 2 per cent employ two. Schools in districts with smaller enrollments are quite unlikely to employ supporting administrators in their attendance centers.

According to figures made available by the guidance section of the State Department of Education, during the year 1965-66 there were about 230 school districts maintaining programs for secondary students which were without the services of either full or part-time counselors. This information is important

because it points up a special kind of problem which is likely to stem from the controversy over small schools. Firstly, it should be pointed out that this is not just a problem of providing adequate counseling services for students in these schools. Indeed, principals in many of these districts built time into their schedules to work in this area, performing functions such as counseling students and even interpreting test results.<sup>45</sup> Irrespective of the fact that this has been possible due in large part to the small numbers of students that typically are enrolled in such schools, the professional literature (as noted earlier) in both the fields of administration and guidance unanimously takes a dim view of efforts to combine these roles.

A further index of the different demands which school districts of varying sizes make upon the time of the principal lies in the extent to which clerical assistance is made available for his use. Data from the survey show that 10 per cent of the principals in schools in districts with fewer than 250 secondary students report that they use such help "very much" as contrasted with 81 per cent of those in districts of the three largest sizes. In short, principals in small districts when compared to their counterparts in larger districts are more often compelled by their circumstances to spend portions of their time on secretarial and clerical work.

The sum total of these facts lays grave doubts about the instructional health in small districts to the extent that activities including teaching, curriculum development, supervision, and others depend upon professional leadership originating in the principal's office. Yet, as will be seen later, it is in such situations where the dependence upon the principal as an instructional resource is by far the greatest. Under such circumstances, the probabilities that good education transpires in every classroom are undoubtedly a function of chance rather than consistent leadership to a considerably greater extent than in schools in which the principal does not spend time on clerical and secretarial duties, does not have an overwhelming teaching schedule, and is able to direct the forces of other professional administrators.

#### TEACHERS AS RESOURCES: VARIATIONS IN ROLES

The teachers of any school are considered by most authorities to be the most important educational resource. Support for this contention is, for example, shown by the fact that 93 per cent of the secondary principals indicated in responding to a survey questionnaire that teachers are a source of heavy influence upon the instructional programs of their schools.

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45. Edwin Gary Joselyn, A Survey of Testing Practices in Minnesota Public Schools, St. Paul, Minnesota: State Department of Education, 1967, pp. 110-112.



It is not surprising, then, that during the past century a continual effort has been directed at upgrading the qualifications of teachers, conditions under which they work, and factors supporting effective performance in their jobs. While great strides in these areas have been made, progress of this sort seems to be spread unevenly among Minnesota school districts.

Data from the survey indicate that working conditions of teachers leave much room for improvement. This is shown, for example, by the fact that secondary teachers throughout the state make what appears to be quite minimal use of clerical help, especially when contrasted to the circumstances under which persons with comparable degrees of professional training work in other fields and private industry. Responding to a five-point scale, secondary principals indicated that teachers in 56 per cent of the schools in the state are able to make little or no use of clerical assistance while only 12 per cent of the respondents indicated "much" or "very much" such help. Additionally, it should be noted that teachers in large districts have a very slight advantage in this regard.

Minnesota secondary teachers also lack access to the use of nonteaching personnel to check and grade the written work of pupils. In this case, 84 per cent of the principals reported that little or no use is made by teachers in their schools of such assistance while only 3 per cent estimated the extent of this use to be "much" or "very much". The variations among school districts of varying sizes were, in addition, negligible.

In summary, being a secondary teacher in Minnesota generally means being able to find time to do one's own secretarial and clerical work -- except insofar as students can be cajoled into performing these duties. A further detraction from the professional energies of both teachers and administrators lies in the practice of assigning persons in these jobs to tasks such as patrolling lunchrooms. Irrespective of school size, this work usually comprises part of each teacher's job inasmuch as 72 per cent of the principals reported that little or no use is made of nonteaching personnel for such work.

During the past ten years, several new ideas related to better utilization of the professionally-trained staff have captured the interest of educators. Among these, the prospect of increasing teacher effectiveness by employing teacher aides or other noncertificated "paraprofessionals" to handle some or all of the many routine jobs that usually subtract seriously from teacher time should be noted here. Data from the survey indicate that Minnesota teachers, irrespective of the size of school district in which they work, have not benefited from this trend. Principals in only 14 per cent of the schools indicated the extent to which such personnel are used to be "much" or "very much" while 70 per cent reported little or no such utilization -- or failed to respond to the question.

The role of a teacher includes, in many Minnesota secondary schools, being responsible for and supervising extracurricular activities. Thirty-two per cent of the superintendents responding in this survey indicated the extent to which such duties are required of teachers to be "much" or "very much" in contrast to only 13 per cent saying that such tasks are required seldom or not at all. These data also showed that teachers in small districts are somewhat more likely to be bound by such requirements than in large ones.

Related to this is the fact that 72 per cent of the superintendents reported that teachers with extracurricular assignments receive little or no reduction in their teaching loads, but this proportion differed by only a few percentage points among districts of different sized enrollments. Far more common, as a form of compensation for supervising these activities, was the practice of providing extra pay for such assignments and the extent of this policy was indicated to be "much" or "very much" by 59 per cent of Minnesota's superintendents. Additionally, it appears that this practice is more prevalent in large districts with this figure rising to 84 per cent of the superintendents in districts of the three largest categories as opposed to 49 per cent in those of the three smallest sizes. In fact, only 5 per cent of the superintendents reported little or no use of this type of policy.

A final point relative to the effectiveness with which Minnesota makes use of its teacher resources is illustrated by data gathered in the survey of secondary teachers showing the extent to which they are assigned to teach in their major subject fields. While this is discussed at more length in Chapter VI (Professional Personnel), it should be noted here that Minnesota schools vary somewhat in this respect. One out of five secondary teachers in districts with fewer than 250 secondary students reported that they are assigned to teach in their minor fields one-half or more of their teaching schedules. However, only one out of ten teachers in districts with 1,000 or more secondary students reported teaching one-half or more of their time in their minor fields. While 76 per cent in these smaller districts reported no assignments outside of their major and minor fields, this proportion was 88 per cent in the larger group of districts.

Without being able to actually step into the classrooms of Minnesota secondary schools, and, moreover, recognizing the great variation that undoubtedly exists in the teaching that would be seen in them, it is nevertheless clear that some students attend classes where the teacher is able to devote a larger share of his time and energy toward providing the best possible instruction than is the case in other situations. In short, the role of a Minnesota secondary teacher is likely to vary significantly from what might be considered an ideal of exclusively being concerned with tasks for which he both has and needs increasing amounts of advanced training and insight.

#### THE AVAILABILITY OF EXPERT HELP

Education has not escaped the general trend in our occupational structure toward expanding the numbers of different jobs and increased specialization within fields. With the growing complexity of instructional decision-making, it is becoming more and more clear that a crucial characteristic of a good educational program lies in the ability of school districts to provide specialists in general curriculum and supervision as well as experts in specific subject areas. These persons are needed in order to help teachers and administrators keep their programs relevant to contemporary demands upon secondary schools. In this regard, then, data were gathered in this survey to provide a view of how Minnesota schools vary in the resources available to their programs which affect the quality of instructional decision-making.

### THE PRINCIPAL AS AN INSTRUCTIONAL EXPERT

Virtually all secondary schools in Minnesota are headed administratively by a professionally-trained principal. The significance of this position has been solidly established, moreover, by clear agreement in the literature that this person is to be held responsible for all that takes place as a result of effort by school personnel: curriculum, teaching, guidance, discipline, attendance, etc.

Despite the obvious centrality of this role, it was noted earlier that Minnesota school districts vary considerably with respect to providing the various kinds and quantities of support that enable principals to give the highest priorities to improving the program. Another important set of factors affecting the usefulness of the principal as a source of expert help to teachers is the extent to which graduate study in curriculum and instruction has been undertaken. For example, data from the survey show that 94 per cent of the principals have taken in their graduate programs general courses in secondary curriculum. Another area of strength seems to be indicated by the fact that 89 per cent across the state reported that they had taken courses in the supervision of instruction, although this proportion was only 62 per cent in districts with less than 150 secondary students. Ranking third as an area in which large numbers have received training is the proportion, 72 per cent, that have taken school or system-wide curriculum development courses.

Two areas in which considerably smaller proportions of principals have received professional training are in constructing either complete courses of study for subject areas or in building teaching and resource units. Forty per cent reported that they had taken courses in the former of these while 44 per cent had taken courses of the latter type.

In short, it would seem that Minnesota secondary principals in general are better qualified with respect to providing leadership in areas of general curriculum planning than in areas that would help them to answer the more specific instructional questions of teachers.

### OTHER EXPERTS FOR MINNESOTA SECONDARY SCHOOLS

Three major sources of expert help to teachers and administrators working in a particular school are considered here: (1) those employed by the local district, e.g., central office supervisors, (2) consultants from the State Department of Education, and (3) professors, researchers, and others from colleges and universities. In addition, these groups may be separated into those considered to be experts in the various subjects taught and those whose speciality is, itself, general education and curriculum.

The statewide average number of persons employed by the local district that visited secondary schools during the 1965-66 school year was slightly less than one per school. Similar figures for visitors from the State Department of Education and institutions of higher learning were 1.78 and .33 visitors, respectively, per school. Data were also gathered on the numbers of visitors employed only by private

industry (e.g., textbook salesmen who provide some expert help) and by "other" miscellaneous employing agencies, but the numbers reported were extremely negligible.

The data also shows that districts in the three largest size categories are better able to provide consultation from specialists on their own staffs than those with enrollments below 1,000 secondary pupils. While specialists in large districts are likely to have larger numbers of personnel with whom they must work, it should be noted that their close geographical proximity and other factors generally permit them to visit secondary schools more frequently. Visitors on the local district's payroll also tend to be subject specialists more often than general curriculum consultants in these larger districts.

Schools in districts with secondary enrollments of under 2,500 get the bulk of their outside help from State Department of Education personnel. The fact that the schools in smaller districts tend to be visited by the least number of these consultants is partially explained by the reduced number of courses that they offer since both the majority of the personnel employed by the Department and the numbers of reported visitors are subject area specialists. For example, if a school does not offer a foreign language it is not likely to be visited by the state consultant in that area.

The impact of specialists from Minnesota's colleges and universities is considerably less than that from the other two sources. Schools in districts of all sizes depend relatively little on help from professors, researchers, and other college personnel to improve their programs, with the average number of resource persons reported for each school being less than one per year.

When a student enters school and its classrooms in Minnesota, the larger school districts are able to better guarantee that the viewpoints of a variety of persons from outside of his school have been considered in determining the program that he will encounter. If secondary educational programs in this state are to progress, a prime problem of statewide planning exists in determining: firstly, from which sources to supply schools with new ideas and insights about their programs; secondly, which steps to take to maximize the flow of these ideas into the schools; and thirdly, to ascertain which ideas have been accepted and rejected.

#### VARIATIONS IN THE PROCESSES BY WHICH SCHOOLS DETERMINE WHAT IS TO BE TAUGHT

Since the advent of the first Russian Sputnik vast numbers of new efforts to write curricula on the part of committees comprised of university scholars and educators on the national level have occurred and have received considerable attention. These developments have not, however, completely negated the importance of this part of the local program. Even with the advent of newly available materials in many fields, personnel in the local school have many decisions to make about what is to be taught, to whom, and in what way.

While traditionally little has been known about the actual processes by which the curriculum is developed in secondary schools, it has been clear that for decades the textbook author has been exceedingly influential. In short, the process of curriculum development has been for many schools limited to selecting textbooks for its courses. Yet, this widespread practice has been uniformly condemned in the literature as grossly insufficient.

Processes that have been recommended vary somewhat, but there is general agreement that curriculum decisions at the local level ought to result from a sequence of steps such as the following:

1. Develop statements of educational goals for the local school district as a whole.
2. Examine existing courses, materials, and practices in terms of the extent to which they enable the goals to be attained.
3. Revise, combine, develop new, and/or delete courses, materials, and practices in order that the educational goals might be more effectively and efficiently attained.
4. Evaluate changes that are made in terms of the goals.

Secondary principals were asked about the existence of a written set of educational objectives for their schools. Fifty-eight per cent of the principals reported that their schools have written statements of goals. In general, this is more often the case in larger districts.

Data from the questionnaire to secondary school teachers support these figures. They were asked if they had ever read a written set of educational objectives prepared for their school. While approximately 72 per cent of all the teachers indicated that they had read such a statement, the percentage increased as the size of the district increased.

With respect to curriculum development for the individual classes of each teacher, data were gathered showing the percentage of teachers who indicated that they had prepared written educational objectives for each course that they teach. Sixty-one per cent of the sample of teachers indicated that they had undertaken this task. Again there is some association between school district size and the probability that written objectives have been formulated.

The steps in the process of curriculum development beyond developing statements of educational goals deserve further comment. Firstly, it appears that few schools seriously consider the possibility of deleting or combining courses in their programs. Instead, the total curriculum is expanded with new courses, especially in the eleventh and twelfth grades and in larger schools. Courses currently in the program are often promoted by their teachers and loyal followings tend to develop which militate against the possibilities of combining or deleting courses in order to better attain objectives. Moreover, modifications in the program of offerings, other than addition, are extremely complex to measure in terms of achieving objectives.

Thus, the primary focus of this inquiry into curriculum development at the local level has to do with examination of ways in which materials and practices are decided upon for inclusion in the program. Principals were asked to indicate how curriculum development was accomplished in their schools. Over 50 per cent indicated that it was an activity undertaken by groups of teachers who adopt and revise material. This practice is much more frequent in the larger districts, due in part to the increase in faculty size.

Data also seem to indicate that the influence of the textbook is greater in smaller districts. While 32 per cent of all principals indicated that curriculum development consisted of following textbook outlines; this was the case in over one half of the schools with enrollments of fewer than 250 secondary school students.

Other data support the validity of this information. Secondary teachers were asked for examples to indicate the types and sources of curriculum guides they use. Among the options available for them to check was one which indicated that the written guide used was contained in their textbooks. While 49 per cent of the teachers in schools from districts of the three smallest sizes indicated that they follow closely such textbook outlines, the corresponding average for teachers in schools from the three largest sizes of districts was 33 per cent.

Curriculum development can also be seen as a process which in large districts is more likely to involve department chairmen and central office personnel whereas small districts rely more heavily on building administrators.

Any discussion of how secondary schools develop their programs would be glaringly incomplete if note were not taken of the implications that stem from the compartmentalization inherent in the nearly universal organization by separate subjects. Curriculum writers have deplored for years the relative absence of provisions in secondary schools to eliminate the isolation under which instructional planning in the various subjects and grades takes place.

In this regard, then, principals estimated the extent to which teachers working in the same subjects but at different grade levels coordinate both their content and methods in order to prevent unwanted duplications or haphazard sequences. Across the state, approximately one out of three principals estimated the extent of such coordination to be "much" or "very much". The range was from 22 per cent of the schools in districts with fewer than 250 secondary students to nearly 50 per cent of those in districts with 1,000 or more such students.

Similarly, the principals also estimated the extent to which teachers in different subjects coordinate their work. Only 9 per cent indicated "much" or "very much" in this regard and the variation among different sizes of districts was not striking.

Estimates similar to these were also obtained from the principals with respect to the extent of cooperation with educators and others not associated with secondary schools. Here it was found, for example, that in 18 per cent of the state's secondary schools principals feel that the extent to which their teachers

articulate their work with that which is encountered by students who attend college is "much" or "very much". Additionally, this proportion was somewhat smaller among districts with 1,000 or more secondary students.

Less than half as many principals, 7 per cent, reported the same extent of articulation and cooperation between teachers in their schools and those in vocational and trade schools. In contrast to this, nearly 50 per cent reported little or no such efforts. Nearly the same situation appears to exist with respect to efforts by which the secondary program is developed in cooperation with representatives of employers and private industry.

A similar lack of coordination and articulation also seems to characterize the relationships between secondary school personnel and those employed at the elementary level or in "feeding" parochial schools. With respect to the former of these, 15 per cent of the principals indicated "much" or "very much" as the extent to which reciprocal planning takes place. While it might be expected that this would be more common among small districts because of the more frequent sharing of the same building between secondary and elementary teachers, this proportion was even lower at 12 per cent and this especially highlights the virtual isolation with which many teachers go about their planning. Similarly, while large districts are more often able to employ curriculum directors, this estimate among principals in the three largest sizes of districts was only slightly higher at 19 per cent.

The extent of articulation with the programs in parochial schools appears to be even lower. Six per cent of the principals reported "much" or "very much" as the extent to which this cooperation takes place and this ranged from 2 per cent in districts with fewer than 250 secondary students to 8 per cent in districts with 1,000 or more secondary enrollment.

#### FACTORS WHICH INFLUENCE SECONDARY PROGRAMS

In order to gain further information about the general process of curriculum development in Minnesota secondary schools, data were gathered in this survey showing the extent to which teachers and principals perceive various factors to be influential in determining what is taught and how. While the factors treated here do not comprise a complete list, some idea of their relative importance emerges and this, in turn, may point the way for further study and better curriculum planning. In addition, some discrepancies of viewpoints with respect to the relative force exerted by some of these factors has also been noted.

#### STUDENT NEEDS

Minnesota secondary principals generally feel that students' needs exert an important effect upon what transpires in their schools. In this regard, it was found that 70 per cent indicated "the extent of this influence to me was much or very much." In contrast to this, however, only 42 per cent reported that a follow-up study of graduates had been conducted in their schools during the past five years, and, thus, the general question of the sources of information about

student needs arises. It would appear, in other words, that while most schools give lip service to this factor as a basis upon which their programs are constructed, considerably fewer schools actually undertake the task of gathering systematic data with respect to these needs. Secondary teachers were less likely in general to report that they are influenced in their work by such information with 36 per cent indicating "much" or "very much" as the extent of this influence.

#### COLLEGE ENTRANCE REQUIREMENTS

Fifty-one per cent of the secondary principals reported that college entrance requirements exert "much" or "very much" influence upon programs in their schools. In addition, this factor appears to influence the programs of small schools somewhat more frequently than is perceived by principals in large districts. Again, however, a smaller proportion of teachers, 29 per cent, indicated this to be an important factor in their work.

#### WRITTEN CURRICULUM GUIDES

For the state as a whole, 33 per cent of the secondary principals indicated the extent to which programs in their schools are influenced by written curriculum guides to be "much" or "very much". This ranged from 32 per cent of those in districts of the three smallest sizes to 38 per cent in districts with 1,000 or more secondary students. Secondary teachers giving these responses were in close agreement with this. Thirty-seven per cent of the total sample of teachers indicated these degrees of influence. The range between large and small districts went from 30 to 41 per cent, thus giving some support to the notion that curriculum guides tend more frequently to influence programs in large schools.

Forty-three per cent of the teachers reported that they had read locally prepared written guides for their subjects during the past three years. However, this proportion was 61 per cent in districts with 1,000 or more secondary students as compared with only 11 per cent in districts with secondary enrollments of less than 250. Thirty-six per cent reported that they follow these guides closely but this proportion was less than one per cent in the group of small sized districts as contrasted with 51 per cent in the larger enrollment group.

With reference to the influence of guides prepared by the State Department of Education, teachers in small schools are more likely to follow and read them. For the state as a whole, 56 per cent had read such a guide during the past three years, but this proportion was 67 per cent in the small enrollment group of districts as compared with 49 per cent in the larger districts. Forty-six per cent indicated that they follow state guides closely in districts of the three smallest sizes while only 21 per cent of the teachers in districts of the three largest enrollments do the same.

Over half of the teachers reported that they had read guides prepared in school systems other than the ones in which they teach. This was more likely to occur in the large enrollment group of districts, with 57 per cent so responding compared with 36 per cent of those in the small enrollment group of districts.



Only 6 per cent reported for the state as a whole that they follow guides of this sort.

Note should also be taken of the fact that about seven out of ten secondary teachers indicated that they "prepare their own guides as the year evolves rather than follow a guide prepared by others."

While 61 per cent of the principals reported that most of the curriculum guides available in their schools were prepared by the State Department of Education, the heavy reliance of small schools upon these materials is evidenced by the fact that this figure was 77 per cent in districts with fewer than 250 secondary students as compared with 34 per cent in districts with 1,000 or more secondary students. In contrast to this, 54 per cent of the principals in the large enrollment categories reported that most of the guides available in their schools were developed locally while only 2 per cent of those in the small enrollment group of districts responded similarly. For the state as a whole, 25 per cent indicated that most of their guides had been developed locally. Finally, it should also be noted that while 51 per cent of those in the large enrollment group indicated that one or more written guides were in the process of development, activities of this type were reported by only 10 per cent of the principals in the small enrollment group.

#### TEXTBOOKS

A final factor to be noted here is the influence of textbooks. Fifty-six per cent of the principals across the state indicated "much" or "very much" as the extent to which the programs in their schools are subject to this influence. There was little variation with respect to the various district sizes in this proportion. These perceptions seem to be shared by a similar proportion of the secondary teachers with 48 per cent giving the same responses. Some variation is, however, to be noted here, inasmuch as 57 per cent of the teachers in the small enrollment group of districts indicated "much" or "very much" in this regard as compared with 42 per cent of those in the large enrollment districts.

#### DROPOUTS

"In America today, the school dropout looms as one of the nation's major problems. Presidents of the United States, congressmen, governors, labor and business officials, educators, social workers and juvenile court judges have expressed their concern publicly and frequently."<sup>46</sup> It is with this statement that one of the nation's foremost authorities on school dropouts begins to discuss this significant topic. Schreiber continues on to point out that both of the last two presidents saw fit to call for action to prevent dropouts in their

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46. Daniel Schreiber, "The School Dropout," The Educationally Retarded and Disadvantaged, Chicago: The National Society for the Study of Education, 1967, p. 211.

State of the Union Messages.<sup>47</sup> After praising America's efforts to provide free education to all its youth, President Johnson told the Congress in 1965 that:

There is a darker side to education in America:

One student out of every three now in the fifth grade will drop out before finishing high school -- if the present rate continues.

Almost a million young people will continue to quit school each year -- if our schools fail to stimulate their desire to learn.

In our 15 largest cities, 60 per cent of the tenth grade students from poverty neighborhoods drop out before finishing high school.

The cost of this neglect runs high -- both for the youth and the nation.<sup>48</sup>

The above statements and information lead quite naturally to a consideration of school dropouts in Minnesota. It was beyond the scope of this survey to undertake what might be called a truly comprehensive study of school dropouts, including the facts which have led to their status and the successes or failures of present educational programs. It was possible to gather some basic numerical data by combining information regarding the number of students that withdrew during the 1965-66 school year, as reported to the State Department of Education, with information about the number of students who fail to return to school at the end of the summer as reported by Minnesota secondary school principals in a written questionnaire.

Before proceeding further, it is helpful to clarify the meaning of the term, "dropout." The definition quoted below was formulated in a joint effort of the National Education Association and the United States Office of Education:

. . . a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school.

The term "dropout" is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from secondary school (grade 12) or before completing an equivalent program of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school

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47. Ibid., pp. 211-212.

48. New York Times, January 13, 1965; cited in The Educationally Retarded and Disadvantaged, Chicago: The National Society for the Study of Education, 1967, p. 212.

attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work.<sup>49</sup>

During the 12 months from September 1965 through the end of August 1966, it appears that approximately 3 per cent of the students enrolled in grades 7 through 12 in Minnesota public secondary schools became dropouts. More specifically, as can be seen in Table 46, out of 548 secondary schools responding to dropout items in the survey, with a combined average daily attendance of 320,100 students, 8,698 students in grades 7-12 left school for reasons other than death without enrolling in another secondary school. Approximately seven out of every ten such dropouts withdrew during the school year while slightly less than three out of ten failed to return to school after the summer vacation. Table 46 indicates that 2.0 per cent of the secondary students in districts with fewer than 150 secondary enrollment dropped out and this rises to 3.4 per cent in districts with more than 2,499 secondary students, averaging out for all districts to 2.7 per cent of the ADA.

Information furnished by the Minnesota Department of Education showed the number of withdrawals during the months of the school year. It is of interest to comment with respect to the various breakdowns that occur within this group of dropouts. Nearly 55 per cent of the total number of dropouts were classified by school officials into a category which states, simply, that they "quit school after passing the compulsory attendance age." This categorical label tells practically nothing about why these students left inasmuch as reaching the age limit where one is no longer compelled by the law to attend school does not, in this day and age, explain why a student might quit.

Approximately 18 per cent of the students dropping out of school during this school year did so for one of the following "reasons" as reported to the State Department of Education by secondary school administrators: (1) issued work permit; (2) physical or mental disability; (3) drafted or enlisted into military service; (4) marriage; and (5) reason unknown. Again, the same objection should be raised about the vagueness of the "categories" or "reasons" for these dropouts. Why, for example, should the fact that a student is issued a work permit be accepted as a reason for his withdrawal from school? Moreover, there is no legal foundation from excluding Minnesota students who marry from school. In short, the categories of reasons used in this state to classify dropout information while they may describe or label a certain factor present at the time a student drops out, do not in any sense explain the reasons for such a dropout.

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49. "Pupil Accounting for Local and State School Systems," compiled by John F. Putman and George C. Tankard, Jr., Office of Education, United States Department of Health, Education, and Welfare, State Educational Records and Report Series, Handbook V, Bulletin 1964, No. 39, Washington, D.C.: Government Printing Office, 1964, pp. 96-97; cited in The Educationally Retarded and Disadvantaged, Chicago: The National Society for the Study of Education, 1967, p. 216.

TABLE 46

## SECONDARY SCHOOL DROPOUTS, SEPTEMBER 1965 THROUGH AUGUST 1966

Category	Sample Size		Number of Dropouts			Dropouts As a Per Cent of ADA
	High Schools	ADA	During School Year	During Summer	Total	
1	29	3,275	47	18	65	2.0
2	47	8,104	51	50	101	1.3
3	40	8,554	76	48	124	1.4
4	36	8,943	111	65	176	2.0
5	57	18,181	189	136	325	1.8
6	43	16,496	239	142	381	1.8
7	44	21,348	284	213	497	2.3
8	50	27,351	318	194	512	1.9
9	33	23,430	343	155	498	2.1
10	45	35,712	701	258	959	2.7
11	124	148,707	3,880	1,180	5,060	3.4
Total for State	548	320,100	6,239	2,459	8,698	2.7

SOURCE: Survey questionnaires and data from State Aids, Statistics, and Research Section, St. Paul, Minnesota: State Department of Education.

Perhaps the largest condemnation of the withdrawal categories now used for classifying dropout information is to be seen in the fact that 27 per cent of the withdrawals during the school months were "explained" by the label: "Left school for reasons known, but not covered by any of the withdrawal categories." In other words, at the very best the withdrawal categories give absolutely no information about one-fourth of those dropping out between September and June -- while school is in session. It is also somewhat distressing to note that this proportion is heavily influenced by the large number of dropouts from schools in districts with more than 1,499 students. One wonders, for example, if this is not the category into which students who are "pushed out" of school are classified and, further, if it would not be somewhat embarrassing for many schools to have to report the numbers of such students.

Quite clearly, one of the most serious problems facing this state with respect to dropouts is simply that of being without information about its dropouts. Knowing that between 8,500 and 9,000 students will become dropouts during the next 12 months would seem to be relatively useless information unless educators are well informed as to the reasons for which these students leave school. This grim situation has a parallel in the many exhortations to identify dropouts early in their school careers without accompanying recommendations relative to what should be done for these students after they are identified.

One of the real dangers lies, also, in assuming that having 3 per cent of the secondary school population leave school during a calendar year is not too serious a situation. This involves a very large number of young people. Moreover, they become more of a problem in what one writer has termed our "credential" society.<sup>50</sup> Schreiber points out, for example, that "one of the first questions asked of an applicant for a job is whether or not he has a high school diploma and, if he does not have one, the interview usually ends quickly even though a job many not require a secondary school education."<sup>51</sup>

There is perhaps no more commonplace recommendation in education today than that of keeping young people in school longer. Again and again, the grim prospects that lie ahead for the dropout have been documented. Yet, there is another dimension which makes educators even more uncomfortable that has been summed up by one writer who noted that it is impossible to count dropouts because most of them stay in school.<sup>52</sup> In other words, the dropout problem is not a mere matter of getting young people to stay in school but extends, also, to the problem of getting them involved in what is happening within that school.

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50. Schreiber, op. cit., p. 213.

51. Ibid., p. 213.

52. Earl Kelley paraphrased by Ernest O. Melby, "The Deprived Child: His Gift to Education," The Community School and Its Administration, Volume 4, August 1966, p. 2.

## CHAPTER IV

### V O C A T I O N A L ,   T E C H N I C A L ,   A N D A D U L T   E D U C A T I O N

The explosion of population, the explosion of technology, and the explosion of knowledge pose problems for education which it has never had to face before. Every facet of education must be improved if a democratic society is to survive. It is not enough to educate an elite. Rather, the concept of universal education must be improved and extended. Unfortunately, according to Trump and Baynham:

We have given universal education a single, flat dimension -- that every boy or girl has an equal right to spend a certain number of years under a school roof. That concept today is ripe for re-examination. There are at least two other dimensions in the idea of universal education:

The maximum attainment of each student's talents, no matter how unequal that maximum may be.

The development of each student's ability to go it alone, to understand education as a process that continues long after school years.

Changes are especially urgent because schools must provide education for vastly increased numbers of persons, for longer spans of productive life, at far higher levels of understanding, competence, and skill -- and always with the goal of strengthening our democratic way of life.

The task calls for a realignment of educational priorities and a re-examination of school functions and needs.<sup>1</sup>

Education must be concerned with the individual and must be structured to give each student the opportunity to develop fully. This cannot be accomplished with a single educational pattern designed to prepare all students for college

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1. J. Lloyd Trump and Dorsey Baynham, Focus on Change, Chicago: Rand-McNally and Company, 1961, pp. 4-5.

when it is known that not all of them are going to college. It cannot be accomplished with an educational program which prepares students for occupations which no longer exist. It cannot be accomplished with an education which prepares students for nothing, under the pretense of preparing them for everything. It cannot be accomplished with an education which prepares students for a static world when it is recognized that the world is dynamic and constantly changing.

### SCOPE AND PURPOSE OF VOCATIONAL, TECHNICAL, AND ADULT EDUCATION

"Vocational education" in its broadest interpretation may encompass any and all types of education which have as their major purpose preparation for earning a living or for the upgrading of persons in their existing occupational situations. In this context, "vocational education" can be considered as old as man himself since his very existence has always been dependent upon his being able to provide food, clothing, and shelter for himself and his family. The process of handing down the necessary skills from father to son or mother to daughter, however, is far different from the complex organized educational programs required today in many skilled, technical, and professional areas of human endeavor.

"Technical education" may be considered by some as a special aspect of vocational education; others consider it as something "beyond" vocational education. Most agree, however, that it contains an increasing emphasis upon theoretical and abstract knowledge and a lesser emphasis upon the manipulative skills. Some would define technical education as preparation of the "technician" or the paraprofessional or subprofessional person.

"Adult education" takes many forms. Sometimes it is an evening program in the high school to provide opportunities to earn high school credits leading possibly to a high school diploma. For others, adult education may be in the form of teaching for the development of hobbies or recreational skills. For still others, it may consist of evening vocational courses for retraining for new types of employment or for upgrading skills in certain occupations.

Where these different kinds of education are offered varies from state to state and community to community. Sometimes the programs are parts of the offerings of a general or comprehensive high school. In other cases, the school may be an area vocational-technical school and may cater primarily to high school graduates. In still other situations, the programs may be a part of a community or junior college or a technical institute. Occasionally such programs may be found in conjunction with four-year (baccalaureate) programs in colleges or universities. Many private trade schools also offer specific training programs.

In the last analysis the basic and controlling purpose of vocational, technical, and (to a great extent) adult education is to prepare persons for entry into useful employment or to assist in upgrading their competencies after initial employment so that they may better advance in the world of work.

Vocational education helps to give definite purpose and meaning to the term education by relating training to specific occupational goals. In addition to training for job skills, such programs also help develop adequate understandings, appropriate attitudes, good work habits, and worthwhile appreciations which contribute not only to successful employment but also to a satisfying and productive life.

Adult workers in any field, through training in skills and knowledge related to their occupations, should be given an opportunity to keep up with technological advances and other developments in their occupations. This will provide a chance for them to become more productive, to prepare themselves for advancement, and to increase their earning capacity.

Industry, business, agriculture, and the home all need men and women with thorough general academic training and a high degree of manipulative skill, technical knowledge, and adaptability. The percentage of unskilled workers in the labor force is steadily declining; the percentage of skilled and semiskilled workers is increasing. Technological advances will continue to increase the demand for highly skilled technical workers. Distributive services call for an increasing emphasis on specific training, knowledge of marketing, and mastery of sales skills. The demand for office employees at all levels is expected to continue and probably increase. The mobile family, women combining work with homemaking, technological changes in the home, the high divorce rate, and more leisure time have all had a strong impact on the home and are related to the need for more extensive vocational instruction for women.

As the complexity of life increases, the means by which youth and adults may become productive citizens also become more diverse and more complex. As a result of the extremely rapid development of mechanization, not only on the farm and in industry but also in the home and office, well-organized and well-equipped programs of vocational, technical, and adult education have increasingly become essential to the maintenance of the economy.

Vocational education programs treated in this chapter are limited to those provided for young persons enrolled in regular high schools as well as those in area vocational-technical schools for out-of-school youth and adults, both employed and unemployed. Other programs, which are not under the jurisdiction of Minnesota school districts, are not included in this study.

#### DEVELOPMENT OF THE AREA VOCATIONAL-TECHNICAL SCHOOL IN MINNESOTA

The idea of the area vocational-technical school was introduced in Minnesota with the establishment of the Minneapolis Vocational High School and Technical Institute in 1914. The second such school is now known as the Dunwoody Industrial Institute and is also located in Minneapolis.

In 1921 the St. Paul Vocational School was established and a little later vocational classes were also started in the high schools of Duluth. World War II provided major impetus to vocational training all over the state due to the



urgency of training defense workers. Most of the emphasis through the war years was on training high school students or adults over 21, with little attention being given to the 18-21-year-old group.

In 1945, the state legislature reviewed the situation and found that 93 per cent of available vocational education was centered in the three cities of the first class. In order to correct this inequity, the Area Vocational-Technical School Law was passed in the same year.

In 1951, six area vocational-technical schools had been established. This number increased to 11 by 1961, and by the 1966-67 school year there were 24 schools in operation.

The State Legislature, in its enactment describing the purposes of the area vocational-technical schools, states:

It is the purpose of this section (of the law) to more nearly equalize the educational opportunities in certain phases of vocational-technical education to persons of the state who are of the age and maturity to profitably pursue training for a specific occupation. If the state finds, as a result of its inquiry, that the establishment of an area vocational-technical school, according to the petition, would further the educational interests of all the people of the state, and is in accordance with the plans and program of the state department for the vocational and technical education of the people, it may approve the petition.<sup>2</sup>

The Minnesota area vocational-technical schools are to provide high quality vocational-technical education -- day and evening classes. These classes are for (1) preparatory training of high school and post-high school students, (2) extension training of adults for upgrading their skills, and (3) retraining of adults for meeting the changing demands of industry.<sup>3</sup>

Area vocational-technical schools grew out of a need for post-high school education in agriculture, home economics, health, office, distributive, trade, industrial, technical, and service occupations. In 1945 two bills were passed by the state legislature that enabled public school districts to operate schools which would offer training in these fields for high school graduates as well as for students still in high school.

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2. Minnesota Statutes, Section 121.21, Subdivision 3.

3. A Study of the Need for Area Vocational-Technical School Expansion in Minnesota, Code XXIX-A-1, St. Paul, Minnesota: State Department of Education, 1964, p. 2.

Area vocational-technical schools are operated by local school districts but their establishment must be approved by the State Board for Vocational Education. The State Board for Vocational Education, whose members are also the members of the State Board of Education, has established criteria which must be met before a new area vocational-technical school can be established. These criteria are intended to assure that new schools will have the necessary financial resources and student base and will not duplicate existing vocational-technical programs being offered in schools within a 35-mile radius.

The State Board for Vocational Education, acting through the State Department of Education, also administers federal funds for vocational programs. The board must approve programs before federal funds are granted and determines the amount of reimbursement.

Post-high school vocational-technical education in Minnesota is provided also by agencies and institutions other than the area vocational-technical schools. These agencies and institutions include the University of Minnesota, the state colleges, some private colleges, a few junior colleges, and private trade and technical schools. Such preparation is made available also by industries through special schools and apprentice systems.

Data in Table 47 show that by the school year 1962-63 the total enrollment in approved reimbursed vocational classes in the high schools and area vocational-technical schools of Minnesota had reached 156,832, but only 3,709 of these trainable youth were post-high school enrollees in area vocational-technical schools. Thus, 98 per cent of the reimbursed vocational training offered in public schools in 1962-63 was provided within the comprehensive programs of the state's high schools. By 1965-66 the total enrollment in approved reimbursed vocational classes had reached 181,198 (a growth of 16 per cent in four years); but this growth has been, for the most part, in the comprehensive school offerings rather than in the area schools. Only 6 per cent of the growth during the 1962-1965 period has taken place in increased enrollments of the area schools.<sup>4</sup>

The American public has become increasingly aware of a greater need for skilled workers and technicians. This need has been produced by the decline in jobs for unskilled workers, the growing industrialization, and the sweeping technological advances that have taken place during the last ten years. Consequently, vocational education, particularly at the post-high school level, has received much attention during recent years as a means of preparing larger numbers of skilled workers and technicians. All available evidence indicates that the trends toward requiring more technical training and larger numbers of skilled persons will continue in Minnesota and throughout the nation.

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4. Data from the Division of Vocational-Technical Education, St. Paul, Minnesota: State Department of Education.

TABLE 47

## ENROLLMENTS IN APPROVED REIMBURSED VOCATIONAL CLASSES IN THE PUBLIC SCHOOLS OF MINNESOTA

Program	E n r o l l m e n t s   b y   S c h o o l   Y e a r											
	1962-63			1963-64			1964-65			1965-66		
	Post-			Post-			Post-			Post-		
	High School	High School*	Adult**	High School	High School*	Adult**	High School	High School*	Adult**	High School	High School*	Adult**
Agriculture	14,480	12	11,494	14,552	0	13,984	14,910	28	12,955	14,516	56	11,120
Distributive	1,005	23	4,833	1,169	32	5,713	1,524	24	4,824	2,073	17	4,250
Health	46	544	138	34	656	232	51	584	304	36	709	120
Home economics	70,556	0	18,017	76,308	0	18,722	77,638	0	20,619	79,367	0	18,632
Office	7,491	215	4,377	8,539	241	4,992	9,573	645	4,624	11,569	1,048	6,529
Technical	0	719	4,252	0	722	4,379	3	503	4,741	13	508	4,711
Trade and industrial	<u>1,715</u>	<u>2,196</u>	<u>14,719</u>	<u>1,083</u>	<u>2,879</u>	<u>13,512</u>	<u>1,257</u>	<u>2,882</u>	<u>20,790</u>	<u>1,500</u>	<u>2,733</u>	<u>21,691</u>
TOTAL BY GROUP	95,293	3,709	57,830	101,685	4,530	61,534	104,956	4,666	68,857	109,074	5,071	67,053
GRAND TOTAL	156,832			167,749			178,479			181,198		

SOURCE: Financial and Statistical Reports submitted to the United States Office of Education, St. Paul, Minnesota: Division of Vocational-Technical Education, State Department of Education.

\* Full and part-time post-high school students enrolled in area vocational-technical schools.

\*\* All adults enrolled in supplementary vocational training programs, either in area vocational-technical schools or in local school district adult programs.

Earlier in this chapter it was pointed out that through World War II the major emphasis in vocational-technical training in Minnesota was on youth of high school age (usually under age 18) and adults (those 21 years or older). In recent years this trend has been greatly changed, largely because of the work of the area vocational-technical schools. In 1966-67, the 18 to 21 age group comprised 71 per cent of the daytime enrollment of the area vocational-technical schools and the high school age group was only 13 per cent of the daytime enrollment.<sup>5</sup> The remaining 16 per cent of students who enrolled in the area schools consisted of those over 21 years of age.

In 1966-67 there were in operation in Minnesota 24 area vocational-technical schools. The State Board for Vocational Education plans, by 1970, to have 27 such schools in operation. These schools are so located that 93 per cent of all those eligible to attend will be within 35 miles (commuting distance) of one or more schools.

Figure I shows the locations and opening dates of the 24 schools in operation in 1966-67 and the four to be opened in the near future. The area vocational-technical school at Grand Rapids will be merged with the junior college in July 1967, and thus becomes a part of the state's junior college system.

In general, area vocational-technical schools have been established in the areas of concentration of potential students. Two studies were conducted for the State Board for Vocational Education by the State Department of Education: one in 1958<sup>6</sup> and the other in 1964.<sup>7</sup> The 1958 study included a comprehensive analysis of Minnesota's need for vocational-technical education and made recommendations regarding function, course offerings and content, facilities and equipment, counseling and guidance, placement, finances, and training programs. It made suggestions also about locations for new area schools. The 1964 study was concerned primarily with the locations for new schools and the computation of the percentage of 18-year olds that would be within a 35-mile radius of existing and projected schools.

#### ADMISSION POLICIES OF AREA VOCATIONAL-TECHNICAL SCHOOLS

State law requires that area vocational-technical schools be open to residents throughout the state, not only from the local school district, "providing the area school has the room and facility to receive such student . . ."<sup>8</sup>

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5. Unpublished enrollment count, 1966-67, Division of Vocational-Technical Education, St. Paul, Minnesota: State Department of Education.

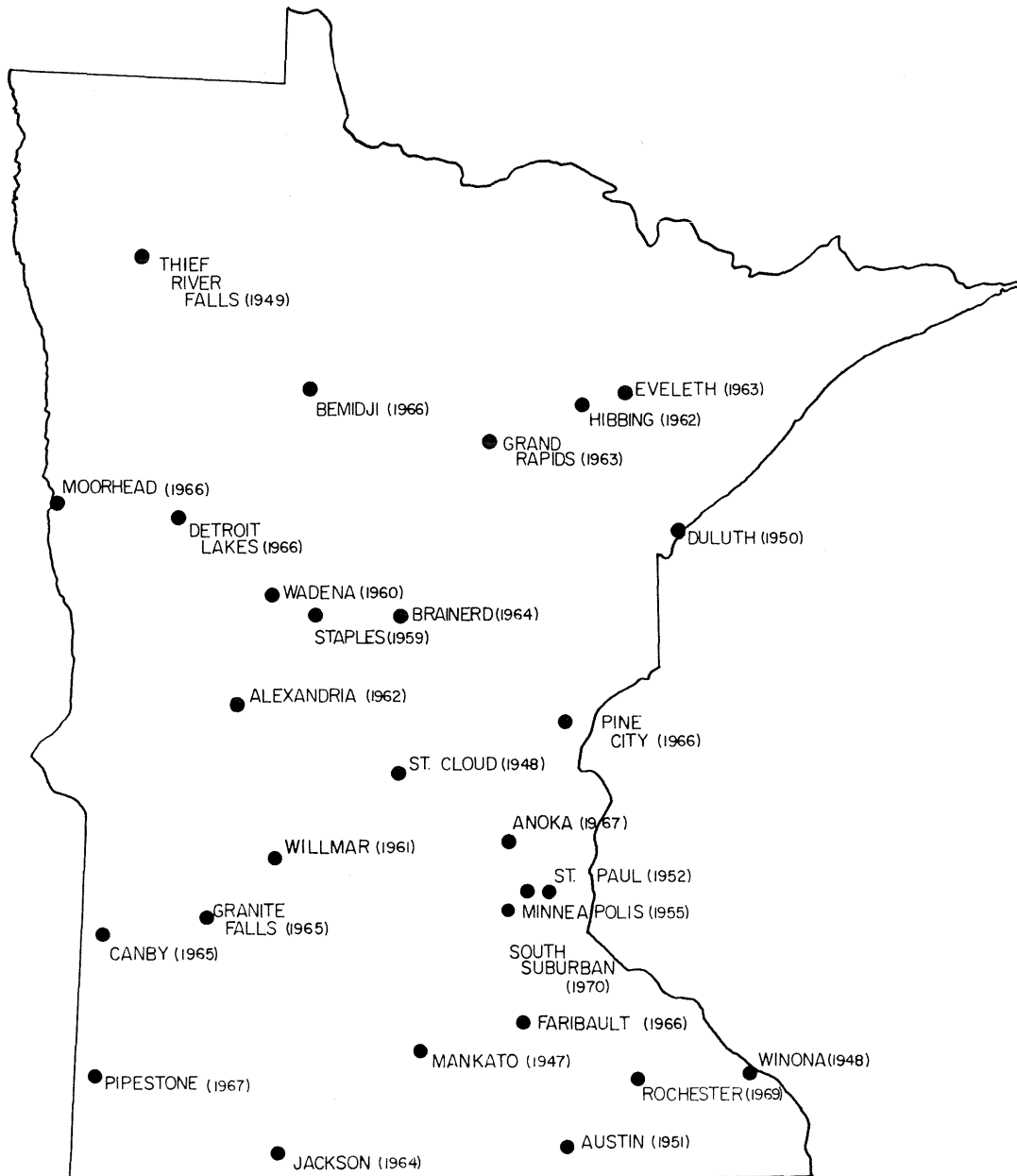
6. Minnesota's Area Vocational-Technical Schools, St. Paul, Minnesota: State Department of Education, 1958.

7. A Study of the Need for Area Vocational-Technical School Expansion in Minnesota, op. cit.

8. Minnesota Statutes, Section 121.21, Subdivision 9.

FIGURE 1

LOCATIONS AND OPENING DATES OF AREA VOCATIONAL-TECHNICAL SCHOOLS IN MINNESOTA



"Nonresident students may attend without payment of tuition any area vocational-technical school that can accommodate them. All state and federal aid up to cost will be paid to the area school where the student attends."<sup>9</sup>

High school dropouts may also attend area schools tuition free if they have been out of school for at least a year and have reached age 18 but have not attained their twenty-first birthday.

The State Board for Vocational Education has established regulations regarding who is to be accepted by the vocational-technical schools. These regulations state that persons must be "qualified for vocational courses and available for full-time training for employment."<sup>10</sup> Area schools need not accept students who cannot be expected to profit from training in the occupations of their choice. Such students are usually counseled regarding possibilities in other occupations or they may be enrolled on a probationary basis.

Applicants are not admitted to a vocational-technical school per se. They are admitted to certain course offerings, such as fluid power mechanics or cosmetology. A person who is denied admission to any course offering is, in effect, denied admission to the entire school.

According to the responses on the survey questionnaire sent to teachers of the area vocational-technical schools, 60 per cent of them stated a belief that high school graduates who come to the vocational schools have skills of reading and mathematics sufficient to do work in their school. While 94 per cent of the teachers indicated a belief that the high school graduates do average or better work in these subjects, 56 per cent of the teachers believe that high school nongraduates have below average skills in reading and mathematics. Sixty-nine per cent of the teachers indicated that a certain standard of accomplishment, especially in reading and mathematics, should be met by all applicants before they are enrolled.

In considering the applications of potential entrants to the area schools, the directors of the schools have a variety of information which each director may consider essential in acting upon a student's application. According to the responses on the survey questionnaires administered to the area school directors, the following types of items are requested before the application is processed:

<u>Item</u>	<u>Per Cent of Directors Requesting</u>
Transcript of credits	95
Staff evaluation of behavior traits	81
Record of attendance	81
Standardized test scores	76
Rank in class	67
Recommendation by principal or counselor	57

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9. Administrative Manual for Minnesota Public Schools, St. Paul, Minnesota: State Department of Education, 1966, p. 55.

10. Minnesota State Plan for Vocational-Technical Education, St. Paul, Minnesota: State Department of Education, 1964, p. 19.

Work study programs, provided through the Vocational Education Act of 1963, have been operating in 22 of the state's area schools, with over 600 students participating in the program. The program is designed to provide financial assistance through part-time employment so that students may be able to commence or continue their training on a full-time basis.

Several training programs of the Manpower Development and Training Act of 1963 are being operated in area schools. These programs are designed to train unemployed, unskilled persons and to retrain those whose occupations have become obsolete. Twenty-two of the schools were offering 83 different courses for 871 such persons during 1966-67. The Minnesota Employment Service develops the programs, recruits the persons, and, after training by the area vocational-technical schools, places them on jobs.

#### EDUCATIONAL PROGRAMS IN AREA VOCATIONAL-TECHNICAL SCHOOLS

Those programs which traditionally prepare persons for direct employment are the ones generally found in the Minnesota area vocational-technical schools. A tabulation of the area school offerings for the 1966-67 school year follows:<sup>11</sup>

<u>Occupational Field</u>	<u>Number of Schools</u>	<u>Occupational Field</u>	<u>Number of Schools</u>
Agricultural related	13	Mechanics and machinery	
Appliance repair	6	repairmen	22
Bakery procedures	1	Medical laboratory assistants	2
Barbering	1	Needle arts	1
Business, accounting, clerical, and secretarial	18	Nursery-landscape technology	1
		Nursing, practical	14
Chefs and cooks	7	Optical technology	1
Chemistry, industrial	1	Paper and pulp technology	1
Construction industry	12	Printing and graphic arts	
Cosmetology	6	occupations	4
Cabinet making	2	Retail floristry	1
Data processing	11	Selling and related work	9
Dental assistants	2	Sheet metal	2
Drafting, architectural,		Shoe repair	1
mechanical, and technical	16	Tailoring	1
Electricity and electronics	14	Upholstering	1
Fluid power technology	2	Watch repair	1
Highway technology	2	Welding	14
Machine trade occupations	11	Writing, technical	1

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11. Minnesota's Area Vocational-Technical Schools, 1966-67, St. Paul, Minnesota: State Department of Education.

It can be seen from the foregoing listing of area vocational-technical school offerings that 34 occupational fields are represented. The seven fields offered in more than one-half of the schools are: (1) agricultural related; (2) business, accounting, clerical, and secretarial; (3) drafting, architectural, mechanical, and technical; (4) electricity and electronics; (5) mechanics and machinery repairmen; (6) practical nursing; and (7) welding.

All courses offered in these schools are geared to preparing students for specific occupations. If a local school district were to offer other courses in its vocational-technical school not related to job training, such as academic-type courses in political science or sociology, the district would receive no vocational aid for such courses.

An applicant to an area vocational-technical school, at the time he is admitted, must have an occupational objective which is a matter of record, and all his course work is specifically directed toward this objective. Only those applicants are admitted who, in the opinion of the admission officials, would appear to profit from such training.

There is no standard program offered by all area vocational-technical schools. Each works with its local advisory committee to set up specific courses as deemed desirable or necessary. In some occupations, such as agriculture, home economics, and electronics, students can begin the study of a specific occupation in high school and complete it with more advanced training in an area school.

Several agencies and groups are involved in the determination of the program of instruction at a particular area vocational-technical school. The Minnesota State Plan for Vocational-Technical Education states:

In establishing, continuing or terminating a program of vocational instruction, consideration will be given to the following: . . .  
The school . . . maintain constant liaison between governmental agencies and occupational fields.<sup>12</sup>

The State Plan states also that:

The program of instruction will be developed and conducted in consultation with potential employers and other individuals or groups of individuals having skills in a substantial knowledge of the occupation or occupational field representing the occupational objectives.<sup>13</sup>

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12. Minnesota State Plan for Vocational-Technical Education, op. cit., p. 23.

13. Ibid., p. 25.



Course content has been worked out typically by the local instructors in consultation with local advisory committees and state supervisors. In technical areas, such as electronics and tool design, curriculum content is determined by a state advisory committee whose members have available course materials from other states, in addition to their practical knowledge, as a basis for making decisions regarding course content.

There are two types of local advisory committees. One deals with the over-all program of the area school while the other advises on a particular course in such areas as trade and industrial education, distributive education, etc. Each of the area schools except Minneapolis and St. Paul has a general advisory committee that advises on the overall program of the school, and each has a special committee for each occupational field either functioning actively or on a stand-by basis.

Actual course offerings are determined by the State Board for Vocational Education after consultation with the State Advisory Council on Vocational Education. The State Board for Vocational Education, which has the same membership as the State Board of Education, "shall be the administrative authority for all vocational-technical education in the state of Minnesota."<sup>14</sup> The State Advisory Council on Vocational Education is required to meet two times a year but often it meets three or four times a year. It is comprised of several subcommittees which work in the various vocational and technical fields. The function of the State Advisory Council is to "advise the State Board in the light of providing the maximum of vocational-technical education consistent with the needs of the economy, present and projected, and the needs of youths and adults for vocational-technical education."<sup>15</sup>

The newly formed Program Development Unit of the Vocational Division of the State Department of Education helps local area schools plan and initiate new programs that may have been suggested by local advisory committees. The area school then petitions the State Board for Vocational Education for the introduction of the new occupational field into its curriculum, but the final determination of whether it will be offered is made by the State Board.

In its policy statement regarding vocational-technical education in the state, the State Board for Vocational Education indicates the basis on which all course content of the area schools is determined:

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14. Policy Statement on Vocational-Technical Education in Minnesota, St. Paul, Minnesota: State Board of Vocational Education, 1966, p. 1.

15. Minnesota State Plan for Vocational-Technical Education, op. cit., p. 2.

The course content of the curriculum shall be based on the skills and knowledges required in the occupations and will be developed and conducted in consultation with persons actively engaged in the occupations.<sup>16</sup>

The State Board for Vocational Education has stated further that:

Flexibility and adaptability must be essential characteristics. In the process of preparing the student for immediate employment, course content must be:

- a. Short and intensive, to meet specific but limited needs for job entrance or promotion.
- b. Extensive, in terms of content and time, to meet the needs of beginning or experienced workers for occupations demanding a high degree of skill and technical knowledge.
- c. Broad, in terms of technical content, with emphasis on related subject matter including communications, science, mathematics, drafting, occupational processes and practices, and human relationships.<sup>17</sup>

One of the more precise ways of determining content is by basing decisions on a set of objectives that have been derived from the deliberations of the various advisory committees. When asked in the survey questionnaire if they have a written set of educational objectives for their school, 80 per cent of the area school directors answered "yes," and 73 per cent of the area school teachers said that they had actually read a written set of objectives for their school. Seventy-six per cent of the teachers said that they have a written set of objectives for each course they teach.

Responses from the directors of the area vocational-technical schools indicated the major objectives of these schools to be as follows: (1) skills, (2) job performance, (3) adaptability, and (4) content knowledge. Somewhat surprisingly, only 62 per cent of the directors indicated that concern for values or attitudes were important general objectives of their schools. Two-thirds of the directors believed that the visiting subject area specialists were not very effective in establishing new objectives for their fields.

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16. Policy Statement on Vocational-Technical Education in Minnesota, op. cit., p. 1

17. Ibid., p. 3.

Regarding types of written curriculum guides which they follow closely, 84 per cent of the area school teachers said that they develop their own from experience in the occupation they are teaching; 59 per cent prepare them during the course of the year; 55 per cent use textbooks as guides; 46 per cent use guides developed with the help of an advisory group from industry and labor; 39 per cent use guides prepared by personnel in their school district; and 23 per cent use guides prepared by the State Department of Education. There are obviously some schools which use a variety of types of guides.

The teachers indicated that their work was influenced primarily by the actual requirements of industry or business, local advisory committees, and textbooks and manuals. The things that least influenced their teaching were college entrance requirements, information from teacher organizations, and viewpoints of parents and other members of the community.

The majority of the directors stated that curriculum guides were available for all subjects and areas being taught in their schools. In responding to the question regarding sources of influence on the instructional programs of their schools, 90 per cent of the directors responded "much" or "very much" to the needs of students and 71 per cent to curriculum guides. However, only 38 per cent responded "much" or "very much" to textbooks and 40 per cent to State Department of Education requirements as sources of influence.

The data obtained from directors of the area vocational-technical schools indicate that the curriculum of the schools is developed by extensive use of advisory committees from industry and labor and teacher committees. These efforts typically result in locally developed teacher guides or revisions of guides secured from other sources.

It is interesting to note that 85 per cent of the directors indicated little or no obligation to articulate their programs with high school programs, but 79 per cent reported a strong responsibility to articulate their programs with the requirements of business and industry.

The directors are generally satisfied with the present offerings in their schools. When asked to indicate what they would like to do to improve their program, only one-third of them desired to offer new courses. However, three-fourths of them wanted more or better staff, and two-thirds wanted more or better facilities or equipment.

When the area vocational-technical schools served high school students primarily, the general education subjects such as social studies were handled by regular secondary school staff. This procedure is still followed for high school students in area vocational-technical schools. But, for the most part, general education subjects are not available to post-high school students. Area schools have been criticized by some educators for being too specialized, offering only skilled courses, technical courses, related mathematics, related science, and in some cases, related communication, but no humanities.<sup>18</sup>

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18. William C. Knaak, "An Analysis of Vocational-Technical Training in Minnesota," Unpublished report, 1962, p. 5.

### PRESENT ORGANIZATION AND FACILITIES FOR INSTRUCTION

There is no typical method of organization of teaching in the area schools. Forty per cent of the teachers reported that their students remain with them all day, 35 per cent have a group of students with them most of the day, and 25 per cent have a group with them for only an hour or two a day. This information indicates that different kinds of occupational fields require varying amounts of time for a student to be in contact with his major instructor.

Teachers in area vocational-technical schools reported the use of a wide range of instructional techniques. The per cent of teachers that use the following techniques "much" or "very much" are as follows:

<u>Technique</u>	<u>Per Cent Using</u>
Student practice	80
Working individually with students	70
Demonstration	68
Reading textbooks and manuals	61
Full class discussion	57
Tests and other evaluating devices	50
Lecture	44
Work with audio-visual devices	42
Independent study	36
Written assignments	36
Small group and committee work	28
Outside reading	24
Individual oral reports	15

Since many teachers in area vocational schools have not been teachers prior to joining the staffs of these schools, it is commonly assumed that they need help from supervisors and their administrators to become effective teachers. It is somewhat surprising, therefore, to note that when the teachers were asked the extent to which supervisory visits by State Department of Education personnel were helpful to their teaching, 56 per cent said "little" or "none." Forty-seven per cent responded "little" or "none" when asked the same question about their local administrators and supervisors. Seventy-four per cent of the teachers said that they received from supervisors or administrators little or no assistance with the work they do directly with students, and 71 per cent of the teachers reacted the same way to assistance in the preparation of materials, content, activities, and lesson plans. It is disturbing to note also that 59 per cent of the teachers reported that they did not have any class-free time during the regular school day for preparations related to their instruction.

While four out of ten teachers indicated that their directors are of little or no help in keeping their teaching up to date, half of the directors reported that they are "highly satisfied" with their supervisory contacts with teachers. None of the directors reported "little" or "no satisfaction" with their supervision program. Sixty-two per cent of the directors reported that they visit most

of their teachers at least once a month as a part of their supervision policy, and over half of those reported visiting at least once a week. One-fourth of the directors do not visit their staff personally but have an assistant director make visitations.

According to the area school directors, the per cent of their schools that regularly use the following types of inservice improvement "much" or "very much" are as follows:

<u>Type of Inservice Activity</u>	<u>Per Cent Using</u>
Departmental meetings	67
Preschool and/or post-school workshops	65
Department of Education, Vocational Division, inservice conferences	48
Special consultants brought into schools	33
Summer employment for curriculum development and revision	30
Visitation of other classrooms	25
Part-time employment in occupations related to teaching area	20

The directors were asked in the questionnaire how many of their general faculty meetings during the school year are devoted to inservice training of their staff to improve instruction. The range in replies was from 0 to 30, and the median response was five. When the teachers were asked how many of their faculty meetings during the school year provided noticeable help to them toward improving their instruction, 27 per cent reported that none of them helped and 50 per cent indicated that three or fewer were helpful.

Without exception, the directors of area vocational-technical schools reported a belief that the quality of their instructional program was related to teacher competency and to demands of business and industry. The directors said that local school administrators, boards of education, and advisory committees were also highly important in helping to develop quality programs.

The present instructional program is related closely not only to the elements reviewed above but also to the realities of school buildings and other facilities. The term "facilities" as used here included buildings, equipment, audio-visual aids, and library. In this respect, the State Board for Vocational Education states:

Instruction in occupational skills requires equipment and space comparable to the facilities with which a student will be working when he is employed. Through constant appraisal of developments in the occupation, vocational programs must evaluate equipment and facilities. Equipment used must be of high quality in order that it may meet the needs of the learner in providing learning experiences similar to those he will encounter in his occupation.<sup>19</sup>

All present or pending area vocational-technical schools in the state are either in new, separate facilities or are contemplating such a move in the near future except for the schools in Eveleth, Anoka, Grand Rapids, and Minneapolis. The Anoka school will be located in a remodeled manufacturing plant; Grand Rapids will no longer exist as an area vocational-technical school after July 1967; and Minneapolis is sharing its building with a vocational-technical high school.

Seventy-nine per cent of the directors reported they were satisfied or pleased with the adequacy of their general purpose classrooms. When asked in the questionnaire which laboratories, shops, or equipment were below average in adequacy, the largest number specified those for automotive services.

The directors were asked the extent to which certain facilities and equipment were adequate for their school's instructional program. Their responses are summarized in Table 48. In rating the adequacy of their instructional equipment, 85 per cent of the directors responded "much" or "very much." Sixty per cent of the directors indicated that a library is crucial in an area vocational-technical program, with a majority of them reporting that their libraries were divided among the various classrooms rather than centralized in one place. It should be noted that almost half the directors make extensive use of equipment and supplies donated by industry.

TABLE 48

ADEQUACY OF THE AREA SCHOOL FACILITIES FOR THE OPERATION  
OF THEIR PRESENT EDUCATIONAL PROGRAMS

Facility	Per Cent of Directors Answering	
	"Much" or "Very Much"	"Little" or "None"
Instructional equipment	85	0
Classroom libraries	50	5
Instructional materials center	26	37
Building library	21	58

SOURCE: Survey questionnaires.

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19. Policy Statement on Vocational-Technical Education in Minnesota, op. cit., p. 4.

The directors were asked the extent to which each of various audio-visual aids was available in their school. Their answers are shown in Table 49. The availability of overhead projectors, bulletin boards, and 16 mm. projectors was rated as "much" or "very much" by more than 80 per cent of the directors. Filmstrip projectors, opaque projectors and tape recorders were rated similarly by 57 to 67 per cent of the directors. All other audio-visual devices were much less available.

TABLE 49

## AVAILABILITY OF AUDIO-VISUAL AIDS IN THE AREA SCHOOLS

Audio-Visual Aid	Per Cent of Directors Answering	
	"Much" or "Very Much"	"Little" or "None"
Overhead projectors	86	5
Bulletin boards	85	0
16 mm. projectors	81	5
Filmstrip projectors	67	10
Opaque projectors	62	24
Tape recorders	57	10
Cutaway models	38	19
Film library	38	57
8 mm. (single concept) projectors	32	63
Language laboratories, electronic classrooms	22	67
Listening facilities for pupils	11	78
Closed circuit television	0	100
Videotape recorder	0	100

SOURCE: Survey questionnaires.

The responses of the majority of the teachers supported the general conclusions of the directors to the effect that the physical facilities of their school were above average in adequacy.

PERSONNEL IN AREA VOCATIONAL-TECHNICAL SCHOOLS

In the 24 area vocational-technical schools of Minnesota there are 24 directors; 44 assistant directors, coordinators, and supervisors; 14 counselors; and 427 full-time teachers. Survey questionnaires were sent to all of the foregoing personnel. For tabulating purposes the entire group was divided into two subgroups: the 24 directors and all others. Twenty-one (87.5 per cent) of the

directors and 265 (62 per cent) of the other personnel responded to the questionnaire. In the discussion which follows all personnel except the directors will be referred to as "teachers."

#### DIRECTORS

"An area vocational-technical school shall employ a qualified director who shall be responsible for all vocational programs and personnel reimbursed from federal and state vocational funds. A qualified director shall hold a vocational certificate valid for this position." A "qualified" director is defined as one who (1) has training in one or more of the vocational services, (2) is a graduate of a college with a major in one of the vocational services, (3) has had five years of successful experience in one or a combination of teaching, supervision, or administration in vocational education, and (4) has three years of approved occupational experience outside of teaching.<sup>20</sup>

All of the 21 responding directors of the area schools are over 30 years of age and almost half are between 40 and 49 years old. All except four have a master's degree and three of those four have a bachelor's degree while one does not hold a collegiate degree.

The number of years that the directors reported they have been in their present position ranged from two to 18 years. The majority of them have been in their current position no more than three years. Their total administrative experience in area vocational-technical schools ranged from two to 25 years. The majority of them have no more than four years of administrative experience. The work experience in the vocational or technical field for which the directors are qualified to teach ranges from two to 20 years; the majority have had eight or more years of related work experience.

#### TEACHERS

The qualifications of area vocational-technical school teachers vary with their teaching field. Generally, however, they must have either a degree from an approved college, three years of recent experience in the field to be taught, or a special instructor's certificate from the Vocational Division of the State Department of Education in order to be certified to teach in an area school. Teachers of adult vocational programs in the area schools must be competent to teach the subject matter for which they are responsible, as evaluated by local and state supervisors.

Eighty-one per cent of the area vocational-technical school teachers are men; 92 per cent are married; and the largest number are between the ages of 30 and 39 years.

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20. Minnesota State Plan for Vocational-Technical Education, op. cit., pp. 11-13.



Three-fourths of the area school teachers have had some college training, and 61 per cent hold at least a bachelor's degree. Fifty-five per cent of the teachers have attended a college or university within the last two years; however, two-thirds reported that they are not working on a planned degree program.

The average amount of teaching experience in a vocational-technical school is from three to five years; 35 per cent have taught in an elementary or secondary school; and 13 per cent have taught in a private trade or technical school.

Forty-four per cent of the teachers reported that they had more than ten years of work experience in nonteaching jobs connected with their present teaching fields, and less than one per cent had fewer than two years of experience.

### GUIDANCE, COUNSELING, AND PLACEMENT

As part of its declaration of policy regarding vocational-technical education, the State Board for Vocational Education emphasizes that:

Vocational-technical programs must provide an effective counseling and guidance service in order to assure, insofar as is humanly possible to do so, that every student will select, enroll in, pursue and successfully complete the educational program that will best meet his interests, aptitudes, capacities, and abilities.<sup>21</sup>

Vocational education is most effective when it is preceded, accompanied, and followed by vocational guidance. When youths are provided with continuous, adequate guidance services, they are assisted to make known their occupational interests, abilities, and aptitudes and to prepare occupational plans.

The Minnesota State Plan for Vocational-Technical Education provides for the reimbursement of the cost of counselors in area vocational-technical schools. For the 1966-67 school year only seven of the area schools had full-time counselors, but four more schools have been scheduled to employ a full-time counselor in the fall of 1967. Most of the other schools depend on the director or coordinator for counseling or utilize the secondary school counseling services. Requirements for area vocational-technical school counselors are stringent. They require a regular state counselor's certificate plus credits in the philosophy of vocational education and two years of nonschool-related work experience.

Tied closely to the counseling function is its success in helping the student with his own career development. The fact that a student does not finish a course of study can be attributed to several possible factors. According to the directors, fewer than 5 per cent of the students drop out within the first two weeks, and the reason most often given is "lack of interest." The

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21. Policy Statement on Vocational-Technical Education in Minnesota, op. cit., p. 3.

responding directors reported a range of dropouts from one to 20 per cent during the school year (median response, 10 per cent). The reasons given most often were (1) financial, (2) military, (3) employment, and (4) marriage. The courses listed most often by the directors as having the highest dropout rate were automobile-related, clerical, and electronics. The course listed more often as having the lowest dropout rate was welding.

Forty-five per cent of the directors stated a belief that their teachers were above average in providing group and individual counseling and guidance to their students.

Most graduates of area vocational-technical schools immediately enter the occupation for which they have been trained. The directors reported that about 90 per cent of their students become employed upon leaving school, 7 per cent enter military service, 2 per cent go on to a college or university, and less than one per cent either seek other post-high school education or become homemakers.

In a study made by the Vocational Division of the State Department of Education, the Division asked each area school to provide a random sampling of about 30 persons who had completed their training during 1965-66 in order to determine the per cent of placement on jobs that coincided with training received. It was found that 93 per cent of the graduates were on jobs for which they had been trained.<sup>22</sup>

Each school is asked to accept the responsibility, through proper coordination with industry, for the placement of students. However, during times of high employment, actual employment of a student is not sufficient proof of the course value. "Periodic surveys should be conducted asking both the former student and the employer to evaluate the contribution of the instruction to the competency of the worker."<sup>23</sup> Two-thirds of the directors said that they had conducted at least one follow-up study of a complete graduating class during the last five years.

#### FINANCE

The State Board of Education, using funds from both state and federal sources, provides the vast majority of funds for operation of area vocational-technical schools. This support is so extensive that the use of school district tax funds is small. Table 50 shows the per cent of local money used to support all vocational education in the school districts that maintained area schools

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22. Data from the Division of Vocational-Technical Education, St. Paul, Minnesota: State Department of Education.

23. Policy Statement on Vocational-Technical Education in Minnesota, op. cit., p. 4.

during 1965-66. The school districts' portion of the cost of vocational education ranged from 7.3 to 34.6 per cent. It is highly difficult to actually determine the cost of operating an area vocational-technical school because of the present procedure which combines all vocational funds within a given school district without separate accounting for the area school.

TABLE 50

PERCENTAGE OF COST OF VOCATIONAL EDUCATION ASSUMED BY THE  
SCHOOL DISTRICTS THAT MAINTAINED AREA VOCATIONAL-  
TECHNICAL SCHOOLS IN 1965-66

Area School	Cost in Per Cent of Total	
	District	State and Federal
St. Paul	34.6	65.4
St. Cloud	34.3	65.7
Mankato	28.6	71.4
Minneapolis	27.2	72.8
Winona	25.4	74.6
Hibbing	25.0	75.0
Brainerd	24.4	75.6
Canby	21.5	78.5
Jackson	21.1	78.9
Austin	19.4	80.6
Duluth	17.8	82.2
Granite Falls	17.8	82.2
Grand Rapids	13.9	86.1
Eveleth	13.1	86.9
Staples	10.8	89.2
Wadena	10.5	89.5
Alexandria	8.4	91.6
Willmar	7.5	92.5
Thief River Falls	7.3	92.7

SOURCE: Data from the Division of Vocational-  
Technical Education, St. Paul, Minnesota:  
State Department of Education.

For resident students under 21 years of age, a school receives the normal pupil-unit foundation aid which is the same amount as is given to that school district for its high school students. For nonresident students under 21 the school district receives reimbursement for the full cost of educating the non-residents, including debt retirement for buildings. The state does not provide any aid for students 21 years of age or older. The school district collects tuition from these students. School districts also receive from the state 50 to 75 per cent of vocational instructors' salaries.

The district is required to pay the initial cost of the vocational-technical school structure. The costs of additions to the school are shared by the district and the state-federal governments, with the exact proportions depending upon the amount of state-federal funds which are available.

### ADULT EDUCATION

"A goal of adult education is a uniform acceptance of the concept that education is a process which necessarily extends throughout life. With uniform acceptance of this concept, adult education should and will become an integral part of public education."<sup>24</sup> During 1965-66 there were 129,800 adults enrolled in 6,950 classes which were offered in 390 secondary schools of the state. This enrollment indicates an increase of 169 per cent over the number enrolled during 1953-54.

Adult education is responsible for providing a well-balanced variety of offerings which will improve vocational competence, stimulate better citizenship, improve home and family life, and provide personal enrichment. The range of topics and activities that make up the content of adult education is suggested in the following list of broad areas or fields:

Academic	Homemaking
General (language, speech, etc.)	Agriculture
Civic and public affairs	Trade and industrial
Parent and family life	Business and distributive
Americanization and elementary education	Physical education, health and safety
Music and drama	Activities for the aged
Arts and crafts	Recreation

In addition to these areas, two additional federally-sponsored programs are offered. The Adult Basic Education Program under Title III of the Elementary and Secondary Education Act of 1965, which began operating during 1965-66, provides financial and other assistance to state educational agencies for the establishment of education and literacy programs for adults 18 years of age or older who

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24. Goals of Adult Education, St. Paul, Minnesota: Adult Education Unit, State Department of Education, no date, p. 1.

have less than an elementary education. This course is designed to provide such fundamental skills as reading, writing, speaking, and arithmetic. Instructional material is devised to teach simple communication skills in terms of familiar and common experiences such as getting and keeping a job, consumer buying practices, health habits, relationships with other members of the family, and community homemaking and citizenship responsibilities. Another federally-sponsored adult education program is the Civil Defense Survival Preparedness Training, which during the past year served almost 16,000 enrollees throughout the state.

For several years the public schools in Minneapolis, St. Paul, and Duluth have offered high school credit diploma courses. Several other public schools are now engaged in or about to start high school diploma courses for adults.

Adult education programs in the public schools are financed in three ways. The general adult programs are financed solely by the local school district which offers them; the Adult Basic Education Program is financed through Title III of the Elementary and Secondary Education Act of 1965; and the several vocational programs offered in addition to the general education program in the school districts are financed through the Vocational Division of the State Department of Education.

#### SOME PROBLEMS OF VOCATIONAL, TECHNICAL, AND ADULT EDUCATION IN MINNESOTA

Enrollments have generally been on the increase, not only because of the increased number of area schools cited earlier but also because of the educational programs offered in the area vocational-technical schools. Factors that limit enrollment in the area schools are space available and regulation of enrollment by others such as the State Board of Barber Examiners, which allows only 16 students to be trained in barbering at one time at the Minneapolis school. Several trade and industrial organizations control enrollments in this way in order to regulate the number of persons entering their particular trade union or organization.

State law requires that area vocational-technical schools be open to residents throughout the state provided the area school has openings for nonresident students. Some courses are offered in only one school, for example, heavy equipment operation is offered only at the Staples area school and nursery-landscape technology is taught only at Brainerd. This illustrates the need for the present policy of having all area schools open to all students of the state, not just to students of their own school districts or in their area.

A similar and somewhat duplicating pattern of growth has been occurring in the junior colleges of the state. The State Junior College Board is charged under state law with providing training in the semiprofessional and technical fields as well as providing undergraduate programs. It has been hindered in full development of the nonacademic programs, however, because of the lack of funds -- much of which are controlled by the State Board of Education -- and also because

of the difficulties in identifying which phases of vocational-technical education should be reserved for area vocational-technical schools and which for junior colleges.

In several areas of the state, junior colleges and area vocational-technical schools are within commuting distance of one another. New schools in the Twin City area are being planned that will be located near each other but on separate campuses, in separate buildings, and with separate administrations and facilities. Other two-year programs now exist in or are being planned for other institutions such as state colleges and the General College at the University of Minnesota.

The State Legislature has not yet indicated how this parallel development should be controlled or coordinated. The legislature, for example, does approve and provide funds for all junior college construction but not for construction of area vocational-technical schools. In the latter situation the construction costs are assumed by local school districts. The legislature, however, finances the bulk of the operational costs of an area vocational-technical school once the buildings are constructed and ready for use.

In view of these and other problems, there is genuine need for a comprehensive study of all post-high school education in the state. This should be done in broader scope and much greater depth than has been possible in this general survey of public elementary and secondary education. A major objective of such a study should be the determination of the various types of schools, their placement in the state, and the method of controlling and financing each type. An important outcome of the study ought to be the allocation of various functions in the field of vocational-technical education among the various types of schools decided upon. It is highly desirable to minimize the number of different types of institutions within the state attempting to function in the field of vocational-technical education and to abolish unnecessary duplication of effort and cost.

## CHAPTER V

### P O P U L A T I O N   A N D   E N R O L L M E N T S

Prime among the considerations for planning and redesigning education on a statewide basis are the historical trends and future projections dealing with numbers of persons. A look at prospective population changes will assist in developing educational programs, school organizations, and financial arrangements which will be enduring and capable of providing maximum development of all human resources. In the main, this chapter will cover the historical trends of school populations and the projections for public elementary and secondary enrollments for Minnesota; but the chapter will also give an overview of populations in the United States, the state, and the various areas of the state. For purposes of analyzing population and enrollment trends, five geographical areas of Minnesota were designated. The five geographical areas are outlined in Figure II. The division of the state into these five areas has been used in several studies, including a recent one by the Minnesota State Department of Taxation.<sup>1</sup>

### N A T I O N A L ,   S T A T E ,   A N D   A R E A   P O P U L A T I O N S

Local, state, and national populations all have significance as indicators in the planning process. Publications of the United States Bureau of the Census constitute the main source of population data. Unfortunately, the majority of these data are over five years old. The necessity of reliance on 1960 census data is a major limitation in making population projections. Wherever possible, current population enumerations, estimates, or projections have been included.

#### POPULATION OVERVIEW

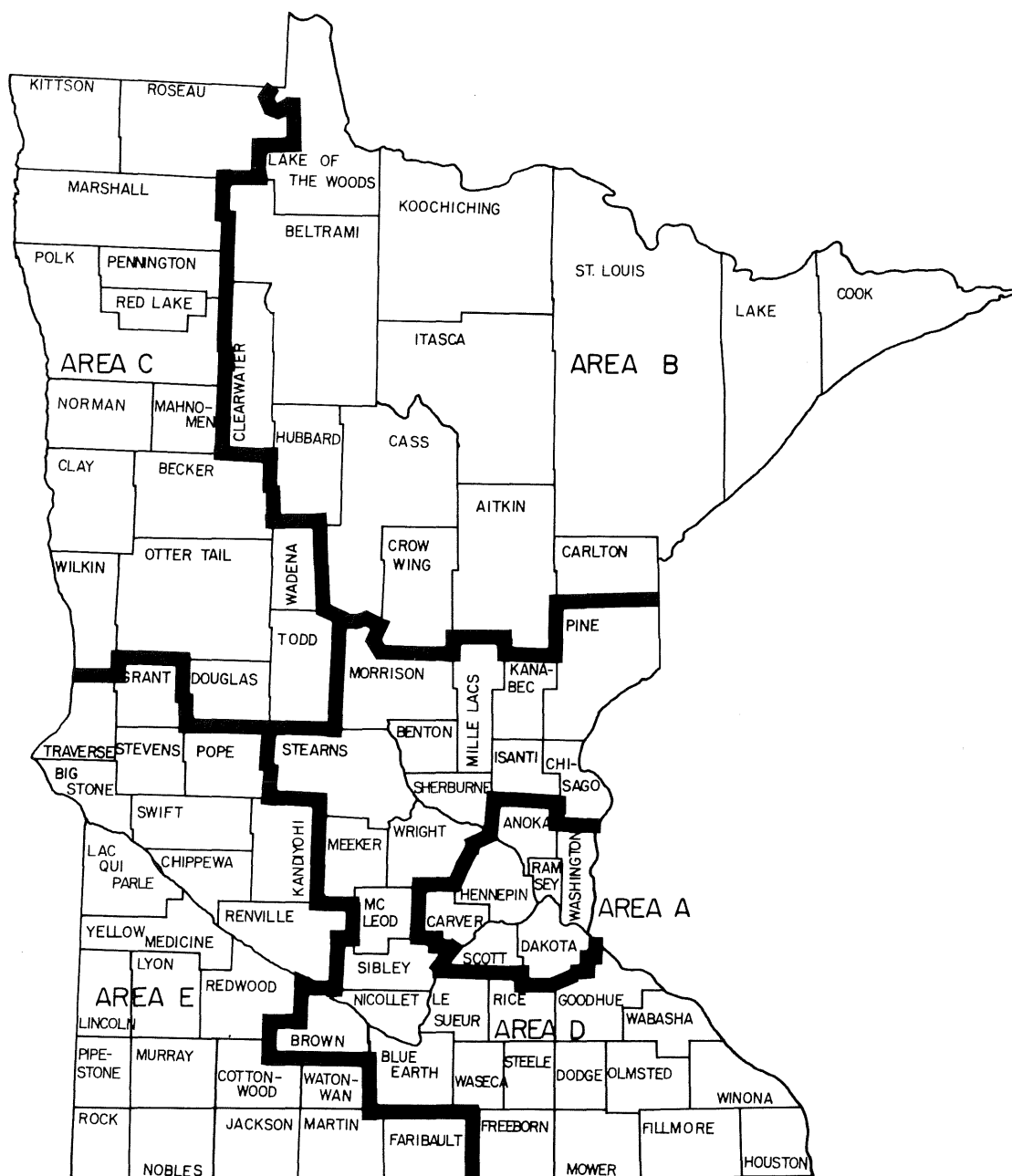
The United States has experienced rapid growth since the end of World War II. From 1950 to 1965 the population increase has been about 43 million. The nationwide population increase has generally been shared by all states, but there has been considerable variation in the growth rates of states. The variation in

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1. The Minnesota State Income Tax, Bulletin No. 29, St. Paul, Minnesota: State Department of Taxation, 1967, p. 11.

FIGURE 11

## FIVE GEOGRAPHICAL AREAS OF MINNESOTA





growth patterns has been even more substantial for areas within states. Table 51 traces 25 years of population trends for the United States, Minnesota, and five divisions of the state.

TABLE 51

POPULATION TRENDS SINCE 1940 IN THE UNITED STATES, MINNESOTA, AND THE FIVE  
GEOGRAPHICAL DIVISIONS OF MINNESOTA

Governmental Units	1940	1950	1960	Per Cent of Change 1950-1960	1965 Estimated	Per Cent of Change 1960-1965
United States	132,164,569	151,325,798	179,323,175	+18.5	193,818,000	+8.1
Minnesota	2,792,300	2,982,483	3,413,864	+14.5	3,555,000	+4.1
Area "A" Metropolitan	1,000,558	1,185,694	1,525,297	+28.6	1,668,390	+9.4
Area "B" Northeast	414,098	407,434	440,366	+ 8.1	423,790	-3.8
Area "C" Northwest	301,189	292,534	286,113	- 2.2	290,657	+1.6
Area "D" Southeast	696,238	717,122	785,841	+ 9.6	810,574	+3.1
Area "E" Southwest	380,217	379,699	376,247	- 0.9	361,589	-3.9

SOURCE: Bureau of the Census, United States Census of Population, 1960, Washington, D.C.: United States Government Printing Office, 1961.

Estimates for the United States and Minnesota are from reports from the Bureau of the Census.

Estimates for the areas are from the Section of Vital Statistics, St. Paul, Minnesota: State Department of Health.

The table reveals that Minnesota's rate of growth is less than the national rate. Minnesota population increased 14.5 per cent from 1950 to 1960, while the population of the United States increased 18.5 per cent. From 1960 to 1965 Minnesota has grown at only one-half the national rate.

Table 51 illustrates the unequal distribution of population gains throughout the state. In fact, the breakdown of the state population by areas indicates the extremely rapid growth of the Metropolitan Area, while the other four areas have either grown at a much slower rate or have actually declined in some cases. From 1960 to 1965 the four areas outside the Metropolitan Area showed growth changes below the state rate of 4.1 per cent, and in each of two areas, Northeast and Southwest, the change was a decline of approximately 4 per cent.

Figure III further illustrates the change in population from 1950 to 1965. The per cent of growth in the United States (28.1 per cent) during the 15-year period exceeded the change for Minnesota (19.2 per cent). The five areas of the state have experienced wide differences in population growth patterns since 1950. The Metropolitan Area with a 40.7 per cent increase was the fastest growing area of the state; its growth rate was substantially larger than the rate for the nation. Two areas, the Northwest and the Southwest, experienced population losses during the 15-year period.

Compared with the growth rate for the area encompassed by the 12 North Central States, Minnesota has grown less rapidly since 1960. The Minnesota growth rate of 4.1 per cent from 1960 to 1965 was 0.6 per cent below that for the total 12-state area. In descending order, the per cents of increase for the 12 states are Ohio (5.6), Illinois (5.6), Michigan (5.1), Wisconsin (4.9), Indiana (4.8), Nebraska (4.7), Minnesota (4.1), Missouri (4.1), South Dakota (3.3), North Dakota (3.1), Kansas (2.5), and Iowa (0.1).

Migration in or out of an area is a factor commonly used to analyze population trends and also to provide indications of an area's economic growth and change. In-migration is the term used to identify the number of persons migrating into an area, while out-migration refers to the number of residents leaving the state. The difference between the in and out-migration yields the net migration for an area.

Minnesota, like most agricultural areas in the United States, is a population exporter. The out-migration of the state is largely responsible for the slower growth rate. The Upper Midwest Research and Development Council computed the number of net out-migrants for Minnesota from 1950 to 1960, and has made estimates for 1960 to 1965. From 1950 to 1960, the number of net out-migrants was 53,138 or 1.40 per cent of the population and births.<sup>2</sup> Indications for the period 1960 to 1965 reflect increased out-migration, and projections are that the 1960 to 1970 rate will exceed the 1950 to 1960 rate.<sup>3</sup> The net outflow of

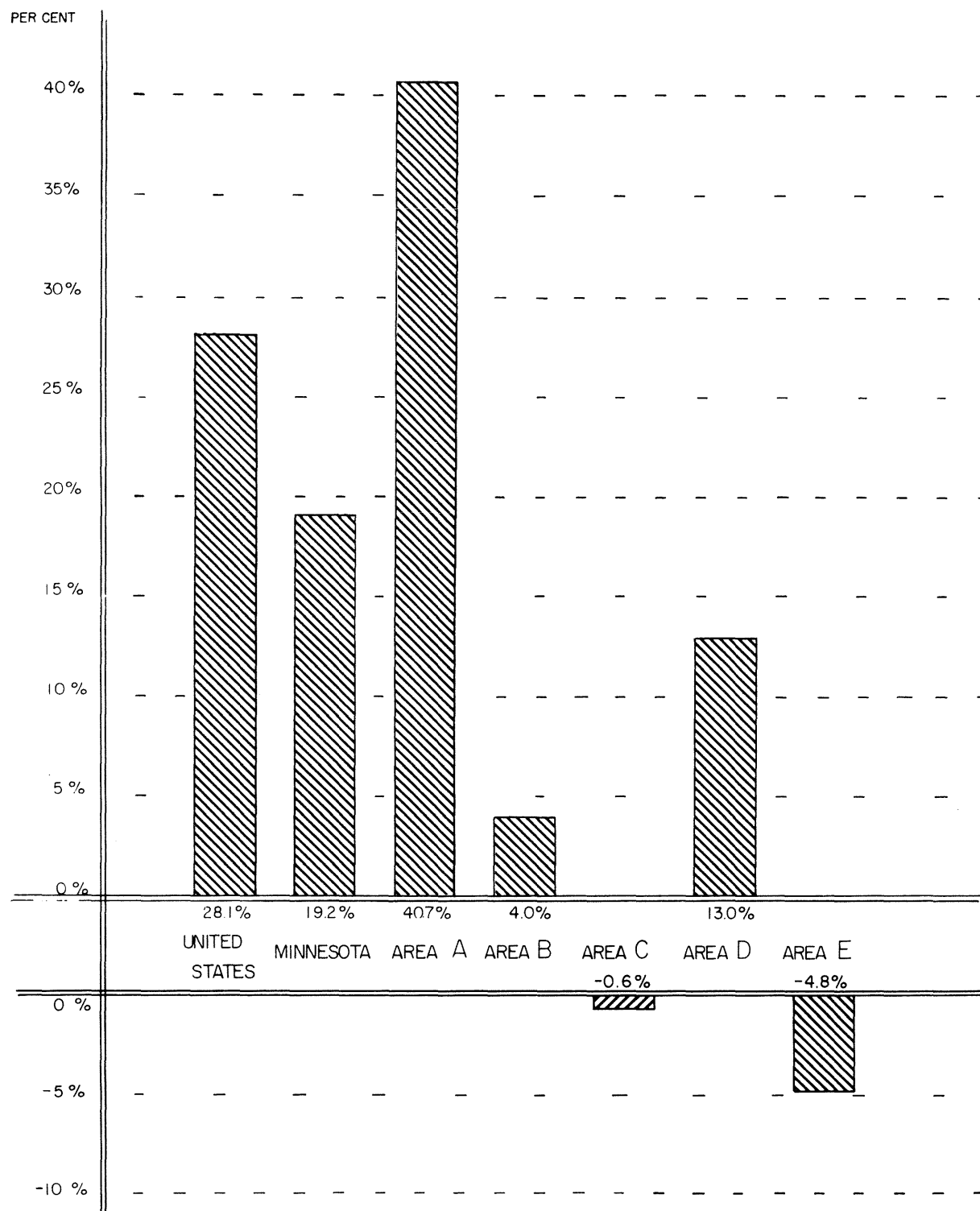
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2. Migration and Population Growth in the Upper Midwest: 1930-1960, Study Paper No. 4, Minneapolis, Minnesota: Upper Midwest Research and Development Council and the University of Minnesota, July 1962, p. 20.

3. Charles A. Stoerzinger, Current Economic Progress Report for the Upper Midwest, 1964, prepared for the Upper Midwest Research and Development Council, University of Minnesota, Minneapolis, Minnesota: North Star Research and Development Institute, October 1965, pp. 8-9.

FIGURE III

PER CENT OF POPULATION CHANGE FROM 1950 TO 1965  
IN THE UNITED STATES, MINNESOTA AND FIVE GEOGRAPHIC DIVISIONS OF MINNESOTA



population from the state has reduced somewhat the natural population increase. The geographic evidence of the net out-migration has been uneven within the state. Minnesota's farms and smaller towns have experienced large out-migration, while most of the larger cities have experienced net in-migration. Only 14 of the 87 counties had net in-migration from 1950 to 1960. The highest rates of in-migration are found in the seven-county Metropolitan Area. Anoka County, with a rate of 51.5 per cent, was the highest in-migration county while Roseau, with a rate of 29.5 per cent, was the highest out-migration county.

Caution must be practiced in interpreting the state and area population trends as being appropriate for local school districts or communities. It should also be remembered that school enrollments do not correlate directly with total populations. The school enrollments of an area could increase at a faster rate than total population. Within a given area one community may have increased considerably, while the remainder of the area actually declined.

Figure IV shows the percentage of population change from 1950 to 1965 by counties. This map illustrates the relatively high population increase in the seven-county Metropolitan Area and the counties bordering these seven counties. Anoka County had a 251 per cent increase during the 15-year period. The population growth exceeded 50 per cent in four other counties. While the Metropolitan counties were increasing rapidly, most of the other counties gained relatively little, and several suffered population decreases. Of the 87 Minnesota counties, 42 experienced population losses.

#### BIRTH TRENDS

An important indicator of future population in a given area is the number of live births which are recorded annually. These data are particularly useful in facilitating forecasts of future school population. Table 53 shows the trend of annual live births at national, state, and area levels during the past decade. The term "resident live births" indicates that births are recorded according to the residence of the mother regardless of where the birth actually occurred.

Information presented in Table 52 shows that the number of annual resident live births is declining in all governmental levels. From a peak in 1961, annual births in the United States declined by over 600,000 by 1966. Minnesota births peaked in 1959 at 88,333 and by 1966 had declined to 66,666. Each of the five geographical areas has experienced declines similar to the national and state trends. The number of births in the Metropolitan Area peaked in 1960, a year later than the peaks in the Southeast and Northwest areas. The Northeast Area peaked in 1957 and the Southwest Area in 1956. The decline in births has not been distributed at an equal rate among the five geographical areas. The decline started at a later date and has not been proportionately as great in the Metropolitan Area as in the four other areas. The agricultural Southwestern Area suffered the most severe percentage decline in births.

FIGURE IV  
MINNESOTA POPULATION CHANGE BY COUNTIES  
1950 - 1965

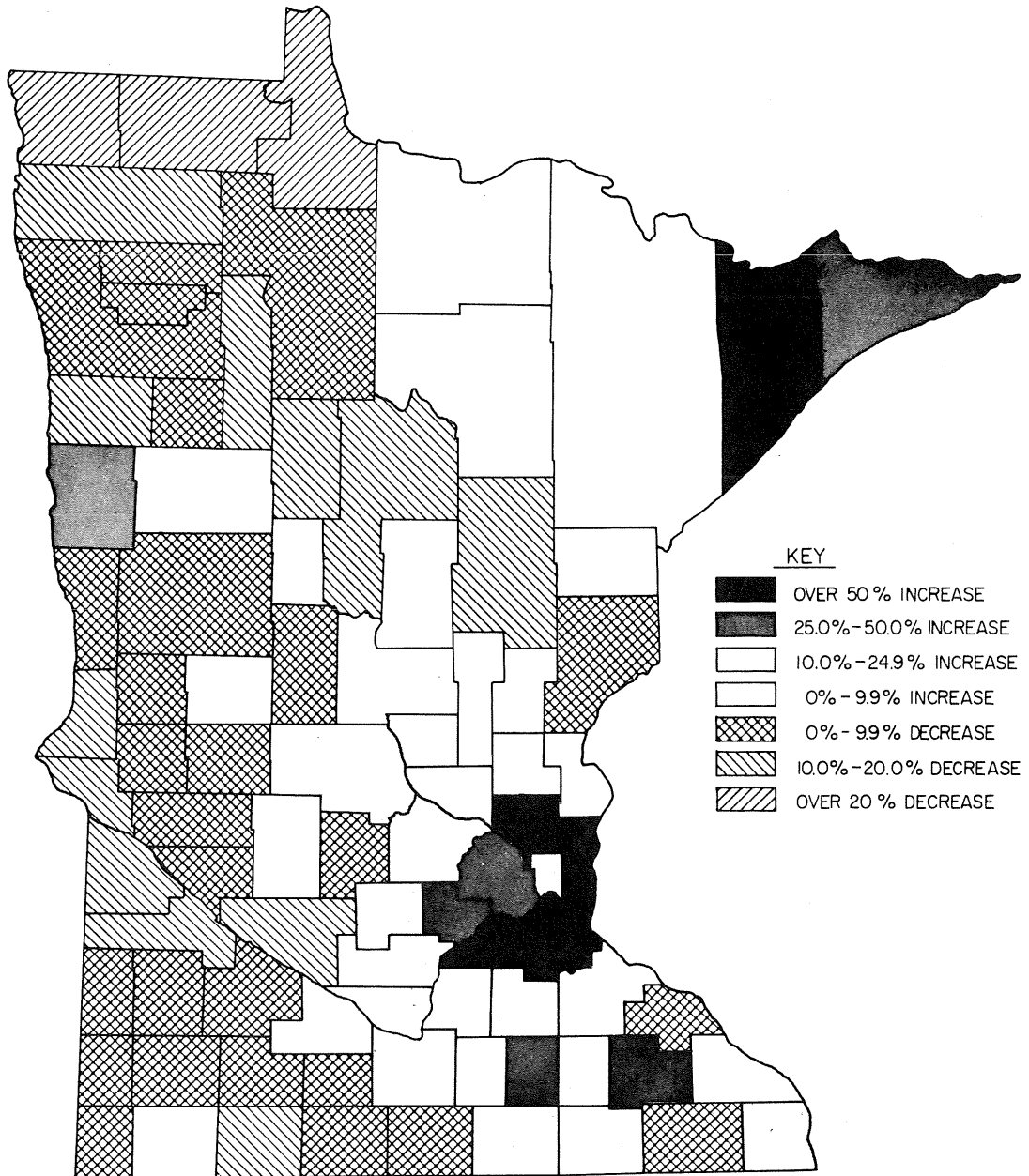


TABLE 52

RESIDENT LIVE BIRTHS IN THE UNITED STATES, MINNESOTA, AND THE FIVE  
SELECTED GEOGRAPHICAL DIVISIONS OF MINNESOTA, 1956-1966

Year	G o v e r n m e n t a l    U n i t s						
	United States	Minnesota	Area "A" Metropolitan	Area "B" Northeast	Area "C" Northwest	Area "D" Southeast	Area "E" Southwest
1956	4,163,090	82,859	37,745	10,775	6,600	18,259	9,473
1957	4,254,008	85,959	40,126	11,062	6,828	18,840	9,097
1958	4,204,759	84,924	40,005	10,726	6,666	18,694	8,830
1959	4,244,796	88,333	41,574	10,790	6,847	20,053	9,066
1960	4,257,850	87,523	42,132	10,845	6,705	19,481	8,718
1961	4,282,081	86,310	41,966	10,260	6,427	19,247	8,408
1962	4,167,362	84,783	41,646	9,709	6,538	18,779	8,108
1963	4,081,000	80,250	40,093	8,939	5,845	18,114	7,246
1964	4,054,000	76,895	39,094	8,132	5,580	17,187	6,896
1965	3,800,000	70,810	36,258	7,423	5,152	15,743	6,231
1966	3,629,000	66,666	34,397	7,177	4,410	15,055	5,627

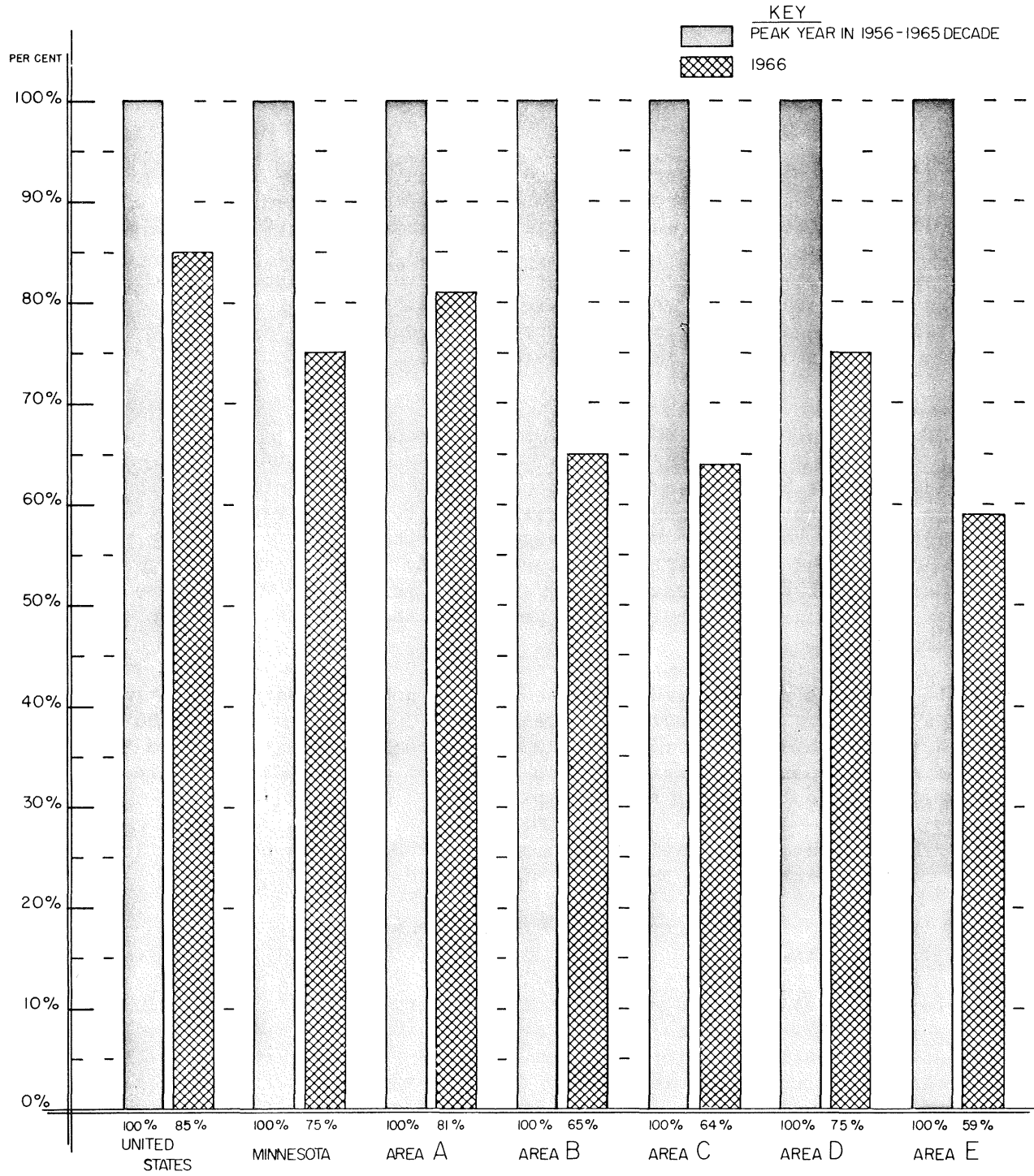
SOURCE: Data from Section of Vital Statistics, St. Paul, Minnesota:  
State Department of Health.

NOTE: The total for the five areas is not equal to the state total.  
Each year a few births are registered in the category  
"residence of the mother unknown."

The trends for live births in the United States, Minnesota and the five areas of the state are further illustrated by a graphical presentation in Figure V. It presents the 1966 births as a per cent of the number of births in the peak year. For the United States the 1966 births were 85 per cent of the number in the peak year as contrasted to 75 per cent for Minnesota. In the five areas the 1966 births ranged from 59 per cent (Southwest Area) to 81 per cent (Metropolitan Area) of the number in the peak years.

FIGURE V

1966 LIVE BIRTHS AS COMPARED TO PEAK YEAR IN 1956-1965 DECADE



Although the decline in births has been continuous during recent years, available data point to a termination of this decline. For the United States as a whole, the number of annual births jumped from 2,735,000 in 1946 to 3,700,000 only two years later. A peak of over 4,282,000 was reached in 1961. The children born during the boom birth years, which began in 1947, are now of marriageable age. The number of females in the population in the prime years of fertility (20 to 29) remained fairly constant in the 1950's. That number will be 39 per cent more by 1970 and 63 per cent more by 1975 than it was in 1960.

Economic conditions and the accepted patterns of family size are subject to change and can have an impact on the number of births. Accepting the assumption that current fertility rates as well as high economic activity will be maintained, it is estimated that annual births may reach 4,724,000 by 1970, exceed 5,400,000 by 1975, and top 6,500,000 by 1980. The exact extent to which Minnesota or any given area of the state will reflect this population explosion is unknown, but it seems safe to predict that the Metropolitan Area will be affected to a much greater degree than other areas of the state.

#### AGE COMPOSITION OF THE POPULATION

Because of the birth trends of the past 20 years, important shifts in the future age structure of the population will result. The first wave of children resulting from the post-World War II surge in births is now in college, and as a consequence this age group will grow substantially faster than other age groups in the next several years. Between now and 1985 rapidly growing groups are expected to be the group from 18 to 24 years and the young adult group from 25 to 34 years of age.

Table 53 gives a breakdown of United States and Minnesota populations for 1960 and a breakdown of projected figures for 1970, 1975, 1980, and 1985. The projected figures are taken from the I-B series compiled by the United States Bureau of the Census. In compiling this series of projections the Bureau of the Census utilized the following two assumptions:

1. The interstate migration rates of the 1955 to 1960 period will continue throughout the projection period.
2. The national fertility rate will decline moderately from the 1966 levels.

Table 53 reveals that in all years the percentage of its population in the group under 18 years of age is higher for Minnesota than for the United States. In Minnesota, as well as nationwide, the under 18-year-old group and the 18 to 44-year-old group increase more rapidly than the total population for the projection period. The 45 to 64-year-old group declines as a percentage of the total population.



TABLE 53

## POPULATION BY AGE GROUPS FOR THE UNITED STATES AND MINNESOTA, 1960-1985

Governmental Unit and Age in Years	Total in Thousands by Year					Per Cent Distribution Among Age Groups by Year				
	1960	1970	1975	1980	1985	1960	1970	1975	1980	1985
<u>United States</u>	179,323	208,249	225,123	244,566	265,575					
Under 18	64,202	74,971	80,494	88,071	97,613	35.8	36.0	35.7	36.0	36.8
18-44	62,504	71,873	80,064	90,185	99,998	34.9	34.5	35.6	36.9	37.6
45-64	36,058	41,834	43,394	43,223	42,958	20.1	20.1	19.3	17.7	16.2
65 and Over	16,560	19,571	21,171	23,087	25,006	9.2	9.4	9.4	9.4	9.4
5-17	43,881	52,957	55,302	59,725	67,144	24.5	25.4	24.6	24.4	24.6
18-24	15,604	23,959	26,769	28,704	29,207	8.7	11.5	11.9	11.7	11.0
<u>Minnesota</u>	3,414	3,762	4,073	4,436	4,827					
Under 18	1,283	1,424	1,526	1,665	1,848	37.6	37.9	37.5	37.5	38.3
18-44	1,100	1,243	1,424	1,636	1,822	32.2	33.0	35.0	36.9	37.7
45-64	676	715	730	723	723	19.8	19.0	17.9	16.3	15.0
65 and Over	354	380	393	412	434	10.4	10.1	9.6	9.3	9.0
5-17	867	1,008	1,043	1,122	1,270	25.4	26.8	25.6	25.3	26.3
18-24	284	420	483	518	515	8.3	11.2	11.9	11.7	10.7

SOURCE: Population Estimates -- Current Population Reports, Series P-25, No. 326, Washington, D.C.: United States Bureau of the Census, February 1966.

A yearly projection of the 5 to 21-year-old group for Minnesota provides a more detailed picture of what might be expected for school enrollments. Table 54 shows projections for three school-age groups for a 15-year period.

TABLE 54

POPULATION PROJECTIONS FOR SCHOOL-AGE GROUPS IN MINNESOTA  
FROM 1960-1980

Year	A g e G r o u p		
	5-13 Years	14-17 Years	18-21 Years
1960	653,000	214,000	169,000
1965	702,000	267,000	203,000
1966	710,000	274,000	217,000
1967	714,000	281,000	230,000
1968	714,000	289,000	244,000
1969	712,000	294,000	245,000
1970	710,000	298,000	252,000
1971	712,000	302,000	262,000
1972	713,000	307,000	269,000
1973	716,000	311,000	274,000
1974	719,000	316,000	278,000
1975	724,000	320,000	283,000
1976	735,000	319,000	289,000
1977	752,000	315,000	293,000
1978	772,000	311,000	296,000
1979	795,000	305,000	300,000
1980	816,000	306,000	300,000

SOURCE: Population Estimates -- Current Population Reports, Series P-25, No. 326, Washington, D.C.: United States Bureau of the Census, February 1966, p. 101.

The projections for the age groups 14-17 and 18-21 are based on children already born, and for this reason are quite reliable. The projections for the 5-13 age group are less reliable, because for the period 1972 to 1980 projections are for the group of children to be born during the period 1967 to 1980. In making the projections for the 5-13 age group, the Bureau of the Census assumed that birth rates would decline moderately. In this regard the projections are conservative. If international tensions should lessen and higher levels of economic activity continue, birth rates could rise again to the level of the 1950's. However, new developments in family planning and changed attitudes on family size could result in a reduction in the birth rate and cause

these projections to be excessive. The conservative projections given in Table 54 yield an increase of 114,000 or a 16 per cent increase from 1965 to 1980 for the 5 to 13-year-old group in Minnesota. This increase is considerably below the increase of 56 per cent in the preceding 15-year period for this group.

#### POPULATION MOVEMENT FROM RURAL TO URBAN

Minnesota as a whole is an out-migration state, but out-migration is not characteristic of all areas in the state. In fact, several urban areas have experienced considerable in-migration. Minnesota urban areas have to a large degree retained the rural out-migrants of the state.

Table 55 shows the population shift from rural to urban for the United States and Minnesota from 1950 to 1960. As a per cent of the total population, urban population actually grew more rapidly in Minnesota than in the United States during the 1950's. However, as a per cent of the total population, Minnesota is less urbanized than the entire United States.

TABLE 55

#### RURAL AND URBAN POPULATION SHIFTS, 1950-1960

<u>Governmental</u> <u>Unit</u>	<u>Urban</u>		<u>Rural</u>	
	<u>Total</u> <u>Population</u>	<u>Per Cent</u> <u>of Total</u>	<u>Total</u> <u>Population</u>	<u>Per Cent</u> <u>of Total</u>
<u>United States</u>				
1950	9,848,511	64.0	54,477,287	36.0
1960	125,346,899	69.9	53,976,276	30.1
<u>Minnesota</u>				
1950	1,651,844	54.5	1,330,639	45.5
1960	2,122,566	62.2	1,291,298	37.8

SOURCE: Bureau of the Census, United States Census of Population, 1960, Washington, D.C.: United States Government Printing Office, 1961.

The Upper Midwest Research and Development Council<sup>4</sup> has analyzed in further detail urban growth in Minnesota. They report the percentage of urban growth from 1950 to 1960 by size categories to be as follows:

<u>Size</u>	<u>Per Cent of Growth From 1950-1960</u>
50,000 and Over	1.72
25,000 - 49,999	84.15
10,000 - 24,999	66.65
2,500 - 9,999	47.09

They also predicted growth rates for individual urban areas in Minnesota and projected 1975 populations. Generally, it may be said that the prediction is for the larger urban centers to grow at a faster rate than the more rural areas of Minnesota. This projected growth of Minnesota urban areas follows the predictions for the United States. It is predicted that by 1980 there will be 75 to 80 per cent of the United States population living in urban centers.<sup>5</sup> This contrasts with the 64 per cent in 1950 and the almost 70 per cent in 1960.

The change in farm size and the reduction in number of farms provide further indications of the population shifts. The average acreage per farm has increased in all 87 counties in the past ten years. The change has varied by county and type of farming area. For the state as a whole, the average size farm was 184 acres in 1950, 195 acres in 1954, and 235 acres in 1964. The trend in number of farms is inversely related to the upward trend in average acreage per farm. In 1954, there were 165,225 farms in existence in Minnesota, by 1959 the number had been reduced to 145,662, and by 1964 only 131,163 farms were counted.

#### S T A T E   A N D   A R E A   S C H O O L   P O P U L A T I O N S

Of vital importance to effective educational planning is the total number of children to be educated now and in the future. This determines the size of the educational task which the people of the state or a given area must undertake. The population information presented in the earlier section of this chapter

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4. Migration and Population Growth in the Upper Midwest: 1930-1960, op. cit., p. 27.

5. Philip M. Hauser and Martin Taitel, "Population Trends -- Prologue to Educational Programs," Prospective Changes in Society by 1980, prepared for Designing Education for the Future, An Eight-State Project, Denver, Colorado: The Project, July 1966.

provides many useful indications for educational planning, but for purposes of estimating future school enrollments the statistical data gathered for school purposes are the most reliable. Two such measures are available. End-of-the-year enrollment information and the yearly school census information are prepared by each school district and are reported in summary form by each county to the State Department of Education.

### SCHOOL CENSUS

Minnesota state law requires that a census of school-age children, certified as of October 15, be taken each year. This annual census, taken by school district, enumerates all children from birth through 20 years of age. Because the school census includes information about children of preschool age, it is particularly valuable in estimating the number of children who will be enrolling in grade 1 during the coming years. The preschool-age census information, along with the yearly tabulation of births, is utilized in arriving at the enrollment projections in this report.

Table 56 presents the annual school census enumerations from 1957 to 1966 for the state as a whole and for the five geographical divisions. The data for this table were compiled directly from the Annual School Census Report made by each county to the State Department of Education.

The census information has been compiled for four major age groups which roughly correspond to major school enrollment groups. Percentages have also been computed to indicate the change in age groups for the years 1957 and 1966; and the per cent of the state total for the 5 to 17-year-old group has been computed for each geographical division.

For the state, there has been a gradual increase each year since 1957 for all age groups except the 0-5 age group. The number of 0-5-year olds peaked in 1961 and has declined each year since then. The number of children in the 0-5 age group in 1966 was less than in any of the previous nine years and 4 per cent below the number at the beginning of the ten-year period. This trend for the 0-5-year olds follows the pattern of recorded births for the ten-year period. A comparison of the three six-year groups (0-5, 6-11, and 12-17) shows that the 6-11 age group was the largest in 1966 and that the 12-17 age group experienced the greatest percentage of growth from 1957 to 1966. In the school-age group of 5-17-year olds, a 28 per cent increase was experienced from 1957 to 1966.

The compilations for the five geographical areas show variations, but generally the 0-5-year-old age groups reflect a decrease in the latter years. In each of the five areas more children are in the 6-11 age group in 1966 than in either of the other two age groups. Only the Metropolitan Area had more children in the preschool group (0-5 age group) in 1966 than at the beginning of the ten-year period. The shift to the Metropolitan Area is evident in the yearly percentages computed for each area. In 1957 the Metropolitan Area had 41 per cent of the 5-17-year olds in the state, while in 1966 it had 47 per cent of the state total. Each of the other four areas had a decrease in the percentage of the 5-17-year olds in their areas.



TABLE 56 (Continued)

Area and Age Groupings	C e n s u s   Y e a r s										Per Cent of Change 1957-1966
	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	
Area "D" (Southeast)											
0-5	99,057	100,976	103,112	103,015	103,772	104,533	106,116	105,052	99,025	98,734	0
6-11	96,883	101,611	102,221	103,672	104,833	107,009	108,100	109,455	111,418	113,074	17
12-17	76,338	78,220	82,738	86,293	88,655	91,847	96,064	100,445	100,894	103,204	35
5-17	190,675	197,641	202,737	207,744	211,642	217,513	222,564	229,312	230,980	235,265	23
-----											
Per Cent of State Total Ages 5-17	24	24	23	23	23	23	23	23	23	23	
-----											
Area "E" (Southwest)											
0-5	50,792	50,233	49,859	48,948	48,232	46,990	45,276	43,690	41,226	38,331	-25
6-11	50,180	51,317	51,319	51,092	51,441	51,162	50,597	49,822	49,366	48,541	- 3
12-17	41,228	41,378	43,421	43,974	44,633	45,567	46,913	48,527	48,082	47,649	16
5-17	100,426	101,541	103,380	103,762	104,713	105,239	105,612	106,517	105,447	103,865	3
-----											
Per Cent of State Total Ages 5-17	12	12	12	12	12	11	11	11	11	10	
-----											
State Totals											
0-5	451,888	456,175	465,172	469,704	473,087	472,764	470,849	467,360	443,812	435,821	- 4
6-11	414,927	433,970	439,910	449,882	459,983	468,372	476,570	482,533	491,576	498,637	20
12-17	310,613	317,889	341,726	357,508	368,434	384,852	406,515	427,244	431,761	441,710	42
5-17	803,138	830,045	860,698	888,304	909,389	937,249	966,404	995,764	1,007,540	1,025,789	28

SOURCE: Survey records and data from State Aids, Statistics, and Research Section, St. Paul,  
Minnesota: State Department of Education.

### SCHOOL ENROLLMENTS

Actual school enrollments of past years provide important evidence for predicting future enrollments. To evaluate properly the total educational task for a state or area, consideration must be given to both public and parochial school enrollments.

Table 57 summarizes the school enrollments in public and nonpublic schools in Minnesota for the past ten years. The table illustrates the general increase at all school levels in both public and nonpublic schools. Total enrollments in grades 1-12 increased by 225,000 from 1956-57 to 1965-66. The percentage of the total enrollment in grades 1-12 accommodated by public and by nonpublic schools fluctuated very little during the ten-year period. The public schools had 82 per cent of the total in 1956-57 and in 1965-66. The percentage accommodated by the public school varied from 82 per cent down to 80 per cent during the ten years. Nonpublic schools accommodate the other 18 to 20 per cent of the total enrollment. Total enrollments in grades 1-12 have grown substantially since 1956-57; the nonpublic school enrollment increased 28 per cent as contrasted to a 33 per cent gain in the public schools. Further enrollment details by area and age group will be examined for both public and nonpublic schools on the following pages.

### PUBLIC SCHOOL ENROLLMENTS

Enrollments in Minnesota's public schools have fluctuated widely during the twentieth century. Gross enrollment was approximately 400,000 in 1900-01 and continued to increase each year, with only three exceptions, through 1932-33. In 1932-33 gross enrollment was approximately 563,000. From the period of 1932-33 through 1944-45 school enrollment declined gradually. By 1944-45 school enrollment was approximately 470,000. From 1944-45 through 1965-66 public school enrollments have increased each year. The total public school gross enrollment (K-12) reported by the Department of Education for 1965-66 is slightly less than 852,000, which is almost double the 1945 total. The largest yearly increases during the 20-year period have been since 1955. In most years the increase has been as much as 20,000 pupils, and in some years it has gone as high as 28,000.<sup>6</sup>

Table 58 presents enrollments for the state and five geographical areas during the past ten years. The enrollments presented in Table 58 do not correspond with the gross enrollments quoted from the State Department of Education, because these figures exclude all transfers within the district and county but do include transfers within the state. The State Department's gross enrollment figures previously cited include transfers within the county and all transfers within the state.

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6. Trends in Minnesota Education, St. Paul, Minnesota: State Department of Education, May 1967, p. 26.



TABLE 57

## SUMMARY OF MINNESOTA SCHOOL ENROLLMENTS, PUBLIC AND NONPUBLIC, 1956-57 THROUGH 1965-66

Type of School and Educational Level	S c h o o l   Y e a r s										Per Cent of Change
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1956-1966
<u>Public School</u>											
Spring primary	4,660	5,516	6,570	7,142	6,200	8,787	8,377	8,443	8,451	8,659	86
Kindergarten	45,405	42,671	48,099	50,659	53,369	54,919	58,025	58,497	62,402	63,719	40
Grades 1-6	323,297	334,836	340,249	346,600	354,240	261,692	370,661	377,969	386,773	400,164	24
Grades 7-12	252,672	258,105	269,826	284,581	293,635	307,045	322,072	342,140	354,783	365,518	45
Grades 1-12	575,969	592,941	610,075	631,181	647,875	668,737	692,733	720,109	741,556	765,682	33
-----											
Per Cent of State Total Grades 1-12	82	81	81	80	80	80	80	81	81	82	
-----											
<u>Nonpublic School</u>											
Spring primary	--	--	--	--	--	--	--	--	--	--	--
Kindergarten	3,875	3,766	3,403	3,029	2,962	2,616	3,403	3,533	3,478	3,778	- 3
Grades 1-6	87,412	95,953	99,540	104,581	105,116	107,360	108,281	108,475	106,601	104,349	19
Grades 7-12	41,702	42,637	46,264	51,438	55,086	57,711	60,148	62,438	63,264	60,663	45
Grades 1-12	129,114	138,590	145,804	156,019	160,202	165,071	168,429	170,913	169,865	165,012	28
-----											
Per Cent of State Total Grades 1-12	18	19	19	20	20	20	20	19	19	18	
-----											
<u>Total Public and Nonpublic Schools</u>											
Spring primary	4,660	5,516	6,570	7,142	6,200	8,787	8,377	8,443	8,451	8,659	86
Kindergarten	49,280	46,437	51,502	53,688	56,331	57,535	61,428	62,030	65,880	67,497	37
Grades 1-6	410,709	430,789	439,789	451,181	459,356	469,052	478,942	486,444	493,374	504,513	23
Grades 7-12	294,374	300,742	316,090	336,019	348,721	364,756	382,220	404,578	418,047	426,181	45
Grades 1-12	705,083	731,531	755,879	787,200	808,077	833,808	861,162	891,022	911,421	930,694	32

SOURCE: Survey records and data from State Aids, Statistics and Research Section, St. Paul, Minnesota:  
State Department of Education.

TABLE 58

## MINNESOTA PUBLIC SCHOOL ENROLLMENTS BY GEOGRAPHIC AREA, 1956-57 THROUGH 1965-66

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1956-1966
Area "A" (Metropolitan)											
Spring primary	246	324	411	436	595	1,011	1,029	1,318	1,440	1,500	510
Kindergarten	26,729	26,648	27,481	29,334	30,739	31,635	34,209	34,419	36,687	37,220	39
Grades 1-6	120,690	129,325	132,999	138,819	145,405	151,902	159,335	166,753	174,357	184,564	53
Grades 7-12	88,313	92,168	98,501	106,364	111,627	119,912	128,987	140,516	147,805	155,542	76
Grades 1-12	209,003	221,493	231,500	245,183	257,032	271,814	288,322	307,269	322,162	340,106	63
-----											
Per Cent of State Total											
Grades 1-12	36	37	38	39	40	41	42	43	43	44	
-----											
Area "B" (Northeast)											
Spring primary	346	375	458	473	460	489	532	487	486	484	40
Kindergarten	6,915	6,796	7,227	7,205	7,416	7,421	7,513	7,387	7,591	7,714	12
Grades 1-6	52,998	54,326	55,222	54,162	54,159	54,651	54,597	54,471	54,559	55,387	5
Grades 7-12	40,263	40,765	42,145	43,744	44,986	46,155	47,576	49,374	50,489	51,086	27
Grades 1-12	93,261	95,091	97,367	97,906	99,145	100,806	102,173	103,845	105,048	106,473	14
-----											
Per Cent of State Total											
Grades 1-12	16	16	16	16	15	15	15	14	14	14	
-----											
Area "C" (Northwest)											
Spring primary	673	763	920	931	771	1,263	1,468	1,416	1,386	1,573	134
Kindergarten	1,532	1,666	1,940	2,143	2,080	2,082	1,882	2,036	2,114	2,214	45
Grades 1-6	33,242	33,402	34,068	33,938	34,495	34,792	34,513	34,761	34,791	34,725	4
Grades 7-12	27,391	27,636	28,519	29,430	30,018	30,709	31,565	32,855	33,400	33,673	23
Grades 1-12	60,633	61,038	62,587	63,368	64,513	65,501	66,078	67,616	68,191	68,398	13
-----											
Per Cent of State Total											
Grades 1-12	11	10	10	10	10	10	10	9	9	9	
-----											

TABLE 58 (Continued)

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1956-1966
Area "D" (Southeast)											
Spring primary	1,628	2,155	2,577	2,824	2,682	3,072	3,149	3,135	3,349	3,138	93
Kindergarten	7,038	7,561	8,077	8,598	9,187	9,621	10,326	10,457	11,306	11,809	68
Grades 1-6	72,251	73,493	73,257	75,362	77,001	77,174	79,102	79,571	81,067	83,498	16
Grades 7-12	60,087	60,682	62,866	65,832	67,468	70,181	72,970	76,990	79,982	82,050	37
Grades 1-12	132,338	134,175	136,123	141,194	144,469	147,355	152,072	156,561	161,049	165,548	25
-----											
Per Cent of State Total Grades 1-12	23	23	22	22	22	22	22	22	22	22	
-----											
Area "E" (Southwest)											
Spring primary	1,767	1,899	2,204	2,478	1,692	2,322	2,199	2,027	1,790	1,964	11
Kindergarten	3,191	3,231	3,374	3,379	3,947	4,106	4,095	4,198	4,704	4,762	49
Grades 1-6	44,116	44,290	44,703	44,319	43,180	43,173	43,114	42,413	41,999	41,990	- 5
Grades 7-12	36,618	36,854	37,795	39,211	39,536	40,088	40,974	42,405	43,107	43,167	18
Grades 1-12	80,734	81,144	82,498	83,530	82,716	83,261	84,088	84,818	85,106	85,157	5
-----											
Per Cent of State Total Grades 1-12	14	14	14	13	13	13	12	12	11	11	
-----											
State Totals											
Spring primary	4,660	5,516	6,570	7,142	6,200	8,787	8,377	8,443	8,451	8,659	86
Kindergarten	45,405	42,671	48,099	50,659	53,369	54,919	58,025	58,497	62,402	63,719	41
Grades 1-6	323,297	334,836	340,249	346,600	354,240	361,692	370,661	377,969	386,773	400,164	24
Grades 7-12	252,672	258,105	269,826	284,581	293,635	307,045	322,072	342,140	354,783	365,518	45
Grades 1-12	575,969	592,941	610,075	631,181	647,875	668,737	692,733	720,109	741,556	765,682	33

SOURCE: Survey records and data from State Aids, Statistics and Research Section, St. Paul, Minnesota:  
State Department of Education.

Enrollment trends, as shown in Table 58, are similar to those found in the census data. In general, kindergarten enrollments have grown substantially although somewhat erratically during the decade. For the state as a whole, secondary school enrollments have increased at a greater rate than those in the elementary school. For the state, grades 7-12 enrollments increased 45 per cent during the ten-year period, while grades 1-6 enrollments increased only 24 per cent.

The shift of enrollments to the Metropolitan Area is similar to the trend reflected in the school census. The Metropolitan Area had 36 per cent of all public school students (grades 1-12) in 1956-57 and by 1965-66 it had 44 per cent of the state total. While the Metropolitan Area was increasing its share of the total state enrollment, the four other areas have each decreased their share by 1 to 3 per cent. The total enrollment (grades 1-12) has increased since 1956-57 in each of the five areas, but the amount of increase has ranged from 5 per cent in the Southwest Area to 63 per cent in the Metropolitan Area. In every area the growth in enrollments has been greater in grades 7-12 than in grades 1-6.

#### NONPUBLIC SCHOOL ENROLLMENTS

A factor affecting public school enrollments is the development of nonpublic schools. Nonpublic school statistics are available starting with the 1950-51 school year. In 1950-51 there were 499 nonpublic elementary and secondary schools in operation in Minnesota. By 1955-56, there were 554 in operation. For the 1965-66 school year, 636 nonpublic schools provided either elementary or secondary education. Of the 636 total, 530 were elementary schools and 106 were secondary schools. A substantial majority of the nonpublic schools are parochial. Only 28 of the 636 nonpublic schools operating in 1965-66 were classified as private schools. Although enrollments in the nonpublic schools have almost doubled since 1950-51, they have not gained in percentage of the total state enrollment accommodated. Total enrollment (including kindergarten) was 91,508 in 1950-51. The enrollment total had increased to 125,491 by 1955-56 and by 1965-66 had risen to 169,207.<sup>7</sup>

Enrollments for nonpublic schools by geographical area and grade level are presented in Table 59. Increases in nonpublic school enrollments have been experienced in all areas of the state, generally at a pace consistent with the public school enrollment changes. For the state as a whole the nonpublic school enrollment in grades 1-12 peaked in 1963-64 at 170,913 and had declined to 165,012 for 1965-66. Over 50 per cent of the nonpublic school enrollment is in the seven-county Metropolitan Area; an additional 30 per cent is in the Southeast Area. The other three areas combined account for only 16 per cent of the nonpublic school enrollment.

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7. Ibid., p. 48.

TABLE 59

## NONPUBLIC SCHOOL ENROLLMENTS, 1956-57 THROUGH 1965-66

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change 1956-1966
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	
Area "A" (Metropolitan)											
Kindergarten	2,600	2,415	2,270	2,060	2,235	1,950	2,634	2,662	2,665	2,854	10
Grades 1-6	47,856	52,318	55,097	57,416	57,526	58,470	59,277	58,667	57,795	56,190	17
Grades 7-12	20,557	21,024	23,600	27,278	29,674	30,936	32,346	33,857	34,495	33,331	62
Grades 1-12	68,413	73,342	78,697	84,694	87,200	89,406	91,623	92,524	92,290	89,521	31
-----											
Per Cent of State Total Grades 1-12	53	53	54	54	55	54	54	54	54	54	
-----											
Area "B" (Northeast)											
Kindergarten	291	252	188	145	80	71	17	22	20	32	-89
Grades 1-6	4,983	5,275	5,373	5,546	5,503	5,465	5,314	5,256	5,113	4,987	0
Grades 7-12	2,182	2,160	2,195	2,276	2,317	2,364	2,362	2,518	2,527	2,419	11
Grades 1-12	7,165	7,435	7,568	7,822	7,820	7,829	7,676	7,774	7,640	7,406	3
-----											
Per Cent of State Total Grades 1-12	6	5	5	5	5	5	5	5	5	5	
-----											
Area "C" (Northwest)											
Kindergarten	209	251	214	163	81	38	257	305	295	427	104
Grades 1-6	3,668	4,285	4,635	4,491	4,977	5,047	5,075	5,072	5,006	4,755	30
Grades 7-12	1,508	1,411	1,481	1,539	1,815	2,176	2,219	2,496	2,519	2,324	54
Grades 1-12	5,176	5,696	6,116	6,030	6,792	7,223	7,294	7,568	7,525	7,079	37
-----											
Per Cent of State Total Grades 1-12	4	4	4	4	4	4	4	4	4	4	
-----											

TABLE 59 (Continued)

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1956-1966
Area "D" (Southeast)											
Kindergarten	649	746	596	548	455	466	404	399	473	423	-35
Grades 1-6	24,346	26,358	27,471	28,968	28,920	29,933	30,191	31,255	30,589	30,380	25
Grades 7-12	14,656	14,937	15,655	16,904	17,743	18,616	19,475	19,581	19,879	18,808	28
Grades 1-12	39,002	41,295	43,126	45,872	46,663	48,549	49,666	50,836	50,468	49,188	26
-----											
Per Cent of State Total Grades 1-12	30	30	30	30	29	30	30	30	30	30	
-----											
Area "E" (Southwest)											
Kindergarten	126	102	135	113	111	91	91	145	25	42	-67
Grades 1-6	6,559	7,717	6,964	8,160	8,190	8,445	8,424	8,225	8,098	8,037	23
Grades 7-12	2,799	3,105	3,333	3,441	3,537	3,619	3,746	3,986	3,844	3,781	35
Grades 1-12	9,358	10,822	10,297	11,601	11,727	12,064	12,170	12,211	11,942	11,818	26
-----											
Per Cent of State Total Grades 1-12	7	8	7	7	7	7	7	7	7	7	
-----											
State Totals											
Kindergarten	3,875	3,766	3,403	3,029	2,962	2,616	3,403	3,533	3,478	3,778	- 3
Grades 1-6	87,412	95,953	99,540	104,581	105,116	107,360	108,281	108,475	106,601	104,349	19
Grades 7-12	41,702	42,637	46,264	51,438	55,086	57,711	60,148	62,438	63,264	60,663	45
Grades 1-12	129,114	138,590	145,804	156,019	160,202	165,071	168,429	170,913	169,865	165,012	28
-----											
Per Cent of State Total Grades 1-12	18	19	19	20	20	20	20	19	19	18	

SOURCE: Survey records and data from State Aids, Statistics and Research Section, St. Paul, Minnesota:  
State Department of Education.

### PROJECTED PUBLIC SCHOOL ENROLLMENTS

Enrollment predictions have been prepared for the period extending through the 1976-77 school year. Table 60 presents these predicted enrollments for the three major grade level groupings (1-6, 7-9, and 10-12). These projections are based on cumulative end-of-the-year enrollments. Since the predictions represent cumulative enrollment for the year, they are always larger than the number of pupils enrolled at any given time during the school year.

Several variables and assumptions have been used in arriving at these projections. Federal and local census data for the areas and the state, the number of annual live births, past enrollment trends and the school census have all contributed to the projected figures. Grade to grade survival ratios were computed, and it was assumed that these ratios would remain constant during the projection period. It was assumed that the number of births would swing upward again but no allowances were made for changes in the fertility rate. Nonpublic school participation in educating Minnesota children was assumed to continue at its present rate. Any changes which contrast sharply with the variables and assumptions utilized here can significantly affect the accuracy of these estimates.

For the state, Table 60 indicates continued enrollment increases in grades 1-12 through the 1969-70 school year. From the peak of 802,756 predicted for 1969-70 enrollments are expected to decline to 763,027 by 1976-77.

Based on these enrollment projections, only the Metropolitan Area will have more students in grades 1-12 in 1976-77 than in 1967-68. Annual increases in grades 1-12 predicted for the Metropolitan Area will result in an enrollment of nearly 397,000 by the end of the ten-year period. This represents an increase of approximately 32,000, or a 9 per cent increase. The four other areas of the state are predicted to have continuous decreases during the ten-year period in grades 1-12. These decreases range from 6.2 per cent for the Southeast Area to 22.2 per cent for the Southwest Area.

For the state, projections reveal a gradual decrease of enrollments in grades 1-6, after reaching a peak of 410,000 in 1968-69. All five of the areas show elementary school enrollments decreasing during the ten-year period but at considerably varying rates. The Metropolitan Area shows a decrease of 8.3 per cent, while other areas of the state have more substantial decreases. The Northeast Area with a 27.1 per cent decrease and the Southwest Area with a 27.7 per cent decrease are predicted to have the largest reductions in elementary school enrollments. The declines in elementary school enrollments are directly attributable to the declining annual number of births and the numerical decreases in children of preschool age on the annual school census. The steadily decreasing elementary school enrollments are responsible for the major portion of the total enrollment losses. As Table 60 shows, elementary school enrollments will begin to swing upward in 1976-77 but a "trough" of lower enrollments will progress through the various grade levels in the next few years.

TABLE 60

## PROJECTED MINNESOTA PUBLIC SCHOOL ENROLLMENTS BY GEOGRAPHIC AREA, 1967-68 THROUGH 1976-77

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change 1967-1977
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	
Area "A" (Metropolitan)											
Grades 1-6	195,564	198,975	198,859	197,260	191,498	185,622	180,947	177,895	177,810	179,415	- 8.3
Grades 7-9	88,026	91,347	95,921	100,374	106,193	108,386	109,490	107,373	105,352	102,940	16.9
Grades 10-12	80,788	85,184	88,799	92,444	95,930	100,839	105,680	111,683	113,679	114,316	41.5
Grades 7-12	168,814	176,531	184,720	192,818	202,123	209,225	215,170	219,056	219,031	217,256	28.7
Grades 1-12	364,378	375,506	383,579	390,078	393,351	394,847	396,117	396,931	396,841	396,671	8.9
-----											
Per Cent of State Total											
Grades 1-12	46	47	48	49	49	50	51	51	52	52	
-----											
Area "B" (Northeast)											
Grades 1-6	54,171	53,076	51,394	49,151	46,382	43,646	41,265	39,745	39,048	39,493	-27.1
Grades 7-9	27,233	27,081	27,017	26,844	26,647	26,166	25,701	24,871	23,763	22,118	-18.8
Grades 10-12	23,902	24,225	24,318	24,411	24,277	24,226	24,060	23,878	23,440	23,018	- 3.7
Grades 7-12	51,135	51,306	51,335	51,255	50,924	50,392	49,761	48,749	47,207	45,136	-11.7
Grades 1-12	105,306	104,382	102,729	100,406	97,306	94,038	91,026	88,494	86,255	84,629	-19.6
-----											
Per Cent of State Total											
Grades 1-12	13	13	13	12	12	12	11	11	11	11	
-----											
Area "C" (Northwest)											
Grades 1-6	34,307	34,227	33,418	32,356	30,984	29,520	28,408	27,467	27,078	27,288	-20.5
Grades 7-9	17,432	17,208	17,209	17,249	17,423	17,221	16,966	16,727	16,140	15,376	-11.8
Grades 10-12	16,509	16,652	16,645	16,613	16,388	16,416	16,462	16,602	16,413	16,156	- 2.1
Grades 7-12	33,941	33,860	33,854	33,862	33,811	33,637	33,428	33,329	32,553	31,532	- 7.1
Grades 1-12	68,248	68,087	67,272	66,218	64,795	63,157	61,836	60,796	59,631	58,820	-13.8
-----											
Per Cent of State Total											
Grades 1-12	9	9	8	8	8	8	8	8	8	8	
-----											



TABLE 60 (Continued)

Area and Educational Level	S c h o o l   Y e a r s										Per Cent of Change 1967-1977
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	
Area "D" (Southeast)											
Grades 1-6	84,350	84,647	83,457	81,844	78,285	74,862	72,420	70,719	71,351	72,449	-14.1
Grades 7-9	41,755	41,745	42,623	43,131	44,568	44,647	44,688	43,150	41,808	40,297	- 3.5
Grades 10-12	42,544	43,664	43,604	42,600	42,645	43,601	44,088	45,553	45,678	45,497	6.9
Grades 7-12	84,299	85,409	86,227	85,731	87,213	88,248	88,776	88,703	87,486	85,794	1.8
Grades 1-12	168,649	170,056	169,684	167,575	165,498	163,110	161,196	159,422	158,837	158,243	- 6.2
-----											
Per Cent of State Total Grades 1-12	21	21	21	21	21	21	21	21	21	21	
-----											
Area "E" (Southwest)											
Grades 1-6	40,754	39,563	38,075	36,453	34,285	32,274	30,645	29,468	29,197	29,445	-27.7
Grades 7-9	20,771	20,833	20,746	20,459	20,003	19,678	19,249	18,534	17,438	16,340	-21.3
Grades 10-12	21,567	21,343	20,671	20,399	20,493	20,381	20,066	19,651	19,326	18,879	-12.5
Grades 7-12	42,338	42,176	41,417	40,858	40,496	40,059	39,315	38,185	36,764	35,219	-16.8
Grades 1-12	83,092	81,739	79,492	77,311	74,781	72,333	69,960	67,653	65,961	64,664	-22.2
-----											
Per Cent of State Total Grades 1-12	11	10	10	10	9	9	9	9	8	8	
-----											
State Totals											
Grades 1-6	409,146	410,488	405,203	397,064	381,434	365,924	353,685	345,294	344,484	348,090	-14.9
Grades 7-9	195,217	198,214	203,516	208,057	214,834	216,098	216,094	210,655	204,501	197,071	0.9
Grades 10-12	185,310	191,068	194,037	196,467	199,733	205,463	210,356	217,367	218,536	217,866	17.6
Grades 7-12	380,527	389,282	397,553	404,524	414,567	421,561	426,450	428,022	423,041	414,937	9.0
Grades 1-12	789,673	799,770	802,756	801,588	795,731	787,485	780,135	773,296	767,525	763,027	- 3.4

SOURCE: Survey records and data from State Aids, Statistics and Research Section, St. Paul, Minnesota:  
State Department of Education.

Junior and senior high school enrollments generally continue to increase for a period of years. For the state and the Metropolitan Area both groups will increase substantially. The total secondary enrollment (grades 7-12) will peak for the state and the Metropolitan Area in 1974-75. The other four areas show earlier declines in secondary school enrollments. The state and the Metropolitan Area are expected to follow this pattern of declining enrollments after 1974-75. This predicted decline in secondary enrollment is a direct reflection of the earlier decline in the elementary school enrollments.

Table 60 forecasts a continued shift from the rural to urban areas. By 1976-77 approximately 52 per cent of all public school children will be educated in the seven-county Metropolitan Area. This contrasts with the 36 per cent and 44 per cent responsibility for the Metropolitan Area in 1956-57 and 1965-66 respectively. The rural to urban shift will also be a factor within all geographical areas. While a total area is likely to show decreases in enrollment, most schools located in larger communities will gain in enrollments. At the same time many of the schools located in rural areas or small villages will have greater enrollment decreases than shown for the area as a whole.

The enrollments presented in Table 60 do not constitute the total public school district responsibility in Minnesota. Kindergarten and post-high school enrollments have not been included in the predictions. It is anticipated that kindergarten enrollments will continue to grow as more school districts expand their instructional program to include children of this age. Post-high school programs will continue to expand but the exact division of responsibility for these programs between school districts and other educational agencies has not yet been determined.

## CHAPTER VI

### P R O F E S S I O N A L    P E R S O N N E L

Many components comprise a meaningful educational program. Each component is essential in and of itself yet at the same time is inextricably bound up with the others. Probably the most direct influence on education is from professional personnel who deal on a person-to-person basis with students. The educational impact of the most comprehensive curriculum program, efficient administrative organization, and sufficient financial resources can be diminished or nullified by ineffective and inadequate teaching performance of professional personnel. This is not to imply that personnel requirements take precedence over other educational instruments and functions; rather, it is apparent that teacher personnel are a vital entity because they have the most direct contact with students. Furthermore, if there are deficiencies in the educational structure, dedicated and inspired teachers can partially modify or compensate for such inadequacies.

As in all areas of education, changes which affect professional personnel are occurring at an accelerating rate. Changes in professional requirements, compensation, working conditions, professional status, and professional organization have been more profound during the past decade than those occurring during the preceding 25 years. In light of the expanding urban population and far-reaching educational legislation, it is realistic to estimate that changes in the area of educational personnel during the coming decade will be even more pronounced.

So it is, then, that today's teacher is a far different person from what he was even a relatively short time ago. Present-day education stresses acquisition of knowledge that is not only intra-field in its application, but also relates to other fields of learning. The implications for professional personnel are numerous.

It requires a far more resourceful teacher than earlier prototypes who concerned themselves with "teaching" from a one-textbook curriculum. Yet, there is a quality in the teacher-student relationship which transcends time. This quality was expressed by the late theologian, Martin Buber, when he referred to the "I-Thou" relationship as opposed to the "I-It" relationship. In this frame of reference, the teacher learns to understand and respect the student's uniqueness. Regardless of technical innovations such as data processing, teaching machines, electronic laboratories, and other sophisticated equipment, the teacher will continue to be the direct, vis-a-vis, communicator with the student. It is

inevitable that certain aspects of the teaching art are and will continue to be altered, but the direct relationship between teachers and students must remain vital and alive.

Because of the impact of technology and society, the tasks performed by professional personnel are continually changing. This is not to imply that the increase of this technology will vitiate the teacher's role; rather, that the teacher can no longer be viewed as an exclusive repository of knowledge in an age of specialization. Indeed, teachers under general inservice conditions are hard-pressed to assimilate comprehensive skills in contemporary technology and they frequently view this ominous task with consternation. Even were it attempted, to provide these formidable data in any concise "packaged" form is exceedingly difficult if not impossible.

As a consequence, the concept "specialist" has been altered. From a disappearing age of "telling" all one knows, a representative number of teachers have energetically entered the era of specializing in wherewithall; that is, they provide the learner with individualized resource materials or point out the location of such materials. Evidence of this procedure is apparent wherever a degree of curriculum flexibility is provided.

The emphasis in this chapter is on the professional personnel in Minnesota's public schools. Not only are personnel in the numerous elementary and secondary schools discussed, but also those professionals working out of the various districts' central offices. However, the discussion of personnel serving the 24 area vocational-technical schools, which appears in Chapter IV, will not be repeated here.

This survey begins with a study of "what is." There are several aspects to this status description. A primary concern is with the numbers and personal characteristics of professional personnel, including such factors as training, experience, and salary. An examination has also been made of those factors which apply to professional personnel as a group, such as supply and demand, turnover, and retirement plans. Then, using the status phase of this chapter as a foundation, apparent strengths and weaknesses are cited.

#### P R O F E S S I O N A L   P E R S O N N E L   I N   D I S T R I C T S M A I N T A I N I N G   B O T H   E L E M E N T A R Y   A N D S E C O N D A R Y   S C H O O L S

The effort to provide public school education in Minnesota was represented, in 1965-66, almost totally by the districts maintaining both elementary and secondary schools. These districts represent only 26 per cent of the total number of districts in the state, however, and only 48 per cent of the elementary schools. These same districts, nevertheless, serve 95 per cent of all public elementary school pupils and all of the public secondary school pupils. It is not surprising, then, that these districts employ 96 per cent of the professional personnel of the public schools.

Professional personnel of the elementary and secondary schools in these districts will be discussed separately in this chapter. A later section will treat the teachers in districts operating only elementary schools.

### ELEMENTARY SCHOOL PROFESSIONAL PERSONNEL

For many years the only professional personnel found in elementary schools were classroom teachers. Except in the very largest schools the principal was also a full-time teacher. Unfortunately this situation still persists in many elementary schools in Minnesota. However, there is an increasing trend in the direction of providing additional personnel. Nonteaching principals are found in about one-half of all Minnesota elementary schools. Librarians, counselors, psychologists, and a variety of other special personnel are also found in some schools, especially in the larger districts.

### ELEMENTARY SCHOOL CLASSROOM TEACHERS

The majority of the professional personnel in Minnesota elementary schools are teachers who are assigned the primary responsibility for self-contained classes. There are 14,252 teachers whose basic function is classroom teaching rather than a specialized assignment.

A survey inquiry to teachers in Minnesota's elementary schools resulted in a 62 per cent response by 1,066 teachers representing schools of varying sizes and organizational types throughout the state. Since certain items requested information about the individual, the group may be described by inference from this sample.

Approximately 85 per cent of the group are women, and slightly more than two-thirds of the group are married. The median age of these teachers is 37, but approximately one-third are under 30 years of age, and nearly one-third are over 50 years of age.

More than three-fourths of these teachers have four or more years of professional preparation, but fewer than 6 per cent hold advanced degrees. Almost two-thirds of the total group has attended college or university within the past two years, but an equal number are not pursuing a planned degree program. Based on the sample, 60 per cent of all teachers have six or more years of professional experience, almost half of the group having spent these years in their present locations.

The image of this group will appear in sharper focus after a more detailed description of the critical characteristics.

### Professional Preparation

The professional preparation of elementary school classroom teachers varies from one year spent in the teacher training department of a high school, a program long ago defunct, to the doctoral degree. Professional preparation and course work beyond the basic programs leading to certification accounts for a continuum between these extremes.

Requirements for certification have periodically been revised upward, and as a result the proportion of teachers with less than two years of preparation has indicated an accompanying decrease. During the 1965-66 school year, only in the three categories of smallest school districts did teachers at this level of preparation exceed one per cent. Only 53, or 0.4 per cent, of the elementary school teachers in all districts had less than two years of preparation.

Table 61 depicts the per cent of teachers in the 11 school size categories having two or more years of preparation, those with a baccalaureate degree or an equivalent four years of college, those holding advanced degrees, and the number of teachers in each size category.

TABLE 61

#### PROFESSIONAL PREPARATION OF MINNESOTA ELEMENTARY SCHOOL TEACHERS, 1965-66

District Size Category	Per Cent of Teachers by Degree or Year of Preparation				Number of Teachers
	Less Than Two Years	Two or More Years But Less Than Four Years	Baccalaureate Degree or Four Years	Advanced Degree	
1	1.3	59.2	37.0	1.0	311
2	1.6	52.4	43.3	1.0	374
3	2.7	49.4	43.7	1.0	405
4	0.9	47.6	51.3	0.2	435
5	0.9	41.0	56.7	1.3	756
6	0.5	32.6	61.8	2.5	730
7	0.4	29.6	68.1	1.9	842
8	0.1	19.6	77.7	2.5	1,099
9	0.4	19.8	76.3	3.1	947
10	0.1	15.2	79.8	4.9	1,600
11	0.1	9.9	80.8	9.1	6,753
Total for State	0.4	20.4	73.2	5.7	14,252

SOURCE: "Qualifications of Elementary Supervisors and Teachers," Code VI-C-10, 1965-66, St. Paul, Minnesota: State Department of Education, 1966.

NOTE: Data for a few teachers were not reported; therefore all categories will not total 100.0 per cent.

It is apparent from the table that the proportion of staff holding advanced degrees is exceptionally small. As school district size increases, the proportion of elementary staff having four years of preparation increases, with one minor exception, to 80.8 per cent, while the proportion having two or more but less than four years decreases from 59.2 per cent to 9.9 per cent. The number of teachers with less than four years of preparation exceeds the number of teachers with four or more years only in the three categories of the smallest districts.

A study of 29 states, completed by the National Education Association,<sup>1</sup> reports the per cent of elementary school teachers by degree status for the 1965-66 school year. In comparing the results of this study with data gathered in Minnesota for the same year it is found that the per cent of staff with four-year college degrees is very nearly the same, 73.2 per cent in Minnesota and 71.3 per cent in the 29-state group. Major differences appear in proportions of staff above and below this level of preparation. Approximately 21 per cent of the Minnesota group have less than four years of preparation compared with 10.8 per cent of the study group, and 5.7 per cent of the Minnesota group hold advanced degrees compared with 17.9 per cent in the study group.

A similar study<sup>2</sup> of the per cent of the elementary school teachers with at least four years of college was made of 32 states for the same year but did not include Minnesota. Had Minnesota been included it would have ranked twenty-fifth of 33.

### Certification

In an effort to keep pace with change, standards of certification for teachers have been revised periodically since the middle of the nineteenth century. Changes in the philosophy and objectives of schools reflect changes in society; there have been explosions of population and knowledge; and methods and materials used in teaching have changed and expanded radically. It is natural, then, to expect that standards of certification will reflect the changing demands made of teachers; and that a variety of certificates, issued over a period of years, will be in use.

Present requirements in Minnesota for issuance of a Teacher's Certificate valid in elementary schools include a degree from an institution, within the state, which offers an approved program. Degree programs, properly accredited in other states, and equivalent preparation in other countries are also acceptable. These programs must include 45 quarter hours, or the equivalent, of professional education of which at least six quarter hours must be in student teaching. This certificate is valid for two years, and it may be renewed for five years.

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1. Teacher Supply and Demand in Public Schools, Research Report 1966-R16, Washington, D.C.: Research Division, National Education Association, October 1966, p. 52.

2. Ibid., p. 54.

Requirements for renewal are the same as for original issuance except that the applicant must have had either one year of teaching experience in an appropriate field during the past five years or eight quarter hours of college credit in appropriately related subjects. After five years of successful teaching, including one of the past two years, application may be made for a life certificate.

Although the baccalaureate degree as a requirement for certification of elementary school teachers was adopted in 1929, there were provisions for issuance of the same certificate on the basis of two years of professional preparation and for issuance of limited certificates requiring only one year of preparation and special provisions for renewal. Provision for limited certification still exists, but issuance is predicated by a lack of availability of a fully-qualified applicant as certified by the superintendent. A minimum of two years of preparation is required for original issue, and renewal is dependent upon acquiring eight quarter hours of college credit.

The recency of the degree requirement and the accompanying provision for limited certification appear to have retarded progress toward achievement of the degree requirement for all teachers. Results of the survey of superintendents indicate that approximately one of each 30 kindergarten and elementary school teachers holds a limited or provisional certificate.

In addition to the 20.4 per cent of teachers which Table 61 indicates as having two or more but less than four years of preparation, there are 53 teachers, or approximately four out of every thousand, who have less than two years of college preparation. Since requirements for full certification have been altered on occasion during the span of productive years of many teachers, it cannot be assumed that all or most of these teachers are the same individuals who hold limited certificates. The same caution must be observed in referring to life certificates.

Almost 6,000 elementary school teachers hold life certificates. This group represents 40 per cent of the kindergarten and elementary school teachers in districts comprising the majority of public schools in this state. Issuance of life certificates has been restricted to teachers considered, at the time of application, to be fully qualified. As a result, holders of these certificates may have as little as one year of formal preparation for teaching. These conditions have led to the possibility that a person who is considered to be less than qualified for certification has more professional education than a teacher with a life certificate which indicates full qualification.

Assuming that the trend toward higher standards for certification continues, consideration of professional education requirements at the graduate level is not far off. Although no requirement for graduate study at present exists applicable to classroom teachers, it is a common standard for administration and not infrequently required of educators in special fields.



Based on a study applicable to the 1964-65 school year,<sup>3</sup> five states required a master's degree or equivalent for standard certification. Four of the five states required standard certification after a specified number of years of teaching experience. In another 14 states, graduate degrees were qualification for certification above the standard level. Terminology varies, but commonly this type of certificate is referred to as "professional." Another indication of the trend toward higher standards is that only two states still issue standard certificates on the basis of less than a four-year degree.

The next edition of the same study, for the 1965-66 school year, indicates a continuation of the same trend. Eight states required a graduate degree for standard certification; 13 states issued certificates above standard level; and the same two states had not abandoned the policy of issuing standard certificates on the basis of less than a four-year degree. In the remaining states, it is not unusual to find that renewal of standard certificates based on a baccalaureate degree requires some graduate study.

### Assignment

Classification as a graded elementary school requires that no teacher may have within a classroom more than two grade levels. Due to the variation of organizational types and dispersion of population, however, there are in existence some graded elementary schools in which more than two grade groups may be found. There are only 56 teachers, out of more than 14,000, who are assigned classes of three or more grade levels and another 145 teachers who serve on multigrade levels in departmentalized schools. Together these two groups comprise 1.5 per cent of the total group.

The largest number of teachers in these elementary schools teach single grade classroom groups. The proportion of staff with single grade assignments varies from 79.7 per cent to 92.0 per cent of the total elementary school staff including kindergarten teachers. These variations are seemingly unrelated to size of district enrollment. In contrast, 5.6 per cent of the total group, or 798 teachers, are assigned classes composed of two grade levels, while the 1,127 kindergarten teachers do not teach classes of mixed grades.

The number of kindergarten teachers is significantly related to school size. The combined elementary staffs of the districts in the 11 size categories average 7.9 per cent kindergarten teachers. Only the four groups of largest districts exceed this average, while in seven groups of smaller districts the number of kindergarten teachers does not exceed 6.9 per cent of the staff.

The existence of kindergarten programs tends to indicate the same type of relationship to school district size. Kindergartens are a part of approximately 10 per cent of the smaller districts, but in larger districts 85 to 95 per cent

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3. Elizabeth H. Woellner and M. Aurilla Wood, Requirements for Certification, Chicago: University of Chicago Press, April 1965.

of the schools have such programs. An inverse relation to size is indicated by the rate of occurrence of spring primary classes. This type of program is rarely offered by districts having a kindergarten, and it does not exist in the two groups of largest schools. In the five categories of smaller districts, spring primary programs outnumber kindergarten programs. A fact not to be ignored is that there are 194 teachers of spring primary classes who are employed less than full time.

Pupil-teacher ratio has probably been a subject of discussion in public schools ever since the first occasion when students began to crowd one classroom. It is well established that, as class size increases, the portion of a teacher's time which a pupil might reasonably claim is diminished. There seems to be no evidence, however, that agreement will be reached on the amount of teacher time a pupil needs or the amount of time that is available to a teacher to devote to individual pupils. Hopefully, these factors will continue to vary because of the necessity that teachers continue to recognize individual pupil differences.

It is generally accepted that a pupil-teacher ratio of 25:1 is reasonable and desirable. There are numerous studies which recommend classes in the range of a ratio of 20:1 to 30:1.

Examined in the light of these limits, the pupil-teacher ratio in Minnesota graded elementary schools appears to be nearly ideal. The ratios for the 11 size categories range from 23:1 to 27:1, and the ratio for all districts is 26:1. This is slightly less than the national average.

It must be recognized, however, that averaging can be a statistical method of disguising variation, and that it may hide very unattractive extremes. For this reason, the range of class size should be examined. Class sizes above 30 are undesirable because they seriously hamper the teacher in his efforts to attend to individual differences. Conversely, while exceptionally small classes allow for more individual attention to pupils, as class size decreases, cost increases. There is a teacher pupil ratio for any school below which the cost becomes unrealistic.

The range of elementary class size within districts extends from eight to 40. While it is possible that some differences in class size within districts can be explained by differences in grade level composition of population from building to building, it is also possible that one class may be twice as large as another within a single school building. A brief review of Trends in Minnesota Education, prepared by the State Department of Education, indicates that average class size by district varies to approximately the same extent as does the size of single classroom groups.

### Experience

Table 62 depicts the distribution of elementary school teachers in 1965-66 by years of professional experience and by size of district. The data indicate an inverse relationship between district size and the proportion of staff with more than ten years of experience. It appears that there is a less pronounced

but direct relationship between district size and proportions of staff with five or fewer years of experience. The median experience for all elementary school teachers in all schools is approximately nine years.

TABLE 62

## PROFESSIONAL EXPERIENCE OF MINNESOTA ELEMENTARY SCHOOL TEACHERS, 1965-66

District Size Category	Per Cent of Teachers by Years of Experience				
	One	Two	Three to Five	Six to Ten	More Than Ten
1	4.8	3.6	6.1	16.4	69.1*
2	3.7	7.2	9.6	13.4	66.1*
3	4.2	4.7	8.4	19.8	61.2*
4	2.3	4.6	8.5	17.5	67.1*
5	8.7	5.8	11.1	14.6	59.8*
6	6.8	9.0	11.9	12.9	59.1*
7	9.4	8.3	13.4	15.2	53.6*
8	10.9	7.3	15.4	15.4	50.6*
9	7.8	9.6	14.7	19.3*	48.6
10	12.5	10.6	20.0	15.7*	41.2
11	11.7	10.6	21.8	19.0*	36.9
Total for State	10.1	9.2	17.6	17.4*	45.6

SOURCE: "Qualifications of Elementary Supervisors and Teachers," Code VI-C-10, 1965-66, St. Paul, Minnesota: State Department of Education, 1966.

NOTE: The years of experience were not reported for some teachers, so the percentages do not total 100.0 in every category.

\*Contains median for size category.

The distribution of responses of the survey questionnaire sent to elementary school teachers in Minnesota in 1966-67 closely approximates the distribution in Table 62, and to the nearest year the median is the same. The survey questionnaire results also indicate that the median experience in the systems presently employing these teachers is five years. Also, the distribution of teacher experience is clustered closely about the median.

The preliminary summary of a nation-wide study conducted in 1966<sup>4</sup> reports teaching experience for both elementary and secondary school teachers. The data depicting total years of experience indicate a distribution closely resembling

4. The American Public School Teacher, 1965-66, Preliminary Report of the Research Division, Washington, D.C.: National Education Association, 1966, p. 6.

the distribution for all schools shown in Table 62. The median of total years of experience for this group is eight years, and the median years of experience where presently employed is the same as for Minnesota, five years.

From these studies it can be concluded that the distributional pattern of professional experience of elementary school teachers in Minnesota is approximately the same as for teachers throughout the United States. Within Minnesota, however, total experience seems to vary inversely with school district size, with large school districts having a greater proportion of teachers with five or fewer years of experience and a smaller proportion of teachers with more than ten years of experience.

### Salary

In Minnesota, salaries of elementary school teachers are considerably less than salaries of secondary school teachers. For the school year 1965-66, the mean salary of elementary school teachers was \$6,260, while the mean salary of secondary school teachers was \$7,316.<sup>5</sup> Throughout the United States, elementary school teachers generally receive less pay than do secondary school teachers.<sup>6</sup> In Minnesota, this difference is due in part to lower certification requirements for elementary school teachers in past years. It is not unusual to find district salary schedules which include one or more salary levels below that prescribed for teachers with a baccalaureate degree, and also that salaries for teachers with two years of college preparation are more than \$2,000 below salaries for teachers with a college degree.

A preliminary report of the National Education Association Research Division<sup>7</sup> indicates that the range and distribution of public school teachers' salaries in Minnesota closely approximate the range and distribution found in a nationwide sample.

Increases in salaries of Minnesota teachers are not keeping pace with changes throughout the nation. Minnesota ranked nineteenth of the 50 states in a comparison of salary increases for the period 1955-56 to 1965-66,<sup>8</sup> but fell to forty-second of the 50 states for the years 1964-65 to 1965-66. This trend, if continued, could result in a lower ranking in this regard for each successive

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5. State Elementary and Secondary School Statistics, 1965-1966, Form CC-2097, Part II, St. Paul, Minnesota: State Department of Education, 1966.

6. Rankings of the States, Research Report 1966-R1, Washington, D.C.: National Education Association, 1966, pp. 23-24.

7. The American Public School Teacher, 1965-66, Washington, D.C.: Research Division, National Education Association, 1966, p. 14.

8. Rankings of the States, Research Report 1966-R1, op. cit., pp. 25-26.

year. In the same type of comparison for the period 1956-57 to 1966-67, Minnesota ranked twenty-seventh of the 50 states. For the years 1965-66 to 1966-67, Minnesota ranked thirty-second of the 50 states for per cent of salary increase.

Table 63 depicts the percentage of elementary school teachers by salary group for school district size categories and for all elementary schools. In the two categories of smaller districts there is a narrow salary range and over 90 per cent of salaries are less than \$6,000. In the four categories of larger districts, salaries have a wider range and the majority of teachers earn salaries in excess of \$6,000. The upper-right portion of Table 63, set apart by the broken line, relates the categories of smaller schools to the higher salary groups. The proportion of staff represented in this portion of the table indicates that few teachers, and in some instances no teachers, are represented in the higher salary groups. A comparison of extremes reveals that approximately 65 per cent of teachers in category one schools earn less than \$5,000, while approximately 65 per cent of teachers in category 11 earn more than \$6,000.

Data derived from reports of district superintendents for 1965-66 indicate that the median salaries for elementary teachers in the two categories of smallest districts fall in the \$4,000 to \$4,999 interval. The median salaries for teachers in categories three through seven fall in the \$5,000 to \$5,999 interval, while the median salaries for teachers in the four categories of the largest schools and the median salary for all elementary school teachers fall in the \$6,000 to \$6,999 interval. The difference in median salaries is related to the size of the district and the level of professional preparation.

The difference in median salary by category is paralleled by differences at the extremes. In the smaller schools there are fewer teachers in the higher salary brackets, while in the larger schools there are fewer teachers in the lower salary brackets.

#### ELEMENTARY SCHOOL ADMINISTRATORS

Records of the State Department of Education show that there are 1,017 elementary schools in the districts which offer both elementary and secondary education. The number of elementary school principals in the state, however, is less than the number of schools because ungraded elementary schools are not required to have a principal, and because some principals serve more than one school. Survey questionnaires were sent to 945 elementary school principals. Questionnaires were returned by 87 per cent of this group, and 821 usable responses were tabulated.

Respondents to the survey questionnaire include individuals who, though they are the designated principal, are in fact fully employed as classroom teachers; some are part-time teachers and part-time administrators.

Data concerning elementary school principals were also collected from the questionnaires sent to superintendents. The superintendents reported as principals only those individuals who spent more than one-half of their time performing

TABLE 63  
SALARIES OF MINNESOTA ELEMENTARY SCHOOL TEACHERS, 1965-66,  
BY SIZE OF SCHOOL DISTRICT

District Size Category	Number of Districts	Per Cent With No Response	Per Cent of Teachers by Salary Category						
			Less Than \$4,000	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999	\$8,000- \$8,999	\$9,000 Or More
1	49	5.8	9.7	58.5*	20.9	4.5	--	0.3	0.3
2	56	2.1	4.5	46.3*	37.2	9.4	0.5	--	--
3	48	2.2	2.9	30.9	44.2*	17.3	2.5	--	--
4	44	--	2.1	25.7	45.3*	22.5	1.6	2.8	--
5	61	--	1.8	26.7	45.8*	19.6	5.8	0.3	--
6	46	1.8	1.8	17.7	40.8*	27.0	9.0	1.6	0.3
7	41	--	1.2	12.1	41.6*	24.8	17.0	2.6	0.7
8	38	1.5	0.9	7.0	36.7	26.8*	20.3	5.4	1.4
9	21	--	1.2	5.3	36.5	27.1*	19.5	6.8	3.6
10	21	7.7	1.2	2.2	36.4	22.9*	14.4	11.7	3.5
11	27	--	0.6	0.9	34.0	21.4*	13.6	18.2	11.3
Total for State	452	1.3	1.3	8.9	36.5	22.0*	12.8	11.1	6.1

SOURCE: "Qualifications of Elementary Supervisors and Teachers," Code VI-C-10, 1965-66, St. Paul, Minnesota: State Department of Education, 1966.

\*Contains median for size category.

administrative and supervisory duties. Thus, the number of elementary school principals reported by the superintendents was somewhat smaller than the number to whom questionnaires were sent.

Responses to the survey questionnaire indicate that approximately 62 per cent of these elementary school principals are male and that 80 per cent of the group are married.

Approximately 6 per cent of the principals are under 30 years of age; 29 per cent are 30 to 39 years of age; approximately 22 per cent are 40 to 49 years of age; and 41 per cent are 50 or more years of age.

#### Preparation

Responses of superintendents indicate that only 3.2 per cent of elementary school principals have not completed a four-year degree program but that 73 per cent have preparation beyond the baccalaureate degree. Principals with a master's degree comprise 64 per cent of this group but less than two per cent hold degrees beyond the master's. The percentage of elementary school principals who hold graduate degrees increases as district size increases. In the six categories of smallest districts, only 25 per cent of the elementary school principals hold a graduate degree. In the remaining five categories, the larger districts, approximately 80 per cent of the principals hold graduate degrees, and in the 27 largest districts, 98 per cent of the principals hold graduate degrees.

The summary of principals' responses to the survey questionnaire show that one-half of the group hold baccalaureate degrees earned more than ten years ago. Of those who hold graduate degrees, 63 per cent completed this program within the past ten years.

Elementary school principals tend to continue advanced study. Of the respondents to the principals' questionnaire, 93 per cent had attended college or university in the past ten years; 81 per cent have attended in the past five years; 56 per cent have attended in the past two years; and 37 per cent have attended in the past year. Preparation beyond the highest degree held has been acquired by 84 per cent of these principals, and for 36 per cent of the group the additional preparation is a part of a planned degree program.

Principals of the larger schools are more frequently graduates of the University of Minnesota. Of the total group, more principals are graduates of state colleges, however, than of any other type of educational institution. More principals majored in education than in any other field.

#### Certification

Presently, there are four types of certificates available to elementary school principals. The "Elementary Principal's Certificate II" requires that the applicant hold a master's degree or 45 quarter hours of graduate credit with 27

quarter hours of credit in specified fields and subjects. Three years of teaching experience in elementary schools are required. This certificate is renewable for five years on completion of one year of experience, and after five years of experience it is renewable for life.

The "Provisional Elementary Principal's Certificate II" requires a baccalaureate degree including 16 quarter hours of graduate credit in specified areas and two years of teaching experience. This certificate is issued for two years and is renewable upon completion of eight quarter hours of graduate credit.

An "Elementary Principal's Certificate I," valid in schools with not more than 15 teachers, is issued on the basis of a baccalaureate degree in elementary education with 16 quarter hours credit in specified areas and two years of teaching experience. This certificate is renewable for five years after one year of administrative experience and for life after five years of experience.

A "Provisional Elementary Principal's Certificate I," valid in schools with not more than 15 teachers, may be issued on the basis of a valid elementary school teaching certificate with eight quarter hours of credit in specified course work and one year of teaching experience. Issued for two years, this certificate may be renewed on presentation of eight quarter hours of additional college credit until the applicant is qualified for the Certificate I.

Effective September 1, 1967, these certificates will no longer be issued, but those already issued and not requiring renewal will remain valid. They are to be replaced by three certificates based on amended requirements.

A "Standard Administrator's Certificate" will be issued on the basis of a master's degree or institutional certification of completion of all but 29 quarter hours toward a specialist's degree and three years of teaching experience. Valid for two years, this certificate is renewable, but once, for five years after the completion of 12 quarter hours of additional graduate study.

The ultimate goal for each elementary school principal will be the "Professional Administrator's Certificate" requiring the degree Specialist in Education or the equivalent, and three years of teaching experience.

A "Limited Administrator's Certificate," valid only in elementary schools with ten or fewer teachers, will be issued upon written request of the superintendent. It will require a baccalaureate degree in teacher education. Valid for one year and renewable annually with eight quarter hours of graduate study, this certificate will be terminated on September 1, 1971.

#### Assignment

Responses to the survey questionnaire for superintendents indicate that elementary schools in districts with secondary school enrollments of 400 or more all employ elementary school principals who spend the majority of their time in administration, while nearly half of the school districts with lower enrollments do not. Approximately one-half of the elementary school principals who responded teach classes part of the time. An inverse relationship is indicated between the



size of elementary schools and the amount of time which principals devote to teaching classes. One-fourth of the elementary school principals report that they teach classes one-half or more of the time, and in the smallest schools more than 80 per cent of the principals teach on a full-time basis.

It was apparent from the survey questionnaires that most principals in elementary schools in small districts are merely figureheads who have the title but are functioning only as teachers. In fact, one person listed on official reports as an elementary school principal returned the questionnaire with a letter stating that she was not the principal and there was none in that district.

In several districts the person listed as the elementary school principal was also a full-time secondary school teacher, often with only one period for lesson preparation, conferences, and administering the elementary school. Since elementary and secondary information are reported separately to the Department, these districts report a favorable elementary situation with a nonteaching principal when in reality they do not have one.

Responsibility for more than one school is assigned to 14 per cent of the elementary school principals, but this type of assignment occurs most frequently in districts with more than 400 secondary school pupils. Schools of less than 400 secondary school pupils did not report employing assistant principals or administrative interns. Approximately 8 per cent of all elementary school principals do have assistants, however, but two-thirds of the assistants devote less than one-half of the school day to administrative duties.

### Experience

Ninety-five per cent of Minnesota's elementary school principals have taught elementary school classes and 17 per cent have some secondary school teaching experience. Approximately 72 per cent have no teaching experience outside of the state; approximately 13 per cent report no teaching experience in the state. Of the total group, 95 per cent held no previous administrative position outside of the state and 30 per cent had no previous administrative experience in Minnesota, being new to the state or new to the field of administration.

The median number of years of experience in administration was six to ten years for all principals and for all but one size category of schools. The median number of years of experience in the present position was also between six and ten years. With the exception of principals with one or two years of experience, years in present position is very closely related to total years of elementary school administrative experience. The conclusion must be that there is very little changing of positions among principals after one or two years of experience.

The most frequent pattern of experience for elementary school principals seems to be three to ten years of teaching in elementary schools followed by as many years in administrative work with infrequent changes of position. Few principals have other administrative experience or nonteaching experience in education.

### Salary

Salaries of elementary school principals are reported yearly by the Minnesota Education Association in its Special Research Memo, "Administrative Salaries." The salaries reported for 1965-66 were tabulated for the 11 school district size categories used in this study. Salaries of the principals in Minneapolis schools were not included in the tabulation as only the maximum scheduled salary was reported for 71 principals.

The results show a definite relationship between school district size and principals' salaries. As school district size increases, the mean salary for the category increases, almost without exception. The mean of salaries reported for the smallest districts was \$5,490 and for the largest districts it was \$11,751. The mean salary for all groups was \$10,057 which approximates the mean salary, \$10,489, for schools with 1,500 to 2,499 secondary school pupils, the next to largest category used. This fact is due in part to higher salaries in the larger schools and in part reflects the fact that there are more elementary schools, more elementary school principals, and a higher percentage of elementary schools with principals in the larger districts.

The range of salaries of elementary school principals also increases as district enrollment increases. The lowest salary reported was \$4,600 and the highest salary reported was \$16,580.

The \$10,057 mean salary for all elementary school principals, when compared with the \$6,260 mean salary for elementary school teachers reported earlier, indicates a relatively strong salary position for principals.

The range of salaries and group means indicate that salary and formal preparation are both directly related to school district enrollment.

### ELEMENTARY SCHOOL LIBRARIANS

Although it is reasonable to expect that where there is a library there is also a librarian, unfortunately, this is not necessarily true in the elementary schools. There are more elementary schools in Minnesota than there are public school librarians. Basically, two groups of librarians serve elementary schools. Librarians serving only elementary schools number 330, with more than two-thirds of this number employed in the 27 largest of the 452 districts. There are also 329 librarians, including those classed as consultants, who serve both elementary and secondary schools. This occurs wherein one library serves both elementary and secondary schools in one building or where a librarian is employed less than full time in each of two or more libraries.

Certification as a fully qualified librarian requires an academic minor in library science in addition to fulfillment of the requirements for a teaching certificate. Of the 1,011 librarians employed in Minnesota public schools, both elementary and secondary, 789 meet or exceed minimum standards as prescribed. Provisional certification requires inservice training or academic courses with eight quarter hours of academic course work required for renewal of provisional certificates of part-time librarians.

Considering these facts in combination, it would appear that fewer than 659 full or part-time librarians serve more than 1,000 elementary schools, and that approximately one-half of this group also serve secondary schools.

Computation based on the assumption that the 329 librarians serving both elementary and secondary schools divide their time equally between the two levels and not taking into account the number of part-time librarians reveals a ratio of one librarian to approximately 750 pupils.

The American Association of School Librarians, in its publication Standards for School Library Programs, 1960, recommends one full-time librarian for each 300 pupils or major fraction thereof through the first 900 of school population and one for each 400 pupils or major fraction thereof for schools with over 900 enrollment. The Association further recommends that there be a library clerk employed for each 600 pupils or major fraction thereof enrolled.

#### ELEMENTARY SCHOOL GUIDANCE PERSONNEL

The development of guidance programs in Minnesota has followed a pattern similar to patterns in other parts of the nation. Typically, guidance programs were begun in secondary schools long before an attempt was made to extend these programs to the elementary schools. As a result, there are indications that some elementary school guidance programs may tend to evolve as modifications of secondary school guidance programs. The lack of preparation programs for elementary school guidance personnel may also result in the reorientation of secondary school counselors toward the elementary school guidance field.

These problems have already developed in Minnesota where the elementary school guidance programs are just beginning. Interest in this area began to expand about ten years ago, but as yet there are not many exploratory programs. At this time, there are but 12 elementary school guidance counselors in the state.

Results of a study sponsored by the Minnesota State Department of Education indicate that, at present, 99 per cent of elementary schools do not have the services of a full-time counselor, and that 94 per cent do not have a counselor available on a part-time basis. School psychologists, with related functions, are not available full-time to 96 per cent of the schools, and 80 per cent of the schools do not have these services available on a part-time basis. Similarly, the services of a school social worker are unavailable, full or part-time, to 97 per cent of the elementary schools.

The relatively recent appearance of elementary school guidance programs contributed to a paucity of recommended counselor-pupil ratios. Guidelines for elementary programs eligible for federal assistance under NDEA require that a 600:1 ratio not be exceeded. Considering the differences in functions of elementary and secondary school counselors, this recommendation seems to be quite reasonable.

## SECONDARY SCHOOL PROFESSIONAL PERSONNEL

Minnesota secondary schools are much more likely to have special personnel in addition to classroom teachers than are elementary schools. Each secondary school is required to have a principal. Certificated counselors are employed by one-half of all districts, and most districts with more than 200 secondary school students have a librarian. Only in the largest districts is there an appreciable number of other specialists. The vast majority of all personnel in secondary schools, however, are classroom teachers.

### SECONDARY SCHOOL TEACHERS

Public secondary school teachers in Minnesota numbered 17,064 in 1965-66, as listed on the superintendents' annual reports to the State Department of Education. In this section, descriptive information about secondary school teachers' personal characteristics, their training and certification, their assignments, experience, and salary will be presented.

Of the 17,064 public secondary school teachers in Minnesota, 11,165 or 65 per cent are men, 5,899 or 35 per cent are women. About three fourths of Minnesota secondary school teachers are married. The age of the teaching staff tends to be related to school district size with the larger districts having more mature staffs.

### Preparation

The extent of professional preparation of teachers is directly related to school district size. As shown in Table 64 nearly all secondary school teachers who responded to survey questionnaires (99.7 per cent) hold a bachelor's degree but only 27 per cent have an advanced degree. Only in districts with more than 500 secondary school enrollment do more than 15 per cent of the secondary school teachers have an advanced degree. The percentage continues to increase to a high of 36 per cent in districts with a secondary school enrollment of 2,500 or more. Fewer than one per cent of Minnesota secondary school teachers have earned a degree beyond the master's. However, the presence of such teachers is most frequent in larger districts.

Respondents to the secondary school teacher questionnaire indicated that slightly more than two of three teachers had either been back to school for additional education or had received the bachelor's degree within the past two years.

The percentage of teachers who have attended college or a university within the past five years is nearly 91 per cent; while over 98 per cent have attended within the past ten years. The depth and breadth of such course work cannot readily be assessed.

TABLE 64  
DEGREE STATUS OF SECONDARY SCHOOL TEACHERS, 1965-66

Degree Status	Per Cent of Secondary School Teachers by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
No four-year degree	*	*	2	*	*	1	*	*	*	*	*	*
Bachelor's (four-year) degree	89	93	90	92	91	86	78	75	70	68	63	73
Master's degree	10	7	8	8	9	12	22	25	29	32	36	27
Degree beyond the Master's	*	*	*	*	*	*	*	*	*	*	1	*

SOURCE: Survey questionnaires.

\*Less than one per cent.

#### Certification

A fundamental characteristic of a satisfactory school is the provision for classroom instruction by competent and qualified teachers. While certification is not necessarily synonymous with competence, it may be assumed that a teacher who has had sufficient professional preparation for certification in a given area should be more competent than a teacher who has not had specialized training.

The trend in secondary school teacher certification, over the years, has been toward more specific requirements. General-type certificates have been discarded. Degrees awarded by the University of Minnesota, state colleges, and certain private liberal arts institutions are accepted by the State Board of Education as evidence of successful completion of teacher preparation programs. Minimum certification requirements now call for a four-year college degree. This certificate enables the holder to teach in all areas in which he has a college major and to teach for less than one-half time during the school day in those areas in which he has a college minor. Provisional certificates (less than a four-year degree) have not been issued since 1961. The only exceptions are for infrequent substitutes and homebound teachers.

### Assignment

There are two important factors to consider in the area of teacher assignment. The first is whether or not the teacher is qualified to teach those subjects to which he is assigned. Present regulations require that a teacher must have a major to teach full time in a subject and must have at least a minor to teach up to half time in a subject. However, these regulations were not retroactive and many teachers who were certified under prior regulations retain that certification even though they might not meet current standards.

Data relating to teacher assignment on the basis of preparation were not readily available. By comparing the teacher assignment report with the records of individual teachers, a measure of the extent to which teachers were assigned to areas for which they were prepared was established. For the state as a whole, 95 per cent of all classes offered in Minnesota secondary schools were taught by a teacher with at least a minor in that field.

There was some relationship between the size of the district and the number of fields in which the teacher teaches. In districts enrolling fewer than 250 secondary school students a larger percentage of classes were taught outside the major or minor fields of the teacher.

The second important aspect of teacher assignment is the teaching load or number of different classes a teacher meets during the school day. It has been demonstrated that, other things being equal, teacher effectiveness increases as the number of different teaching fields and different preparations decreases.

Table 65 presents data relating to various aspects of assignment by size of district. For the state as a whole, only 21 per cent of the secondary school teachers were teaching in more than one field. This factor was directly related to school size with teachers in smaller districts being much more likely to be assigned to two or more fields. For example, 52 per cent of the teachers in the smallest district size category taught in two or more fields as contrasted to 15 per cent in the largest district size category.

The number of different preparations was also directly related to district size. Whereas for the total state 57 per cent of the teachers had only one or two different preparations; in districts with enrollments of under 300 secondary school students less than 20 per cent had two or fewer preparations. For the state as a whole, 21 per cent of the teachers had four or more preparations. In the four smallest district size categories this figure was at least 50 per cent and it was over 70 per cent in the two smallest categories of districts. By contrast, only 5 per cent of the teachers in the largest district size category carried such a teaching load.

Clearly, teachers in smaller districts are faced with heavier preparation loads. This situation is even more critical because the teachers in these small districts tend to be less well prepared, have less experience, and have heavier extracurricular loads.

TABLE 65

## TEACHING LOAD IN MINNESOTA SECONDARY SCHOOLS, 1965-66

Teaching Load	Per Cent by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
Per cent of teachers teaching in more than one field	52	45	40	36	28	26	21	18	12	17	15	21
Per cent of teachers with one or two preparations	13	15	18	19	23	37	50	57	73	69	75	57
Per cent of teachers with four or more preparations	73	71	55	50	44	35	23	17	7	11	5	21

SOURCE: Survey records.

Experience

There is a strong tendency for Minnesota secondary school teachers to move to larger districts as they gain experience. Table 66 shows that the smaller districts have a greater percentage of teachers with one or two years of experience. On the other hand, the larger districts generally show a greater percentage of more experienced teachers.

Teacher turnover also showed a relationship with school size. Teacher experience within the school system generally increased as district size increased. Two exceptions were noted. The smallest schools (category 1) had the highest percentage of teachers with more than ten years of experience in the school system. Suburban schools had high percentages of teachers with less than five years experience in the system, probably due to the rapid growth of these districts.

TABLE 66

## EXPERIENCE OF MINNESOTA SECONDARY SCHOOL TEACHERS, 1965-66

Years of Experience	Per Cent of Teachers by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
One year	13	15	14	12	15	13	7	2	6	8	4	7
Two years	10	21	16	17	11	14	5	8	8	6	7	8
Three to five years	10	9	19	35	22	14	28	18	20	18	13	17
Six to ten years	23	12	20	19	20	22	26	24	26	26	26	24
More than ten years	37	40	27	15	30	32	33	44	31	37	46	39
No response	7	3	4	2	2	5	1	5	9	5	4	4

SOURCE: Survey questionnaires.

### Salary

Many factors contribute to or detract from the morale of a teaching staff. Nearly all studies of morale, however, indicate compensation to be a very important element. One such study, conducted in 20 school systems over a nine-year period, reported inadequate salaries and large classes as the two most common causes of poor morale.<sup>9</sup>

With the exception of the ministry and social work, the lifetime earnings of teachers have been consistently lower than other professional groups. There are a number of factors responsible for this occurrence including a shorter annual period of work and the limited bargaining power of the teaching profession. Despite these and other economic and social factors teacher income has risen during the past decade.

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9. Henry Harap, "Morale," The Nation's Schools, Volume 63, No. 6, June 1959, pp. 55-57.



During the period from 1956-57 to 1966-67, the average salary of all Minnesota teachers has increased 64 per cent, almost identical to the national average of 63.7 per cent. However, the gain for 1966-67 over the previous year was only 3.7 per cent for Minnesota teachers compared to the national average of 4.9 per cent.<sup>10</sup>

The foregoing figures do not represent a true measure of income gain, however, because of dollar erosion by inflation. A recent study of the extent of inflation reported that while the median teacher salary for 1966-67 of \$6,762 represents a 44.5 per cent increase over the \$4,680 median salary of the 1957-1959 period, inflation has reduced the increase in real income to 13 per cent or about a \$600 increase in purchasing power for the average teacher.<sup>11</sup>

A further measure of the unfavorable economic status of teachers is found in a comparison of teachers' salaries to effective buying income per household. The 1965 effective buying income per household for the West North Central Region (Minnesota, Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota) was \$7,392 compared to an average salary of \$5,879 for teachers in the region for 1965-66.<sup>12</sup>

To offset this income discrepancy many teachers find it necessary to secure additional part-time employment. One study indicates that one-third of all teachers and three-fourths of male teachers engage in "moonlighting" with one or more outside jobs.<sup>13</sup>

The median salary received by a secondary school classroom teacher in Minnesota for 1966-67 was \$7,175. On this basis Minnesota ranks fourth among the 12 Midwestern states; following Illinois, Indiana, and Michigan.<sup>14</sup>

Studies conducted in Minnesota demonstrate that geographic location and size of school influence salaries paid to secondary school teachers. A study by the Minnesota School Boards Association showed that schools in the five-county metropolitan area offer superior salary plans to classroom teachers.<sup>15</sup> The area

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10. Rankings of the States, Research Report 1967-R1, Washington, D.C.: National Education Association, 1967, p. 28.

11. "How the School Dollar Is Being Spent," School Management, Volume 11, No. 1, January 1967, p. 135.

12. "The NEA Salary Goal," National Education Association Research Bulletin, Volume 45, No. 1, March 1967, pp. 18-19.

13. Ronald F. Campbell, Luvern L. Cunningham, and Roderick F. McPhee, The Organization and Control of American Schools, Columbus, Ohio: Charles E. Merrill Books, 1965, pp. 262-263.

14. Rankings of the States, Research Report 1967-R1, op. cit., p. 26.

15. Annual Survey on Salaries and Related Information, 1966-1967, St. Peter, Minnesota: Minnesota School Boards Association, 1967, p. 10.

showed higher starting and maximum salaries for teachers with bachelor's degrees and those with master's degrees. In dollars, the median maximum salary for a teacher with a bachelor's degree is approximately \$2,000 greater in the Twin Cities area than the median for the balance of the state. For teachers holding a master's degree the difference is over \$2,500. This salary differential provides an attractive inducement to teachers to migrate to schools in the metropolitan area.

The study also shows that the northeast section of the state, including Duluth and the Iron Range, ranks second on the above factors. Areas of the state bordering on North and South Dakota rank lowest on all salary comparisons.

A further study of Minnesota classroom teacher salaries was made in 1966 by the Minnesota Education Association.<sup>16</sup> School districts were grouped into six size groups and the median salary was computed for each group. Results showed a positive correlation between larger school districts and higher salaries. Schools in the largest size classification (over 3,000 pupils) showed a median salary which was 50 per cent larger than the median salary of the smallest schools (under 200 pupils).

#### SECONDARY SCHOOL ADMINISTRATORS

Today's secondary school principal must be an outstanding educational leader. As the central administrator of his building, he relates, directly or indirectly, to the teachers, pupils, and the ongoing instructional activities. In addition, he must cooperate with his superintendent, school board, other supervisory personnel, and citizen groups in matters which have importance for the school program. It is clear from the foregoing, then, that the functions of these administrators are summarily diverse.

Regulations of the Minnesota State Board of Education require that every secondary school shall be under the direction of a properly certificated principal. Despite this directive, survey questionnaires revealed that at least three Minnesota secondary schools had no principal during the 1966-67 school year.

In addition to serving as an administrator, one-third of Minnesota's secondary school principals spend a part of their day as classroom teachers. As indicated in Table 67, there is an inverse relationship between district size and the percentage of principals required to teach. For example, in the smallest districts (category 1) 18 per cent of the principals taught more than half time and an additional 44 per cent taught more than quarter time; in contrast, in the largest districts (category 11) 95 per cent of the principals had no teaching assignment. For the entire state two-thirds of the principals had no teaching responsibilities.

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16. Salary Kit Memo No. 10: Classroom Teacher Salaries, St. Paul, Minnesota: Research Department, Minnesota Education Association, January 1966, p. 3.

TABLE 67  
TEACHING DUTIES OF SECONDARY SCHOOL PRINCIPALS

Per Cent of Time Spent in Teaching	Per Cent of Principals by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
Over 50	18	0	3	3	0	0	0	0	0	0	0	2
26-50	44	44	22	14	10	7	2	0	0	5	0	11
1-25	38	42	53	28	25	17	5	14	6	18	5	20
None	0	14	22	55	65	76	93	86	94	77	95	67

SOURCE: Survey questionnaires.

#### Certification

The Standard Secondary Principal's Certificate currently in effect requires a master's degree or equivalent and three years of successful teaching experience. Two types of provisional certificates, valid in small schools, are also issued.

Beginning September 1, 1967, new certification requirements become effective. However, existing certificates will remain valid. Ultimately, all secondary school principals will be required to hold a "Professional Administrator's Certificate" based on a specialist's degree or equivalent in school administration and three years of teaching experience.

A "Standard Administrator's Certificate" will be issued on the basis of a master's degree or institutional certification of completion of all but 29 quarter hours toward a specialist's degree and three years of teaching experience. Valid for two years, this certificate may be renewed once for five years after the completion of 12 quarter hours of additional graduate study.

#### Preparation

Table 68 reports the degree status of secondary school administrators. These data were summarized from the questionnaires completed by superintendents of schools. Each superintendent was asked to list the degree status of all professional personnel, including administrators. The data show that 90 per cent of all secondary school administrators hold at least a master's degree or equivalent. Preparation of the principal is related to school district size. The smallest districts had greater percentages of principals who did not have a master's degree. In those secondary schools enrolling fewer than 150 students, over one-half of the principals did not have a master's degree.

TABLE 68

## DEGREE STATUS OF SECONDARY SCHOOL ADMINISTRATORS

Degree Held	Per Cent Holding Degree by Size Category											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
Bachelor's Degree	58	21	22	25	13	8	2	4	2	7	1	10
Master's Degree or Fifth Year	42	77	79	73	87	92	98	93	98	90	94	88
Advanced Degree	--	2	--	3	--	--	--	3	--	3	5	2

SOURCE: Survey questionnaires.

From the questionnaires sent to Minnesota principals, returns showed recency of training to be inversely related to school size; that is, a greater per cent of those principals in smaller schools had attended school more recently (within the past five years) than had their larger school colleagues. This is especially true of those administrators in school districts below 250 secondary school enrollment. In addition, those principals in schools with fewer than 500 students outnumber those in larger schools working on a planned degree program by nearly two to one. The foregoing is not to suggest that principals in larger schools are less motivated; rather this differential can be attributed to the fact that a greater percentage of principals in smaller schools do not hold a master's degree and also are more likely to be seeking additional education to obtain a position in a larger system.

The fact that there are a substantial number of principals in small schools who do not hold a master's degree is not due to a shortage of qualified persons in the state. Data from one study indicate that there are more fully certificated individuals available than there are positions in the state. Some of these individuals, however, are in teaching positions in larger school systems and are unwilling to accept principalships in small schools because of the unattractiveness of the position.

#### Experience

Data gathered from the principals' questionnaires revealed no consistent pattern of administrator experience at their present location although there is a general tendency for a longer period of service at their present locations by principals in the larger school districts. The average experience of Minnesota principals in their present locations is nearly 7.5 years. Most principals have made at least one location change.

Survey information from 537 responses revealed that 60 per cent of secondary school administrators were 40 years or older and that 91 per cent were age 30 or older. Compared with these state totals, school districts of 1,000 or more secondary school enrollment employed a higher percentage of principals 40 years or older. Similar to findings regarding classroom teachers, these percentages suggest a small school to large school migration by principals as their experience increases.

Data from the principals' questionnaires showed that virtually no women (one per cent) are employed in this capacity, and that 94 per cent of all secondary school principals are married.

### Salary

A strong positive relationship existed between school district size and principal's salaries. In 1965-66 the salaries paid to secondary school principals in Minnesota ranged from \$5,400 to \$16,786 with the state average near \$10,000.

Several factors influence the salary paid to a secondary school principal. Principals in the metropolitan area receive higher salaries than principals in comparable size schools in the rest of the state. Senior high school principals generally receive higher salaries than do principals of junior high schools for several reasons. The senior high school principalship is more demanding in terms of time, particularly in the extracurricular program. Senior high school principals tend to have more experience, senior high schools are often larger than junior high schools, and in many communities the junior high school principalship is considered a less important position.

Principals of six-year secondary schools generally receive lower salaries than do principals of separate junior or senior high schools. This is primarily due to district size. In fact, many assistant principals in large school systems earn substantially more than the principals of most small six-year high schools.

In secondary schools affiliated with the North Central Association of Colleges and Secondary Schools (101 in 1965-66), salaries of principals varied according to enrollment; a positive correlation was noted between larger salaries and larger enrollments. Salaries of principals are commonly higher in N.C.A. schools than in nonmember schools of similar size. In certain cases, these differences are well in excess of \$2,000 annual salary.<sup>17</sup>

On a comparison of average 1965-66 salary for secondary school principals in only N.C.A. schools, Minnesota ranked third in a 12-state grouping comprised of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Minnesota's average was \$12,420. Salaries in most of these states were clustered in the \$10,500 to \$12,500 range.<sup>18</sup>

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17. Gordon Cawelti, Preliminary Salary Data of Secondary School Principals, 1965-66, Chicago: North Central Association of Colleges and Secondary Schools, 1966, Table 6.

18. Ibid., Table 4.

## SECONDARY SCHOOL GUIDANCE PERSONNEL

The guidance movement has traditionally concerned itself with the mental health of students and with the development of human resources. In the early years of guidance, however, those who implemented these objectives tended to stress one or the other. Today, although much has been done to provide adequate guidance services commensurate with modern day needs of youth, the school, and the community, there is need for improvement in virtually all areas of guidance.

In the past decade, government-sponsored programs have been developed to ease the shortage of counselors and to promote a wider range of guidance services in the public schools. In this regard, the National Defense Education Act of 1958, the Vocational Education Act of 1962, and the Elementary and Secondary Education Act of 1965 have been of major significance to the guidance movement.

Despite the presence of more government programs, including counseling projects for secondary schools, and intensified recruitment practices, the overall problem in Minnesota remains a shortage of sufficient numbers of qualified guidance counselors to fill the vacancies. Since 1960, 40 per cent of all counselors certificated by the State Department of Education have been endorsed by out-of-state colleges and universities. This situation has occurred despite the substantial increase (presently eight) of Minnesota counselor preparation programs.

The shortage of guidance counselors is most pronounced in the small districts. In 1965-66, of those school districts with fewer than 300 secondary pupils, 91 per cent were without certificated school counselors. As indicated in Table 69, over one-half of all Minnesota secondary school districts did not employ a certificated counselor for the 1965-66 school year.

TABLE 69

## DISTRICTS WITHOUT CERTIFICATED SECONDARY SCHOOL COUNSELORS, 1965-66

Districts	Size of Secondary School Enrollment						Total for State
	Under 200	200-299	300-499	500-699	700-999	1,000 and Over	
Number with secondary schools	106	92	108	41	38	69	454
Number without counselors	106	75	42	5	1	1	231
Per cent without counselors	100	82	39	12	3	1	51

SOURCE: Adapted from "Distribution of School Systems Without School Counselors by Enrollment (1965-66)," St. Paul, Minnesota: Pupil Personnel Services Unit, State Department of Education, 1966.

Table 70 shows the number of districts having counselors for the 1966-67 school year. The difference between these data and those of the previous table is that all counselors reported in Table 70 may not be certificated. Thus the apparent improvement in the situation is probably not as great as it might appear.

TABLE 70

## AVAILABILITY AND DEGREE STATUS OF SECONDARY SCHOOL COUNSELORS, 1966-67

	S i z e C a t e g o r y											Total for State
Counselor Status	1	2	3	4	5	6	7	8	9	10	11	
	<u>Number of Districts</u>											
Districts in category	49	56	48	44	61	46	41	38	21	21	27	452
Districts reporting counselors	9	9	7	18	35	37	36	38	21	21	27	258
	<u>Number of Counselors</u>											
Counselors with less than master's degree	5	3	3	4	9	3	4	5	3	2	18	59
Counselors with master's degree or equivalent	4	6	7	14	27	34	44	56	58	82	397	729
Counselors with degree beyond the master's	--	--	--	--	--	--	--	--	--	3	8	11
Total number of counselors	9	9	10	18	36	37	48	61	61	87	423	799

SOURCE: Survey questionnaires.

Present certification requirements call for a master's degree or equivalent. Because of the counselor shortage the Department of Education has granted temporary certification. Despite these efforts, over 40 unfilled counselor positions existed during the 1966-67 school year.

As shown in Table 70, the vast majority of counselors hold a master's degree or equivalent. Less than 8 per cent of the counselors have only a bachelor's degree. At the other extreme, less than 2 per cent hold a specialist's or higher degree.

The vast majority of guidance counselors (89 per cent) work in a junior or senior high school setting. Ten per cent are employed in six-year high schools. The average 1965-66 salary for 669 counselors working at least one-half time in that capacity was \$9,076.<sup>19</sup> As a group, counselors have a greater number of years experience than do classroom teachers on the average, and their working year is slightly longer. In addition, some districts pay their guidance personnel on a higher salary schedule. Counseling has a high percentage of men (73 per cent). These factors account for an average salary in excess of the average salary of classroom teachers.

#### SECONDARY SCHOOL LIBRARIANS

The number of certificated library personnel and their educational qualifications are less than favorable. Of all library personnel in the state, both elementary and secondary, 12 per cent have a bachelor's degree in library science (no longer offered in Minnesota), 65 per cent have a minor in library science, and 7 per cent hold a master's degree in library science. The remaining 16 per cent are functioning under special approval of the Department of Education.

Both the number of librarians and the quality of their preparation increase as district size increases. Of 352 librarians serving only secondary schools, all but 17 are in districts with secondary enrollments of more than 1,000 students and 252 of these are in only 21 districts.

The smaller districts either have a librarian who serves both elementary and secondary schools or, in the case of almost all districts enrolling fewer than 200 secondary students, there is no trained librarian.

#### CENTRAL OFFICE PERSONNEL

In addition to the categories of professional educators already discussed, there are certificated persons employed who are not assigned to duties solely within the elementary or the secondary levels and some who function at the district level. These other groups include superintendents, assistant superintendents, directors, supervisors, and special teachers. Depending on the complexity of organization of the district, there may be 20 or more such designations in a single district.

#### SUPERINTENDENTS

The position, superintendent of schools, exists in each of the 452 districts operating elementary and secondary schools. The professional preparation, experience, and salaries of the superintendents vary as widely as these descriptive elements do among other categories of certificated employees.

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19. "Salaries of Instructional Staff," State Elementary and Secondary School Statistics, 1965-66, St. Paul, Minnesota: State Department of Education, 1966, Table 27.



### Preparation and Certification

Responses to the survey questionnaire include information about 446 superintendents and 80 assistant superintendents. The assistant superintendents are all employed in districts having secondary school enrollments of 400 or more, and 61 per cent are employed in districts with 2,500 or more secondary school pupils.

Of these 526 administrators, only 3.2 per cent do not have at least one year of preparation beyond the baccalaureate degree. The majority, 88.8 per cent, hold a master's degree or have a fifth year of preparation. The specialist's degree is held by 3.4 per cent of the superintendents, and 4.6 per cent hold an earned doctorate.

Because of the past changes in requirements for certification of superintendents, especially the "master's degree or 45 quarter hours of graduate credit" and life certificates, it cannot be assumed that superintendents who do not hold graduate degrees are less than qualified. The same statement will be valid after September 1, 1967, when changed requirements for certification are based on two years of preparation at the graduate level. Certificates valid on that date will not be rescinded. After this date only the Standard Administrator's Certificate and the Professional Administrator's Certificate, described earlier, will be issued to superintendents and assistant superintendents.

### Experience

Superintendents of school districts in Minnesota have a wide variety of experience, due in part to rapid changes in the public schools in a relatively short period of years. Some began their careers in public education as superintendents; some were teachers for more than 30 years before entering the administrative field; some have held a single superintendency for more than 30 years.

Typically, however, most superintendents were teachers for periods of five to ten years, have been superintendents for more than ten years, and have been in their present location between five and ten years.

Years of experience as a superintendent is directly related to school district enrollment. The largest districts employ fewer superintendents with less than ten years of experience. The range in years of experience of superintendents in the smallest districts is greater, however, because some move to larger districts as they accumulate experience, while others tend to remain in small districts as a career.

### Salary

Salaries of school district superintendents vary more than do salaries of other professional school personnel. The range of yearly salaries shown by reports of the Minnesota Education Association for the past two years was about \$20,000.<sup>20</sup>

Salaries for superintendents are a function of school district size in Minnesota as they are throughout the United States.<sup>21</sup> The median salary for Minnesota superintendents in the 1965-66 school year was \$10,866. The salary report of MEA indicates these median salaries for superintendents in various size schools:

<u>Total Pupil Enrollment</u>	<u>Median Salary</u>
Less than 200	\$ 8,350
200-499	9,272
500-999	10,953
1,000-1,499	12,656
1,500-1,999	14,313
2,000-2,999	14,750
3,000 and Over	19,500

The median salary for superintendents is only slightly more than the median salary for elementary school principals, \$10,057, for the same year. Although elementary school principals' salaries were also shown to be related to school district enrollment, the median salary for principals is influenced by the fact that more of the principals are employed in the larger school districts.

Increases in superintendents' salaries have ranged from 3.9 to 5.6 per cent per year in the past seven years. The rate of increase has been slightly greater each year since the 1963-64 school year.

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20. Administrative Salaries and Guidelines: 1965-66 School Year, St. Paul, Minnesota: Minnesota Education Association, 1966, p. 5; Administrative Salaries: 1966-67 School Year, St. Paul, Minnesota: Minnesota Education Association, 1967, pp. 6-7.

21. Salary Schedules for Administrative Personnel: 1965-66, Research Report 1966-R3, Washington, D.C.: National Education Association, February 1966, p. 5.

The manner of determination of superintendent's salaries is also related to size of school districts by enrollment. In the largest school districts, throughout the United States, superintendents' salaries are most frequently independent of classroom teachers' salaries, while in the smaller districts, superintendents' salaries are related to classroom teachers' salaries by a ratio or index.<sup>22</sup>

#### OTHER EDUCATIONAL SPECIALISTS

In response to the survey questionnaire, superintendents indicated that 365 persons were classified as supervisors and consultants in various curricular areas. None are employed in districts with secondary school enrollments of fewer than 300, only 14 are employed in districts with fewer than 1,000 secondary pupils, and 78 per cent are employed in the 27 largest districts. The level of professional preparation of the supervisors and consultants was reported as follows:

<u>Level of Preparation</u>	<u>Number of Supervisors and Consultants</u>
Nondegree	5
Baccalaureate degree	90
Fifth year	20
Master's degree	210
Specialist's degree	15
Doctorate	25

Superintendents report 517 other certificated persons in more than 20 special classifications, many of them teachers in special fields. Ninety per cent of these specialists are employed in the 48 districts having secondary school enrollments of 1,500 or more pupils. Superintendents reported special personnel at these levels of preparation:

<u>Level of Preparation</u>	<u>Number of Specialists</u>
Nondegree	19
Baccalaureate degree	285
Fifth year	15
Master's degree	181
Specialist's degree	9
Doctorate	8

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22. Salary Schedules for Administrative Personnel: 1965-66, op. cit., p. 25.

There are 12 categories of certificates, some involving several special variations, available to these specialists. Certificates related to special learning areas are most numerous, and the next largest group deals with psychological services.

School psychologists and social workers have functions related to the guidance program. Because the work they perform is of a specialized nature, their services are most frequently secured by school districts with the largest student enrollments. Of 54 full-time public school psychologists in Minnesota, 83 per cent are employed by 20 school districts of more than 2,500 secondary pupil population. The 58 part-time school psychologists are more evenly deployed without regard to school district size although 40 per cent of these professionals are found in districts of over 1,500 secondary enrollment. Most full-time psychologists are employed on a nine and one-half to ten-month year. The average salary for full-time psychologists is \$9,159, based on an average contract of 9.7 months. These data are for 1965-66.

Similarly, of 95 full-time school social workers, 99 per cent are employed by school districts of over 2,500 secondary pupil population. Minnesota has only a small number of part-time school social workers (14) and these are hired by school districts of more than 1,000 secondary school enrollment. The average salary (1965-66) for full-time social workers is \$7,920, based on a nine-month contract.

#### D I S T R I C T S   M A I N T A I N I N G   O N L Y E L E M E N T A R Y   S C H O O L S

In addition to those districts which operate both elementary and secondary schools, Minnesota has a substantial, but declining, number of districts which either operate only an elementary school or no school. As of July 1, 1966, there were 976 districts which did not operate secondary schools. This included 934 districts which operated ungraded elementary schools, 25 districts which operated graded elementary schools, and 17 districts which did not operate a school but instead sent their pupils to schools in other districts.

The 1967 Minnesota Legislature passed legislation providing that all districts which do not operate secondary schools must join with a district operating both elementary and secondary schools by July 1, 1971. However, many of the teachers now employed in these districts operating elementary schools only may continue to serve the new district. Thus it was important that something be known about these teachers.

In Minnesota it is convenient to define two classifications of elementary schools: graded elementary schools and ungraded elementary schools. A graded elementary school is one in which no teacher has more than two grades concurrently under his supervision. An ungraded elementary school, as a general rule, is one in which at least one teacher has three or more grades concurrently under his supervision. An exception to this rule is a small number of schools which have

no teachers supervising more than two classes concurrently, but for one reason or another, maintain an ungraded status. Most ungraded schools are one-teacher rural schools.

#### TEACHERS IN DISTRICTS OPERATING ONLY ELEMENTARY SCHOOLS

The 959 districts which operated only elementary schools in 1965-66 employed 1,581 teachers. Of these, 737 teachers were in one-teacher schools.

The typical teacher in districts maintaining only ungraded elementary schools is a woman over 50 years of age who is married and has at least ten years of teaching experience. The majority of her teaching years have been in her present position. She teaches grades 1-6 in a one-room school, has between ten to 19 pupils, and earns less than \$4,000 a year. Her formal education is two years beyond high school, and at present she is working on a planned-degree program.

The typical teacher in the graded elementary schools differs in that she has somewhat more education, teaches only one or two grades, and earns over \$5,000 per year.

#### PREPARATION

Over 87 per cent of the teachers in the ungraded schools do not have a bachelor's degree; over 80 per cent do not have more than two years of education beyond high school; and 42 per cent have only one year of training. The problem is most serious in the one-teacher schools where over 95 per cent of the teachers do not have a degree. In those schools with over ten teachers, 86 per cent have a degree. In the districts with graded elementary schools nearly one-half of the teachers have a four-year degree and less than 5 per cent have less than two years of preparation.

It is recognized that there may be quality teachers who have had little formal post-high school education, and conversely that there may be poor teachers who have had college preparation. It is not possible to avoid the fact, however, in view of increasing complexity of education, that the chances of becoming a quality teacher are enhanced by an adequate, well-rounded education. In general contemporary terms this means a college background of at least four years.

State regulations specify that every elementary school teacher who does not have a four-year college degree or a life certificate is required to obtain a specified number of additional credits for each certificate renewal. Specifically, for a two-year renewal, eight quarter hours of college credit must be earned within a five-year period immediately preceding application. These credits must not have been used for any other renewal. Fifteen quarter hours of college credit are required for a five-year renewal. While this regulation assures some inservice training, it does not specify the nature of the course work to be taken. Thus it is entirely possible for a teacher to obtain courses in a random manner without direction, inasmuch as the only requirement is that a certain number of courses must be taken.

### ASSIGNMENT

Effective education must be equated with a classroom situation conducive to quality education. Not only should the teacher have available the best possible facilities and instructional materials, but he should have a classroom assignment which will not create demands which render quality education improbable if not impossible. It is unrealistic to expect that such quality education will take place when a teacher has the responsibility of supervising, simultaneously, multiple numbers of grades in one room. The problem is magnified when it is realized that in each grade there are usually at least eight subject areas.

In districts maintaining only ungraded elementary schools, 980 teachers handle three or more grades concurrently. Of this total, 717 or 73 per cent are in one-teacher schools and teach six or more grades concurrently. In general, the larger the staff or a building the smaller the number of classes assigned. All but one teacher in the graded elementary districts have two or fewer grades concurrently. A total of 127 teachers, or 69.8 per cent, handle only one grade.

### EXPERIENCE

Because the size of the typical ungraded elementary school has been shrinking and since substantial consolidation has occurred, the lack of new teaching personnel has resulted in an overall older teaching staff with an overall greater number of years of teaching experience. Data from survey questionnaires indicated that over 60 per cent of the responding teachers in districts operating only elementary schools were over 50 years old. Nearly 70 per cent of all teachers in ungraded elementary schools had more than ten years of experience and 62 per cent of the teachers in graded elementary schools had ten years of experience.

On the other hand, less than 3 per cent of the teachers in graded elementary schools and less than 2 per cent of the teachers in ungraded elementary schools were in their first year of teaching in Minnesota. Clearly there is very little infusion of "new blood" into these schools.

### SALARY

Throughout the years the salaries of teachers in districts maintaining only elementary schools has not kept pace with salaries in other occupational fields. Today, salaries are substandard when compared with any type of realistic criteria.

While statewide statistics indicate an increasing number of men are teaching in elementary schools, such is not the case in these districts. In 1965-66 less than 4 per cent of the teachers were men. The most probable reason for this situation is the inability of a male breadwinner to support a family on the salary paid in these districts.

In 1952 the average annual salary of a teacher in a district maintaining elementary and secondary schools was \$3,544. In the same year, an average teacher salary in a district maintaining only ungraded schools was \$2,256 or \$1,288 less

than in the elementary and secondary school districts. Throughout the years the gap has widened until today a teacher in the former group earns an average of \$7,032 a year, an increase of nearly 100 per cent, while a teacher in the latter group earns an average of \$3,737, an increase of only 65 per cent. The difference in salary is now \$3,295.

It is noteworthy that, in general, the lowest salaries are paid in the one-teacher schools with 132 teachers, or 17.9 per cent of all teachers in one-teacher schools, earning less than \$3,000 a year.

The salary situation in the graded elementary schools is generally better than in districts maintaining only ungraded elementary schools. Only 11 per cent of the teachers in graded elementary schools are earning less than \$4,000 a year, compared with 64.7 per cent of the teachers in districts maintaining only ungraded elementary schools. Moreover, 52.7 per cent of the former group are earning an annual salary of \$5,000 or more, while only 8.2 per cent of the latter group were earning at least \$5,000 a year.

#### THE COUNTY SUPERINTENDENT

The primary responsibility of the county superintendent is the administration of the ungraded and graded elementary schools which are not in a district operating elementary and secondary schools. With the passage of the 1967 school consolidation bill, there will no longer be a need for the office of county superintendent. Actually, the office has been slowly diminishing in importance for many years. In 1966-67 there were only 33 county superintendents (out of 87 counties) with jurisdiction over 1,068 teachers and 20,015 pupils.

In the past the county superintendent fulfilled a necessary and vital function in Minnesota education. At a time when the state had thousands of school districts, the county superintendent's intermediate function was a positive contribution to effective organization. Today, however, with a diminishing number of districts and the eventual disappearance of the districts operating elementary schools only, the office of county superintendent is no longer needed.

Perhaps the relative status of the county superintendent can best be illustrated by the size of staff under his jurisdiction. Only 59 per cent of the county superintendents report in 1966-67 employing a full-time secretary; another 18 per cent have a part-time secretary; and 23 per cent have no secretarial help. Other personnel working out of county superintendents' offices included: one assistant county superintendent, one full-time librarian, five full-time music teachers, five remedial reading teachers, three speech therapists (two of which are part time), and five miscellaneous employees.

## FACTORS RELATING TO PROFESSIONAL PERSONNEL

The previous sections of this chapter have dealt with numbers and characteristics of professional personnel in elementary and secondary schools. In the following pages an examination will be made of various factors which apply to professional personnel as a group. Included are such factors as supply and demand, retirement programs, fringe benefits, personnel policies of school districts, and teacher tenure.

### SUPPLY AND DEMAND

For many years school districts have been faced with a general shortage of qualified teachers. Although generally the shortage has plagued some educational areas more than others, the problem nonetheless has caused considerable consternation among those responsible for recruiting and hiring an educational staff.

To some it may seem paradoxical to be concerned about the problem of supply and demand despite the fact that each fall, regardless of conditions, Minnesota schools manage to place a teacher in every classroom. However, the real problem is that teachers are sometimes hired to teach subjects or grade levels for which they are not qualified. Almost as serious is that some offerings, such as music and art, are not available because of a lack of qualified personnel. The real losers in these situations are the children.

Projecting the need for additional teachers is, at best, hazardous. However, it can probably be safely said that, in general, the teacher shortage in Minnesota will continue. Although enrollment projections for the next few years indicate a decreasing rate of increase, the demand for qualified teachers may remain acute in view of rapid changes in education. Several developments leading to increased demand deserve mention here.

Most important, it seems, is the continued trend toward greater federal and state involvement in local school district affairs. This trend has meant, among other things, numerous additional educational programs geared to special educational problems heretofore ignored, such as those for the exceptional child. Each new program usually requires additional staff, and thus the demand for professional educators can probably be expected to increase due to this increased federal and state participation. Additionally, the greater attention given to individualized instruction means a probable diminishing of the pupil-teacher ratio. Again, such a development will require additional teachers.

At the elementary level, teacher demand can be expected to increase as the elementary schools become more departmentalized. Already there are many schools which employ special music or art teachers to supplement the work of the regular classroom teacher.

An examination of the past causes of demand and the sources of supply may provide some insight into future supply and demand needs.



## TEACHER DEMAND

That Minnesota will need an increased number of public school teachers in coming years cannot be disputed. The additional need will be the result of three major factors: increased enrollments and other expanding educational conditions, teachers leaving the profession, and teachers leaving Minnesota to teach in other states.

Teacher Demand Due to Increased Enrollments

Table 71 presents the number of teachers employed in Minnesota since 1960 and projections as to the number of teachers needed through the 1969-70 school year, based on enrollment projections. This does not take into account those vacancies created by teachers who leave the profession or move to another state to teach. The number of teachers needed in grades 1-12 from 1967-68 to 1969-70 is based on a pupil-teacher ratio of 20.3 to one, the median ratio in the last five school years. The number of kindergarten teachers needed in those same years is based on an annual 5 per cent increase, which was the average increase for the past five years.

TABLE 71

NUMBER OF KINDERGARTEN THROUGH GRADE TWELVE TEACHERS  
1960-61 THROUGH 1969-70

School Year	Number of Teachers			Per Cent of Increase
	Kindergarten	Grades 1-12	Total	
1960-61	893	30,570	31,463	--
1961-62	917	31,850	32,767	4.1
1962-63	987	33,075	34,062	4.0
1963-64	1,007	34,400	35,407	3.9
1964-65	1,062	35,895	36,957	4.4
1965-66	1,115	37,758	38,873	5.2
1966-67	1,171	38,367	39,538	1.7
1967-68	1,230*	38,858**	40,088	1.4
1968-69	1,292*	39,398**	40,690	1.5
1969-70	1,357*	39,545**	40,902	0.5

SOURCE: Report on Preparation and Supply of Teachers,  
annual reports for 1960-61 through 1964-65,  
St. Paul, Minnesota: State Department of  
Education.

\*Based on annual average increase of 5 per cent.

\*\*Based on 1961-1966 median pupil-teacher ratio of 20.3  
to one.

As Table 71 indicates, the number of new teachers needed between 1965-66 and 1969-70 because of enrollment increases will total 1,787. Although in previous years the increase in teaching positions was generally about 4 per cent, by 1967-68 it will have dropped to 1.4 per cent and to 0.5 per cent by 1969-70. These figures are predicated upon the assumption that there will be no teacher additions because of program or curricular improvements or other expanding educational conditions. Since these improvements seem likely, the number of additional teachers will be doubt be larger than the number indicated by Table 71.

Teacher Demand Due to Teachers Leaving the Profession

The total number of new teachers needed in Minnesota each year from 1960-61 through 1969-70 is summarized in Table 72. This demand arises from three major reasons. The need due to increased enrollments has been treated in the previous section.

TABLE 72

TOTAL NUMBER OF NEW TEACHERS NEEDED IN MINNESOTA, 1960-61 THROUGH 1969-70

School Year	Number of Teachers			Total New Teachers Needed
	Leave Profession	Leave Minnesota	Needed for Increasing Enrollment	
1960-61	2,712	555	1,244	4,511
1961-62	2,793	686	1,304	4,783
1962-63	2,900	644	1,295	4,839
1963-64	2,809	614	1,345	4,768
1964-65	3,033	710	1,550	5,293
1965-66	3,304*	738**	1,916	5,958
1966-67	3,361*	751**	665	4,777
1967-68	3,407*	762**	550	4,719
1968-69	3,458*	773**	602	4,833
1969-70	3,476*	771**	212	4,459

SOURCE: Report on Preparation and Supply of Teachers, annual reports for 1960-61 through 1964-65, St. Paul, Minnesota: State Department of Education.

\*Figures based on annual loss of 8.5 per cent of total number of state teachers.

\*\*Figures based on annual loss of 1.9 per cent of total number of state teachers.

The last column of Table 72 represents the total number of new teachers needed in Minnesota from 1960 to 1970. These numbers range from a high of 5,958 in 1965-66 to a low of 4,459 in 1969-70.

The need for additional teachers takes on an added dimension when one examines the demand created by teachers who leave the profession. As illustrated in column two of Table 72, the teaching profession in Minnesota lost 2,700 to 3,800 teachers a year from 1960-61 through 1964-65. In other words, approximately 8.5 per cent of the teaching force annually left the profession. Projections through 1969-70, based on a loss of 8.5 per cent of the total teaching force, indicate that the annual loss to the profession will be well over 3,000 teachers a year.

An examination of the reasons given in past years for leaving the profession might provide some answers as to how this loss might be stemmed. Table 73 depicts the reasons for leaving the profession in each of the past five years. The primary reason for leaving is "marriage or return to homemaking." About two out of every five persons who left the profession during the past five years did so for this reason. The preponderant number of women in the teaching profession means this loss is inevitable although the general trend in the per cent of teachers who leave the profession for this reason is declining slightly, probably due to the increasing number of males in the profession. One means of further reversing this trend might be the encouragement of more men to enter the teaching profession. This same means might also be used to decrease the relatively large percentage (about 13 per cent) of teachers who leave the profession because their husbands are transferred to other jobs.

It is in the area of those who leave the teaching profession to "enter another occupation" which should be of special concern. During the past five years, an average of 8.5 per cent of those who left the teaching profession did so to enter another occupational field. This percentage rose to 9.7 per cent in 1964-65. In view of recent personnel shortages and the resultant competition for employees, it seems reasonable to assume that at the very least this percentage will remain at about 10 per cent. Several recent studies indicate that the predominant reason for leaving teaching to enter another profession is a desire for a better salary.

Teacher Demand Due to Teachers Who Leave Minnesota  
to Accept Teaching Positions in Other States

Column three of Table 72, which was previously presented, shows the number of teachers who left Minnesota to accept teaching positions in other states through 1964-65, and also projections based on the average percentage of teachers who accepted out-of-state positions. While these teachers represent a small percentage of the total teaching force (about 2 per cent), the loss of about 700 teachers per year to other states is one which is of concern. Although reasons why these teachers left the state are not available, one might speculate that better salaries, better teaching conditions, and increased advancement opportunities are among the most common.

TABLE 73

## REASONS MINNESOTA TEACHERS LEFT PROFESSION IN PERCENTAGE TERMS, 1960-1965

Reason for Leaving Profession	Per Cent of Teachers Leaving the Profession					Average Percentage
	1960-61	1961-62	1962-63	1963-64	1964-65	
To enter another occupation	9.1	7.7	7.7	8.1	9.7	8.5
To enter military service	0.6	1.1	0.4	0.6	0.3	0.6
To resume formal study	10.8	12.3	11.2	11.4	12.6	11.7
Marriage or return to homemaking	45.1	43.1	44.0	42.5	39.2	42.8
Transfer of husband to another location	11.4	11.1	12.9	14.0	15.1	12.9
Not offered reemployment	4.2	3.8	4.1	4.1	3.7	4.0
Retired	11.3	12.6	12.1	11.5	11.2	11.7
Illness	3.1	2.4	3.0	2.3	2.6	2.7
Deceased	1.4	1.5	1.5	1.2	1.2	1.4
Unknown	3.0	4.4	3.1	4.3	4.4	3.8

SOURCE: Report on Preparation and Supply of Teachers, annual reports for 1960-61 through 1964-65, St. Paul, Minnesota: State Department of Education.

## TEACHER SUPPLY

The Minnesota Department of Education compiles a list of the teaching positions most difficult to fill at the beginning of each school year. Table 74, based on responses from school district superintendents, represents a three-year compilation of the areas of greatest shortage and the number of superintendents specifying each subject area.

It is significant that during each of the last three years for which figures are available, the largest number of superintendents reported elementary education positions as an area of greatest difficulty to fill. During each of these three years, the position English or "combination with English" was the high school subject area most frequently reported by superintendents as being difficult to

fill. Another area which accounted for difficulty in hiring for each of the three years was music. Other subject areas reported by superintendents included girls' physical education, languages, library, mathematics, and general science.

TABLE 74

AREAS OF GREATEST DIFFICULTY IN FILLING TEACHER VACANCIES AND  
NUMBER OF SUPERINTENDENTS SPECIFYING EACH SUBJECT AREA

Area	S c h o o l   Y e a r		
	1963-64	1964-65	1965-66
Elementary	194	140	180
English and combinations with English	181	131	120
Girls' physical education	69	52	--
Music	64	59	74
Languages	51	--	--
Library	--	43	--
Mathematics	--	--	87
General science	--	--	68

SOURCE: Report on Preparation and Supply of Teachers,  
annual reports for 1963-64 through 1965-66,  
St. Paul, Minnesota: State Department of  
Education.

The supply of Minnesota teachers for any given year is drawn primarily from four groups: newly qualified teachers from teacher education institutions in Minnesota, experienced teachers from other states who obtain jobs in Minnesota, former teachers, qualified to teach, who re-enter the teaching profession, and newly qualified teachers from teacher education institutions in other states.

Newly Qualified Teachers from Teacher Education  
Institutions in Minnesota

The main source of supply for new teachers is the teacher education institutions in Minnesota. Table 75 provides data regarding the number of graduates who completed teacher education programs from 1960 to 1966 in Minnesota. The

number of graduates and the per cent of increase over the previous year follows no significant trend. In general, there has been a larger number of graduates, both elementary and secondary, during the most recent years. Also, the number of secondary school graduates has exceeded the number of graduates in elementary school education by a substantial margin during each of the past seven years.

TABLE 75

COLLEGE STUDENTS COMPLETING CERTIFICATE REQUIREMENTS  
IN MINNESOTA, 1960-1966

Year	Elementary Graduates	Per Cent of Change	Secondary Graduates	Per Cent of Change
1960	1,347	--	2,564	--
1961	1,456	+ 8.1	2,520	- 1.7
1962	1,672	+14.8	2,532	+ 0.5
1963	1,775	+ 6.2	2,673	+ 5.6
1964	2,162	+21.8	2,886	+ 8.0
1965	2,103	- 2.7	2,845	- 1.4
1966	2,116	+ 0.6	3,190	+12.1

SOURCE: Teacher Supply and Demand in Public Schools,  
annual reports for 1960 through 1966, Washington,  
D.C.: National Education Association.

While Minnesota educational institutions have graduated a significant number of students qualified for teaching, not all enter the teaching profession. Table 76 reports a state-by-state comparison of the number of graduates with teaching certificates and the percentage who took teaching positions in and outside of the state in which they were prepared. A total of 64.9 per cent of elementary education students who graduated from Minnesota teacher-preparing institutions between September 1, 1964 and August 31, 1965, accepted teaching positions in Minnesota. Another 17.9 per cent taught out of state. Stated another way, one out of every three Minnesota elementary education graduates did not teach in a Minnesota elementary school upon graduation -- a serious situation in view of the serious elementary teacher shortages during the past several years in Minnesota. On a more encouraging note, in the 12-state area, Minnesota has the fifth highest percentage of elementary teachers who stayed in the state in which they were educated, and only three states lost a smaller percentage of elementary teachers who accepted teaching positions in other states upon graduation.

TABLE 76

THE NUMBER OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1964 AND AUGUST 31, 1965 WITH QUALIFICATIONS FOR TEACHING CERTIFICATES AND THE PERCENTAGE WHO ENTERED TEACHING FOR THE TWELVE-STATE AREA

State	E l e m e n t a r y				S e c o n d a r y			
	Number	Per Cent			Number	Per Cent		
		Per Cent In-State	Out-of-State	Total Per Cent		Per Cent In-State	Out-of-State	Total Per Cent
Illinois	4,226	62.4	14.6	77.0	5,214	57.3	10.3	67.6
Indiana	1,937	69.4	20.3	89.7	3,712	54.5	19.5	74.0
Iowa	1,336	55.7	31.8	87.5	2,233	48.5	24.9	73.4
Kansas	1,228	63.4	22.9	86.3	2,154	48.2	20.3	68.5
Michigan	3,682	65.1	8.3	73.4	5,816	55.7	6.9	62.6
Minnesota	2,103	64.9	17.9	82.8	2,845	49.3	24.9	74.2
Missouri	1,507	63.6	20.7	84.3	2,679	52.5	17.0	69.5
Nebraska	1,085	43.1	38.4	81.5	1,425	46.2	21.7	67.9
North Dakota	431	46.9	41.5	88.4	831	43.6	31.4	75.0
Ohio	4,076	66.9	13.5	80.4	5,428	57.7	11.3	69.0
South Dakota	501	51.5	37.1	88.6	913	41.2	34.3	75.5
Wisconsin	2,139	69.8	18.0	87.8	2,515	53.8	18.8	72.6

SOURCE: Teacher Supply and Demand in Public Schools, annual report for 1966, Washington, D.C.: National Education Association, p. 25.

In secondary school education, 49.3 per cent of those who graduated in Minnesota between September 1, 1964 and August 31, 1965, accepted teaching positions in a Minnesota public or private school upon graduation, while another 24.9 per cent accepted teaching positions out of state. The remaining 25.8 per cent did not enter the teaching profession upon graduation. Stated another way, half of Minnesota's college graduates certificated to teach in secondary schools did not teach in a Minnesota secondary school upon graduation. Among the 12 selected states, Minnesota ranked seventh in the per cent of graduates who stayed in the preparing state and only two other states lost more graduates who accepted positions out of state.

Table 77 gives a three-year summary of the teaching status of the graduates of Minnesota teacher-preparing institutions for the year after graduating. For the three-year period approximately two-thirds of the graduates in elementary education and one-half of the graduates in secondary education taught in Minnesota the year after graduating. During that same period one-sixth of the graduates in elementary education and one-fourth of the graduates in secondary education taught outstate and approximately that same proportion did not teach the year after graduating.

TABLE 77

THE NUMBER OF GRADUATES FROM MINNESOTA TEACHER-PREPARING INSTITUTIONS  
BETWEEN SEPTEMBER 1, 1962 AND AUGUST 31, 1965 AND THEIR  
TEACHING STATUS THE YEAR AFTER GRADUATING

Graduates	September 1962- August 1963		September 1963- August 1964		September 1964- August 1965	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Elementary						
In-state	1,170	65.9	1,382	63.9	1,365	64.9
Out-of-state	307	17.3	348	16.1	376	17.9
Nonteaching	<u>298</u>	<u>16.8</u>	<u>432</u>	<u>20.0</u>	<u>362</u>	<u>17.2</u>
TOTAL	1,775	100.0	2,162	100.0	2,103	100.0
Secondary						
In-state	1,369	51.2	1,544	53.5	1,403	49.3
Out-of-state	655	24.5	635	22.0	708	24.9
Nonteaching	<u>649</u>	<u>24.3</u>	<u>707</u>	<u>24.5</u>	<u>734</u>	<u>25.8</u>
TOTAL	2,673	100.0	2,886	100.0	2,845	100.0

SOURCE: Teacher Supply and Demand in Public Schools,  
annual reports for 1964 through 1966, Washington,  
D.C.: National Education Association.

#### Experienced Teachers from Other States Who Obtained Jobs in Minnesota

In 1965-66 Minnesota school districts employed 1,064 teachers who, in 1964-65, taught in another state. This represented 20.1 per cent of the total number of new teachers in Minnesota that year. During the previous year, 888 new teachers taught in another state before coming to Minnesota. Thus, experienced teachers from other states are an important source of educational manpower in Minnesota. In recent years Minnesota has been fortunate to attract out-of-state teachers, but to depend on these teachers in future years is precarious. For example, while Minnesota has recruited many teachers in the past from Iowa, this may not be possible in the immediate future inasmuch as the state has been making substantial strides during the past year by markedly increasing teachers' salaries. These increases are expected to stem the "outflow" from that state and concurrently the "inflow" to this state from Iowa.

#### Former Teachers Who Re-enter the Teaching Profession

In recent years, a significant source of newly employed teachers is those teachers who left the profession and then re-entered. The majority of these teachers are women who left the profession to raise a family and then returned



to full-time work when it was more convenient to be away from the family. In the 1964-65 school year, 992 or 18.7 per cent of all new Minnesota teachers were returnees, and the following year the number had decreased to 747 or 14.1 per cent of all new Minnesota teachers.

Newly Qualified Teachers from Teacher Education  
Institutions in Other States

Reliable figures on the number of new Minnesota teachers from out-of-state teacher education institutions who accepted a teaching assignment in this state immediately upon graduation are not readily available. However, it may be stated with reasonable accuracy that the number is minimal. For example, during the 1964-65 school year, it is estimated that approximately 600 newly employed teachers, or about 13 per cent of all new teachers, had graduated the year before from an out-of-state teacher education institution. The majority of these teachers graduated from teacher education institutions in the Dakotas, Iowa, and Wisconsin. During that same year, 983 Minnesota teacher graduates accepted out-of-state teaching positions, so Minnesota suffered a net loss of teachers.

Supply and Demand Problems Unique to Minneapolis,  
St. Paul, and Duluth

Any treatment of teacher supply and demand would not be complete if note was not made of the unique and significant supply and demand problems in the three urban cities of Minneapolis, St. Paul, and Duluth. The problem of staffing a school in these three large cities is of such a magnitude as to be unequalled in most smaller communities. Among others, the deteriorating central city, the flight of the middle and upper class population from the city to the suburb, and the entry of the socio-economically deprived to the central city are having broad implications for educators facing the problem of supply and demand of teachers and other professionals important to a school system.

In the large central cities there has been an increased need for the school to provide pupil services which were unheard of a few years ago. For example, the large number of educationally and economically deprived pupils has meant that the large city schools have assumed some of the roles formerly fulfilled by the home. The lack of an adequate home life for pupils has created serious emotional, physical, and intellectual problems which require special attention by the schools. The result has been increased expenditures for larger numbers of educators.

Additionally, there seems to be an increased number of parents who, unable to obtain a special school service in their home district for their exceptional child, move to the central city where the service is available. For example, the parents of a child with a serious speech impediment might move to one of the three large cities if they cannot obtain that service in their home district.

In attempting to meet the needs of their pupils, central city educators have faced substantial problems in building and maintaining an adequate staff of professionals and paraprofessionals. A significant difficulty is the increased

flight of "quality" educators from the central city. As Mason points out, "Although cash salaries paid teachers in big city schools compare very favorably with mean salaries in their regions, there is not the financial advantage in a big-city position that there was before World War II. Moreover, the very best-paying jobs are not in the great cities but in their more opulent and prestigious suburbs."<sup>23</sup>

The central cities have found substantial difficulty in finding teachers with adequate background in the many problems faced by the children of the central city. More often than not, the central city districts must provide some form of special inservice program to provide their teachers with the necessary background to work with sociologically, economically, and educationally deprived pupils. It should be noted that a small but significant step toward the training of beginning teachers in urban pupil problems was taken recently by the Minneapolis Public Schools with the cooperation of the University of Minnesota College of Education. With a \$71,000 grant from the Carnegie Corporation, the Minneapolis Schools are to assume primary responsibility for the practice teaching of prospective teachers for a three-year trial period. A total of 25 University students will be enrolled in the program.

The general shortage of specialized educational personnel has seriously handicapped efforts to develop programs for the central city pupil. For various reasons an inadequate number of people are training for specialized fields such as counseling, and not all of these assume a teaching position upon graduation. A further difficulty is the increased competition for these personnel from the Federal government, private industry, and other school districts.

#### MINNESOTA'S TEACHER RETIREMENT PLAN

Most employees eventually must face the prospect of retirement and the resulting problems of providing for the welfare and security for himself and those dependent upon him. Significant studies in medicine mean a longer life for most Americans, and the number of employees reaching retirement age is increasing rapidly. Thus today an increasing amount of attention is being focused on the adequacy of retirement income available to those persons in various occupations.

The task of providing for retirement years is, at best, a difficult task for most teachers. His earning power during the productive years is often limited, resulting in personal savings, insurance, investments, and other sources of income which are generally insufficient.

An adequate retirement plan is a vital part of any program to recruit and hold a well-qualified teaching force. Minnesota must compete with other states and other sources of employment.

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23. Robert E. Mason, "Decline and Crisis in Big-City Education," Phi Delta Kappan, Volume 48, No. 7, March 1967, p. 308.

## DEFINITION

Minnesota's retirement plan, in broad terms, is a "money purchase" plan; that is, benefits consist of money purchase annuity, based upon the member's contributions, plus interest and the employer's and fund's contributions. Benefits are actuarially determined according to a member's age, sex, and type of annuity elected. Parenthetically, the majority of statewide teacher retirement plans are based not on "money purchase" but on a formula usually based on the average of the highest incomes earned in a specified number of years.

There are two statewide teacher retirement systems in Minnesota. The first is the "basic" system. It is without social security coverage and is no longer available to new members. Deductions are 6 per cent of annual income. In 1959, the "coordinated" system was established. It provides for benefits under teacher retirement as well as federal social security and is required of all new teachers as a condition of employment in Minnesota. The deduction rate for the state is 3 per cent of annual income. An additional deduction is made for social security.

Teachers in Minneapolis, St. Paul, and Duluth are excluded from the Minnesota plan because these cities have their own individual retirement plans. These plans were set up many years ago to provide teachers in these cities with benefits more in line with metropolitan living. Benefits in Minneapolis and St. Paul are computed on a formula based upon the teacher's average income over a five-year period. Duluth's plan is a money purchase plan. All three plans require contributions from the teacher.

## BENEFITS

In the survey questionnaire to elementary and secondary teachers, an inquiry was made as to their opinion of the Minnesota teacher retirement plan. When asked "Do you think the teacher retirement system, as presently constituted, is adequate in providing retirement income?", 62.1 per cent replied negatively. Another 29.6 per cent replied positively, and 8.3 per cent had no opinion. An examination of the retirement benefits might provide a few insights into the negative reaction.

Table 78 presents a comparison of the annuity received under the two Minnesota plans with annuities in other Midwest states and Minnesota's two largest cities. The monthly benefits illustrated in Table 78 are based on the following teacher characteristics: retirement in 1965, female, retirement at age 65, 40 years of service credit, and an average salary of \$7,200 based on formulas unique to each state. (See table footnotes for explanation of each state formula.) Inasmuch as retirement annuities in Indiana, Nebraska, and Duluth are predicated upon complicated money purchase formulas, data from these states and city are not included.

As Table 78 illustrates, monthly retirement benefits under Minnesota's two plans lag far behind other area states. With the exception of South Dakota, Minnesota's retirement benefits are the lowest of those surveyed. When compared to the leading state (Michigan), Minnesota teachers with identical characteristics as Michigan teachers (age, service, income) receive \$178 or \$185 per month

less, depending on the plan in which the Minnesota teacher participated. Over a year's time, the Michigan teacher receives \$5,100, while the Minnesota teacher receives \$2,964 or \$2,880.

TABLE 78

MONTHLY RETIREMENT INCOME FOR FEMALE TEACHER BEGINNING AT AGE 65  
AFTER FORTY YEARS OF SERVICE ENDING JUNE 30, 1965

City or State	State Retirement Benefits	Maximum Primary Social Security Benefits -- 1965	Total Retirement Benefits
Michigan	\$290.00 <sup>a</sup>	\$135.90	\$425.90
Ohio	420.00 <sup>a</sup>	0	420.00
Minneapolis	400.00 <sup>a</sup>	0	400.00
Illinois	400.00 <sup>a</sup>	0	400.00
Missouri	387.00 <sup>b</sup>	0	387.00
St. Paul	360.00 <sup>a</sup>	0	360.00
Wisconsin	216.60 <sup>a</sup>	135.90	352.50
Iowa	199.60 <sup>c</sup>	135.90	335.50
North Dakota	175.00 <sup>d</sup>	135.90	310.90
Kansas	146.50 <sup>e</sup>	135.90	282.40
Minnesota			
(Coordinated)	106.95 <sup>f</sup>	135.90	247.85
Minnesota (Basic)	240.92 <sup>f</sup>	0	240.92
South Dakota	51.20 <sup>g</sup>	135.90	187.10

SOURCE: School Law Summaries, NEA Research Division and the National Council on Teacher Retirement, Washington, D.C.: National Education Association, 1965.

<sup>a</sup>Based on last five years' average salary of \$7,200.

<sup>b</sup>Based on last ten consecutive years' average salary of \$7,200.

<sup>c</sup>Based on money purchase plan and final active salary of \$7,200.

<sup>d</sup>Based on total lifetime earnings of \$60,000 or over for 25 years of service.

<sup>e</sup>Allowance for all persons with salary of \$250 or more a month is the same.

<sup>f</sup>Based on earned maximum salary of \$7,200 from 1957-58 to retirement.

<sup>g</sup>Based on five highest years' average of \$400 per month, the maximum salary on which benefits are paid.

Within Minnesota there are serious inequalities. Given the above indicated characteristics, a Minneapolis teacher receives at least \$153 more per month and a St. Paul teacher at least \$113 more per month than a teacher under the Minnesota plan.

Obviously the teacher covered by the Minnesota teacher retirement plan does not fare nearly as well as her colleagues in most surrounding states or in the two largest Minnesota cities.

In 1961, Donald J. Pryor conducted an extensive study of the Minnesota Retirement Association. After a survey of literature pertinent to the subject, he concluded that it is generally accepted that retirement income should equal at least 50 per cent of the income received in the last few years of employment.<sup>24</sup>

Using this percentage as a criterion of adequacy, Table 79 illustrates that Minnesota's retirement plan is far from adequate. A female teacher who retires at age 65 after 40 years of creditable service, with a salary of \$7,200, qualifies for a monthly annuity which is 41.3 or 40.2 per cent of her monthly salary. Of the 12 states and cities illustrated in Table 79, only three states, Kansas, Minnesota, and South Dakota, fall short of the 50 per cent mark.

Special note should be made of the fact that many Minnesota teachers and almost all administrators earn more in their last active year than the \$7,200 used as a criterion in the two previously mentioned tables. Through the 1966-67 school year, Minnesota limited teacher contributions to the first \$7,200 of salary earned. Thus, for the teacher who retired by 1966-67 the higher the last salary the less the ratio of the allowance to the final salary. For example, a male administrator with a last salary of \$12,000 who retired in 1965 at age 65 after 40 years of service would receive an annuity of approximately 27 per cent of his final salary. Clearly, the retiree faced a drastic change in his pattern of living under those conditions.

Although the action by the 1967 Minnesota Legislature lifting the salary ceiling was a positive step toward increased benefits, it will be some time before most teachers will realize substantial increases. The teachers least benefitted by the action will be those who will soon retire and thus be limited in the amount of increased contributions and the resultant increased benefits.

Of those retirement plans, included in Table 78, the top seven plans in terms of annuities use a benefit formula based on an average salary earned in the last years of service when salaries are usually highest. It is generally agreed that, dollar for dollar, a formula plan offers more benefits for the teacher than a money purchase plan. Usually in a money purchase plan the contributions early in the teacher's career are comparatively small, thus keeping down the amount of

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24. Donald J. Pryor, "A Descriptive and Critical Analysis of the Structure and Adequacy of the Minnesota Teachers Retirement Association," Unpublished Specialist's paper in Educational Administration, Minneapolis, Minnesota: University of Minnesota, August 1961, p. 101.

benefits purchased. In a formula plan based on an average of the last five years of salary, the retirement benefits are usually much more adequate in relation to the teacher's accustomed standard of living.

TABLE 79  
PER CENT RETIREMENT INCOME IS OF LAST  
ACTIVE SALARY OF \$7,200

City or State	Total Annual Annuity	Per Cent Annuity Is of Last Active Salary of \$7,200
Michigan	\$5,100.00	70.8
Ohio	5,040.00	70.0
Minneapolis	4,800.00	66.7
Illinois	4,800.00	66.7
Missouri	4,644.00	64.5
St. Paul	4,320.00	60.0
Wisconsin	4,230.00	58.8
Iowa	4,026.00	55.9
North Dakota	3,730.80	51.8
Kansas	3,388.80	47.1
Minnesota (Coordinated)	2,974.20	41.3
Minnesota (Basic)	2,891.04	40.2
South Dakota	2,245.20	31.2

SOURCE: School Law Summaries, NEA Research  
Division and the National Council on  
Teacher Retirement, Washington, D.C.:  
National Education Association, 1965.

NOTE: Calculations are for a female teacher,  
retirement at age 65 after 40 years of  
service and includes social security,  
where applicable.

As indicated earlier, there is general dissatisfaction among teachers who are covered by the Minnesota Retirement System. As part of the inquiry sent to elementary and secondary teachers, those who indicated that they were dissatisfied with the retirement plan were asked to offer suggestions as to how they felt improvement might be made. Although a wide variety of responses was received, 90 per cent suggested solutions which would lead to higher retirement benefits.

As Pryor pointed out in his study, the Minnesota Retirement System meets most commonly accepted standards of a "good" system. In the area of annuities, however, it is inadequate. Clearly, if a retirement plan is deemed important to recruitment, retention, and morale of teachers, then improvements in this state are needed.

### FRINGE BENEFITS

In recent years the financial rewards of an occupation have included more than wages; it has also meant adequate fringe benefits. The proliferation of new forms of fringe benefits will probably continue for some time. Often the "attractiveness" of a job is determined as much by fringe benefits as by salary.

Estes, Carter, and Kinnamon summarize very well the advantages of fringe benefits over the usual "across the board" raise:

1. Most of the benefits are not classified as earned income and therefore are not subject to federal and state taxes.
2. The group purchase of benefits provides employees with many benefits at a cost considerably lower than would be the case if they were purchased individually or through other groups.
3. The group purchase of benefits enables otherwise poor risks to obtain insurance.
4. Fringe benefits help the school district compete with business and industry in most aspects of employee compensation.
5. Teacher morale is improved.
6. Providing fringe benefits does not receive the publicity that usually is given to other salary increases. The public generally approves the extension of these benefits to the teaching profession.
7. Fringe benefits assist the school district in recruiting and retaining high quality teaching personnel, and also maintains a high level of efficiency.<sup>25</sup>

### EXTENT OF DISTRICT UNDERWRITTEN FRINGE BENEFITS

Table 80 reveals the per cent of various size districts offering selected fringe benefits to professional personnel. The findings are based on a 99 per cent response to the survey questionnaire by school superintendents.

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25. Nolan Estes, Robert Carter, and Lynn Kinnamon, "Fringe Benefits for Teachers," NEA Journal, September 1964, p. 25.

TABLE 80

PER CENT OF MINNESOTA SCHOOL DISTRICTS IN EACH SIZE CATEGORY WHICH PROVIDE  
SELECTED FRINGE BENEFITS, 1966-67

Selected Fringe Benefits	P e r C e n t b y D i s t r i c t S i z e C a t e g o r y											Total for State
	1	2	3	4	5	6	7	8	9	10	11	
Health insurance	8.3	8.9	21.3	16.3	15.0	19.6	40.0	47.4	42.9	66.7	81.5	27.5
Life insurance	0.0	5.4	10.6	9.3	5.0	8.7	5.0	15.8	23.8	33.3	37.0	10.9
Cumulative sick leave	93.8	94.6	95.7	97.7	95.0	100.0	95.0	97.4	100.0	100.0	100.0	96.6
Liability insurance	16.7	17.9	14.9	16.3	16.7	15.2	20.0	28.9	33.3	23.8	11.1	18.5
Increment -- head of household	14.6	8.9	14.9	11.6	13.3	13.0	20.0	23.7	9.5	14.3	7.4	13.8
Tuition reimbursement	39.6	25.0	29.8	23.3	25.0	28.3	32.5	28.9	23.8	23.8	37.0	28.8
Sabbatical leave	0.0	0.0	2.0	0.0	0.0	0.0	7.5	7.9	14.3	19.0	59.3	7.1
Severance pay	2.1	1.8	4.3	0.0	0.0	6.5	7.5	0.0	0.0	9.5	3.7	2.9
Free noon lunch	20.8	16.1	27.7	30.2	25.0	26.1	20.0	28.9	19.0	19.0	40.7	24.6

SOURCE: Survey questionnaires and Minnesota Salary Schedules, School Year 1966-67,  
Research Department, Circular 104, St. Paul, Minnesota: Minnesota Education  
Association, 1966, pp. 48-87.



### Health Insurance

The superintendents reported that 27.5 per cent of their school districts underwrite, in whole or in part, a health insurance program for teachers. As Table 80 illustrates, in general the larger the school district the greater the per cent of districts which pay health insurance premiums. In 1966-67, only 8.3 per cent of the smallest districts pay at least a portion of the teachers' health insurance premiums, while 81.5 per cent of the largest districts do the same.

Harders, in examining fringe benefits underwritten by school districts in 1965-66, reports that only 12 per cent of the districts which contribute to a hospitalization or medical plan pay the full coverage for both the single teacher and the teacher with a family; 30 per cent pay the single premium and a portion of the family premium; 25 per cent pay for coverage for a single policy only; 30 per cent give a flat cash grant which may or may not constitute the single premium; and 3 per cent pay a fractional amount of the single premium.<sup>26</sup>

### Life Insurance

Only 10.9 per cent of the superintendents reported their district underwrite, in whole or in part, a life insurance program in the school year 1966-67. As Table 80 illustrates, a greater percentage of the larger school districts provide this benefit than do the smaller districts. No districts in the smallest size category underwrite life insurance coverage, while one-third of the districts in the two largest categories do the same.

Harders reports that in 1965-66 the most frequent amount of life insurance underwritten by school districts was \$2,500. Forty-three per cent of the schools reporting life insurance premium contributions were in this category.

### Cumulative Sick Leave

In the area of cumulative sick leave, Minnesota teachers receive substantial benefits. A total of 96.6 per cent of all districts maintaining elementary and secondary schools have some provision for sick leave for their employees. As Table 80 illustrates, all districts in four of the largest size categories provide some form of sick leave without loss of pay.

Harders reports that in 1965-66, 77 per cent of those districts with sick leave provisions allow ten days per year. The range is from five to 20 days per year. The maximum number of days accumulated sick leave ranged from zero to an unlimited number of days. In general, he concludes that as the size of the school increases the number of days of accumulated sick leave increases.<sup>27</sup>

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26. James H. L. Harders, "Fringe Benefits in Minnesota School Systems, 1965-66," Unpublished Master's paper in Educational Administration, Minneapolis, Minnesota: University of Minnesota, August 1966, pp. 25-28.

27. Ibid., pp. 33 ff.

### Tuition Reimbursement and Sabbatical Leaves

At a time when the knowledge explosion tends to outdate a teacher's training within a short period of time, the need for educators to return to school during their careers is obvious. To many teachers who earn comparatively low salaries, financial difficulties are encountered in obtaining further formal education. The cost of tuition and books, even at public colleges and universities, is rising at a rapid rate.

Some school districts recognize the importance of additional education by providing an incentive for teachers to take additional courses. This incentive is usually provided by reimbursing teachers, in whole or in part, for tuition expenses. On the basis of the superintendents' questionnaire responses, only 28.8 per cent of all Minnesota districts operating elementary and secondary schools underwrite all or part of a teacher's tuition incurred while concurrently teaching in the district. The percentage of districts providing this fringe benefit is not related to school district size.

Harders indicates that the most prevalent way of reimbursing teachers is to pay by the credit. The range for payment by the credit in 1965-66 was from five to 15 dollars per credit.<sup>28</sup>

Another means of providing for further educational opportunity for teachers is through the use of sabbatical leaves. While colleges and universities have long recognized the value of full-time studies for their teachers, with partial employer compensation, public school districts are just beginning to employ this method. As Table 80 illustrates, only 7.1 per cent of the responding districts are granting sabbatical leaves in 1966-67. In enrollment categories one through six, only one district indicated that it granted sabbaticals. This represents 0.3 per cent of the 304 districts represented in these groups. In contrast, 59.3 per cent of the largest districts provide some type of sabbatical leave. It is worth noting that of the 30 districts reporting provisions for sabbaticals, 73 per cent are in the Twin Cities metropolitan area.

Although a district may grant sabbaticals, more often than not the number of sabbaticals per year is very small. Harders reports that in 1965-66 the most frequent pattern in individual districts was one per cent of the teaching staff per year. Most school districts also required that a teacher had served seven years in the school district. Sabbaticals were limited to one year in length, with the teacher receiving 50 per cent of regular pay.<sup>29</sup>

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28. Ibid., pp. 51-52.

29. Ibid., pp. 44 ff.

### Tax Sheltered Annuities

In recent years an increased number of school districts and other employers in the public sector have made available tax sheltered annuities to their employees. In essence, the employer sets aside a designated amount of money for the employee -- funds which are not taxed until they are drawn out at some future date, usually at retirement. The result is that the taxes are calculated when the employee's income is lower; thus the taxes are less than what they would have been when the money was earned. Moreover, the employee received interest on the invested funds.

In Minnesota the majority of districts have made provision for tax sheltered annuity, but few employees take advantage of the program. A total of 71.3 per cent of all Minnesota school districts provides for tax sheltered annuities, while 25.6 per cent make no provision for this benefit. Another 3.1 per cent did not designate their district's policy. Significantly, an average of 10.4 per cent of each district's teachers take advantage of tax sheltered annuities. That is, only one in ten teachers in Minnesota public schools participates in a tax sheltered annuities program.<sup>30</sup>

### Other Fringe Benefits

Table 80 illustrates the per cent of districts which provide other fringe benefits. The superintendents reported that 18.5 per cent of all districts underwrite, in whole or in part, teacher liability insurance; 13.8 per cent pay a head of household increment; 24.6 per cent provide teachers with a free noon lunch; and only 2.0 per cent make provisions for severance pay.

### A Need for Improvement

On the basis of responses to the survey questionnaire, the fringe benefit most superintendents would like to make available to their teachers is health insurance. Superintendents gave the following responses to the question, "If you could, what additional fringe benefits would you like to provide for your teachers?"

<u>Fringe Benefits</u>	<u>Per Cent of Superintendents Specifying This Benefit*</u>
Health insurance	51.3
Life insurance	22.7
Sabbatical leave	9.9
Liability insurance	3.2
Head of household	1.8
Tuition reimbursement	10.1
Income protection	9.9
Free noon lunch	2.0
Other	19.7

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\*Total equals more than 100 per cent because some superintendents listed more than one fringe benefit.

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30. Annual Survey on Salaries and Related Information, 1966-67, op. cit.

Over one-half of the superintendents indicated health insurance as their choice for an "additional" fringe benefit in their school district. Nearly one-fourth of the superintendents indicated they would like to add life insurance as a fringe benefit, while less than 2 per cent selected head of household increment as an additional fringe benefit in their district. Only 10 per cent of all superintendents suggested adding tuition reimbursement as a fringe benefit.

### PERSONNEL POLICIES

At a time in educational history when strained relations between boards of education and teachers are making headline news, there seems to be an increased need for more effective communication. A set of written policies, developed cooperatively, can play a vital role in fostering understanding between the two parties.

Personnel policies are statements of principles adopted by the board of education to serve as a guide for the board, the administrators, and teachers in the administration of personnel matters. Since numerous questions arise during the course of the school year, it is vital to all concerned that some written policies exist to assure some degree of uniformity in dealing with these matters. Policies should spell out, as clearly as possible, the position of the school district.

The Wisconsin Association of School Boards has set forth guidelines for its members concerning what should be included in written school board policies. It states that "policies should set forth fundamental principles of control, management, and operation. They would not include the details of management. These details should be developed separately as administrative regulations within the framework of board policies and subject to approval of the board. Suggested areas which might be included in a statement of policies are:

1. Organization, operating procedures and duties of the board of education.
2. Administrative organization of the schools
3. School personnel
4. Pupils
5. Use of school facilities."<sup>31</sup>

The Association further states that policies should never be considered final or absolute, but must be subject to modification as needs and conditions change. Thus, provision should be made for periodic review and necessary revision. It is vital to educational personnel, students, and residents of the community

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31. Richard A. Rossmiller, Opportunities Unlimited, Winneconne, Wisconsin: Wisconsin Association of School Boards, Inc., 1962, p. 33.

that policies be in the form of a separate written document. It is not enough that policies be found only in board minutes. Moreover, the school board should exert effort to assure that employees have ready access to a copy of the policies and that they are aware of policy purposes and implications.

In a study conducted in 1965-66, the Minnesota Education Association concluded that, in general, the larger the school district the greater the existence of written personnel policies. The study reports that only 40 per cent of school districts with less than 200 pupils had written personnel policies, while 95 per cent of the districts with more than 6,000 pupils had written personnel policies.<sup>32</sup>

The superintendents' responses to the survey staff's inquiry indicated that 71.4 per cent of their districts have written policies organized in a separate document. Another 23.3 per cent have policies found only in board minutes, while 4.0 per cent have no written board policies. The remainder of the superintendents did not respond to the question. Thus, approximately one out of four districts does not have adequate written policies.

It is generally agreed that school district policies are more effective when developed through the cooperative efforts of all who will be affected by them. This means that not only should the board be involved in policy formulation, but also administrators, teachers, and other school employees. It should be understood, however, that the board must pass final judgment on all policy proposals.

As important to the teacher as the formulation of district-wide policies is the development of additional policies affecting the school in which he teaches. Employee participation in formulating school policies is exceptionally important. It seems justifiable that those professionals who must abide by the rules should have the privilege of participating in their formulation. Yet in Minnesota, there are thousands of teachers who do not yet have this privilege. A total of 40 per cent of elementary and secondary teachers responding to the survey questionnaire indicated they play little or no role in development of general policies of their school, while only 18 per cent participate "much" or "very much." A total of 45 per cent indicated they did not participate to any significant degree in the development of personnel policies of their school, while only 19 per cent participate "much" or "very much."

The extent of participation of elementary and secondary school principals in policy development is as small as it is with teachers. A total of 49 per cent of the responding elementary principals indicated that they participated little in the development of policy for schools in their district. Of the secondary principals, 38 per cent responded similarly.

It thus appears that, in a majority of school districts, policy is emanating from the top with little opportunity for those vitally affected by the policies to participate in their formulation.

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32. Teacher Turnover in Minnesota Public Schools, 1965-66, Research Department, Circular 105, St. Paul, Minnesota: Minnesota Education Association, November 1966, p. 6.

### TEACHER TENURE

For many years there has been considerable concern that laws be passed and implemented which protect the teacher from unfair dismissal. In 1924 the Michigan Law Review noted several reasons for the desirability of teacher tenure laws.

The large turnover in the profession was due in part to certain practices which were widespread throughout the country; among them may be noted discharge (1) because of political reasons, (2) because of non-residence in the community, (3) in order to make places for friends and relatives of board members or influential citizens, (4) in order to break down resistance to reactionary school policies, and (5) in order to affect economies either by diminishing the number of teachers and increasing the work assigned to those retained, or by creating vacancies to be filled by lower salaried, inexperienced employees.<sup>33</sup>

While Minnesota has had teacher tenure laws for many years (separate laws, however, for districts in cities of the first class and for all other districts), the state law had some weaknesses. Specifically, efforts to dismiss an incompetent teacher were complicated under the long existing teacher tenure law. Once a teacher had obtained tenure by serving two years in Minnesota schools, the teacher no longer was on probation, regardless of whether or not she moved from one district to another.

In the 1967 Minnesota Legislature, significant progress was made to remedy this shortcoming. The amended teacher tenure law provides that the first two consecutive years of a beginning teacher's first teaching experience in Minnesota in a single school district shall be deemed as probationary. Thereafter, if a teacher obtains a teaching position in another Minnesota school district (outside a city of the first class), the teacher must serve a one-year probationary period. The advantage of this new provision is apparent. A school district hiring an experienced teacher from another district now has one year to judge the competency of the new employee. The district will no longer be bound to keep an experienced new employee more than one year if the teacher does not measure up to district standards.

Other weaknesses of the earlier law were the lack of specificity in establishing the reasons for which a teacher's contract may be terminated and the failure to spell out the procedure in determining whether a teacher should be dismissed. Both of these conditions have been essentially corrected by the new law.

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33. Michigan Law Review, Volume 37, 1938-39, Ann Arbor, Michigan: University of Michigan Law School, p. 16.

## CHAPTER VII

### MINNESOTA STATE DEPARTMENT OF EDUCATION

Education is a state function; therefore, primary responsibility for the education of Minnesota youth belongs to the state. For the Minnesota system of education, the State Department of Education is the central administrative service organization. As an administrative agency, the State Department of Education is responsible for providing professional competence and leadership essential to the growth and development of Minnesota's schools.

While the state has absolute power over educational matters within limitations of the Federal Constitution, schools in Minnesota are not operated by the central administrative agency. Two levels of responsibility have been established for public education in Minnesota. Local school districts, which are political subdivisions of the state, operate schools and are governed by locally elected boards within the framework of provisions established by the Minnesota Constitution, statutes, rules, and regulations. State fiscal support, laws, rules, regulations, and other requirements are administered by the State Department of Education. In establishing the local school district as a political subdivision of the state and developing a central educational agency, the state of Minnesota has not abdicated its educational responsibilities but assured citizens of a statewide system. Influential decisions at the state level are usually initiated by the central agency and have an effect on boys and girls throughout the state. Consideration of the legal bases, organization, functions, and services of the State Department of Education is essential in presenting the status of Minnesota public education. Lack of consistency and understanding of the tasks and authority of the department is a handicap in relating the state to the local district level.

For the central educational agency to operate at the professional level necessary to serve all of the people effectively, a high degree of administrative independence is essential. Freedom from the pressures of partisan politics and changes subsequent to an election has been a trend of this century for education in state government.

O R G A N I Z A T I O N   O F   T H E   M I N N E S O T A   S T A T E  
D E P A R T M E N T   O F   E D U C A T I O N

A general and uniform system of public education is mandated by the State Constitution of Minnesota. There is, however, no specific constitutional provision for a state department of education, a commissioner of education, or a state board of education. By statute, the State Legislature of Minnesota has established the State Board of Education, the position of Commissioner of Education, and the State Department of Education as a partial means to satisfy the broad mandate of the constitution relating to public education.

STATE BOARD OF EDUCATION

In Minnesota, statutes have created a State Department of Education to be maintained under the direction of a State Board of Education composed of nine representative citizens of the state, one from each congressional district.<sup>1</sup> Members of the board are appointed by the Governor and confirmed by the Senate. Terms are six years, with terms of some members expiring each year. At least three members are to have served as elected members of a local school board. When a State Board of Education member representing a congressional district moves out of an area, he ceases to be a member and a replacement appointment is to be made by the Governor within six months. Compensation is allowed for their services at \$25 each per day for actual performance of their duties and all necessary expenses. One member is chosen annually as president and may not serve more than three consecutive years in this capacity.<sup>2</sup>

The annual meeting is held on the first Tuesday in August at the State Capitol. Quarterly meetings are required and special meetings authorized. No member may hold any public office or be engaged in any capacity where a "conflict of interest" may arise; however, "conflict of interest" is not defined. Teachers and school administrators employed by local schools are eligible for membership on the State Board of Education concurrently as are local school board members. Dismissal reasons and procedures are not clearly stated in the statutes.

FUNCTIONS OF THE STATE BOARD OF EDUCATION

The Minnesota State Board of Education has two primary functions. First, the Board has the responsibility for selecting and appointing the Commissioner of Education. Secondly, this body is charged with formulating and adopting policies for the state educational system within provisions of the Constitution and statutes. Policies, which serve as guides to educational action throughout the

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1. Minnesota Statutes, 1965, Chapter 121, Section 2 as amended by Minnesota Statutes, 1967, Chapter 17 of Extra Session Laws (S.F. No. 21).

2. Ibid.



state, are published upon adoption by the State Board. Adopted rules and regulations for the governing of public elementary, secondary, and area vocational-technical schools have the full force and effect of state law. Prior to adoption of such policies, rules and regulations are recommended to the State Board by the Commissioner and his staff. Frequently suggestions are received from local districts and other educationally concerned organizations or groups. Upon recommendation, the Board schedules a public hearing to consider viewpoints of opponents and proponents before final action. As a decision-making body, the Board may be likened to the local school boards as it acts for the entire state.

The State Board of Education occasionally establishes special investigating or fact-finding committees of the Board as a means of obtaining information in order to reach a decision. These committees may wield considerable influence and affect situations that must be considered by the entire State Board of Education. The use of such committees is not in keeping with the role of the Board as a maker of policy and the role of the Commissioner and the Department as the supplier of information to the Board.

Federal programs in vocational areas have caused the need for boards for vocational education and vocational rehabilitation. In recognizing the need for coordination, Minnesota has solved this problem by having members of the State Board of Education serve as members of each of these boards. Therefore, Minnesota has a State Board of Education, a State Board of Vocational Education, and a State Board of Vocational Rehabilitation with all consisting of the same membership but each board having a different purpose and function. In essence, the boards are the same but retain distinct purposes by conducting separate meetings. This has tended to avoid problems of wasted or duplicated effort and accompanying expense. The State Board of Vocational Education is the governing body for area vocational-technical schools. In addition, Minnesota has provided some cohesiveness for the total educational effort through this plan of control at the state level.

#### CHARACTERISTICS OF AN EFFECTIVE STATE BOARD APPLIED TO MINNESOTA

Application of the major recommendations by the Council of Chief State School Officers relating to statutory provisions for state boards of education show Minnesota tends to satisfy most of the suggested standards.<sup>3</sup> The State Board is appointed by the Governor and approved by the Senate rather than elected by popular vote. Although Minnesota differs in these procedures from the Council of Chief State School Officers recommendations, there is no reason to believe a change is needed.

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3. The State Department of Education, A Policy Statement of Guiding Principles for Its Legal Status, Its Functions, and the Organization of Its Service Areas, Washington, D.C.: Council of Chief State School Officers, 1963, pp. 6-7.

There are, however, three problem situations in regard to the State Board of Education in Minnesota which may be troublesome. The qualifications for membership on the Board are not clearly defined. The reasons as well as processes for removal of Board members have not been spelled out. The delineation of Board powers is not always clear.

While statutes tend to allow broad powers for the State Board, strength is most evident in areas of teacher certification, high school areas, transportation, school visitations, records and reports, and some aspects of internal administration of the Department.

Powers are weak in the critical and significant areas of school building construction and school district reorganization. In these, the Board or Department is essentially an advisory agent, having little or no power to restrict or prohibit local action. Educational programs come under Board scrutiny, but powers to prohibit are rather vague if existent at all. Aid reduction by the Board is possible only for reasons of teacher certification or local financial effort below minimum requirements. Beyond this, to reduce aid is a long and difficult process even in situations which obviously require prompt attention. While a primary function of the State Board is to select and appoint the Commissioner of Education, severe restrictions on setting the salary are encountered by statute. The statutory amount generally becomes the salary. More latitude is needed for the State Board as this is important to recruiting and selecting.

Thirteen major statutory responsibilities for a state board of education are recommended by the Council of Chief State School Officers.<sup>4</sup> Minnesota meets these standards with some modifications. The State Board discharges these responsibilities primarily through the Commissioner and Department of Education personnel. Each responsibility represents an ongoing activity or group of activities within the Department.

#### COMMISSIONER OF EDUCATION

As the local school district has a superintendent, so the Minnesota State Department of Education has a Commissioner of Education. Where local superintendents have duties and responsibilities within the confines of the district, so has the Minnesota Commissioner of Education a similar role for the entire state.

Selected and appointed by the State Board of Education, the Commissioner of Education has a term of six years. If the office is vacated for any reason, a new Commissioner is appointed to complete the term. Commissioners may be reappointed for additional six-year terms. The current annual salary in Minnesota is \$17,500. Because many local district superintendents receive higher salaries, the position is not as attractive financially as it might be. Since the position of chief school administrator for the entire state demands special

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4. Ibid., pp. 7-8.

qualities of leadership, educational background, training, and demonstrated competence, salary becomes a significant factor in the efforts of the State Board to recruit outstanding candidates when a vacancy occurs. The 1967 Legislature approved a salary increase to \$21,500; however, even this increase is not sufficient to change markedly Minnesota's ranking in the selected states or make the salary very competitive with Minnesota suburban school district administration positions.

While the Commissioner of Education does not often become directly involved with students or parents, his primary tasks and responsibilities focus on the educational welfare of every child in the state. He serves as chief executive officer and secretary of the State Board of Education. In this capacity, his role is similar to the local superintendent with a local school board. The Commissioner attends all State Board meetings. He presents reports, makes recommendations, and advises the State Board. He is responsible for the efforts and discipline of the entire Department of Education. With State Board support and assistance from Department personnel, he develops and presents proposals and recommendations to the State Legislature. Together with the State Board, the Commissioner is responsible for implementation of enacted laws. Too many administrative details and public appearances burden the Commissioner.

#### CHARACTERISTICS OF EFFECTIVE CHIEF STATE SCHOOL OFFICER APPLIED TO MINNESOTA

Minnesota statutes for establishing the position of chief state school officer appear to be satisfactory as recommendations of the Council of Chief State School Officers are applied. Procedures are established through which the State Board of Education appoints the Commissioner of Education. Professional qualifications are suggested in broad form by indicating that educational attainment and experience should be commensurate with the spirit and intent of the law for the responsibilities assigned. Causes as well as procedures for removal are not specifically stated for the position, but other statutes make these provisions for all department heads.

The Council of Chief State School Officers recommends that statutes define the relationship of the chief state school officer to the State Board of Education and prescribes his administrative powers and duties.<sup>5</sup> Minnesota statutes do provide for this relationship and for six of the recommended powers and authority of the chief state school officer. Minnesota laws stipulate the Commissioner is to serve as the executive officer of the State Board of Education. Effectiveness of statutes is dependent upon individuals. Changes in State Board membership and/or the position of Commissioner can result in sudden shifts of relations. Success of the statutes is possible only when the Board recognizes its function is to make policy and when the Commissioner is aware that his responsibilities are executive or administrative. Whether at the state or local level, governing bodies and chief executives sometimes usurp the powers of the other causing serious problems for the people affected.

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5. Ibid.

COMPARISON OF MINNESOTA CHIEF STATE SCHOOL OFFICER  
WITH SELECTED STATES

States in the selected group are evenly divided as to method of selection of their chief state school officer with six appointed by the state board and six elected. For the entire United States the chief state school officer is appointed by the state board of education in 23 states, elected by the people in 22 states, and appointed by the governor in five states. Term of office for chief state school officers in the selected states ranges from two to six years with three states having indefinite terms.

Table 81 shows salaries of chief state school officers and ranking of selected states by these salaries for 1948, 1961, 1964, and 1967. Note that Minnesota ranked second in this group in 1948 but was eighth in 1967. The legislature in 1967 increased this salary to \$21,500 but Minnesota may not have gained any higher ranking because of increases in other states.

TABLE 81

ANNUAL SALARIES AND RANKING OF SALARIES FOR CHIEF STATE SCHOOL  
OFFICERS IN SELECTED STATES

State	Rank	1948	Rank	1961	Rank	1964	Rank	1967
Illinois	1	\$9,000	2	\$20,000	3	\$20,000	3	\$22,500
Indiana	5	7,200	8	11,500	5	18,000	6-7	18,000
Iowa	8	6,000	7	13,000	8	14,000	6-7	18,000
Kansas	9	5,000	10	9,500	11	10,000	9-10	13,500
Michigan	3	7,500	4	17,500	4	18,500	1	30,000
Minnesota	2	8,000	6	16,000	7	17,500	8	17,500*
Missouri	3	7,500	3	18,000	2	21,555	4	22,488
Nebraska	9	5,000	8	11,500	8	14,000	9-10	13,500
North Dakota	12	3,300	12	7,200	10	10,200	12	12,200
Ohio	6	6,500	1	25,000	1	25,000	2	25,000
South Dakota	11	4,800	11	9,000	12	9,000	11	12,500
Wisconsin	6	6,500	5	17,000	5	18,000	5	21,000

SOURCE: Robert F. Will, State Education, Structure and Organization, survey questionnaire to chief state school officer of selected states, Washington, D.C.: Office of Education, United States Department of Health, Education, and Welfare, 1964, p. 27.

\*1967 legislation increased Minnesota's salary to \$21,500.

### DIVISIONS OF THE DEPARTMENT

In the State Department of Education, governed by the State Board and administered by the Commissioner, are four divisions which form the basic organizational structure. Minnesota's State Board of Education has the power to organize and reorganize the Department as deemed best to attain the state goals. Such a reorganization was completed in 1966 when four divisions were formed to replace the previous three divisions.

Not aligned with any division is the Assistant to the Commissioner. His primary duties and responsibilities center around assignments by the Commissioner. Review of proposals under Title III of the Elementary and Secondary Education Act of 1965 for educational innovations and regional supplementary educational centers in Minnesota and serving as the Department's liaison with the research and development councils have been specific assignments for this position. Recently, the Publications Unit was assigned to this position. Essentially the Assistant to the Commissioner is in a staff capacity and has no line authority. Lack of a Deputy Commissioner causes the Commissioner to be burdened with administrative details.

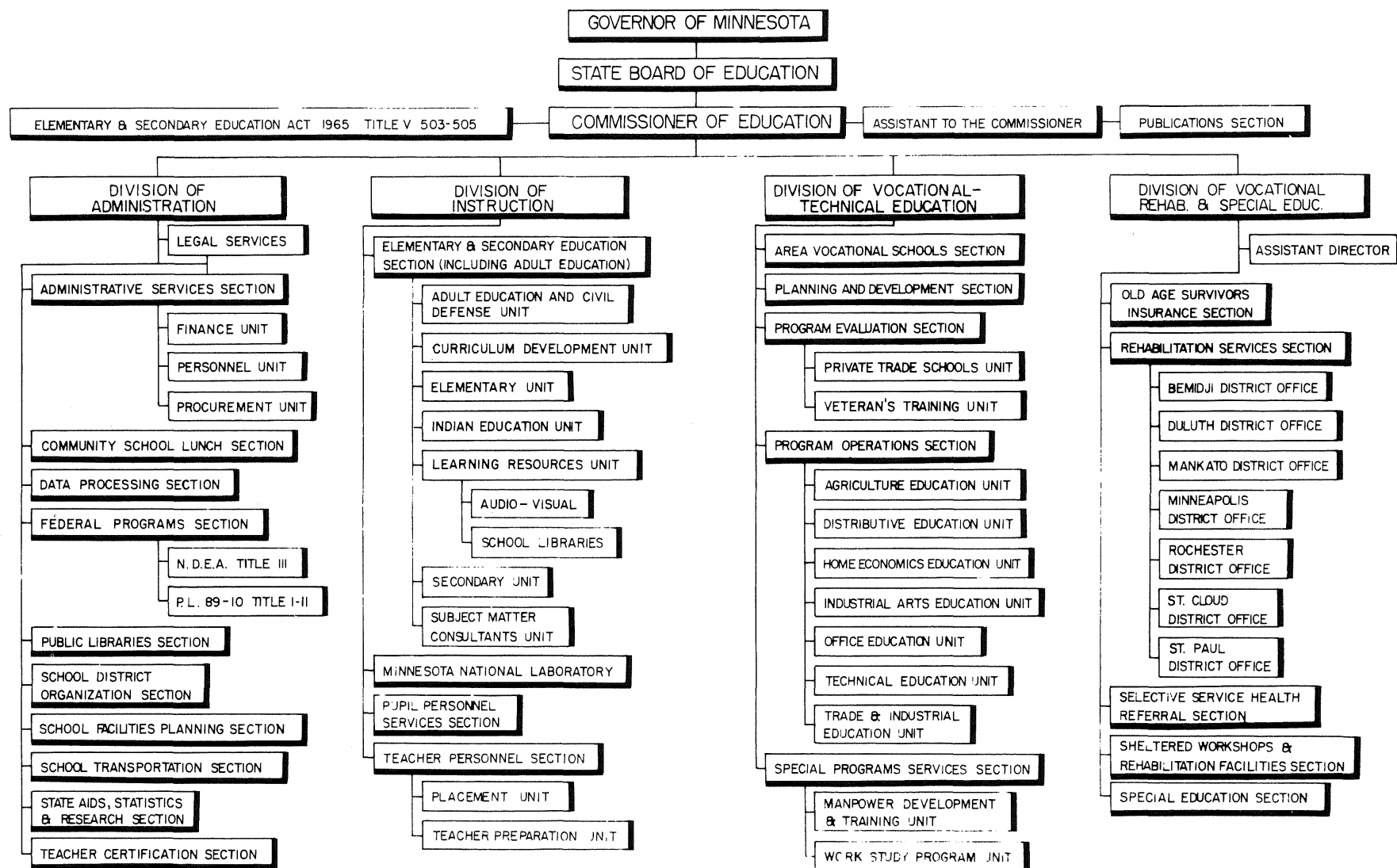
Each of the four divisions of the Department is headed by an Assistant Commissioner, one of whom is also designated as Deputy Commissioner. Each Assistant Commissioner has a line relationship to the Commissioner whereby each is responsible for the activities of his assigned division. The four major divisions are administration, instruction, vocational-technical education, and vocational rehabilitation and special education. Figure VI is the current organizational chart of the Department.

### DIVISION OF ADMINISTRATION

Both internal and external services are functions of the Division of Administration. The Administration Service Section is composed of three units: Finance, Personnel, and Procurement. The Finance Unit maintains records, payroll, and accounting for both internal and external operations of the Department. Distribution of state and federal aids are processed by the accounting service. Especially perplexing is the accounting system involving multiple funds for state and federal programs but lacking record-keeping features of program accounting that would be significant to education. The single-entry bookkeeping system used is obsolete. An understaffed Personnel Unit, which is charged with recruitment and selection of personnel qualified through State Civil Service, is confronted with serious problems in orientation, retention, and inservice training of the Department staff. Considerable talent is evident in the Department of Education, but energies are not released to a desirable extent because of the problems just cited and because job descriptions do not clearly assign responsibility or provide sufficient authority. The Procurement Unit is restricted to \$10 amounts in what is termed "local purchase authority."

A newly established unit, with potential significance for local districts as well as the Department, is the Data Processing Unit. The ARIES study on information systems development under Title V of the Elementary and Secondary Education Act of 1965 will assist the Data Processing Unit in planning the

FIGURE VI  
MINNESOTA DEPARTMENT OF EDUCATION ORGANIZATION CHART  
MARCH 1967



handling of information.<sup>6</sup> As masses of information are computerized, all levels of responsibility for schools should perceive new directions.

The Legal Services Unit in this division, which provides information relating to school laws for local school districts and citizens, is handicapped because a legal counselor is available only on a request basis through the Minnesota Attorney General's Office. Advice and opinions are frequently delayed. Compilation of resource information is fragmentary but potentially sound.

Issuance of teacher certificates is now handled by the Division of Administration. Automation of this service is scheduled to become operational in 1967, thereby avoiding previous delays.

Another example of automation is the plan to make the Community School Lunch Section the first Department group to change over to a computerized system for data processing.

The Federal Programs Section included Titles I and II of the Elementary and Secondary Education Act of 1965 as well as Title III of the National Defense Education Act. Critics have indicated the Department moved slowly in some of the 1965 programs yet Minnesota obligated three-fourths of its allocation under Title I in what the Department considered essentially soundly-planned programs or projects. Staffing was a problem during the first year of operation, but this was rectified for the second year with the employment of additional permanent professional and clerical staff. Cutbacks in federal money available slowed the programs in the second operational year (1966-67).

The School District Organization Section assists local leaders in developing strong, efficient local districts through reorganizations. The section also advises the Commissioner on reorganization plans submitted for approval.

Responsibility of the State Board of Education to study and approve school building site and construction plans is discharged by the School Facilities Planning Section. Local school districts, in submitting construction and/or bonding plans for Department review, are not prevented from pursuing poorly conceived expansion or overbuilding although the section does discourage such unnecessary or unwise construction or financial planning. Currently the section is changing from a master blueprint file to a microfilm card record system of school plants and facilities in Minnesota. Private foundation funds have recently been obtained to finance a study of mechanical heating and boiler plants in Minnesota by the School Facilities Planning Section.

The School Transportation Section develops bus specifications, safety standards, and transportation rules and regulations for adoption by the State Board. Annual reports expected from school districts are complex, long, and include unnecessary information. More visitations to local districts appear to be needed.

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6. Educational Information Systems Study, Study of the State Department of Education, Minneapolis, Minnesota: ARIES Corporation, 1967.

The State Aids, Statistics, and Research Section collects annual reports such as budgets and financial reports from local districts and county superintendents. Revision of report forms is needed for streamlining and updating. Combined with information obtained from other state agencies, these reports provide a basis for preparation of selected data relating to Minnesota schools that is helpful to many educational organizations, the State Board of Education, and United States Office of Education. Information handled in this section is utilized to calculate aids as well as to project future needs for state aids. Local districts can recognize the significance of this effort when preparing budgets or making other fiscal plans. New York spent \$2,120,000 in 1964-65 for research by their State Department of Education, Michigan spent \$508,901, and Ohio spent \$148,970 for such research. Many states, including Minnesota, lag in expenditures for educational research. With the records and reports available within the Department of Education, much more appropriate research could be conducted if funds were available. Little research is currently conducted by the Department on local or regional level educational projects, services, and experiments.

Withholding and/or reduction of state financial aids is a difficult process which is not frequently utilized. While all divisions of the Department recommend and initiate negative action on state financial aids to school districts, primary responsibility for withholding and/or reduction is charged to the Division of Administration. Too little authority relating to state financial aids for schools is vested in the Department. Most federal programs afford more authority for the Department of Education.

Modernization of office procedures contemplated and initiated by this division has implications for the entire Department. Automation of reporting and record keeping by the Data Processing Unit and School Facilities Planning Unit will not only expedite services of other units and sections but should alleviate the chronic shortage of space throughout the main Department headquarters. Some services of the Department have been moved to other locations in the metropolitan area because of the shortage of space. Storage files currently utilize too much space as records are cumbersome and held for long periods of time regardless of relative importance.

#### DIVISION OF INSTRUCTION

If federal aid programs were not available, it is easy to conceive of a two-division department. One division would be Administration just described, and a second division would be Instruction. Instruction would be most significant in such a system. With the involvement of the Federal government in education, the effort of the Division of Instruction is diminished because the Department has become more complex through growth, and special loyalties have evolved with the rapid expansion of categorical interest.

This division attempts to provide help in curriculum and instructional efforts of local school districts as well as to discharge the responsibility for visitation and inspection of local schools for the Department.



Reorganization of the Department in 1966 resulted in a new Learning Resources Unit with two subunits, Audio-Visual and School Libraries. Placing these two services in close cooperation at the Department level shows recognition of the trend toward instructional material centers in the local school districts. Library materials demonstration centers at Mankato and Brainerd were established under supervision of the Learning Resources Unit. Within the Department, facilities for these two subunits are physically separated. Lack of a director further compounds the problem of coordinating activities and efforts in this unit.

Departmental reorganization also resulted in the establishment of a Subject Matter Consultants Unit within the Division of Instruction. Inadequate authorization for number and type of consultants limits the service available. Changing school curriculum requires well-trained, updated teachers in classrooms; therefore, special consultants need even greater training to be helpful. Professional improvement through advanced training, inservice programs, workshops, and clinics has not been planned nor sponsored by the Department until recently. Such improvement has been solely the responsibility of individuals. Curricular gaps exist in the Department with the shortage of consultants currently authorized. For certain curricular areas such as social studies, music, and art, no consultant is available. Since public schools provide instruction in grades K-12, State Department of Education consultants frequently have the difficult task of being familiar not only with all grade levels but also with the wide range of geographic needs in Minnesota. As a result, Department consultants tend to become generalists.

The Minnesota National Laboratory Unit is housed in facilities apart from the Department. Independence of location is advantageous for experimental work; however, there is a problem in keeping other Department professionals well informed on innovations, experimental materials, and new approaches designed by the unit.

Employment services available through the Placement Unit assist individuals and local school districts. Frequent delays in notices to candidates occur because of a personnel shortage in the unit. Attempts to provide personalized services also cause delays in notification. Data relating to positions open and positions filled often lag several weeks. Delays are most significant during the "peak" hiring season. Lack of professional specialists, and clerical assistance plus an outmoded system are the chief problems. Reorganization of the Department whereby teacher certification was separated from teacher preparation and placement has facilitated both certification and placement services. The heaviest request for these services usually occurs during the same calendar period.

#### DIVISION OF VOCATIONAL-TECHNICAL EDUCATION

Increased interest in vocational education at the secondary school level and rapid development of area vocational-technical schools in Minnesota are significant to the functions of the Division of Vocational-Technical Education. Availability of federal aids for vocational education stimulates division activity in assisting local school districts plan, establish, and operate

approved vocational programs. There are four sections in this division which are Planning and Development, Program Operation, Program Evaluation, and Special Programs and Services Section.

Supervisors, assistant supervisors, and field instructors work with secondary and area vocational-technical school personnel as well as with special occupational groups. Among special occupational groups provided training by the Division of Vocational-Technical Education are power linemen, firemen, municipal power employees, stationary engineers, rescue squad personnel, and food service personnel. Assignment and utilization of personnel in such operational activities detracts and/or diverts the Department from essential relationships with public schools. The costs of these operations are included in the Department budget and reflect a somewhat distorted picture.

Throughout the Division of Vocational-Technical Education, federally aided programs are the keystone of operations. Smith-Hughes, Barden-Dean, and the Vocational Education Act of 1963 are among the federal laws which have had implications for this division. Coordination of the increasing variety and number of vocational programs is a problem as implementation involves teacher preparation, curriculum development, evaluation, and processing of applications and reports. Considerable commonality may exist in general for vocational education; however, diversity required for levels of education and special purpose programs results in complex and varied procedures.

A perplexing question which presents a dilemma for vocational education is how much emphasis should be placed on skill competency and how much on concept development. Whether the secondary school should continue to consider these specialized programs as vocational in nature or should recognize that the objective is further exploration into the work world is another current issue. With the development of area vocational-technical schools, some emphasis in perspective has shifted resulting in more profound problems at the post-high school level.

At the state level, there is a need for coordination and direction through at least four governing bodies and/or agencies since the offerings in vocational education are provided by the University, state colleges, state junior colleges, area vocational-technical schools, and public secondary schools. Other states have developed master plans for education including provisions for vocational-technical education at different levels. While Minnesota has a state plan for vocational education as required in order to participate in federal programs, problems exist in projecting future directions and coordinating efforts of vocational-technical schools and other educational institutions and organizations.

#### DIVISION OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION

Emphasis on vocational counseling and instruction mark the Division of Vocational Rehabilitation and Special Education as operational in nature. Assistance is given to disabled people preparing for return to employment. To reach eligible people effectively, this division has found district and branch offices necessary.

Because it is essentially operational, there is reason to question whether or not the Vocational Rehabilitation Division is appropriate to the Department of Education. The Special Education Section, on the other hand, is extensively involved with instruction in elementary and secondary schools so might be more appropriately assigned to the Division of Instruction.

Staff size limitations handicap the division's efforts, especially in research. Greater flexibility of staff is needed to provide research and demonstration.

Federally aided programs are the basis for most operations by this division. Lack of state funds for available matching programs restricts or prevents some activities from being initiated.

Handicapped school youth are receiving assistance in work experience and job placement through the rapidly expanding vocational adjustment coordinator system. Decisions by the vocational adjustment coordinators in local school districts are directly supervised by the division. The system encouraged and supervised by the division coordinates school and rehabilitation resources. Local school districts employ vocational adjustment coordinators at higher salaries than the state offers for vocational rehabilitation counselors with similar qualifications. This compounds a problem for the Department's Division of Vocational Rehabilitation which supervises local school districts in this field in addition to providing the operational activities described.

The State of Minnesota through mandatory legislation pioneered efforts in education of handicapped children, however, many school districts failed to identify and assist these youngsters until special federal aids become available. The Special Education Section of the State Department of Education has led interested local districts in developing instructional programs for handicapped pupils for which expenditures were partially reimbursed by available state aids. Considerable difficulty in recruiting and retaining well-trained consultants in special education has been experienced. Staff turnover in the Special Education Section has been at a high rate for several years, resulting in lack of continuity as well as lack of familiarity with programs at the local level. In a little more than a year, four of seven professionals left this section. Three vacancies continued to exist through 1966-67.

#### INTERNAL OPERATIONS OF THE DEPARTMENT

With headquarters located in St. Paul, the State Department of Education is highly centralized. As indicated, however, operational aspects of the Department are frequently placed near the point of action to serve better the people and school districts.

Decentralization occurs in the Division of Vocational Rehabilitation, with district and branch offices providing counseling and instructional assistance to disabled people in or near their home communities. In addition to making services more accessible, costs are reduced by decentralized operations of this type.

Four Title I regional offices were established in 1966 to facilitate the processing of project applications from local districts, assist school administrators in preparation of project proposals, and provide State Department supervision close to operational projects. Processing of applications on a decentralized basis causes confusion when decisions originate at different sources.

Two regional library material demonstration centers were established also in outstate locations in 1966. The purpose was to assist local school personnel in preparation of project applications, under Title II of ESEA, involving library books and materials. These centers were planned also to assist local school districts in processing and distributing materials prior to student utilization. Catalogs or lists of acquired materials are maintained on a limited and geographical basis to assure reasonable accessibility and availability to children and teachers in both public and private schools.

Responding school district superintendents in the survey favored the establishment of regional offices of the State Department of Education. Such offices were strongly supported by 55 per cent of the superintendents, with 21 per cent expressing opposition.

#### ORGANIZATION AND MANAGEMENT PROCEDURES

An analysis of organization and management procedures of the State Department of Education was completed by Schleh Associates in 1966.<sup>7</sup> The Schleh Report emphasized leadership as a Department mission but pointed out that various groups may not agree, thereby causing a breakdown in communications. This report advocated the separation of regulation from development as the two functions are seemingly incompatible. Serious questions relating to various Department services were raised by the Schleh Report. Recommendations for reorganization of the Department resulted in many of the changes evidenced in the November 1966 Department organization. This attempt to clarify lines of responsibility is commendable; however, the need for intradepartment cooperation and effort is more pronounced.

#### STAFFING OF THE DEPARTMENT

Expansion of services to meet changing needs and new problems in education has resulted in rapid growth of the Department staff. In 1944-45, there were 113 professional and clerical staff members. By 1966-67, the number of employees was 459, consisting of 245 professionals and 214 clerical workers. Much of this increase occurred with the development of new federal programs. Table 82 shows this growth.

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7. Analysis of Organization and Management Practices, Study of the State Department of Education, Minneapolis, Minnesota: Schleh Associates, Inc., 1966.

TABLE 82

## DEPARTMENT OF EDUCATION PERSONNEL, 1944-1966

Salary Account	1944-45		1949-50		1954-55		1959-60		1966-67	
	Number of		Number of		Number of		Number of		Number of	
	Profes- sional	Cler- ical	Profes- sional	Cler- ical	Profes- sional	Cler- ical	Profes- sional	Cler- ical	Profes- sional	Cler- ical
State Funds	51	42	62	67	78	74	127	103	154	161
Federal Funds	<u>12</u>	<u>8</u>	<u>19½</u>	<u>16</u>	<u>13</u>	<u>7½</u>	<u>43½</u>	<u>42</u>	<u>91</u>	<u>53</u>
TOTAL	63	50	81½	83	91	81½	170½	145	245	214
-----										
TOTAL ALL POSITIONS	113		164½		172½		315½		459	

SOURCE: T. C. Engum, "The Administration of Dr. Dean M. Schweickhard, Commissioner of Education, 1943-1962", St. Paul, Minnesota: December, 1966, p. 4 (1966-67 data from Department records).

Professional Staff

In a little more than 20 years, the Department of Education professional staff has almost quadrupled in size. The professional staff is comprised of the directors, consultants, and supervisors in the Department. The primary source of supply for these positions is the public schools; however, some positions are filled with recent college or university graduates.

With the exception of the Commissioner, all Department staff members are in the classified service of Minnesota Civil Service. When the Commissioner recommends positions to be staffed to the State Board of Education, the employment process is only initiated. State Board action is usually followed by a request to the legislature. Approved positions are submitted to the Civil Service Department for further determination. The preceding outline, while sketchy, illustrates the slow process involved. Further complexity results with detailed procedures at each level including justification of need, job descriptions and classifications, recruiting, and selection. These steps culminate in appointment. Selection of professional staff in local school districts is simplified as administrators review credentials and qualifications prior to making recommendations to the governing board which is empowered to employ. Since the State Board and Commissioner are not the appointive agency, considerable frustration results in professional staffing.

A new Commissioner or shift in membership of the State Board can result in a changed emphasis in type of professional personnel desired. Until recently, emphasis has been directed toward experience and training resulting in recruitment of personnel with lengthy public school experience. While usually valuable, such experience is not always suitable to the functions of the Department nor desirable for particular positions. For the past few years experience has been less significant while recognition of training and competencies specific to the tasks and responsibilities involved have gained in importance in staff selection. While the Civil Service Department has attempted to adjust to the uniqueness of the Department of Education in meeting changes in philosophy, employment problems include lack of flexibility and procedural delays. Reliance on the Civil Service Department recruiting is indicated by limited interest and involvement of the Department of Education staff.

Perspectives on turnover of professional staff vary. According to the Civil Service Department, turnover of professional staff is relatively low with the exception of certain units such as the Special Education Unit. Conversely, a study by Title V indicated the turnover rate for Department professionals was 33 per cent.<sup>8</sup> This cannot be considered a low turnover rate. Low turnover, while desirable and indicative of job satisfaction, may be the result of the practice of hiring professionals with long experience who find security in civil service positions. Previous lengthy experience in school administrative and teaching positions involving public pressures accounts for knowledgeable, understanding professionals; however, selection of staff from only one source decreases the possibility of new staff members having a variety of backgrounds and approaches to Department operations.

Opportunities for promotion within the Department exist as some competitive examinations conducted by the Civil Service Department emphasize internal experience. Other examinations feature open competition, emphasizing related experience and training. Internal mobility is limited. Out-of-state recruiting is narrowly limited and infrequent. The Title V survey indicated that no Department staff member had experience in another central education agency.

Salaries of professionals are established on a civil service schedule as enacted by the legislature each biennium. In competition for personnel similar to those employed by local school districts, effective recruiting for Department staff is partially contingent upon salaries. Too much reliance for recruiting is vested in the Civil Service Department by the Department of Education. This results in limited publicity and coverage so that potential candidates are overlooked. The civil service vacancy announcements are not mailed to all school districts. Department professionals who are familiar with school district personnel throughout the state could assist in recruiting competent personnel when positions are announced, yet the tendency is to rely on the Civil Service Department.

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8. Survey of State Department of Education Professional Staff, St. Paul, Minnesota: Title V, State Department of Education, 1967.

Professional library materials are limited or nonexistent for Department personnel. With an abundance of publications in the field of education, there is a need and an obligation for professionals to be continuously informed. Proper distribution and cataloging of these materials are needed in the Department. While the Department must maintain a textbook depository, space in the primary operational area is not adequate nor should it be utilized for this storage. More important is the need for professional materials and publications to be made more available.

Travel opportunities, which might be helpful to professionals, are rather limited in the Department of Education because of rigid state regulations and restricted funds. Some additional travel experiences for Department personnel have recently become available through Title V of ESEA.

Provisions for continuing education and training for Department personnel have been poorly structured and limited. Recently Title V of ESEA has offered management seminars, data processing workshops and clinics, tuition payment, and assigned study opportunities. As an agency that affords consultant and supervisory services to highly trained personnel in local school districts, the Department of Education has lagged in planned professional development programs for its staff. During 1966-67, there were only four Department professionals who held doctorate degrees. Compared to metropolitan and suburban school districts, the Department is not keeping pace with trends toward advanced degrees and other training. A special study of professional development is currently under way. Some results of this study have been indicated previously in this chapter.

Of the 12 responding states in the selected group, Minnesota's State Department of Education was third in number of professionals employed. Michigan and Missouri, with 728 and 396 respectively, employed the greatest number of professionals. Missouri, however, is extensively involved in operating special state schools, and many of its professionals were functioning as classroom teachers.

Six of the states, including Minnesota, reported professional staffs were under a form of civil service while the other six states indicated professionals were not under civil service. In the latter states, tenure and other benefits ranged from no tenure to tenure with professional salary schedules.

#### Nonprofessional Staff

High turnover, low salaries, and personnel shortages have been characteristic problems for the Minnesota State Department of Education in nonprofessional staff. These clerical workers who are vital to all Department functions and services, are civil service employees. Competition with private industry for clerical personnel is difficult because state salaries tend to lag. Fringe benefits, including insurance, sick leave, and annual leave, assist recruitment and retention of competent employees. The turnover and shortage of clerical personnel is attributed essentially to salary problems. On-the-job training or inservice training has been limited until recent Title V, ESEA projects enabled special workshops and clinics in data processing, telephone courtesy, and the like. Prospects have improved for continued development of clerical

competencies with these Title V projects and the plans to provide tuition payment for additional study. The loss of well-qualified, competent personnel to private industry is a serious problem which indicates that the Department must make salaries competitive to avoid being an experience training center for industry. Civil service appointments are based on performance examination results. Standards, which are rather low for entry positions, encourage a wide range of competencies in applicants. New employees recruited by civil service are generally recent high school graduates or married women seeking reentry employment. Marital reasons and competition from private industry are chief causes for leaving state employment.

Department office area is crowded with file cabinets and other equipment, causing space problems for all personnel and units. Implementation of modern techniques providing utilization of microfilming and data processing has not been accomplished as rapidly as needed. Such problems tend to become morale problems, as crowding causes discomfort and trends toward modern systems cause some feelings of insecurity.

In 1966-67, Department nonprofessional employees numbered 214. Michigan led responding selected states with 486 while North Dakota had the smallest number of clerical employees with 51.

#### DEPARTMENT BUDGET

Requirements of the State Department of Administration and legislation place heavy demands on the Department of Education for accounting procedures. Especially cumbersome are the multiplicity of funds which are handled separately and the budget reporting practices. Some consolidation of funds would simplify procedures and enable the Department to move toward program accounting which would be more helpful and informative.

More than a million dollars per year is spent for salaries, supplies, and other expenses of the Department. Table 83 is a summary of the biennial budget account for the Department in 1965-1967. These figures reflect state appropriated funds. For the 1965-1967 biennium the total budget for Department salaries, supplies, and expense was \$2,176,367; the appropriation for the 1967-1969 biennium was \$2,928,960.

While some items of the Department budget are clearly attributed to one division, most budget items are not easily traced, making it difficult to determine cost of operations for various divisions or units. For example, the amount expended for research by the Department cannot be ascertained readily nor can amounts spent for permanent staff consultant services. In the Division of Instruction, the Director of Curriculum Development indicated that \$10,000 was available annually for preparation and publication of state curriculum guides. Program accounting would assist observers in the study of Department finance as well as assist the Department in planning and development.



TABLE 83

BUDGET OF MINNESOTA STATE DEPARTMENT OF EDUCATION  
FOR THE 1965-1967 BIENNium

State Appropriated Accounts	1965-66	1966-67	Total
Salaries	\$ 936,467	\$ 948,098	\$ 1,884,565
Supplies and Expense	145,056	146,746	291,802
Vocational Training of Disabled Persons	876,837	924,600	1,801,437
Long-Term Sheltered Workshops	15,000	--	15,000
Minnesota National Laboratory	100,000	95,000	195,000
Vets On-the-Job Training	--	--	--
<b>SUBTOTAL</b>	<b>\$ 2,073,360</b>	<b>\$ 2,114,444</b>	<b>\$ 4,187,804</b>
Scholarships to Indian Students	\$ 25,000	\$ 25,000	\$ 50,000
Community School Lunch	475,000	475,000	950,000
Aid to Public Libraries	200,000	200,000	400,000
Manpower Training	--	5,500	5,500
Special State Aid to Schools	175,988,000	184,660,000	360,648,000
State Aid to Schools with Extreme Declines in Valuation	<u>1,500,000</u>	<u>--</u>	<u>1,500,000</u>
<b>SUBTOTAL</b>	<b>\$178,188,000</b>	<b>\$185,365,500</b>	<b>\$363,553,500</b>
<b>TOTAL</b>	<b>\$180,261,360</b>	<b>\$187,479,944</b>	<b>\$367,741,304</b>
Income Tax School Fund	\$ 8,563,050	\$ 8,750,000	\$ 17,313,050
Endowment Apportionment	<u>9,274,895</u>	<u>9,350,000</u>	<u>18,624,895</u>
<b>SUBTOTAL</b>	<b>\$ 17,837,945</b>	<b>\$ 18,100,000</b>	<b>\$ 35,937,945</b>
<b>TOTAL STATE FUNDS</b>	<b>\$198,099,305</b>	<b>\$205,579,944</b>	<b>\$403,679,249</b>

SOURCE: Data from State Aids, Statistics and Research Section, St. Paul, Minnesota:  
State Department of Education.

Responses from the 12 selected states indicated the highest budget amount for a state department of education was \$9,769,649 as reported by Michigan. The lowest budget amount was reported by Indiana at \$477,000. Amounts reported for research by central education agencies in the selected states ranged from South Dakota's low of \$12,144 up to a high reported by Michigan of \$508,901. Translated into percentages, the total budget allocation to research shows 1 per cent in South Dakota as contrasted to 5.2 per cent in Michigan.

## FUNCTIONS AND SERVICES OF THE MINNESOTA STATE DEPARTMENT OF EDUCATION

Divergent viewpoints exist relating to the purpose of the State Department of Education. These range from rather narrow ideas that the Department should serve in an advisory capacity only for local districts or that the main task is to distribute state aids to more extensive and profound views which hold that the Department should provide a broad range of services with special emphasis on improvement of education for every child in the state of Minnesota.

### FUNCTIONS OF THE DEPARTMENT

Historically and legislatively, three primary functions have emerged for the Department: regulation, operation, and leadership. As noted, divisions of the Department tend to emphasize each in varying degrees just as state boards and commissioners vary in their perceptions. The Schleh Report called attention to the potential for conflict between leadership and regulation, especially where certain units and sections appear to hold dual responsibility.

### REGULATORY

For a uniform state system of public education to be developed, the State Department of Education was established to assure compliance with legislation, rules, and regulations. This led to inspection and supervision by Department professionals charged with responsibilities to determine that local schools maintained minimum standards. Advisory services were developed at the state level to assist local districts in reaching and/or maintaining established minimums. Such regulation remains a necessary function for the Minnesota State Department of Education, particularly because of the huge number of local school districts. As reduction of school districts continues, less emphasis on regulatory functions should be needed because reorganized local districts should find themselves more able to reach beyond minimum standards and should be staffed with personnel competent for the task of maintaining at least minimum standards. Policies, rules, and regulations developed by the Department and approved by the State Board of Education within statutory and constitutional limitations have been necessary to achieve some type of uniformity in public education in Minnesota. These constraints, however, tend to deter local initiative that might otherwise develop new directions for Minnesota schools. To assure Minnesotans that all state youth regardless of place of residence have equal educational

opportunities and that state school aids are distributed and utilized properly, the Department must be charged with the regulatory function. Although not as forceful as might be desired, the State Department of Education has devoted much staff time and effort to regulations.

### OPERATIONAL

Because the Department is essentially concerned with assisting local school districts in implementing and operating educational programs, it generally is not recognized as having operational functions. Some divisions, especially Vocational Rehabilitation, have been involved in operational functions. Assistance rendered to disabled persons for job training and placement, specialized services provided for the handicapped, and certain courses of instruction such as fire fighting, watchmaking, and the like are within the existing scope of Department operations. If other agencies are unable to provide these services, then the Department is performing a valuable service for Minnesota citizens. Such operations are costly and might be better provided through agencies other than one specifically charged with supervision of elementary and secondary schools. Some observers believe the Division of Vocational Rehabilitation, which is the most operational in nature, should be a separate department of the state. This might be helpful in restoring the basic mission of the Department of Education to concern itself with public elementary and secondary schools.

### LEADERSHIP

Whether or not the State Department of Education can lead as well as regulate is debated by many Minnesotans. Since regulation has been deemed essential to the interests of the state, the controversy would seem to center on leadership.

Statutes tend to charge the Department with this function for federal aids available and for recognition of local districts through provisions of incentive aids. While the Department has stabilized education through regulation, the capacity of the Department to lead has not been especially evident. Title V of ESEA recognizes the importance of the leadership role to strengthen state departments of education.

The State Board of Education has determined that the Department must work to improve the quality of education beyond the minimum. Interpretation of some statutes places emphasis on leadership by the Department. If regulatory functions were assigned primarily to the Division of Administration, educational leadership could emerge in the other divisions of the Department.

To police and lead simultaneously is difficult for any individual or agency. Opponents may wish for nothing more than an advisory role by the central state agency. Practicality demands responsibility; therefore, regulation becomes essential. Local resentment and resistance against any attempt to go beyond minimums frequently occur. If Minnesota is to develop, maintain, and improve a truly state system of public schools, leadership by the Department of Education is mandated. Therefore, regardless of the problems encountered, the Department

has a threefold task in these times: regulatory, operational, and leadership. Past performance indicates considerable effort by the Department to provide for regulatory and operational functions. Leadership has depended upon individual perceptions of responsibility rather than job assignments.

Advisory committees have frequently been utilized by the Department to study educational problems and make recommendations. Diffusion and dilution of responsibility is a chief problem confronting the Department. Professionals selected for specific tasks should be considered competent to make sound decisions. Responsibility, therefore, should be traceable to individuals not committees. Committees which are mandated by legislation cannot be easily eliminated; however, establishment of additional committees should be carefully deliberated and frequently avoided. Where needs indicate, committees under Department direction may study and assist with specific problems, but their findings and recommendations should be only advisory in nature. Committees selected should be apprised of their task clearly, and time limitations for completion should be indicated. While advisory committees can be helpful to the Department, less emphasis and reliance on this type of approach would enable professional staff members to perceive more clearly and to fulfill more diligently their tasks and responsibilities.

#### SERVICES OF THE DEPARTMENT

Effective regulation makes assistance available to those attempting to satisfy requirements. Strong leadership places emphasis on helping others achieve. Therefore, the Department of Education must provide service to local school districts whether regulating or leading. Numerous services are provided by the Department of Education including program development, consultation, research, employment, supervisory, and information processing.

#### PROGRAM DEVELOPMENT SERVICES

At least three divisions of the Department of Education are involved in developing programs: Instruction, Vocational-Technical Education, and Vocational Rehabilitation. This service is properly assigned to the Department as there is a need to avoid excessive overlapping of certain educational programs within the state as well as provide some standardization or uniformity. Assistance is needed by local units in planning and organizing various special and general programs especially where new institutions are established, such as area vocational-technical schools and those resulting from school district mergers. State curriculum guides are rarely updated and sometimes appear to approach obsolescence at publication. Committees are utilized in preparation, a method that dilutes responsibility. As indicated, the budget for this effort is minimal and restricts the scope considerably. Curricular changes, new materials and equipment, and educational innovations present problems for local districts and the entire state so that direction and assistance at the state level are essential. Such direction and assistance facilitate sound programs with minimum overlap and eliminate unnecessary duplication.

More than one-third of the respondents in the survey indicated their belief that the Department does not provide adequate services in improving education in local districts. Superintendents and board chairmen were more favorable in their responses than were elementary and secondary school principals. If the Department is to provide adequate services, additional staff and better utilization of professional staff appear to be necessary. A stronger effort by the Department in relating to elementary and secondary school principals is obviously needed.

#### CONSULTATIVE SERVICES

All divisions employ consultants for special purposes ranging from subject matter and education for the handicapped to legal information and district reorganization. Not all subject areas or specialized areas are staffed with consultants.

Survey results indicate 35 per cent of the respondents believe the Department has not provided adequate consultative services. Superintendents considered the Department services more adequate than did elementary principals while secondary principals were almost evenly divided in their opinion. Considerable difficulty is encountered by the Department in providing adequate consultative services because of the variety of regional and local needs and differences. Specialization within a subject area at the state level, for example, requires knowledge of materials and methods through all grade levels K-12 and beyond into post-high school programs. This breadth virtually precludes desired depth potential for expertness needed by schools and results in consultants becoming generalists within broad subject or specialty areas. For specific problems, tasks, and new ideas, part-time consultants employed by the Department on a temporary basis would provide some solutions to the rapidly changing needs of public education.

#### RESEARCH SERVICES BY THE DEPARTMENT

More than one-third of the responding superintendents in the survey expressed dissatisfaction with the Department services in conducting research and disseminating findings. Fewer than 20 per cent of the superintendents expressed favorable attitudes on this service. Responses of Board chairmen and county superintendents were similar to those expressed by superintendents. Negative attitudes of elementary and secondary school principals were more pronounced. More than 40 per cent of the responding principals consider the conduct of research by the Department unsatisfactory while slightly more than 17 per cent expressed satisfaction. Principals showed even stronger dissatisfaction with dissemination of research findings as 45 per cent were unfavorable and only 16 per cent favorable.

Much of this criticism may be attributed to lack of communication by the Department with certain school personnel levels and a rather diluted approach to research by the Department.

While various research efforts are made by different units and sections of the Department, coordination has been lacking. Some improvement in mechanical coordination can be expected with the establishment of the Forms Control Unit. Division of research services within the Department may be necessary but duplication must be avoided. Each research attempt should be carefully evaluated for significance before being initiated. Subject matter consultants attempt to learn about procedures and activities in curricular areas. The Research Unit of the State Aids, Statistics and Research Section produces status studies based on data collected and compiled by the Department through reports from local districts. The Minnesota National Laboratory pursues research in curricular practices and procedures. Improvement of internal and external communications is needed to make the research efforts more effective as well as to increase recognition of this service by local school personnel.

### EMPLOYMENT SERVICES

Services to individuals and school districts are provided by the Teacher Placement Unit which enrolls teachers and administrators on a fee basis. Credentials for those enrolled are collected and maintained by this unit. Local school districts reporting staff vacancies have access to these credentials on a request basis. Notices of vacancies are sent to qualified candidates currently enrolled.

The Schleh Report suggested that other agencies exist which are more suited to provide these services. This report further recommended that the Department should furnish employment consultative services only, as other aspects of the existing employment service were inappropriate.

Responding superintendents indicated 55 per cent were dissatisfied while only 12 per cent were satisfied with Department services in employing teachers and administrators. Board chairmen and elementary and secondary school principals were also strongly negative in their response toward this service.

Considered inappropriate by the Schleh Report and inadequate by respondents to this survey, employment services of the Department must be improved, modified, or eliminated. Existing educational employment services in Minnesota are available in colleges and commercial agencies. College placement agencies tend to emphasize services for recent graduates while commercial placement agencies do not attract some potential candidates. For broad exposure of credentials as well as an extensive manpower pool of qualified teachers, a governmental agency can serve well.

The Department provides varied services for local districts so is in a sound position to be cognizant of local staffing problems; therefore, employment consultant services may be more appropriate than operational activities such as placement. Employment consultant services could enable the Department to assert responsibility for the improvement of education.

## SUPERVISORY SERVICE

With a state system comprised of more than 1,300 school districts, varying in size as well as scope of programs and services, supervision is essential to the regulatory function of the Department. To ascertain that regulations are being satisfied, supervisory services involve visitations to local districts and reports from these units.

Numerous reports covering various phases of the local operation as well as time periods are received and reviewed by different sections and units of the Department. As these reports are reviewed, the Department becomes aware of strengths and weaknesses whereby deficiencies can be corrected. Supervisory personnel of the Department recognize problems and offer suggestions for possible solutions. Where reports indicate that unsatisfactory conditions exist, communications are initiated to bring about improvement. If such situations persist, steps to reduce state aids and modify accreditations or classifications are taken by the Department. Such procedures are rather slowly and cautiously accomplished because the Department is lacking in authority and is reluctant to assert even the authority which it has.

Visitations to local schools by Department supervisory personnel are followed by reports back to the district which indicate both satisfactory and unsatisfactory aspects of the local operation. Elementary and secondary school directors make most of the individual visitations which are inspectorial in nature. School plant facilities, local school business practices, educational program, teacher qualifications, and the like are the areas of consideration in these visits. These experiences are helpful to local district administrative personnel and to Department professionals because of the exchange of information through personal contact. However, little assistance is provided directly to the classroom teachers who are at the focal point of education. Travel budget limitations restrict the number of visitations which are made annually.

In recent years, the Department has utilized a method called team visits as a part of their consultative and supervisory service. This method involves the assignment of several special consultants from the Department to visit school districts as a group. The team is headed by one of the elementary and secondary school directors from the Department. Meeting with local teachers and administrators, visiting classrooms, and touring facilities are parts of the approach. Following the observations and discussions, the team presents an oral evaluation to the local board, administration, and faculty. Later, a written report is prepared and sent to the local school district. Such visitations acquaint Department personnel with local programs, personnel, and problems in addition to providing guidance for the future in correcting deficiencies. These team visits have provided more opportunity for Department professionals to observe classroom activities. Budgeting limitations restrict the number of such visits annually.

Supervisory services could be improved by making additional personnel available even on a part-time basis and by more frequent visitations to local schools by individuals and teams. Existing travel restrictions and lack of personnel are barriers to providing a strong, effective supervisory service. The number and

range of sizes of local districts also handicap the development of an effective program of supervision by the Department. Few visits provide opportunities to observe classroom situations and to establish relationships directly bearing on instructional problems.

Respondents in the survey indicated negative attitudes toward adequacy of visitations and supervisory services of the Department as 50 per cent were not satisfied and only 12 per cent indicated a favorable attitude. Infrequent visits, limited classroom observations, and the nature of most visits tend to explain these negative responses.

Inservice education services of the Department were considered inadequate by 43.1 per cent and adequate by only 12.9 per cent of the respondees. While the Department has taken steps to provide workshops and clinics on a regional basis in recent years, apparently more effort is needed.

#### INFORMATION PROCESSING

Frequently, the same or similar information is collected from local school districts by various sections and units of the Department. This duplication presents a problem in handling information for meaningful utilization by the Department and causes unnecessary reporting tasks in local units. Completion of a recent information systems study by the ARIES Corporation under Title V of ESEA is expected to result in improved services as well as to eliminate duplication of effort and avoid collection of information not needed. Development of a data processing system is expected in several areas such as pupil personnel, school lunch, school finance, transportation, and educational program.

Addition of an administrative analyst for a Forms Control Unit of the Department is another attempt to avoid unnecessary collection of information and to coordinate collection of information needed. As this unit asserts itself to standardize forms and terminology and the Data Processing Unit implements handling of information, improvement can be expected in collection, processing, utilization, and dissemination of educational data. The most evident problem in forms control is the need for other sections and units to channel report forms through the unit. Primary difficulty can be attributed to the newness of this Department unit. Lack of funds and personnel have caused delays in the implementation of sound, modern data processing systems.

#### RELATIONS WITH OTHER AGENCIES

As an administrative arm at the state level of responsibility in education, the Department serves and cooperates with lay groups, school district personnel, the legislature, and other state and federal government agencies. Citizen groups concerned about public education rely upon the Department for considerable assistance and information. The relationship is important as these people can provide a broad basis of support for Department goals. Through mass media and special citizen groups, the Department attempts to obtain general public understanding and support for public education in Minnesota. Breakdowns in relations



and fragmented information are serious problems which place heavy responsibility upon all Department staff members.

Criticism of the Department stems usually from relations with school district personnel such as school boards, administrators, and teachers. Failure in achievement of understanding and cooperation with local school district personnel by the Department frequently results in widespread mistrust and misunderstanding. Sometimes, this is considered the "scapegoat" function of the Department as it bears occasional unjust criticism. In advocating strong local units through reorganization, the Department meets resistance from some personnel and general public in small local school districts. There is a tendency for the Department to neglect large city school problems because of lack of qualified personnel experienced in metropolitan or urban education. Viewing the high percentage of Minnesota youth attending school in the metropolitan area, lack of Department specialists in urban education is tragic. As problems of core city schools plague the three cities of the first class in Minnesota, the State Department of Education is virtually unable to render appropriate service. The Department request for one urban education consultant was denied by the 1967 Legislature. Title V of ESEA has made plans to provide this consultant from federal funds in 1967-68 so some improvement in service to large cities may result. In the past, large cities could look to the Department as a receiver of reports, distributor of state aids, and assistant in planning federal programs. As emphasis on reorganization alienates the smaller school districts, lack of services jeopardizes Department relations with large city schools.

In essence, the Department has been in a position that disjoins more than 50 per cent of the school population. In considering survey responses, this situation undoubtedly, has had a bearing on the strongly negative attitudes toward Department services. Reorganization is needed to develop strong local districts in rural areas, and it is also essential that the Department make a concerted effort to serve the needs of metropolitan school districts.

With each session of the legislature, the Department presents a program of recommended legislation. Other bills dealing with education are frequently introduced without Department support. Regional and area interests may conflict with the Department position causing legislators to suspect motives although the Department was established to serve the entire state. Closer liaison with legislators is needed between sessions so that the lawmakers will be better informed as bills are introduced and studied for possible passage.

Considerable mention has been made previously of the role played by the Civil Service Department for the Department of Education. Relations with the State Department of Administration, Welfare, Public Health, Taxation, and the like are frequent and necessary. Interaction among these state agencies has much to do with the success or failure of the Department of Education.

As the Federal government has become more involved in educational matters each year, especially significant have been relations between the United States Office of Education and Minnesota State Department of Education. NDEA of 1958 and the Vocational Education Act of 1963 had a great effect on the State

Department of Education and public education; however, the most dramatic impact came with the ESEA of 1965. These and other federal programs are described and discussed in another chapter; however, Title V of ESEA has been mentioned frequently in this chapter as its purpose is to strengthen the state departments of education throughout the nation. During 1966-67, federal funds provided for at least 91 professionals and 53 clerical employees in the Minnesota Department of Education. Other employee salaries are partially attributed to federal programs. Therefore, the significance of the Federal government as it relates to the Minnesota State Department of Education is much greater than a casual observer might think.

#### EDUCATIONAL PARTNERSHIPS

The emergence of the Federal government in educational affairs has begun to create a new partnership. Traditionally, education has been a two-level responsibility between the state and local school districts. Counties, essentially, have been cast in a supporting role; however, county involvement has decreased with reorganization in Minnesota. Whether the federal role is supportive, equal, or dominant may be determined by the capacity and willingness of the state and local school districts to provide for the changing needs of modern educational programs. The formal partnership of various levels of government has primary responsibility in the education of Minnesota youth.

Informal partnerships between governmental agencies and other organizations are common in education. Professional and public interest is manifested through the proliferation and growth of many special groups. The need to cooperate and assist these nongovernmental organizations is recognized by the Department as advisory committee membership is usually drawn to represent various groups and organizations.

Charging the Minnesota State Department of Education with responsibility for supervision and regulation of a statewide system of public education has provided a need for cooperation between levels of government as well as a need for cooperation with other interested organizations and individuals. Such cooperative relations are frequently difficult and time-consuming for Department personnel but indirectly have a profound influence on the education of Minnesota youth.

## CHAPTER VIII

### D I S T R I C T    O R G A N I Z A T I O N

Education in Minnesota is a vast enterprise. During the 1965-66 school year approximately 800,000 pupils, 39,000 teachers, 5,300 school board members, and thousands of individuals in the clerical, janitorial, and supply areas were involved in elementary and secondary education. This represents an involvement of almost 25 per cent of the total population of the state. As in other institutions, successful operation of this vast educational enterprise is dependent to a large degree on well-structured organization and administration.

Although the state government bears the final and major responsibility for the education of its citizens, the local school district is recognized as the basic administrative unit through which the actual determination of provisions for education are made. This chapter is devoted to a discussion of sound district organization and the need for reorganizing and restructuring of these educational organizations to meet the challenges of current and future conditions. The presentation in this chapter is made in seven main sections: (1) federal, state, and local responsibility for education; (2) local school district organization in the United States and Minnesota; (3) the intermediate unit and other agencies providing educational programs, services, and leadership; (4) trends in school district organization; (5) desirable standards for administrative and attendance units; (6) incentives and deterrents in establishing sound district organization; and (7) procedures and methods utilized in establishing sound district organization.

#### FEDERAL, STATE, AND LOCAL RESPONSIBILITY FOR EDUCATION

Placing major responsibility for the schools at the local and state level is part of the democratic tradition. However, school districts and the school boards responsible for operations in the local districts do not operate in a vacuum. Many state and national agencies have influences and powers which affect the operation of schools. This section will deal with the role of the federal, state, and local districts in providing elementary and secondary education.

#### THE FEDERAL GOVERNMENT'S ROLE IN EDUCATION

The United States Constitution makes no mention of education. The powers it vests in the Federal government are delegated and enumerated powers, and the Tenth Amendment specifies that all other powers are reserved to the states or to

the people. Based on this constitutional provision and the fact that Congress has historically required new states to enact a constitutional provision for free public education, the responsibility for education has been vested in the state governments.

Although the Federal government early renounced authority over the schools, it has, nevertheless, strongly supported and encouraged the schools. For example, in the Northwest Ordinance of 1787 the statement was made: "Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." The setting aside of public lands for school support in the Northwest Territory (includes the states of Indiana, Illinois, Michigan, Ohio, Wisconsin, and part of Minnesota) exemplified the forcefulness with which the Federal government would encourage education.

The establishment of the United States Office of Education in 1867 is another sign of the Federal government's involvement and concern for promoting education. The United States Office of Education, which functions currently as a part of the United States Department of Health, Education and Welfare, has not functioned primarily as a control agency and represents in no way a centralized national ministry of education as is commonly found in other countries. The three main areas of activity for the United States Office of Education have been: (1) research, (2) educational services, and (3) administration of grants. The list of special categorical aids and grants to public schools is extensive and quickly leads one to the conclusion that the Federal government is very much a partner with the state and local governments in the educational enterprise.

The past decade and particularly since the passage of the Elementary and Secondary Education Act of 1965, the Federal government's involvement in education has been increasingly noticeable. For example, Title V of ESEA was designed to strengthen state departments of education and Title IV established multistate regional educational laboratories (UMREL located in Minnesota) which are primarily concerned with providing supporting research and development services for states and local districts.

The role of the Federal government in education is constantly evolving, and it seems obvious that it will be an increasingly active role. It behooves the state and local governments to strengthen their operations for education and bring about a strong three-way partnership. An active concern by the Federal government can only be an advantage to strong state and local agencies attempting to provide an education geared to the needs of society and all individuals.

#### THE STATE'S RESPONSIBILITY FOR EDUCATION

Although the public schools in the United States are operated largely on a local basis, the ultimate legal responsibility for education rests with the state governments. The state can create local school districts or operate, as is

the case in Hawaii, a state system of education. Whichever option the state elects to choose in providing education, it must accept the responsibility for the total educational operation in the state. If local school districts have educational shortcomings, ultimately the responsibility for those shortcomings rests with the state because the state created the local districts and has a responsibility to see that they are functional.

The constitutions of all states provide, directly or indirectly, that a system of public schools shall be established and maintained, and most constitutions place the obligation upon the legislature to make provisions for education. Most legislatures have established the broad design for the schools, established such limits as desired, and have delegated the actual operation to the local boards of education as creatures of the state and the legal representative of the people.

Article VIII, Section 1 of the Minnesota Constitution provides as follows: "The stability of a republican form of government depending mainly upon the intelligence of the people, it shall be the duty of the legislature to establish a general and uniform system of public schools."<sup>1</sup>

The Minnesota Constitution established a state perpetual school fund out of the proceeds of lands granted by the United States and directed the legislature to "make such provisions, by taxation or otherwise, as, with the income arising out of the school fund, will secure a thorough and efficient system of public schools . . ."<sup>2</sup>

The Minnesota Legislature has delegated a large share of its responsibility for operating educational programs to local school districts. The legislature has not, however, abrogated its control and authority for providing adequate educational opportunity. Two Minnesota Supreme Court cases reaffirmed the state's authority and position in providing education. In the 1865 Connor decision the following statement was made: "School districts are quasi-corporations, and under the control of the legislature. They may, at its will, be changed or divided, or the property transferred from one organization to another."<sup>3</sup>

In a later case the court said: "School districts are governmental agencies, wholly under control of the Legislature, which may modify or abrogate their powers to any extent it sees fit, or may enlarge, diminish, or abolish their boundaries or territorial jurisdiction."<sup>4</sup>

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1. Minnesota Constitution, 1857, Article VIII, Section 1.
  2. Ibid., Section 2.
  3. Connor vs. Board of Education of City of St. Anthony, 10 Minnesota 439, Gil, 352 (1865).
  4. Kramer vs. Renville County, 144 Minnesota 195, 175 N.W. 101 (1919).

The Minnesota Legislature has established a State Board of Education and has created a State Department of Education to carry out the policies formulated by the State Board. The establishment of a state board and a state department of education is a common pattern in almost all of the states. Each state has a state department and a chief state school officer and 48 of the 50 states have state boards of education.

The basic administrative structure and lines of authority established by the Minnesota Legislature are illustrated in Figure VII. The figure indicates that the citizens of Minnesota are at the top of the control structure and that the authority for controlling education is passed downward through the legislature and the Governor. The State Board is composed of nine members, (the 1967 Legislature increased the membership from seven to nine) who are appointed by the Governor and confirmed by the Senate. The State Board has as its principal function the formulation of educational policies within the framework of the constitution and laws relating to education.

The State Board of Education also appoints a Commissioner of Education who is directly responsible for administering the state school system through the State Department of Education. It is through and with the assistance of the Commissioner of Education and the State Department of Education that the State Board is able to carry out its adopted policies. In essence the State Department of Education is the central education agency which has as its primary purpose providing leadership and services for elementary and secondary schools.

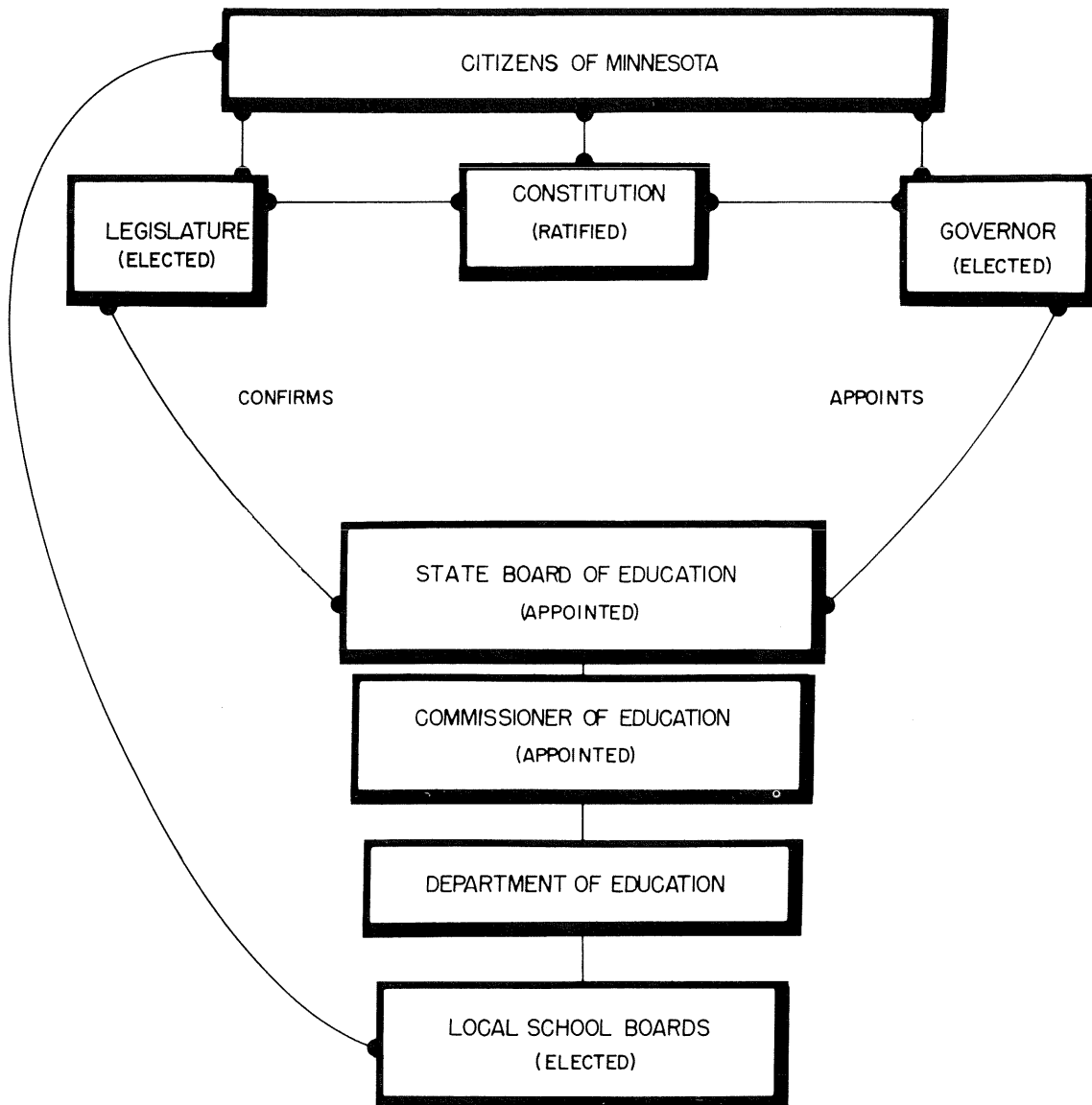
#### THE LEGAL BASIS FOR LOCAL SCHOOL DISTRICTS IN THE UNITED STATES AND MINNESOTA

It has already been established that public school education is a state government function; but in all states, except Hawaii, local school districts have been created by the state legislatures for the purpose of establishing and maintaining schools. Throughout the United States and in Minnesota there is great diversity among school districts, but all are similar in that they administer locally the state system of education.

School districts are thus created by the state and exercise only such powers as are delegated to them. They are subdivisions of the state, and the school board members who direct the district's operations are officers of the state, vested with the responsibility of conducting the education of the children in accordance with state requirements. Absolute power over school districts, subject only to the United States and state constitutions, rests with the legislature, which represents the people of the state as a whole. The legislature may set up a complete system of districts for the state, it may abolish existing districts and create new ones, and it may alter school district boundaries. The procedures for such changes are rightfully made by state legislation under the American system of providing for education.

The school district has no inherent powers to perpetuate itself or to change its boundaries. Any change must be prescribed by state law. It follows that the school board members and citizens of any district have no vested rights to the

FIGURE VII

LEGAL STRUCTURE FOR PROVIDING EDUCATIONAL OPPORTUNITY  
AND CONTROL IN MINNESOTA

continued existence of the district. The district structure is subject to the will of the people of the state as expressed through the state legislature.

Although education is a state responsibility, local participation in the operation of schools has always been viewed as being of genuine importance. The task of the school district is to provide the educational program for the children living within its boundaries. The school district constitutes the means enabling the local citizens to provide the kinds of schools their children need. If school districts are not able to provide for the educational needs of the children under their jurisdiction, they become ends in themselves and are frozen to purposes that are inappropriate and obsolete.

#### LOCAL SCHOOL DISTRICT ORGANIZATION IN MINNESOTA

Since the days when Minnesota was a territory, the concept of providing education through a local school district has been followed. Territorial laws made "every township containing not less than five families"<sup>5</sup> a corporate local school system. The township did not long qualify as a satisfactory division for school purposes. Engelhardt stated:

The reaction against the township school system during the period when the state was being settled is easily understood. In 1850 there were but 6,057 white settlers residing in the state, adequate highways were yet to be planned, and the roads that did exist were impassable during some months in the year.<sup>6</sup>

Gradually what was called the common school district developed to replace the township which was considered too large a geographical area for purposes of maintaining a public school. The foundations for the patterns of organizing public schools in Minnesota were established from these early developments. A brief review of legislation that has dealt with school districts in Minnesota, the description of the types of school districts currently in existence and the current setting for school district organization in Minnesota will be presented in this section.

#### THE HISTORY OF LEGISLATION DEALING WITH SCHOOL DISTRICTS IN MINNESOTA

In 1861, after Minnesota became a state, the legislature set up a revised form of township school district organization. Because the township proved to be too large for the travel conditions of that time, a "reorganization law" later permitted a division of the township unit, and the "walker's distance"

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5. Minnesota Territorial Laws, 1849.

6. Fred Engelhardt, Minnesota Public Schools, Minneapolis-Philadelphia: Educational Test Bureau, Inc., 1934, p. 9.



became the base upon which the boundaries of the smaller districts were determined. Lowry Nelson in his book The Minnesota Community, makes this comment regarding the size of early school districts: "The unit of measurement of the school district was the day's journey of a child six years of age."<sup>7</sup> It could be said that the length of the legs of a six-year old child became a prime criterion in establishing Minnesota school districts.

In 1868 the county commissioners were given additional powers in the formation of districts by authorizing them to create new districts, change boundary lines, and unite two or more districts whenever a petition was presented signed by a majority of the legal voters.

With the growth of villages and cities, the common school district with its eight grades of school proved to be inadequate. As a result, in 1877 the legislature provided for the classification of districts into three groups (common, special, and independent) and permitted the establishment of high schools. A dual system developed, and by 1896 there were 6,145 common school districts giving a limited program through the eighth grade and 182 independent districts providing both elementary and secondary education.<sup>8</sup>

From 1901, the date of the first law that was enacted authorizing the consolidation of districts, until the passage of the 1947 Reorganization Law, several laws were passed encouraging the consolidation of districts. The consolidation law of 1911<sup>9</sup> was an early attempt to create more adequate districts, but progress was slow. The actual number of districts increased to a high of 7,773 in 1932, and there were still 7,606 when the 1947 law went into effect.<sup>10</sup>

It was not until the school reorganization law was passed in 1947 that district reorganization received its major impetus. The law permitted counties to establish survey committees to study district organization and propose plans for reorganization. Based on this legislation, 63 counties established county survey committees. Under the leadership of these committees the number of school districts was substantially reduced. However, this movement was largely limited to apportioning the common school districts among the districts operating high schools. The major emphasis was on reducing the number of districts rather than the creation of sound districts.

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7. Lowry Nelson, The Minnesota Community, Minneapolis, Minnesota: University of Minnesota Press, 1960, p. 85.

8. Biennial Report to the Sixty-Second Legislature, Seventh Report of the State Advisory Commission on School Reorganization, St. Paul, Minnesota: The Commission, January 1961, p. 17.

9. Ibid.

10. Ibid.

The same legislation also created a State Advisory Committee on School District Reorganization. This committee of nine members, appointed by the State Board of Education for six-year terms, has been a continuing factor in working toward more effective school district organization. From its beginning, the Committee has described the desirable school district as having "a school population sufficiently large to provide an adequate and economical educational program to meet the needs and abilities of all children through the secondary school years."<sup>11</sup>

Another legislative impetus to school district reorganization was the 1963 law requiring districts which were not operating schools to be attached to districts maintaining schools.<sup>12</sup> During the early months of the 1965-66 school year, such districts in which the citizens had failed to act, were legislated out of existence.

The 1967 Legislature took another major step in school district reorganization. This new legislation provides that all areas of the state except Fort Snelling shall after July 1, 1971, be included in an independent or special school district maintaining classified elementary and secondary schools, grades 1-12. Thus within a four-year period the total number of school districts should be reduced to approximately 450.

#### TYPES OF DISTRICTS IN MINNESOTA

As a result of this historical development, Minnesota now has a variety of district organizations. State statutes authorize five types of school districts: common, independent, special, associated, and unorganized territory, and each operates under a separate set of laws.

Common school districts have been the most numerous through the years and included the many districts operating no school which were eliminated in 1966. They are governed by three-member school boards elected for three-year terms by the voters of their districts. These boards have the responsibility of operating the schools but the citizens at the annual meeting levy the taxes which are needed for their support. There are functionally two categories of common school districts: those that operate one-teacher elementary schools and those that operate elementary schools having two or more teachers. Some districts operating no school still exist, because exceptions were made for those districts holding contracts with special school districts and for those in which 75 per cent of

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11. Revised Manual for County School Survey Committee, report of the State Advisory Commission on School Reorganization, St. Paul, Minnesota: The Commission, 1949, p. 11.

12. Biennial Report to the Sixty-Fourth Legislature, Ninth Report of the State Advisory Commission on School Reorganization, St. Paul, Minnesota: The Commission, January 1965, p. 42

school-age children are attending an existing private school that maintains elementary and secondary education within the district.<sup>13</sup>

Independent school districts generally are unified districts in the sense that they operate schools offering kindergarten or first grade through the twelfth grade. A few independent districts do not operate a high school program. These districts may have a predominance of students who attend private schools, and for this or other reasons do not have sufficient numbers for a secondary school operation. Students in these districts are transported to a neighboring district on a tuition basis. In independent districts an elected school board, consisting of either six or seven members, is empowered to fix the school tax levy and to employ a district superintendent to oversee the educational program.

Special school districts are governed by the laws relating to independent school districts except where special laws and charter provisions are provided. There are four special districts: Duluth, Minneapolis, Rochester, and South St. Paul. St. Paul, which was a special school district since 1877, became an independent district in 1965. Legislation was enacted in 1967 making Winona an independent district. The board membership of special school districts depends upon the number specified in the home rule charter and ranges from six to nine members.

The associated district was created to provide a secondary school program for two or more existing school districts that previously had only elementary programs. It provides for a "high school" district in which several separate elementary districts participate. However, no such districts have ever operated because the legislature failed to provide funds to operate the district.

Unorganized territory is the portion of a county not included in organized districts and includes territory ceded to the Federal government. Six counties have unorganized territory which is not part of a school district. It is governed as a public corporation, and the school board is an ex officio one consisting of three members: the county superintendent, the county treasurer, and chairman of the county board. The St. Louis County Unorganized Territory operates elementary schools at 21 locations and six-year high schools at eight locations in a vast sparsely-populated area. The unorganized territories in Beltrami, Hubbard, Lake of the Woods, and Redwood counties operate elementary schools while the unorganized territory in Hennepin County operates no school.

Although traditionally Minnesota has not used the county as a basis for school district boundary lines, two county units have been established. Presently both Lake and Cook counties, although independent districts, have only one school district for each county.

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13. Ibid.

## THE CURRENT SETTING FOR SCHOOL DISTRICT ORGANIZATION IN MINNESOTA

School district organization in Minnesota, although slow to adjust, has periodically been revised to satisfy the demands of changed conditions. The evolution of the Minnesota economy from one of predominantly agricultural production to a more highly industrialized and commercialized economy and the continuous movement of population from rural areas to one large metropolitan area are two significant conditions which must influence substantially the development of sound school district organization in Minnesota.

The small villages in Minnesota are in the process of transition. Generally the larger communities and especially the Twin Cities metropolitan area have grown while the communities of less than 2,000 persons have remained stagnant or declined in population. The growth of the Twin Cities metropolitan area has been an important factor in the economy of the entire state during the last 50 years and there is every indication that the growth of this metropolitan area will influence considerably the state's economic development in the future.

More and more the economic and population growth of an area or community depends on its image and its ability to compete with others. A major factor in this competition is the availability of community services such as schools, libraries, parks, transportation, etc. The quality of education in an area or community has become relatively more important to business and industry. This certainly is a prime incentive for the development of sound school district organization.

In the process of planning sound school district organization it is helpful to obtain a visual picture of the status of school district organization at the present. Three maps of school district organization were prepared to expedite the comprehension of present district organization and to assist with future planning. These three large fold-out maps appear at the end of this report. The first map shows boundaries for all Minnesota school districts in existence on July 1, 1966. The second map shows the boundaries of the high school areas of the 450 districts which operated secondary programs through grade 12 as of July 1, 1966. The third map shows the total enrollment for the 1965-66 school year in grades 1-6 and grades 7-12 in each high school area.

## THE INTERMEDIATE UNIT AND OTHER AGENCIES PROVIDING EDUCATIONAL LEADERSHIP AND SERVICES

Many states have utilized a form of organization described as an intermediate unit to provide certain functions and services in the educational process. The intermediate unit refers to an agency or organization which is in an intermediate position between the state department of education and the local school districts in a state.

It will be the purpose in this section to review some recent developments in the utilization and functioning of intermediate units, to describe the status of intermediate units in Minnesota and to discuss the recent development of educational research and development councils in Minnesota.

#### RECENT DEVELOPMENTS IN THE UTILIZATION AND FUNCTIONING OF THE INTERMEDIATE UNIT

Historically the term intermediate unit has been associated with the county superintendency. In Minnesota, as well as many other states, the county with its elected superintendent of schools served as the link between the State Department of Education and the local school district. For the most part, the county superintendencies were created for the purpose of overseeing the rural elementary school districts and enforcing the regulations of the State Department of Education. The county superintendents' offices, also, assisted with the compiling and maintenance of necessary records and reports.

Local school districts have gradually been reorganized and curricular offerings of the schools expanded, but generally there have not been comparable changes in the development of intermediate units. However, with the disappearance of the county superintendency a few states have reassessed the need for intermediate units. Prominent among the states developing an intermediate unit with redefined duties, functions, and leadership role are: Iowa, Michigan, Nebraska, New York, and Wisconsin.

In Iowa, 1957 legislation allowed for the rejection of the county as the appropriate geographic area for intermediate units. The 1957 legislation allowed two or more counties to join and form one new unit. Since 1957 several combinations have been made and a new type of service unit developed. The Iowa Legislature in 1967 took further steps to consolidate the county units, by dividing the state into 19 areas, for purposes of establishing intermediate units.

In Michigan, the intermediate unit includes all local districts in one or more counties or parts of counties. In some parts of the state intermediate units include up to four counties and usually the intermediate district boundaries follow the boundaries of constituent districts rather than county boundaries. The 1962 legislation requires that the county units be combined if a single county contains less than 5,000 population. The intermediate unit in Michigan is governed by a board composed of members from each participating local district. The intermediate district has power to levy taxes, and also to contract on a fee basis with local districts for certain services it provides.

The Nebraska Legislature provided for the establishment of 19 "educational service units" in 1966. By legislative enactment the state was divided into 19 areas for providing needed educational services in conjunction with local school districts. The boards for the educational service units were given the power to levy a tax not to exceed one mill on each dollar of assessed valuation in their areas. The act establishing the Nebraska Educational Service Units called for the conducting of a survey of needed educational services as a first step in developing a successful service unit. The great weakness of the Nebraska statute

is a provision authorizing counties to withdraw from the intermediate unit. To date a number of counties have done so, in areas of the state which would appear to be in greatest need of services from outside the basic administrative units.

In New York, the newer concept of intermediate districts was adopted in 1948 by the legislature, but to date no intermediate districts have been formed under this law. Instead permissive legislation allowed for the establishment of Boards of Cooperative Services which were to be composed of representatives from local district boards. Local school districts joined the Boards of Cooperative Services on a voluntary basis. The Boards of Cooperative Services select their own administrator and control and provide general supervision over the services provided to participating districts. Although several Boards of Cooperative Services in New York have been highly successful in providing needed services, the state still lacks a statewide intermediate district arrangement with complete coverage.

Wisconsin passed a law in 1964 establishing "Cooperative Educational Service Agencies" and terminating the county superintendency. The state was then divided into 19 areas for purposes of establishing these service agencies. The Wisconsin law describes the purpose of these agencies as follows:

Such cooperative educational agencies are created by the state as a convenience for local districts in cooperatively providing special educational services to teachers, students, school boards, administrators and others and may include, but is not restricted because of enumeration, such programs as research, special student classes, data collection, processing and dissemination, inservice programs and liaison between state and local school districts.<sup>14</sup>

The Cooperative Educational Service Agencies have no taxing power. They derive funds from a small state appropriation and from contractual arrangements with local districts.

#### THE INTERMEDIATE UNIT IN MINNESOTA

The intermediate unit in Minnesota has been a county unit system designed to regulate and assist the rural ungraded elementary school districts. Gradually as the common school districts have disappeared, the number of county superintendencies have been reduced. By March of 1967, only 35 of the 87 Minnesota counties had a county superintendent's office.

The 1967 reorganization law eliminating the elementary school districts will terminate the need for all county superintendencies. No other governmental unit has been established which can serve as an intermediate unit.

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14. Wisconsin Statutes, Chapter 565, Appendix, p. 3.

## RESEARCH AND DEVELOPMENT COUNCILS IN MINNESOTA

A new type of interagency educational organization, labeled educational research and development councils, has emerged in Minnesota since 1960. The initiative for the development of these organizations has come almost exclusively from the local school districts.

The Educational Research and Development Council of the Twin Cities Metropolitan Area, established in 1963, was the original organization of this type in Minnesota. At the present time there are seven research and development councils in various stages of development. The councils are presently headquartered at the following locations: Bemidji, Duluth, Minneapolis, Moorhead, Morris, Rochester, and St. Cloud.

The seven councils provide an opportunity for all school districts in Minnesota to participate in research council activities; however, at present some districts in the state are not members of a council. The territory covered by each council has not been determined by an overall statewide plan. As a result the councils overlap in some areas of the state. Also, some school districts hold membership in more than one council.

Membership in the councils is on a voluntary basis. Depending on the individual council and its stage of development, member districts may or may not support the council on a per student fee basis.

Several of the councils have obtained planning grants through Title III of ESEA for purposes of organizing and developing the council. The councils have also been active in submitting Title III proposals for cooperative projects and several Title III projects are being coordinated by the councils. It is apparent that the recent availability of federal funds has provided an added incentive for organizing research and development councils. The councils have served as a prime vehicle for obtaining federal funds.

Some of the councils appear to have little or no base of local financial support and rely almost exclusively on federal funds. Thus there is the danger that they could easily vanish if federal funds for such purposes were terminated. The councils also vary in terms of leadership. Most of the councils are associated with the University of Minnesota or colleges in the state and are capitalizing on this source of leadership.

Although the seven councils vary in regard to their stated and indicated purposes, generally the councils are concerned with investigating school problems of mutual concern to member districts and with the development of cooperative programs for member districts. The councils, (the Twin Cities Metropolitan Area Council in particular), have generally assumed responsibility for conducting and reporting research, but the activities of the councils have been focused to a large degree on the need for cooperative services by school districts. The Twin Cities Metropolitan Area Council has chosen to define its purpose as research, development, and demonstration, but it has developed some service-oriented activities which require continued coordination by an intermediate agency. The Twin Cities Metropolitan Area Council is now in the process of setting up an independent agency, Total Information for Educational Systems

(TIES), to develop and operate an informational and data processing system for school districts. The Twin Cities Metropolitan Area Council has operated a special education project at Glen Lake for two years. This project is a service-oriented activity. If the Council intends to develop new programs and also carry forth its research mission, the Glen Lake project will most likely be transferred to another agency.

The research and development councils have developed largely as a result of local initiative, with no direction from the State Department of Education. They seem to reflect a definite need for some intermediate agency to coordinate and operate cooperative services for school districts.

### TRENDS IN SCHOOL DISTRICT REORGANIZATION

School district organization in the United States has seldom been static. Reducing the number of school districts has been recognized as an imperative need if schools are to meet the changing demands of individuals and society. Observing the trends and accomplishments in district reorganization in other states can provide valuable incentives for reassessing the appropriateness of district organization in Minnesota. This section will review the progress and status of reorganization in the 50 states, in the 12 comparison states, and in Minnesota.

#### SCHOOL DISTRICT REORGANIZATION IN THE FIFTY STATES

Nationally the number of school districts has been reduced on a continuing basis. Since 1932 the reductions on a national basis have been at an accelerating pace. Table 84 shows the total number of school districts for seven selected years for the period extending from 1932 through the present. The table illustrates that the number of administrative units for operating schools is now less than 20 per cent of what it was in 1932. This vast reduction in number of districts reflects the general recognition by most states that there were far too many basic administrative units to produce an effective and efficient school system.

The early formation of school districts was geared to conditions prevalent at the time. During the early stages of school district development most children attended school for three or four years and then generally only during the winter months when they were not needed for work on the farms. The curriculum was largely limited to the teaching of reading, writing, and arithmetic. The small school districts created in the early 1900's were able to provide these limited programs. They were also well adapted to the existing status of travel, communications, and population distribution available in those times.

Most of these earlier districts operated one-teacher schools located within walking distance of the children attending. The need for these small school districts diminished as roads were improved, school bus service became available, and the geographical size of communities expanded. The one-teacher school was a functional unit in 1900, but there is little or no justification for it today.



The number of one-teacher schools has been reduced from 148,711 in 1930 to 9,895 in 1964.<sup>15</sup> This represents a considerable reduction, but the existence of any one-teacher districts is inappropriate for the conditions of 1967.

TABLE 84  
TRENDS IN NUMBER OF SCHOOL DISTRICTS  
IN THE UNITED STATES

School Year	Number of School Districts
1932-33	127,649*
1948-49	105,971*
1953-54	67,075*
1961-62	36,402*
1963-64	31,319*
1965-66	26,561**
1966-67	23,335**

\*School District Organization -- Journey That Must Not End, Washington, D.C.: American Association of School Administrators, 1962, p. 9.

\*\*Estimates of School Statistics, 1966-67, Washington, D.C.: Research Division, National Education Association, 1966, p. 23.

The progress in school district reorganization varies considerably from state to state. Table 85 shows the number of school districts for each state in 1966. The variation in number of districts is illustrated by the existence of 2,400 districts in Nebraska and only one district in the state of Hawaii.

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15. Digest of Educational Statistics, 1966, United States Department of Health, Education, and Welfare, Washington, D.C.: Government Printing Office, 1966, p. 6.

TABLE 85

## NUMBER OF SCHOOL DISTRICTS BY STATE FOR THE 1966-67 SCHOOL YEARS

Governmental Units	Number of School Districts	Governmental Units	Number of School Districts
United States	23,335	Vermont	264
Nebraska	2,400	Kentucky	200
South Dakota	2,016	Georgia	195
Illinois	1,340	New Hampshire	189
Texas	1,303	Colorado	183
Minnesota	1,250	Connecticut	178
California	1,187	Wyoming	173
Oklahoma	994	North Carolina	169
New York	939	Tennessee	151
Michigan	900	Mississippi	149
Montana	900	Virginia	131
Missouri	888	Alabama	118
Ohio	712	Idaho	117
Pennsylvania	595	South Carolina	108
New Jersey	593	New Mexico	90
North Dakota	548	Florida	67
Wisconsin	545	Louisiana	67
Iowa	501	West Virginia	55
Indiana	404	Delaware	51
Arkansas	398	Rhode Island	40
Massachusetts	397	Utah	40
Oregon	390	Alaska	27
Washington	360	Maryland	24
Kansas	349	Nevada	17
Maine	323	District of Columbia	1
Arizona	298	Hawaii	1

SOURCE: Estimates of School Statistics, 1966-67, Washington, D.C.:  
Research Division, National Education Association, 1966,  
p. 23.

Minnesota ranks fifth in total number of districts with 1,250. The 12 states with the largest number of districts have 14,829, or 63 per cent of the 23,335 districts in the United States. It seems reasonable to predict that these 12 states have many organizational changes to face in the next few years. These statistics do not indicate any absence of need for change in many of the other states. Several of the states with less than 600 districts have simply managed to consolidate all territory in the state within the boundaries of districts operating both elementary and secondary schools, and have made little progress in establishing districts which are large enough to be sound economically and educationally. Minnesota and South Dakota, because of mandatory legislation passed in 1967 merging all districts operating only elementary schools, will soon join the group of states with less than 600 school districts.

Progress has been made and is continuing to be made in the reshaping of school districts. However, many of the districts reorganized in the past will need to be involved in further reorganizations if the schools are to meet the needs and conditions of the future.

An overwhelming majority of the school districts still must be classified as being too small to provide an adequate educational program. Table 86 summarizes the number of public school systems existing in the fall of 1964 on the basis of eight size categories. It illustrates that only 1.5 per cent of the districts enroll more than 12,000 students each, while 54.8 per cent enroll fewer than 600 students each. An additional 11.6 per cent of all districts do not operate any schools.

TABLE 86  
NUMBER OF PUBLIC SCHOOL SYSTEMS AND NUMBER OF PUPILS ENROLLED  
BY SIZE OF SYSTEM: UNITED STATES, FALL 1964

Enrollment Size (Number of Pupils)	School Systems		Pupils Enrolled	
	Number	Per Cent	Number (In Thousands)	Per Cent
All sizes	29,391	100.0	40,217	100.0
25,000 or more	146	0.5	11,044	27.5
12,000 to 24,999	307	1.0	4,995	12.4
6,000 to 11,599	778	2.6	6,321	15.7
3,000 to 5,999	1,608	5.5	6,631	16.5
1,200 to 2,999	3,562	12.1	6,648	16.5
600 to 1,199	3,187	10.8	2,585	6.4
300 to 599	2,641	9.0	1,057	2.6
1 to 299	13,762	46.8	936	2.3
None*	3,400	11.6	--	--

SOURCE: Digest of Educational Statistics, 1966, Washington, D.C.:  
Office of Education, United States Department of Health,  
Education, and Welfare, 1966, p. 43.

\*Systems not operating schools.

The reorganization of school districts does not automatically result in the establishment of adequately sized attendance centers or necessarily mean that any change in attendance centers will follow. This is perhaps best illustrated by the large number of secondary schools operating in several southern states where the number of school districts is relatively small. Table 87 shows the number of secondary schools and the ratio of secondary schools to school districts for 12 selected states. The table shows that many of these states, despite small numbers of school districts, continue to operate as many or more secondary schools than states with larger numbers of school districts. For example, Florida with only 67 school districts operated 597 secondary schools. This is just slightly less than the 604 secondary schools operated in Minnesota during the 1963-64 school year.

TABLE 87

NUMBER OF SCHOOL DISTRICTS AND SECONDARY SCHOOLS AND THE RATIO  
BETWEEN THE TWO IN TWELVE STATES FOR 1963-64

State	Number of School Districts	Number of Secondary Schools	Ratio of Secondary Schools to School Districts
Alabama	117	1,174	10.0
Florida	67	597	8.9
Georgia	196	629	3.2
Kentucky	204	399	2.0
Louisiana	67	640	9.6
Maryland	24	291	12.1
Mississippi	150	525	3.5
North Carolina	171	840	4.9
South Carolina	108	426	3.9
Tennessee	154	548	3.6
Virginia	130	482	3.7
West Virginia	55	369	6.7

SOURCE: Digest of Educational Statistics, 1966, Washington, D.C.: Office of Education, United States Department of Health, Education, and Welfare, 1966, p. 6.

#### REORGANIZATION IN THE TWELVE COMPARISON STATES

The Midwestern states have been among the slowest to institute school district reorganization. A majority of the nation's school districts, the non-operating districts, the one-teacher schools, and the districts providing only elementary education programs have been concentrated in the Midwest. In 1947,

the 12 Midwestern states had 65 per cent of the school districts in the United States while enrolling only 27 per cent of the nation's public school students. Twenty years later the region still has 50 per cent of the school districts and 28 per cent of the nation's public school students.

Table 88 shows the number of administrative units and the number of these units that operate educational programs in grades 1-12 during 1947-48, 1957-58, and 1966-67 for each of the 12 states selected for comparisons in this survey. The table reveals that all 12 states have made sizable reductions in the number of administrative units. From 1947 to 1966 the 12-state area had an 82 per cent reduction in number of school districts. Kansas with 94 per cent and Wisconsin with 92 per cent have experienced the most substantial reduction in school districts. The vast majority of the progress made in consolidation of school districts is attributable to the merging of nonoperating districts and districts operating only elementary schools with districts operating both elementary and secondary schools. However, Table 88 indicates that several of the states have also made considerable progress in merging districts operating both elementary and secondary schools. North Dakota, Indiana, Iowa, and Michigan have the highest per cent of reduction in number of districts operating both elementary and secondary schools. Minnesota is one of three states that has increased the number of districts operating grades 1-12 programs during the past 20 years. It should be noted that the increase in grades 1-12 districts in Illinois represents progress, since Illinois has had few unified districts which operated both elementary and secondary schools.

The 12 Midwestern comparison states began the reorganization program with the vast majority of the nonoperating districts and the one-teacher school districts of the nation. Table 89 reveals that the 12 states had a total of 43,813 one-teacher schools in 1947-48, which was more than 58 per cent of all the one-teacher schools in the nation. This number had been reduced to 3,495 by 1966-67, a reduction of 92 per cent. Seven of these states have eliminated practically all of the one-teacher schools. Minnesota, South Dakota, and Nebraska, with 737, 1,055, and 1,206 respectively, are the only states having more than 200 one-teacher schools.

The elimination of the nonoperating districts and the one-teacher schools has been a slow, tedious process in most of the states. No doubt leadership efforts in the 12 states have concentrated on this problem rather than on the task of establishing sound school districts operating educational programs from grades 1-12. Most of the states are now in the final stages of eliminating the nonoperating districts, the one-teacher schools and the districts operating only elementary schools. Several states have already established a leadership precedent for reorganizing the districts which have small high schools. The experience gained in reorganizing the nonoperating and small districts operating only elementary schools, and the incentive provided by the leadership states should provide real impetus for the states to reorganize the small high school districts in the next few years.

Nonoperating districts have also been a major problem in these states. In 1957-58 Minnesota had 866 such districts and the 12 states had more than 4,300.

TABLE 88

TOTAL NUMBER OF ADMINISTRATIVE UNITS AND NUMBER OF SCHOOL DISTRICTS MAINTAINING GRADES 1-12  
IN TWELVE MIDWESTERN COMPARISON STATES FOR 1947-48, 1957-58, AND 1966-67

State	1947-48		1957-58		1966-67		Per Cent of Change 1947-1967	
	Admini- strative	Grades 1-12	Admini- strative	Grades 1-12	Admini- strative	Grades 1-12	Admini- strative	Grades 1-12
	Units	District	Units	District	Units	District	Units	District
Illinois	9,459	87	1,861	355	1,340	384	-86	+341
Indiana	1,090	706	1,026	655	404	344	-63	- 51
Iowa	4,711	864	3,303	749	500	455	-89	- 47
Kansas	5,643	303	2,984	251	343	314	-94	+ 4
Michigan	5,186	995	2,499	582	909	535	-82	- 46
Minnesota	7,518	449	3,084	452	1,250	452	-83	+ 1
Missouri	8,326	667	2,629	553	876	485	-89	- 27
Nebraska	6,900	533	4,663	417	2,362	329	-66	- 38
North Dakota	2,267	412	1,068	*	547	187	-76	- 55
Ohio	1,579	1,057	1,092	873	708	661	-55	- 37
South Dakota	3,409	281	3,239	261	2,015	221	-41	- 21
Wisconsin	<u>6,038</u>	<u>358</u>	<u>3,264</u>	<u>331</u>	<u>513</u>	<u>369</u>	-92	- 3
TOTALS	62,126	6,722	31,612	5,469	11,278	4,736	-82	- 30
United States	94,817	15,587	47,519	12,339**	23,335	*	-75	*

SOURCE: Statistics of State School Systems, 1947-48, Chapter 2, Washington, D.C.: United States Department of Health, Education, and Welfare.  
Statistics of State School Systems, 1957-58, Washington, D.C.: United States Department of Health, Education, and Welfare.  
 1966-67 data obtained from officials at the respective State Departments of Education. United States 1966-67 total for administrative units furnished by the Research Division, Estimates of School Statistics, 1966-67, Washington, D.C.: National Education Association, p. 23.

\*Not available.

\*\*Does not include North Dakota or Colorado.

By 1966-67 Minnesota had reduced the number of nonoperating districts to 17. Only three states (Missouri, North Dakota, and South Dakota) had over 60 of these nonoperating districts by 1966-67.

TABLE 89  
NUMBER OF ONE-TEACHER SCHOOLS IN THE TWELVE MIDWESTERN  
COMPARISON STATES AND THE UNITED STATES  
FOR 1947-48, 1957-58, AND 1966-67

State	Number of One-Teacher Schools by School Years			Per Cent of Change 1947-48 to 1966-67
	1947-48	1957-58	1966-67	
Illinois	7,126	435	2	- 99
Indiana	375	88	0	-100
Iowa	5,631	2,067	4	- 99
Kansas	3,090	1,497	*	*
Michigan	2,952	1,258	200	- 93
Minnesota	4,418	1,667	737	- 83
Missouri	5,125	1,126	115	- 98
Nebraska	4,434	2,812	1,206	- 73
North Dakota	2,677	1,730	164	- 94
Ohio	446	37	4	- 99
South Dakota	3,203	2,383	1,055	- 67
Wisconsin	4,336	2,012	8	- 99
TOTALS	43,813	17,112	3,495	- 92
United States	75,096	25,341	*	*

SOURCE: Statistics of State School Systems, 1947-48, Chapter 2, Washington, D.C.: United States Department of Health, Education, and Welfare. Statistics of State School Systems, 1957-58, Washington, D.C.: United States Department of Health, Education, and Welfare. 1966-67 data obtained from officials at the respective State Departments of Education.

\*Not available.

## REORGANIZATION IN MINNESOTA

Because of the voluntary nature of Minnesota's legislative program for district reorganization, the degree of progress in consolidation has varied in different parts of the state. Diversity has been the prime characteristic of Minnesota school districts. There are extreme variations in the amount of area, the wealth per pupil, the number of pupils enrolled, and the scope of the educational program.

Cook and Lake counties each constitute one school district; 13 other counties have five or fewer districts. In contrast, Stearns County had 106 districts as of July 1, 1966, and three others (Ottertail, Todd, and Wright) had 50 or more districts each. In only 17 of the 87 counties do all children in the county live in districts which maintain programs from grades 1 through 12. The number of districts by counties is shown in Figure VIII.

Since the enactment of the reorganization law in 1947 more than 6,200 districts have merged with other local school districts. However, as of July 1966, there were still 921 districts that maintained only elementary schools. Of these, 737 were one-teacher schools. In 143 school districts there were fewer than ten pupils enrolled, and 588 districts had fewer than 20 pupils. In 24 counties more than 20 per cent of the pupils resided in districts that maintained only elementary schools. For the state, 7.6 per cent or approximately 63,000 pupils resided in districts which did not maintain a secondary school during the 1965-66 school year.

The 1967 Legislature enacted into law provisions which require all territory of the state to be in a school district maintaining both elementary and secondary schools by 1971. However, the adequacy of districts operating high schools remains a major concern. After the 1971 reorganization of districts operating elementary schools only, there will still be 452 school districts with elementary and secondary schools. The number of Minnesota school districts in various size categories, based on secondary school enrollments, is summarized in Table 90.

The table shows that 197 districts or 44 per cent of all school districts operating elementary and secondary schools had fewer than 300 secondary students enrolled. The 197 districts accommodated only 10.7 per cent of the total public school enrollment at the secondary level. Each of the 48 largest districts, or approximately 11 per cent of all districts operating elementary and secondary schools, enrolled more than 1,500 secondary students.

Comparing Minnesota with other states in the Midwest region, it can be readily observed that it is not a leader in school district reorganization. Among the 12 states, Minnesota ranks fourth in total number of school districts. Only Illinois, Nebraska, and South Dakota -- the three states having the largest number of school districts in the nation -- have more school districts. Minnesota has 1.8 per cent of the public school enrollment of the nation, but 6 per cent of the school districts.



FIGURE VIII

NUMBER OF SCHOOL DISTRICTS BY COUNTIES  
JULY 1, 1966

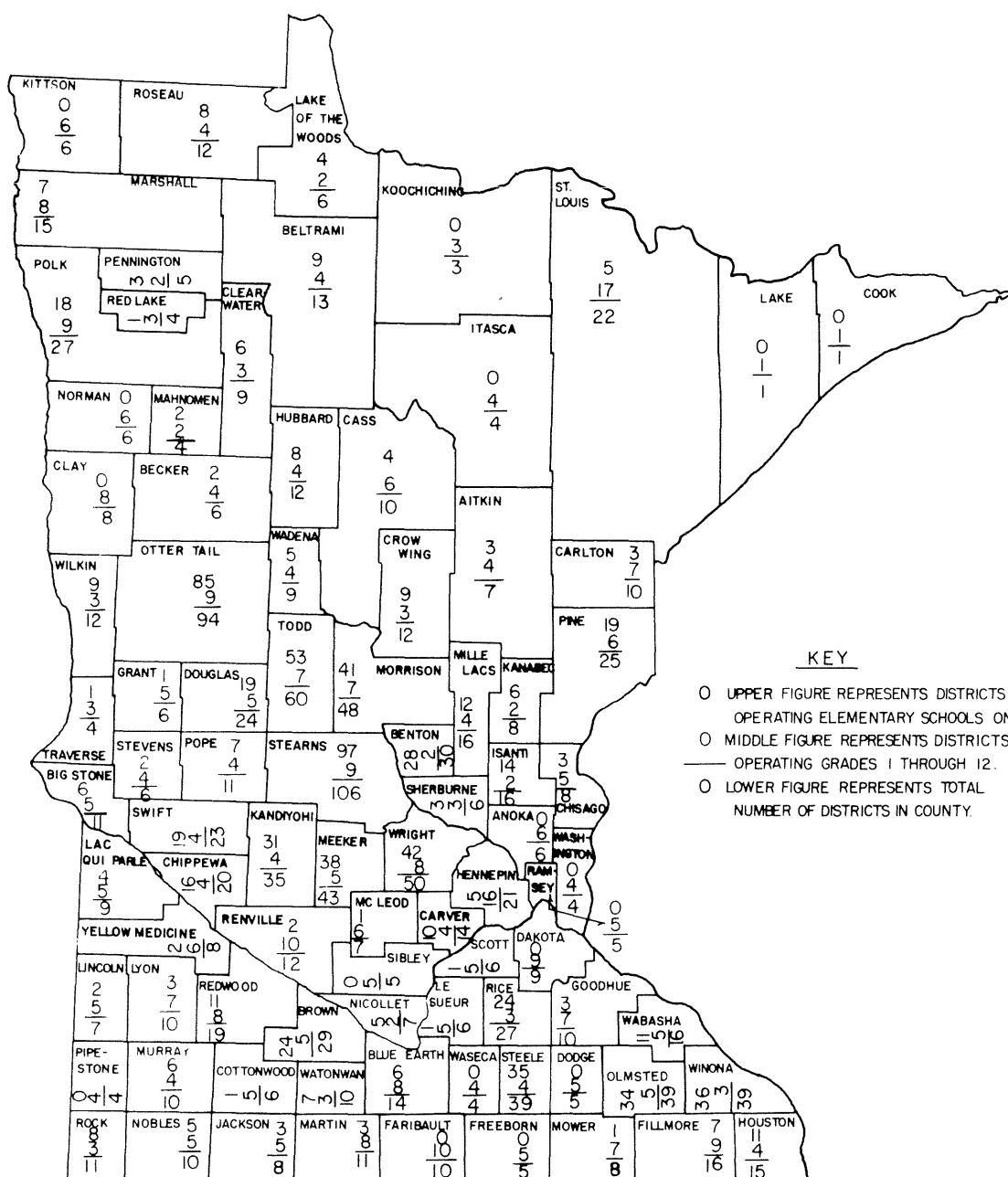


TABLE 90

THE NUMBER OF MINNESOTA SCHOOL DISTRICTS OPERATING BOTH ELEMENTARY  
AND SECONDARY SCHOOLS IN ELEVEN SIZE CATEGORIES  
BASED ON 1965-66 SECONDARY ENROLLMENTS

Secondary Enrollment Size	Districts in Category		Total Secondary Enrollment Accommodated	
	Number of Districts	Per Cent of Total	Enrollment	Per Cent of Total
Under 150	49	10.8	5,402	1.6
150-199	56	12.4	9,755	2.7
200-249	48	10.6	10,703	3.1
250-299	44	9.7	12,006	3.3
300-399	61	13.5	21,112	5.8
400-499	46	10.3	20,388	5.6
500-699	41	9.1	24,524	6.8
700-999	38	8.4	31,094	8.6
1,000-1,499	21	4.6	25,349	7.0
1,500-2,499	21	4.6	38,254	10.5
2,500 and over	<u>27</u>	<u>6.0</u>	<u>163,347</u>	<u>45.0</u>
Total for State	452	100.0	361,934	100.0

SOURCE: Survey records and Minnesota Educational Directory,  
1966-67.

Minnesota is one of the three states in the region that have actually increased the number of school districts maintaining grades 1 through 12 since 1947-48. The region as a whole has reduced this number by nearly 2,000.

#### DESIRABLE STANDARDS FOR ADMINISTRATIVE AND ATTENDANCE UNITS

The local school district is the basic administrative unit in school organization. Attendance units are individual schools serving children of a given age range in designated geographical parts of the school district. The attendance areas are established by the local board of education. There is a tendency to confuse an attendance unit with an administrative unit. Many people believe the

area served by a given school building is a school district and fail to understand the difference between these two aspects of school organization. The administrative unit is the total area under the jurisdiction of the school board, whereas the attendance unit is simply the territory served by a particular school building.

In Minnesota, many small school districts have only one attendance center for all 12 grades. However, the large districts have several separate attendance centers for elementary, junior, and senior high schools. To clarify the distinction between school districts and attendance areas, Figure IX was prepared. It shows an outline of the Bloomington School District divided into 18 areas for elementary school attendance, three junior high school attendance areas and two senior high school attendance areas.

The remainder of this section is devoted to reporting criteria utilized in the establishment of sound administrative units and criteria desirable for the establishment of sound attendance units.

#### CRITERIA FOR SOUND ADMINISTRATIVE UNITS

Developing criteria for school district organization applicable in all areas of a state is impossible. The determination of school district adequacy for sparsely-populated areas will necessarily have to differ from the determination of adequacy of school districts in urban areas. However, it is essential that criteria be developed, articulated, and applied within a state if sound district organization is to be achieved. The AASA Commission on School District Reorganization has listed nine areas in which the effectiveness of school district organization can be examined. The nine areas are: "Educational program, pupil population, financial resources, educational leadership provisions, instructional personnel, use of personnel, school plant provisions, framework for operation, and provisions for community participation."<sup>16</sup> All of these points are essential considerations in the establishment of school districts, but researchers, state departments of education and knowledgeable people about school district adequacy have generally expressed standards for school districts in terms of the pupil population. Listed below are recommended criteria suggested or adopted for guiding school district reorganization.

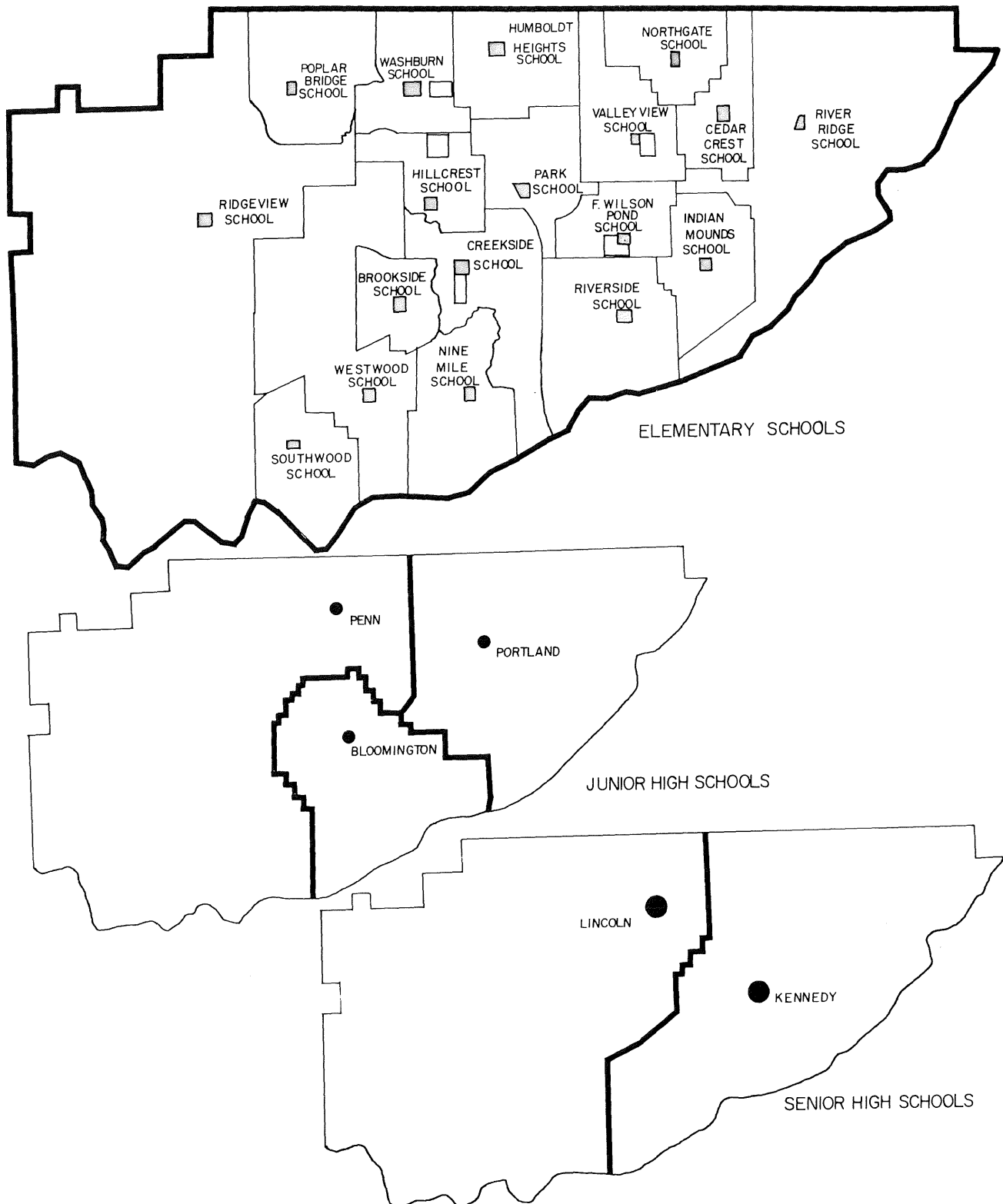
1. National Commission on School District Reorganization, Your School District, Washington, D.C., 1948.

In 1948 the Commission concluded that at least 1,200 pupils between the ages of 6 and 18 were necessary for a satisfactory school district. The Commission further stated that if possible as many as 10,000 pupils should be within a school administrative unit.

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16. School District Organization, report of the American Association of School Administrators Commission for School District Reorganization, Washington, D.C.: American Association of School Administrators, 1958, p. 22.

FIGURE IX

1966-67 SCHOOL ATTENDANCE AREAS IN  
THE BLOOMINGTON SCHOOL DISTRICT

2. Fitzwater, C. O., School District Reorganization -- Policies and Procedures, 1957.

Fitzwater reported that in 1953 California standards for pupil enrollment called for districts with a potential of at least 10,000 in grades K-12 or K-14 and that districts of fewer than 2,000 pupils should exist only in areas of extreme population sparsity. Fitzwater reported Pennsylvania standards to be a recommended minimum of 1,600 pupils and only in exceptional cases fewer than 800.

3. Committee for Economic Development, Paying for Better Public Schools (Research and Policy Committee of the Committee for Economic Development, New York, New York), 1960.

The Committee concluded that the educational advantages of a large school system can be attained when the enrollment reaches as few as 25,000 pupils, although they indicate no particular significance can be attached to this enrollment figure and that financial advantages continue to accrue to larger systems.

4. Campbell, R. F., Cunningham, L. L. and McPhee, R. F., The Organization and Control of American Schools, (Charles E. Merrill Books, Inc., Columbus, Ohio), 1965.

The authors suggest that no district composed of both elementary and secondary schools have fewer than 2,000 pupils and that 10,000 would be preferable.

5. Flesher, W. R., Flesher M. A. and Holy T. C., Public Education in Ohio (School Survey Service, Columbus, Ohio), 1962.

The report recommends that the legislature set a minimum of 5,000 enrollment for a state approved school district.

6. Blanke, Virgil E., "Reorganization: A Continuing Problem," Administrators Notebook, October 1960.

Blanke recommends an administrative unit of 10,000 to 15,000 pupils.

7. Pennsylvania Department of Public Instruction, A Guide to School District Reorganization, 1966 (mimeographed).

Pennsylvania has an established minimum of 1,600 pupils and recommends no fewer than 4,000 pupils in a district. The State Department reports that most schools are organizing on the basis of 4,000 pupils in a district.

8. Division of Surveys and Field Services, George Peabody College for Teachers, Organization of School Systems in Georgia, 1965.

The report recommends that school systems in Georgia be regrouped to provide from 15,000 to 20,000 pupils in most school systems. The report suggests that the State Board of Education adopt a minimum standard of 10,000 pupils in a school system.

9. Purdy, Ralph D., A Master Plan for School Organization, (Columbus Blank Book Company, Columbus, Ohio), 1967.

After reviewing research data and the opinions of knowledgeable people about programs, Purdy concluded the following pupil enrollment standards (grades 1-12) were necessary for administrative districts:

- a. 35,000 for comprehensive vocational education opportunities to meet today's needs in business and industry, and to meet the various individual needs of all boys and girls.
- b. 20,000 as a minimum for the special educational areas, including slow learning, speech handicapped, pupils with behavior disorders, and pupils with specific handicaps.
- c. 20,000-50,000 for business administration.
- d. 20,000 for adult educational programs.
- e. 10,000-35,000 for guidance services.
- f. 20,000 for general administration.

Purdy recommended that Ohio adopt a minimum standard of 20,000 pupils and an optimum of 35,000 or more for administrative districts designed to provide comprehensive programs and services. For administrative districts created to provide limited programs and services, Purdy recommended a minimum of 3,500 pupils and an optimum of 10,000 plus.

#### CRITERIA FOR SOUND ATTENDANCE UNITS

Minimum and optimum enrollment standards for school districts are based on the need for efficiency of business operations for the district and the need to provide special services and programs on a district-wide basis; but perhaps the most crucial reason for minimum standards of school district size is to assure sufficient students for adequately sized attendance units at each of the school levels.

It has been firmly established that an elementary school should be large enough to employ a teacher for each grade. It was concluded by the Commission on Reorganization in 1948 that the minimum number needed to organize a sound elementary educational program was 175 pupils with at least seven full-time teachers.<sup>17</sup> The Committee on Economic Development suggests that the absolute minimum size for an elementary school is one teacher at each grade level. The Committee on Economic Development points out that for kindergarten through sixth grade this implies over 200 pupils.<sup>18</sup> Most studies on the subject of size of elementary schools indicate that the minimum is by no means the most ideal size for an elementary school. The Committee for Economic Development found that educational advantages and operating economics accrue until the elementary school has at least three times the minimum enrollment of 200 pupils.<sup>19</sup>

The size of the attendance unit becomes particularly crucial at the secondary school level. Unfortunately research has not provided an answer to the question: What is the most desirable enrollment size for a secondary school?

The Commission on School District Reorganization in 1948 reached the conclusion that a minimum for junior or senior high schools was 300 pupils -- or 75 students in each age group -- and a minimum of 12 full-time teachers.<sup>20</sup>

James B. Conant in his widely publicized report of 1959, recommended high schools with graduating classes of at least 100. Writing about the obstacles to good secondary education presented by small secondary schools, Conant said:

I believe such schools are not in a position to provide a satisfactory education for any group of their students -- the academically talented, the vocationally oriented, or the slow reader. The instructional program is neither sufficiently broad nor sufficiently challenging. A small high school cannot by its very nature offer a comprehensive curriculum. Furthermore, such a school uses uneconomically the time and efforts of administrators, teachers, and specialists, the shortage of whom is a serious national problem.

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17. National Commission on School District Reorganization, Your School District, report prepared by the Department of Rural Education, Washington, D.C.: National Education Association, 1948, p. 323.

18. Research and Policy Committee, Paying for Better Public Schools, report of the Committee for Economic Development, Washington, D.C.: Government Printing Office, December 1959, p. 5.

19. Ibid., p. 6.

20. National Commission on School District Reorganization, loc. cit.

Financial considerations restrict the course offerings of the small high schools. As the curriculum is narrowed, so is the opportunity for a meaningful program. Unless a graduating class contains at least 100 students, classes in advanced subjects and separate sections within all classes become impossible except with extravagantly high costs.<sup>21</sup>

Grace Wright reviewed 18 research studies on the enrollment size and the educational effectiveness of high schools. Wright found the evidence from the 18 studies inconclusive, but was able to conclude that: "High school enrollment size should be less than 2,000 but no smaller than is required to have at least 100 students in the graduating class."<sup>22</sup> Wright found that the studies considering curriculum offerings generally supported an enrollment of at least 1,000 in a four-year high school if provisions were to be made for a minimum of variety in course offerings.<sup>23</sup>

New Jersey officials feel that broad offerings are provided on an economical basis in New Jersey because of the relatively large size of the high schools in the state. The median enrollment of New Jersey high schools is approximately 1,000 pupils.<sup>24</sup> In New Jersey, the secondary schools enrolling less than 500 pupils "appear to avert high per capita costs by limiting offerings, restricting expenditures for teachers' salaries and withholding purchase of desirable educational equipment."<sup>25</sup> In a further statement on desirable size the New Jersey officials stated:

As the enrollment increases above 500, the constructions appear to ease off more rapidly the nearer the number approaches 700, with subsequent gains possible in apparently diminishing amounts for still larger enrollments. There is considerable difference of opinion about how large a school may grow before it begins to lose its effectiveness. There is some reason to believe that schools enrolling 2,000 or more pupils are to be avoided unless unusual conditions make them necessary.<sup>26</sup>

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21. James B. Conant, The American High School Today, New York: McGraw-Hill Book Company, 1959, p. 77.

22. Grace S. Wright, Enrollment Size and Educational Effectiveness of the High School, Washington, D.C.: United States Department of Health, Education, and Welfare, 1965, p. 1.

23. Ibid., p. 3.

24. High School Organization in New Jersey, Trenton, New Jersey: State Department of Education, 1966, p. 9. (Mimeographed)

25. Ibid.

26. Ibid.



A recent survey report recommended to the Georgia Legislature that it establish a minimum criterion of 100 students in grade 12, and that it support an optimum high school size of 800 to 1,200 students, with a minimum-maximum range of 500 to 1,500.<sup>27</sup> The Georgia report recommended that if separate junior high schools were established, at least 500 students should be considered a desired enrollment and the minimum standard should be at least 300 students enrolled.<sup>28</sup>

A study concerned with school size and program quality in 11 southern states revealed marked interrelationships among school size, organizational patterns, and selected measures of program adequacy.<sup>29</sup> The relationship was summarized as follows:

In terms of number of subject areas offered, the number of courses per subject area, and the total number of courses offered, curricular programs were broader and more enriched in schools above 500 in enrollment than in smaller schools. Furthermore, teachers in schools enrolling 500 or more pupils were better trained, in terms of college preparation and certification, than were teachers in smaller schools.<sup>30</sup>

The following enrollment ranges based on the investigation of course offerings were recommended.<sup>31</sup>

<u>Grades</u>	<u>Enrollment</u>
7-12	950-1,300
8-12	810-1,150
9-12	890-1,250
10-12	700-950

The available evidence on the size of school attendance units supports the standard that every elementary school should be large enough to have a teacher for each grade. There is substantial agreement that elementary schools of two

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27. Division of Surveys and Field Services, Organization of School Systems in Georgia, A Digest of Survey Report, Nashville, Tennessee: George Peabody College, June 1965.

28. Ibid.

29. Joe L. Jackson, School Size and Program Quality in Southern High Schools, Nashville, Tennessee: Center for Southern Education Studies, George Peabody College, 1966, pp. 1-6.

30. Ibid., p. 44.

31. Ibid.

or three sections per grade are most desirable. The recommended enrollment for secondary schools depends upon the school organization. In general, senior high schools can be larger than junior high schools. The evidence suggests that no secondary school should have fewer than 125 students per grade.

#### INCENTIVES AND DETERRENTS IN ESTABLISHING SOUND DISTRICT ORGANIZATION

Creating sound school district organization involves changes which disrupt, in many cases, years of tradition. For this reason the process of effecting such changes can be difficult. Major educational improvements can best be attained through a restructuring of the basic organizational patterns. The educational advantages resulting from sound district organization must be communicated to the citizens. In developing the public understanding needed, educators and citizens formulating the plans for reorganization should be aware of the factors which may have an impact on the suggested changes. The incentives and deterrents for establishing sound school district organization are presented in the following two parts: (1) reasons for creating larger administrative units and (2) deterrents to the reorganization process.

#### REASONS FOR CREATING LARGER ADMINISTRATIVE UNITS

Two central factors support the demand for school reorganization. These are the need for an improved instructional program beneficial to the students served and the need to expend each dollar allocated for education in the most efficient and effective manner possible.

It is valid to assume that most people want good schools for their children at the most reasonable cost possible. Based on this assumption and because of its close relationship to improved and expanded educational programs, it would seem relatively easy to implement sound school district organization. In the following pages educational improvements and the operational efficiencies that have resulted from reorganization are reported.

#### Educational Improvements Resulting From Reorganization

The results of reorganization are most noticeable in terms of the expanded educational programs and services available in reorganized districts. In 1953 Fitzwater investigated the educational improvements in 552 reorganized school districts.<sup>32</sup> He demonstrated that a considerable expansion in programs and services resulted from reorganization. At the elementary school level the addition of kindergarten programs and special instruction in the fields of art, music, and physical education were the most significant improvements.

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32. C. O. Fitzwater, Educational Change in Reorganized School Districts, report of the United States Office of Education, Bulletin IV, Washington, D.C.: Government Printing Office, 1953, pp. 40-41.

The most significant of the findings in Fitzwater's study were those showing the additions of many courses to the secondary school programs. Of the districts which had a secondary school, 383 (72.9 per cent) added one or more courses. Characteristic of the additions was the broadening of the secondary school program beyond the course offerings commonly associated with college-preparatory curricula.<sup>33</sup>

Fitzwater found other advantages in reorganization, such as the establishment of junior high schools, teachers with more college preparation, and more inservice teacher education projects. Fitzwater noted that generally a higher percentage of the larger districts were able to make improvements and additions to their educational programs.<sup>34</sup>

Many illustrations could be given of school district reorganizations in the United States and Minnesota which have resulted in expanded programs and services. These tangible results are obvious and can be easily observed by visiting progressive and successfully organized and reorganized districts.

New buildings, additional equipment, new services and programs, and added personnel are readily evident in reorganized districts, but it is the intangible changes which may be of greatest significance to education. Several recent studies have indicated achievement advantages for the graduates of larger high schools and the graduates of schools in soundly reorganized districts.

Kreitlow conducted a well-designed study to determine the advantages or disadvantages of reorganization. A 12-year report of Kreitlow's 24-year study in which five reorganized districts were compared with five paired nonreorganized districts showed greater educational opportunities and higher academic achievement in the reorganized districts.<sup>35</sup> At the end of 18 years of the 24-year longitudinal study, Kreitlow takes an even more positive stand in support of the soundness of reorganization. Kreitlow concludes:

Even greater enthusiasm would have been justified. School district reorganization now appears to make more of a difference in academic achievement and mental maturity than even its most optimistic proponents or researchers had thought possible.<sup>36</sup>

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33. Ibid., pp. 39-44.

34. Ibid., pp. 25-49.

35. Burton W. Kreitlow, Long-Term Study of Educational Effectiveness of Newly Formed Centralized School Districts in Rural Areas, Cooperative Research Project 375, Madison, Wisconsin: University of Wisconsin, September 1962, p. 61.

36. Burton W. Kreitlow, "Research Shows That Reorganization Really Makes A Difference," NEA Journal, Volume 56, No. 5, May 1967, p. 44.

Feldt investigated achievement of students in varying size high schools and concluded that: "On the issue of pupil achievement the evidence is overwhelming -- in the state of Iowa graduates of small schools, on the average, achieve significantly below graduates of larger schools."<sup>37</sup> Feldt feels that it is significant that a marked rise in average high school performance within the state has coincided closely with the reorganization movement among high schools.

It has often been claimed that the smaller school permits a closer relationship between teacher and pupil. This closer relationship is often considered a compensation for limitations in facilities and program. It is possible that there are some subtle benefits gained in the unique atmosphere of a small school; but in Iowa it is evident that if there are advantages to attendance at a small school they are at the expense of poorer quality in the academic aspects of the school program.

In 1962 Hamilton and Rowe summarized the accumulated evidence concerning greater academic achievement of students in reorganized districts. Hamilton and Rowe stated:

After carefully considering the studies . . . , the present writers conclude that the preponderance of evidence (Martens, Hieronymus, Feldt, Kreitlow, Harmon, Dawson, 22 of 24 studies reviewed by Nelson, etc.) indicates that greater academic achievement is more likely to take place in the larger and/or reorganized schools.<sup>38</sup>

#### Operational Efficiencies Accruing From Reorganization

School district reorganization cannot and should not be sold on the grounds that it will result in a reduction of school expenditures and local tax rates. One of the purposes for reorganization is to get more and better education for each dollar expended, but the primary reason for reorganization is to obtain more and better educational opportunities. The need for expanded educational opportunities is extensive in the districts requiring reorganization so it follows that the savings derived from elimination of the high per pupil costs of small schools will be offset by the implementation of needed improvements in school programs following reorganization. Fitzwater reported that state authorities

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37. Leonard S. Feldt, "Relationship Between Pupil Achievement and High School Size," Iowa City, Iowa: School of Education, State University of Iowa, 1960, p. 8. (Mimeographed)

38. DeForest Hamilton and Robert N. Rowe, "Academic Achievement of Students in Reorganized and Nonreorganized Districts," Phi Delta Kappan, Volume 43, June 1962, pp. 401-404.

have found that adequately reorganized districts are able to provide at less cost the services provided by the supplanted districts.<sup>39</sup> However, school district reorganization should bring about substantial educational improvements and these improvements are most likely to result in increased expenditures. The educational improvements are the important goal to be sought through reorganization. It must be emphasized that improvements will be realized economically and efficiently through the formation of larger administrative units.

The American Association of School Administrators recently summarized the dilemma facing small school districts with the following statement:

When school districts are very small, inefficient operation is inevitable. If a school district has only 100 high school students, then it really faces the choice of having four or five teachers trying to teach many different subjects or of hiring 12 teachers -- enough that is to cover the minimum fields of the high school curriculum. The first alternative means low-quality instruction; the second means a very high ratio of teachers to students -- and costs of about \$1,200 per student per year.<sup>40</sup>

The Committee for Economic Development has pointed out that several important educational and financial advantages accrue to unified school districts operating on a larger scale, with more than one high school and several schools at the lower grades. The advantages cited were:

These advantages include the ability to employ highly qualified school administrators and specialized personnel; to plan construction, and to acquire appropriate school sites, at lower costs, when they are available and ahead of needs; to locate schools advantageously, and to adjust school attendance boundaries, and school use by grades, in accordance with changing population distributions and age patterns; important economies in school design, in maintenance of buildings, grounds, and equipment, in purchasing, in the layout of school bus routes, in insurance, and in many other aspects of administration and financial management.<sup>41</sup>

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39. C. O. Fitzwater, School District Reorganization Policies and Procedures, Office of Education Special Series No. 5, United States Department of Health, Education, and Welfare, Washington, D.C.: Superintendent of Documents, Government Printing Office, 1957, p. 87.

40. American Association of School Administrators, Association of School Business Officials, and National School Boards Association, Education Is Good Business, Washington, D.C.: American Association of School Administrators, p. 37.

41. Research and Policy Committee of the Committee for Economic Development, Paying for Better Public Schools, New York: Committee for Economic Development, March 1960, p. 62.

It is difficult in Minnesota, because elementary and secondary costs are not separated completely in the financial accounting system, to make exact comparisons of the costs of secondary education in various sized school districts. However, studies conducted in 1959<sup>42</sup> and 1962<sup>43</sup> reveal significant differences in costs as indicated in this listing:

Secondary Enrollment in District	Average Secondary Per Pupil Cost	
	1956-57	1960-61
5,000 and over	\$422	\$525
2,000-4,999	377	534
1,000-1,999	394	523
500-999	375	485
400-499	349	480
300-399	369	484
200-299	388	502
150-199	409	523
100-149	464	563
75-99	531	--
Less than 75	595	--
Less than 100	--	652
Entire State	394	514

The tabulation shows that the per pupil costs in each year vary considerably, depending upon the size of the secondary school enrollment. In both years the group of districts enrolling 400-499 high school students had the lowest per pupil cost. The districts with fewer than 150 secondary school students had the highest unit cost.

#### DETERRENTS TO THE REORGANIZATION PROCESS

Many forces operate against the establishment of sound district organization. Village rivalries, community pride, the fear of business losses, vested interests, unequal taxes and tax bases among districts, lack of leadership, and the emotional commitment to tradition can combine in various ways so as to preclude local acceptance of even the soundest reorganization plan.

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42. A. F. Harbo, H. C. Hall, and H. M. Lokken, A Foundation Program for Minnesota Public Schools, St. Paul, Minnesota: State Department of Education, January 1959.

43. Dean M. Schweickhard, State Aid to Public Schools Report to the State Board of Education, St. Paul, Minnesota: State Department of Education, September 1962.

Recent economic changes have reduced the role and importance of the small village. As a result, the doctor, the dentist, the druggist, and the attorney have moved, the bank has closed, the newspaper has disappeared, and the other businesses have suffered from the competition of a larger neighbor. Only the high school remains. The resistance of the citizens to district reorganization, which may result in the closing of the high school can well be appreciated.

Vested interests can be a major hindrance to school district reorganization. These may include school personnel, board members, and local merchants. Of equal significance as an opposition force is the rivalry between neighboring villages. This may be the competition between businesses or between high school athletic teams.

Among the barriers to reorganizing districts is the fact that often people are unaware of the inferior quality of the educational programs in their districts. Involving citizens in an evaluation and comparison of their schools with those in other districts can provide a valuable stimulant to developing better district organization.

State laws can operate to impede school district reorganization. Especially important are the provisions made in state aid distribution formulas for accelerating or retarding reorganization. Minnesota has no provisions in its state aid program for encouraging reorganization; in fact, in many instances the present distribution methods provide the major portion of school support and thus subsidize small inefficient school districts. In addition to state laws which encourage reorganization, there is a need for statewide leadership and control in the establishment of sound district organization.

The financial conditions of local school districts can operate as a deterrent to the establishment of sound district organization. Unequal financial ability often is a hindrance to reorganization. Districts with considerable wealth may oppose mergers with poorer districts for fear of having to assume a large share of the educational costs for the poorer district. Poor districts may oppose mergers with wealthier districts because of the possibility of tax increases resulting from meeting higher educational standards of the wealthier district. The bonded indebtedness status of districts is also a deterring factor to reorganization. Districts with heavy indebtedness oftentimes reduce the possibilities for reorganization in an area.

#### PROCEDURES AND METHODS UTILIZED IN ESTABLISHING SOUND DISTRICT ORGANIZATION

All states have enacted legislation pertaining to organization and reorganization of school districts. Legislative provisions vary extensively from state to state. They range from mandatory legislation, which either directly reorganizes school districts or which requires reorganization at a specific time or within a specified time limit, to permissive legislation which leaves the initiation of action leading to reorganization entirely to the people in the local communities affected. Minnesota lies between these extremes and requires that

certain steps and planning procedures for reorganizing districts be taken and that the proposed plan be submitted to the voters for final approval or rejection. Exceptions to this procedure were the mandatory requirements of the legislation enacted in 1963 and 1967.

In Minnesota the permissive legislation is accomplished through four procedures. The four basic procedures for modifying school district boundaries are: (1) Detachment and Annexation of Land, (2) Dissolution and Attachment of Districts, (3) Consolidation, and (4) Reorganization. The first of these provides a means for an individual owner to transfer his land from one district to another. The other three procedures are means by which entire districts or portions of districts are involved in school district enlargement.

#### DIRECT MANDATORY LEGISLATION

Mandatory legislation is usually a quick procedure for achieving reorganization. It saves time, effort, and money. Districts can begin to function immediately. Several states have abolished all existing districts and established new districts by direct legislative action. Included in this category are the following states: Indiana, 1852; Ohio, 1853; Maryland, 1868; Alabama, 1903; Tennessee, 1907; Kentucky, 1908; Louisiana, 1912; Utah, 1915; Virginia, 1923; West Virginia, 1933; Florida, 1947; and Nevada, 1956.

Two types of direct reorganization are the County Plan and the Master Plan. Where the county becomes the unit of school district government a law is enacted that provides for the dissolution of every school district existing and operating under existing laws, and the establishment of a county unit system for the entire state. The Master Plan approach to reorganization involves the adoption by the state legislature of a plan for the organizing of school districts according to a procedure based on a thorough study of the state's school system.

Ohio's recent Master Plan<sup>44</sup> provides for administrative districts of 3,500 or more pupils, but would not necessitate immediate consolidation of attendance centers even in high schools, so long as they meet state minimum standards. The plan was developed and approved by the Ohio State Board of Education and submitted to the state legislature, where it is hoped that most if not all of the plan will be implemented.

#### INDIRECT MANDATORY LEGISLATION

Another type of mandatory legislation delegates authority to reorganize districts to a county agency and a state agency without approval by the voters.

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44. Ralph D. Purdy, A Master Plan for School District Organization in Ohio, Columbus, Ohio: State Department of Education, 1966.



At least four states (California, 1923; New Mexico, 1941; South Carolina, 1951; and Mississippi, 1953) have enacted this type of legislation.

The state of Arkansas followed a unique form of mandatory legislation in the reorganization of its districts. A reorganization act was drafted by the legislature and by resolution was referred to the voters of the state as a whole.

Twenty states have adopted legislation forcing the abolition of certain size school districts. Such legislation delegates authority to a county or state agency to annex to adjoining districts those individual districts falling below stipulated limits, such as enrollment, or those districts that do not operate school for a period of time. Minnesota has recently used this method successfully in the elimination of its nonoperating school districts, and is in the process of using it again for the elimination of school districts that maintain only elementary schools.

#### SEMIPERMISSIVE LEGISLATION

Semipermissive legislation for school district reorganization requires that essential preliminary steps be taken in preparing plans and proposals for reorganization and that they be submitted to the voters for approval. The effectiveness of this type of legislation depends upon the requirements for getting plans prepared and presented to the voters and upon the process used in voting on the proposals. These procedures are many times handicapped by such factors as financial incentives, handling assets and liabilities, and transportation. This is the type enacted by Minnesota in 1947.

#### PERMISSIVE LEGISLATION

Generally, permissive legislation for merging districts does not require any approval from the county or state level. Local school board action or petitions signed by a specified number of the electors in a local area may start procedures for the joining of two or more districts on the way to final approval or rejection by the voters. Usually no overall planning for an adequate district is required. Approximately three-fourths of the states have statutory provisions which allow for this method of merging districts, and a number of them have a hodgepodge of laws designed for this purpose. Minnesota's laws pertaining to school district reorganization prior to 1947 were of this type.

Minnesota is in its twentieth year of district enlargement under the basic reorganization law of 1947, and some excellent school districts have been established with adequate tax bases and educational programs of the highest quality. However, many such mergers have helped to a lesser degree, still leaving much to be desired in meeting today's demands of quality education. Several districts have stood still during this period due in no small way to "permissiveness" of the original legislation, and the deficiencies of these districts have increased.

## CURRENT LEGISLATION FOR THE REGION

Besides Ohio's "Master Plan," several of the Midwest states are contemplating, or have, pending legislation on the reorganization of their school districts. The Great Plains School District Organization Project has as its members the state departments of South Dakota, Nebraska, Iowa, and Missouri. The purpose of the project is to strengthen state leadership for school district organization. It is designed to help each state identify the common problem and allow cooperative work toward their solutions.

The 1967 South Dakota Legislature passed a bill requiring all land to be in 12-year school districts by July 1, 1970. The Wisconsin Legislature this year introduced a bill to establish a kindergarten through grade 12 plan of district organization, effective July 1, 1968.

A major goal of Minnesota's legislative program for the reorganization of school districts over the past several years has been the establishment of districts having a unified administration for both elementary and secondary education. After 20 years the procedure for reaching this goal has been established. The 1967 Legislature passed a law providing for the mandatory elimination of districts operating only elementary schools by July 1, 1971. After that date every Minnesota school district must operate an educational program extending from the first through the twelfth grade.

However, there exists another critical area in the establishment of quality school districts in the state of Minnesota. There are a large number of small high schools, many of which have ineffective programs, are poorly staffed, and are financially uneconomical. For new schools, the Minnesota State Board of Education has established a minimum enrollment of 300 pupils in grades 7 through 12, and there are over 200 districts in existence now that cannot meet this standard. According to the professional literature referred to earlier in this chapter, even this minimum is too low if the school is to provide the educational program needed for today's youth in tomorrow's world.

The importance of sound district organization cannot be overemphasized. The problem is not unique to Minnesota. In fact, the following statement from a Pennsylvania study is directly applicable to Minnesota.

The genuine progress of Pennsylvania education depends on efficient school district reorganization. Every educator of authority who testified before the Committee said this. County superintendents said it. Teachers said it. School directors said it. The United States Office of Education says it. The Conant report says it. The Report of the Committee on Economic Development says it. President Eisenhower's Committee on National Goals said it. The Governor's Committee on Education says it, reiterates it, capitalizes and underlines it. Without new and larger school districts, all of the higher teachers' salaries, curriculum minimums and special education programs here offered are as sounding brass and tinkling cymbals.<sup>45</sup>

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45. Governor's Committee on Education, The Final Report of the Committee on Education, Harrisburg, Pennsylvania: Commonwealth of Pennsylvania, 1961, p. 30.

## CHAPTER IX

### F I N A N C I N G   P U B L I C   E L E M E N T A R Y   A N D S E C O N D A R Y   E D U C A T I O N   I N   M I N N E S O T A

To many people, especially those who do not have children of school age, the most noticeable indicator of the existence of the public schools is the annual tax statement. Likewise there are many who judge the effectiveness of a school system in monetary terms. Economy is equated with goodness and "he who spends least is doing the best job." There is a much smaller group at the other end of the continuum who take to the opposite view: i.e., "he who spends most is doing the best job."

Neither of these positions can be used as the measuring device of the effectiveness of an educational program. Discussions of the effectiveness of education can be discussed in terms of pupils, programs, personnel, and facilities. However, because of the nature of our economic system it is necessary to attach a monetary value to these educational terms for purposes of financing education.

Throughout this report attention has been drawn to the fact that education is a function of the state and the legislature has been charged with providing a general and uniform system of public schools. Nowhere does this principle have greater application than in the field of finance. Yet at the present time education is basically financed on the basis of local property taxes supplemented by state funds. There has been much talk of providing equal opportunity for all children, regardless of the wealth of the district in which they reside. However, progress toward this goal has been slow and there have been backward steps such as the distribution of funds on the basis of school census included in the "Tax Reform and Relief Act of 1967."

This chapter examines the provisions for financing public elementary and secondary education in Minnesota. Included is a look at economic conditions which affect the ability to support education. Characteristics of a desirable state support program are presented and Minnesota's program is described and evaluated in light of these criteria.

## THE MINNESOTA ECONOMY

Minnesota is a state in transition as far as the economy is concerned. This transition is from an economy based on the original natural resources such as farms, forests, and mines to a more diversified economy based largely on human resources and human skills. The changing economy has influenced and been influenced by the movement from the farm and the small village to the cities and suburbs. The small farm, the small trading center, and the small school district cannot compete and are assuming an increasingly smaller role. Although there have been proposals to disperse industrial development into smaller communities, actual dispersion has been limited. Industrial growth continues to be concentrated in the larger communities and especially in the Twin Cities metropolitan area. Economic development is no longer tied exclusively to the availability of natural resources in a given area. Rather the most important determiners of economic development are the human resources available in a community.

HUMAN RESOURCES

As shown in Table 91, Minnesota has been increasing in population and projections indicate that this growth will continue. Minnesota has not kept pace with the rate of growth in the nation and is not likely to in the next decade. However, Minnesota's population has increased more rapidly than other states in the Upper Midwest and, as indicated in the table, should continue to grow at a more rapid rate than the region as a whole.

Population growth is caused by two factors: the number of births exceeding the number of deaths and/or the number of people moving into the state exceeding the number leaving. For the 1950-1960 decade, Minnesota's growth was due to increased births, as the number of persons leaving the state exceeded the number moving in. The result was a net migration loss of 53,000.<sup>1</sup> Projections made for the 1960-1970 decade assumed that the loss of population through out-migration would remain constant. However, for the period 1960-1963 the rate of out-migration greatly exceeded projections.<sup>2</sup>

An examination of migration figures by age reveal some disturbing information. During the 1950-1960 decade, the age group with the highest net out-migration was composed of males ages 20 to 24. Since this group is primarily composed of individuals who have completed all or most of their education and are ready to begin

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1. Migration and Population Growth in the Upper Midwest: 1930-1960, Study Paper No. 4, Minneapolis, Minnesota: Upper Midwest Research and Development Council and the University of Minnesota, July 1962, p. 7.

2. Charles A. Stoerzinger, Current Economic Progress Report for the Upper Midwest, 1964, prepared for the Upper Midwest Research and Development Council, University of Minnesota, Minneapolis, Minnesota: North Star Research and Development Institute, October 1965, p. 8.

productive careers, it is obvious that this represents a great economic loss to the state. On the other hand, the group showing the largest net in-migration was composed of males over age 75, a group which has largely completed its productive years.

TABLE 91  
POPULATION TRENDS, 1940-1975

Population Status	G o v e r n m e n t a l   U n i t s		
	United States	Upper Midwest*	Minnesota
1940 Population	132,164,569	5,536,000	2,792,300
1950 Population	151,325,798	5,746,000	2,982,483
Change, 1940-1950	19,161,229	210,000	190,183
Per Cent of Change, 1940-1950	+14.5	+ 3.8	+ 6.8
-----			
1960 Population	179,323,175	6,288,000	3,413,864
Change, 1950-1960	27,997,377	542,000	431,381
Per Cent of Change, 1950-1960	+18.5	+ 9.4	+14.5
-----			
1975 Population**	223,818,000	6,989,000	4,001,000
Change, 1960-1975**	44,494,825	701,000	587,136
Per Cent of Change, 1960-1975**	+24.8	+11.1	+17.2

SOURCE: Bureau of the Census, United States Census of Population, 1960, Washington, D.C.: Government Printing Office, 1961; Upper Midwest figures and 1975 estimates are from Current Economic Progress Report for the Upper Midwest, 1964, prepared for the Upper Midwest Research and Development Council, University of Minnesota, Minneapolis, Minnesota: North Star Research and Development Institute, October 1965, p. 8.

\*Includes Minnesota, North Dakota, South Dakota, Montana, northern Wisconsin, and upper Michigan.

\*\*Estimated.

Of great importance to Minnesota is the educational attainment of its population. In this respect, Minnesota shows a favorable situation. In 1960 the median school years completed by persons 25 years old and older was 10.8 compared to the national average of 10.6 years. In the same year, only one per cent of the Minnesota population 14 years old and older was illiterate compared to a national average of 2.4 per cent.<sup>3</sup>

From Table 92 it can be seen that Minnesotans in the 25 to 29 age group have more education than the national average. On the other hand, the over 75 age group in Minnesota is less well educated than the national average. The substantially higher figures that Minnesota shows for the 25 to 29 age group, both in terms of high school and college graduates, are indicative of the current emphasis placed on education in Minnesota.

TABLE 92

## EDUCATIONAL ATTAINMENTS OF OLDEST AND YOUNGEST ADULT AGE GROUPS, 1960

Category	Per Cent of High School Graduates		Per Cent Completing Four or More Years College	
	25 to 29 Years	75 Years and Over	25 to 29 Years	75 Years and Over
<u>Male</u>				
Minnesota	69.3	14.1	16.8	3.1
United States	59.7	15.3	14.4	3.9
<u>Female</u>				
Minnesota	75.2	16.0	8.9	2.3
United States	61.7	19.5	7.8	2.7

SOURCE: Bureau of the Census, United States Census of Population, 1960, Washington, D.C.: Government Printing Office, 1961.

Another indicator of the educational level in the state is the fact that Minnesota ranks very low in the percentage of selective service draftees failing mental tests. In 1965, only 7.8 per cent of Minnesota draftees failed preinduction or induction tests as compared to a national average of 21.4 per cent.<sup>4</sup>

3. Rankings of the States, Research Report 1967-R1, Washington, D.C.: National Education Association, 1967, p. 31.

4. Ibid., p. 32.

PERSONAL INCOME

One indicator of the economic health of a state is the growth in personal income. For the United States, personal income increased an average of 3.5 per cent per year from 1960 to 1964, whereas Minnesota increased only an average of 3.0 per cent over the same period.<sup>5</sup>

As has been pointed out previously, Minnesota no longer depends on agriculture as the primary basis of its economy. Table 93 shows sources of personal income for both Minnesota and the United States for 1960 and 1964. In 1964, only 5 per cent of Minnesota personal income came from farm sources. While this is higher than the national average, it shows a decline from the 1960 figure of 7 per cent.

TABLE 93

SOURCES OF PERSONAL INCOME, 1960 AND 1964

Governmental Level and Year	Sources by Per Cent		
	Farm	Nonfarm	Government
<u>1960</u>			
Minnesota	7	76	17
United States	3	78	19
<u>1964</u>			
Minnesota	5	77	18
United States	3	77	20

SOURCE: Current Economic Progress Report for the Upper Midwest, 1964, prepared for the Upper Midwest Research and Development Council, University of Minnesota, Minneapolis, Minnesota: North Star Research and Development Institute, October 1965, pp. 18-19.

Generally, it is noted that Minnesota's income is derived from diverse sources with less dependency on agriculture that once prevailed in Minnesota. This is not to say that the agricultural industry does not play an important role in the Minnesota economy. However, with Minnesota less dependent on farm income, smaller yearly fluctuations will result than those when Minnesota's income fluctuated commensurately with farm price levels.

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5. Ibid., p. 12.

As depicted by Table 94, the top three employers in Minnesota are agriculture, manufacturing, and wholesale and retail trade; each employs approximately 250,000 people. An examination of the source of earnings shows similar diversity. Manufacturing, wholesale and retail trade, and government provide the bulk of the wage and salary income for Minnesotans.

TABLE 94  
EMPLOYMENT AND EARNINGS BY INDUSTRY IN MINNESOTA, 1964

Employment Class	Employment (Annual Averages)		Wage and Salary Income	
	Employees (Thousands)	Per Cent	Amount (Millions)	Per Cent
Agriculture	247.2	19.4	\$ 54*	1.0
Mining	13.5	1.1	90	1.7
Contract construction	53.5	4.2	353	6.5
Manufacturing	246.9	19.3	1,504	27.7
Wholesale and retail trade	249.0	19.5	1,113	20.4
Finance, insurance, and real estate	52.1	4.1	278	5.1
Transportation	53.3	4.2	338	6.2
Communications and public utilities	25.0	2.0	162	3.0
Services	156.4	12.2	628	11.5
Government	179.3	14.0	911	16.7
Other	**	**	12	0.2
TOTAL	1,276.2	100.0	\$5,443	100.0

SOURCE: Minnesota Nonagricultural Employment Survey of Current Business, St. Paul, Minnesota: Minnesota Department of Employment Security, July 1965, and unpublished data.

\*Includes only wages and salaries of hired workers who constitute about 7 per cent of all farm workers.

\*\*Not available.



Wage and salary income from agriculture is somewhat distorted for it does not reflect the income from the farm proprietorship. According to Minnesota Department of Taxation, farmers reported a gross income of \$280 million in 1964 compared to a state total of \$6.6 billion. In other words, farm income represented approximately 4 per cent of the gross income reported in the state.

A strong manufacturing and industrial base is advantageous for any state and serves as a foundation for future economic progress. Few industries can exist without accompanying supporting industries. For example, an automotive assembly plant will create a demand for transportation services. In turn, favorable transportation services are incentives for other industries needing transportation services. This desirable cycle effect is further exemplified as the new industries attract many skilled and talented people who, of course, create an increased demand for housing, food, and related services.

This explains Minnesota's concern for industrial growth to assure that maximum effort is being made to increase its industrial base. In this regard, Minnesota appears to have successfully increased the business sector of its economy as reflected in Table 95. In the five-year period 1958-1963, Minnesota business added 43,102 employees, increased payrolls by almost \$715,000, and increased the volume of business over \$3 million. Although the number of employees increased less than 10 per cent, the payroll and dollar volume of business jumped 38.4 and 25.9 per cent respectively.

TABLE 95

## MINNESOTA BUSINESS ECONOMY\*

Measure of Economy	Y e a r		Change, 1958-1963	
	1958	1963	Amount	Per Cent
Establishments	65,231	64,301	-930	- 1.4
Employees	485,035	528,137	+43,102	+ 8.9
Payroll	\$1,863,490	\$2,578,448	+\$714,958	+38.4
Dollar volume of business**	\$13,093,472	\$16,483,515	+\$3,390,043	+25.9

SOURCE: Bureau of the Census, United States Census of Manu-  
facturers, Washington, D.C.: Government Printing  
Office, 1958 and 1963.

\*Includes manufacturing, retail trade, selected services, and  
wholesale trade.

\*\*Dollar volume of business is measured by value added by manufac-  
turing in the manufacturing segment, sales in the retail trade segment,  
receipts in selected services, and sales in the wholesale trade segment.

Comparing Minnesota with the 12 states in Table 96 shows little deviation from what might be expected from Minnesota's rank in population. Minnesota ranks seventh among the 12 states and also ranks seventh on each of the various indicators.

TABLE 96

## BUSINESS SEGMENT OF THE ECONOMY IN THE TWELVE SELECTED STATES\*

States Ranked by Population	Number of Business Establishments	Number of Employees (Thousands)	Payroll (Millions)	Dollar Volume of Business** (Millions)
Illinois	190,605	2,149	\$11,584	\$61,615
Ohio	173,184	1,985	11,002	48,488
Michigan	139,770	1,530	9,186	39,707
Indiana	84,704	954	5,044	21,303
Missouri	83,116	711	3,686	23,644
Wisconsin	80,767	911	3,840	16,677
Minnesota	64,301	528	2,578	16,484
Iowa	57,728	378	1,729	11,291
Kansas	42,966	274	1,253	8,290
Nebraska	30,891	181	751	6,499
South Dakota	14,000	58	1,007	1,291
North Dakota	12,453	49	182	2,235

SOURCE: Bureau of the Census, United States Census of Business, Washington, D.C.: Government Printing Office, 1963;  
Bureau of the Census, United States Census of Manufacturers, Washington, D.C.: Government Printing Office, 1963.

\*Includes manufacturing, retail trade, selected services, and wholesale trade.

\*\*Dollar volume of business is measured by value added by manufacturing in the manufacturing segment, sales in the retail trade segment, receipts in selected services, and sales in the wholesale trade segment.

### TAXPAYING ABILITY

A critical index of ability to pay for governmental services is the personal income per capita. This index is of particular importance to the state of Minnesota since it depends extensively on the taxing of personal incomes to provide funds for the state coffers. Over one-third of Minnesota's state revenues per capita have been derived from the taxation of individual incomes. If there is an appreciable lowering of personal income levels, the state government has cause for concern for this is a substantial tax bearing base.

Table 97 shows Minnesota with a per capita personal income of \$2,871 in 1966. This is slightly below the United States average of \$2,940. This ranks Minnesota seventh among the 12 comparison states and twenty-second in the nation. Since 1957, Minnesota shows a gain of \$997 or an increase of 53 per cent in per capita personal income. This increase in personal income per capita in Minnesota has been at a higher rate than that of the nation.

TABLE 97

#### PER CAPITA PERSONAL INCOME IN THE SELECTED STATES, 1957 AND 1966

State	1957	Rank in United States	1966*	Rank in United States	Per Cent of Increase 1957-1966
Illinois	\$2,488	7	\$3,511	4	45.1
Michigan	2,229	10	3,219	11	44.4
Ohio	2,227	11	3,027	15	35.9
Indiana	2,028	16	3,061	14	50.9
Wisconsin	1,991	20	2,935	19	47.4
Missouri	1,922	24	2,845	23	48.0
Kansas	1,883	25	2,814	25	49.4
Nebraska	1,876	26	2,819	24	50.3
Minnesota	1,874	27	2,871	22	53.2
Iowa	1,869	28	2,931	20	56.8
South Dakota	1,604	41	2,355	39	46.8
North Dakota	1,479	42	2,400	38	62.3
United States Average	2,045	--	2,940	--	43.8

SOURCE: Bureau of the Census, "Personal Income by States and Regions in 1966," Survey of Current Business, Washington, D.C.: Government Printing Office, April 1967.

\*Preliminary estimate.

Another measure of personal income is the amount of money a person has left after payment of federal, state, and local taxes. This measure is labeled effective buying income.<sup>6</sup> In 1965, as depicted in Table 98, Minnesota had an effective buying income per capita of \$2,176 which ranked ninth in the 12 comparison states. A per household comparison showed Minnesota with \$7,511 and it ranked eighth in the 12 states. In both per capita and per household effective buying income Minnesota was below the United States average.

TABLE 98

## EFFECTIVE BUYING INCOME IN THE TWELVE SELECTED STATES, 1965

State	Amount	Per Capita	Amount	Per Household
		Rank		Rank
Illinois	\$2,788	1	\$9,140	1
Michigan	2,594	2	9,068	2
Ohio	2,408	3	8,195	3
Missouri	2,407	4	7,639	6
Indiana	2,390	5	8,016	4
Nebraska	2,361	6	7,365	9
Iowa	2,250	7	7,355	10
Wisconsin	2,207	8	7,588	7
Minnesota	2,176	9	7,511	8
Kansas	2,165	10	6,969	11
North Dakota	2,105	11	7,671	5
South Dakota	1,863	12	6,495	12
United States Average	\$2,367	--	\$7,989	--

SOURCE: "Survey of Buying Power," Sales Management, June 10, 1966. (Used with permission of the copyright owner; further reproduction is forbidden.)

These facts are apparently not well known to Minnesota educators. When asked to compare Minnesota's ability to pay for elementary and secondary education to other states, 58 per cent of Minnesota's superintendents felt that Minnesota's ability was average. However, 40 per cent felt that Minnesota's ability was above average and only 2 per cent felt that Minnesota's ability was below average.

6. "Survey of Buying Power," Sales Management, June 10, 1966. (Used with permission of the copyright owner; further reproduction is forbidden.)

As income in Minnesota increases there is a commensurate increase in the taxes collected by the state via the income tax structure. The revenue derived from the taxes placed on income is in turn used to help finance the state's support of public school education.

### MINNESOTA TAX STRUCTURE

The tax structure of Minnesota includes three primary types of taxes: property taxes, income taxes, and sales and excise taxes. The property tax is the main source of revenue for local governmental units, including school districts. The 1967 Legislature eliminated the property tax as a source of state revenue. The state government also utilized personal and corporate income taxes and various excise taxes such as those on gasoline, liquor, and tobacco products. The 1967 Legislature passed a general sales tax as a source of tax relief for the property tax and as a source of additional revenue.

### THE PROPERTY TAX

The central feature in the determination of local ability to support the public schools is the property tax. The property tax in Minnesota is an ad valorem tax, that is, it is based on the value of property. Certain types of property -- particularly property of railroads, telephone companies, and telegraph companies -- are not taxed on the value of property but rather on their gross earnings derived in Minnesota. Properties belonging to educational, religious, and charitable institutions and used for these purposes are exempt from taxation.

The levies of the units of government are certified to the county auditor in each county, who determines the rates of taxation by allocating the levies against the taxable value of property in each governmental unit. The consequent extensions of taxes are then given to the county treasurer who collects the taxes on property.

The "taxable value" of property is determined by applying the appropriate statutory classification rate to the "true and full value" of the property. The following list shows the classifications system for property subject to ad valorem taxation in Minnesota.

<u>Class</u>	<u>Description</u>	<u>Per Cent of True and Full Value</u>
<u>Real Property</u>		
1	Unmined iron ore	50
3	Rural nonhomestead and homestead over \$4,000 true and full	33 1/3
3	Machinery permanently attached to real estate	33 1/3
3	Seasonal, residential, recreational lakeshore	33 1/3
3B	Rural homestead -- first \$4,000 true and full	20
3C	Urban homestead -- first \$4,000 true and full	25
3CC	Paraplegic veterans' homesteads up to \$8,000 true and full	5
3E	Timber land	20
3H	Petroleum refineries real estate	27
4	Urban nonhomestead and homestead over \$4,000 true and full	40
None	Parking ramp structures	20
<u>Personal Property</u>		
1	Iron ore stockpiles	50
1A	Direct products of blast furnaces	15
2	Household goods (county option to tax)	25
2A	Mobile homes	4 1/2 to 10*
3	Business property	33 1/3
3A	Agricultural products in the hands of producers	10
3D	Livestock and farm machinery	20
3J	Crude petroleum processing equipment	17
4	Utilities and miscellaneous other property	40
None Given**	Electric distribution lines, for sale of electricity to farmers	5
None Given**	All rural electric transmission lines	40

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SOURCE: Minnesota Statutes, 1965, Chapter 273, Section 13,  
Subdivision 1-14.

\*Taxed according to age.

\*\*Assessed by Commissioner of Taxation.

The 1959 Legislature exempted all Class 2 personal property (household goods) from the state property tax levy and gave each county board the option to do the same. As a result over one-half of the counties exempt Class 2 personal property. Each county board was also given the option to retain or repeal the \$100 exemption on household personal property. Most counties which continued to tax household goods retained the \$100 exemption.

The 1967 Legislature eliminated the state property tax and allowed additional exemptions on personal property. Exemptions include the following: tools, implements, and machinery used by owners in agricultural pursuits; livestock, poultry, and other animals used exclusively for agricultural purposes; and either inventories, stock or merchandise, furnishings of hotels and motels or tools and machinery formerly classified as personal property.

The 1967 Legislature also provided for a refund to certain eligible citizens 65 years of age or older and provided that one-fourth of the revenue from the enacted sales tax will be distributed to school districts and other units of local government to compensate for additions in exempted property and provide tax relief for property owners.

In the administration of the property tax in Minnesota, the assessor is an important person. The local assessor of the city, village, or township is appointed by the governing body. The county assessor or supervisor of assessments is appointed by the board of county commissioners with the approval of the Commissioner of Taxation. The property tax base is determined as of May 1 every year for personal property and every even numbered year on January 2 for real property. The determination is made by the assessor at the time he views the property and determines its "true and full value." However, in Minnesota, as in other states, assessors use only a fraction of current sales price for "true and full value."

The work of the assessor is subject to administrative review and equalization at three levels: the local board of review, the county board of equalization, and the state board of equalization. Despite these controls there is widespread dissatisfaction with the assessment system currently in use. Not only are there wide differences in the assessing practices followed in different counties but wide discrepancies often exist within counties.

Minnesota superintendents were asked to what extent do the procedures in Minnesota for property assessment result in assessment equity. The response to the inquiry revealed that over 50 per cent of Minnesota's superintendents felt that property assessment procedures in Minnesota result in little assessment equity while only 7 per cent felt that procedures resulted in much assessment equity.

The 1967 Minnesota Legislature recognized the problem existing in assessment among counties and established a system of county assessors. If these individuals are professionally trained and given necessary direction from state officials, many existing problems should be eliminated or at least alleviated considerably.

#### EARC Adjusted Assessed Valuation

Because of the various assessment practices that exist among counties, communities, and school districts, the Equalization Aid Review Committee (EARC) was established by the 1955 Legislature. The EARC, consisting of the commissioners of administration, taxation, and education, is intended to establish equalized

valuations for school districts which are comparable for all areas of the state. This adjusted assessed valuation becomes the base on which state aids are distributed to local school districts.

A great deal of confusion exists because the state aid distribution is based on effort on the adjusted assessed valuation (EARC), but the revenues derived from local taxes are based on mills on the local assessed valuation.

While there is general agreement that the use of EARC valuations is more equitable than using local assessor's valuations for determination of state foundation aid, problems still exist.

When asked to judge whether EARC adjusted assessed valuations attained equity in determining state foundation aids, the majority of Minnesota's superintendents felt that some or much equity was a result of the EARC adjustments. However, a considerable number of superintendents (31 per cent) felt that the EARC adjustments were not bringing about equity.

A common complaint is that the sampling procedures used by the committee to determine the market value of property often produce a distorted view of the actual situation. A second criticism is that the EARC valuation used in determining the foundation aid for a given year represents the value of property three years ago. For example, the 1963 EARC valuation was used in calculating the 1966-67 foundation aid.

The most common measure of ability as related to property tax is the amount of adjusted assessed valuation behind every pupil unit. This measure best depicts the chief taxable resource available to the local school district.

The use of the property base as a source of tax revenue has been often criticized by its opponents. However, the principle of local control of schools is synonymous with the prime local source of taxable wealth -- property.

Most superintendents indicated that they do not favor increasing local property taxes to help meet rising school costs. Seventy-one per cent indicated that they were not in favor of raising local property taxes to help meet rising school costs while only 5 per cent strongly favored such an increase. These responses were made before the passage of a sales tax by the 1967 Legislature.

Considerable criticism has been leveled at the inequities that exist among school districts and counties. For comparison, the five areas of the state described previously are being used. Table 99 shows the adjusted assessed valuation per resident pupil unit in the five designated geographic areas in Minnesota and the extremes for counties within areas for 1957, 1961, and 1965.

Although actual school aids are based on EARC valuation, they are based on EARC values three years preceding the school year in which aids are distributed. Table 99 reflects a somewhat different measurement in that the EARC valuations are used for the same year in which resident pupils are reported. For example, 1957 adjusted assessed valuations are matched with 1957-58 resident pupils. This measure was used because it gives a more accurate reflection of taxable property



wealth behind each pupil unit. This overcomes the normal two-year lag that fails to reflect changes in a county's assessed valuation due to an increase in properties entering the tax exempt rolls, others taken off the tax rolls, and depreciation of property. In addition, the use of the most current EARC data permits the showing of an appreciation in assessed property values due to inflation, urbanization, and construction.

TABLE 99  
EARC VALUATIONS PER RESIDENT PUPIL UNIT

Areas of the State	Resident Pupil Units	EARC Valuation	EARC Valuations Per Resident Pupil Unit			
			Average for Region and State	County Average		
				Low	High	Range
	<u>1957-58</u>			<u>1</u>	<u>9</u>	<u>5</u>
Southwest	91,214	\$ 799,548,126	\$ 8,766	\$6,001	\$11,258	\$ 5,257
Southeast	148,161	1,102,156,554	7,438	2,529	13,173	10,644
Northwest	67,027	359,787,093	5,368	2,944	7,710	4,766
Northeast	103,881	755,921,368	7,277	2,947	9,012	6,065
Metropolitan	<u>239,367</u>	<u>2,538,123,575</u>	10,603	4,461	12,716	8,255
Minnesota	649,650	\$5,555,536,716	\$ 8,552	\$2,529	\$13,173	\$10,644
	<u>1961-62</u>			<u>1</u>	<u>9</u>	<u>6</u>
Southwest	97,442	\$ 966,570,890	\$ 9,919	\$5,955	\$11,699	\$ 5,744
Southeast	167,281	1,406,077,781	8,405	3,154	16,331	13,177
Northwest	73,765	458,675,082	6,218	3,595	8,683	5,088
Northeast	115,476	784,924,288	6,797	2,566	7,634	5,068
Metropolitan	<u>302,074</u>	<u>3,433,998,573</u>	11,368	5,330	12,856	7,526
Minnesota	756,038	\$7,050,246,614	\$ 9,325	\$2,566	\$16,331	\$13,765
	<u>1965-66</u>			<u>1</u>	<u>9</u>	<u>6</u>
Southwest	101,863	\$ 974,545,225	\$9,567	\$6,171	\$12,206	\$ 6,035
Southeast	196,290	1,570,279,991	8,000	3,882	15,910	12,028
Northwest	79,622	537,877,647	6,755	4,068	9,615	5,547
Northeast	124,695	740,186,864	5,936	3,818	7,227	3,409
Metropolitan	<u>401,410</u>	<u>3,838,903,858</u>	9,564	4,758	10,849	6,091
Minnesota	903,880	\$7,661,793,585	\$8,476	\$3,818	\$15,910	\$12,092

SOURCE: Data from Research and Planning Division, St. Paul,  
Minnesota: State Department of Taxation.

Although the differences in EARC valuation per resident pupil unit among the specified areas of the state are not as great as the variations among counties and school districts within each area, considerable variation does exist. In 1965 the biggest difference existed between the Northeast Area (\$5,936) and the Southwest Area (\$9,567). This difference is expected to continue to exist under the present prime measure of ability, i.e., property valuation. However, the differences among areas have been decreasing since 1957, when the EARC measure was first employed. In 1957 an EARC valuation difference of \$5,235 existed between the highest and lowest areas in the state. In 1961 a difference of \$5,150 and in 1965 a difference of \$3,631 existed between the highest and lowest areas of the state.

By using the 1965 EARC valuation (adjusted assessed) and 1965-66 pupil units, it can be shown that large differences in property wealth exist among counties within each of the five areas of the state. For example, in the Southeast Area of the state the EARC valuation ranges from a low of \$3,882 per resident pupil unit in Pine County to a high of \$15,910 in Brown County. This amounts to a difference of \$12,028 per resident pupil unit in the Southeast Area. The ramifications of this difference are noteworthy.

First, although an attempt is made in state aid distribution to compensate for this difference, it is effective only to the extent of the minimum educational level specified in the aid program. The present equalization aid program does not fully compensate for the differences in valuations.

Secondly, the necessity for increased school expenditures will place a disproportionately heavy burden on the district with a low EARC valuation to provide the additional tax funds required.

Two factors contribute to the changing EARC valuations per resident pupil unit within the state: first, an increasing number of resident pupil units; and second, an EARC valuation that remains constant or fails to increase at the same rate as the increase in resident pupil units. For example, the designated Metropolitan Area had an increase of 67.7 per cent in pupil units between 1957 and 1965 but only a 51.2 per cent increase in EARC valuation. This accounts for the substantial decrease in EARC valuation per pupil unit in the Metropolitan Area. Any prospect for curbing the decline rests in an increase in EARC valuations and/or decline in rate of pupil unit increase.

The EARC valuations per pupil unit reflect the impact of the post-war birth rate. In Minnesota during the four-year period 1957-1961 the resident pupil units increased 16.4 per cent as contrasted to a 26.7 per cent increase in EARC valuations. An abrupt change appeared in the four-year period 1961-1965. The resident pupil units increased 19.5 per cent but the EARC valuations in Minnesota only rose 8.6 per cent, resulting in a lower EARC valuation per resident pupil unit. Because of Minnesota's practice of ascribing a weight of 1.5 to every secondary pupil, the number of pupil units increased at a greater rate than enrollment as the children of the post-war "baby boom" moved into secondary school.

The salient point remains that Minnesota's prime source of local tax revenue is not expanding as fast as the educational demands. Either greater local effort in the form of increased tax levies on property and/or increased support from other sources will be required.

#### School Tax Differential for Agricultural Property

The differential that exists in some districts in the mill rates for school maintenance between property classified as agricultural and property classified as nonagricultural makes the complete operation of the equalization principle impossible. Under present laws applying to reorganized school districts the school maintenance tax rate on agricultural property is fixed at one-half the rate on nonagricultural property until the rate on nonagricultural property reaches 50 mills. Undoubtedly there were sound reasons for this differential although it would seem that if property valuations were established equitably these reasons might well disappear. There is, however, another factor that results in differing rates on similar property. This factor is the proportion of agricultural and nonagricultural property within any district. If there were a constant ratio between the valuation of agricultural and nonagricultural property in all districts no unfairness would result. However, great variations exist in the relative amounts of agricultural and nonagricultural property in various districts and the amount of taxes borne by property of the two classes depends upon the amount of each class in a given district. This fact can be demonstrated with a simple example as set forth in Table 100. Five hypothetical districts are used in this example, each having a total assessed valuation of \$1 million and a need to raise \$30,000 in taxes. The five districts have varying proportions of agricultural and nonagricultural property. The first shows all the valuation in agricultural property and the second shows all the valuation as nonagricultural. In the other three examples the districts have both types of property in various proportions -- the third with one-fourth agricultural and three-fourths nonagricultural, the fourth with the agricultural and nonagricultural equal in amount, and the fifth with three-fourths of the valuation as agricultural and one-fourth as nonagricultural.

Table 100 illustrates that the range in mill rates on either agricultural or nonagricultural property can vary considerably by the simple variation of the ratio of the amount of agricultural property to nonagricultural property. When all property is of one class the rate is the same on agricultural and nonagricultural. If the district happens to have a small proportion of agricultural property the tax rate on such property is relatively low. As the proportion of agricultural property increases the mill rate increases. The reverse situation holds true in the case of the nonagricultural property.

TABLE 100

MILL RATES CARRIED BY AGRICULTURAL PROPERTY AND NONAGRICULTURAL PROPERTY  
IN DISTRICTS WITH \$1,000,000 VALUATION AND A \$30,000 LEVY

District	Class of Property in the District	Agricultural Rate (Mills)	Nonagricultural Rate (Mills)
1	All agricultural property	30	--
2	All nonagricultural property	--	30
3	\$250,000 agricultural \$750,000 nonagricultural	17	34
4	\$500,000 agricultural \$500,000 nonagricultural	20	40
5	\$750,000 agricultural \$250,000 nonagricultural	24	48

SOURCE: Computation by survey staff.

#### THE INCOME TAX

The tax on individual and corporate income has been an important source of revenue for state government in Minnesota. In 1965 for example, 42 per cent of the total taxes collected by the state came from the income tax. The income tax is especially important to schools because the revenues from this tax are dedicated to education and constitute the major source of funds used to pay state aids.

Although the receipts from the income tax are dedicated to elementary and secondary education, there has been considerable "raiding" of the fund for other purposes. For example, the 1967 Legislature authorized a transfer of \$50 million to the newly created property tax relief fund for the 1967-68 biennium. While some of these funds may be used for payments to school districts to compensate them for revenue lost when new tax exemptions were granted, this still represents a diversion of funds contrary to the original intent of the tax.

The diversion of funds from the income tax school fund is a one-way street. While the legislature at each session generally approves the transfer of money from the Income Tax School Fund to support other activities, there is no reciprocity. The feeling seems to be "there is enough money in dedicated funds to support education without using other monies."

One of the variables that affects the Minnesota state tax structure is the fiscal policy of the Federal government. Because of the manner in which tax liability is determined on income in Minnesota, as federal personal income tax rates increase the liability for taxes payable to Minnesota decreases. Consequently, an increase or a decrease in federal personal income tax rates affects Minnesota personal income tax revenue.

Minnesota depends upon the income tax as a source of state revenue to a much greater degree than most other states as shown in the following list:<sup>7</sup>

<u>State</u>	<u>Per Cent of State Revenue from Income Tax, 1965</u>
Wisconsin	48
<u>Minnesota</u>	42
Indiana	20
Iowa	19
Kansas	17
Missouri	14
North Dakota	13
South Dakota	1
Illinois	0
Michigan	0
Nebraska	0
Ohio	0
United States Average	21

In 1965 Minnesota ranked fourth among the 50 states in terms of the per cent of total state tax revenue derived from income taxes and ranked second among the 12 Midwest states. Four states have no state income tax and South Dakota has no tax on individual income.

#### SALES AND EXCISE TAXES

Prior to 1967, Minnesota has not had a general sales tax. However, the state has utilized excise taxes on such items as gasoline, tobacco products, and alcoholic beverages. Minnesota ranked last among the 12 comparison states in terms of the percentage of state taxes derived from sales and excise taxes as shown in the following list:<sup>8</sup>

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7. Committee on Educational Finance, CEF Report, Washington, D.C.: National Education Association, February 1966, p. 10.

8. Ibid.

<u>State</u>	<u>Per Cent of State Revenue from Sales and Excise Taxes, 1965</u>
Illinois	85
South Dakota	78
Ohio	75
Michigan	71
Missouri	70
Indiana	67
Kansas	63
North Dakota	61
Iowa	58
Nebraska	57
Wisconsin	34
<u>Minnesota</u>	33
United States Average	58

The recently enacted sales tax is looked upon as both a source of relief for the property tax at the local level and as a source of additional revenue at the state level. When Minnesota superintendents were asked prior to the legislative session what methods might be used to provide additional revenue for education, over two-thirds strongly supported a sales tax whereas only 20 per cent were opposed to such a tax.

The sales tax adopted by the 1967 Legislature does not provide additional revenue to school districts but rather it is intended to reduce the property tax burden now carried.

#### GOVERNMENTAL EXPENDITURES

The economy of Minnesota must not only support the schools of the state but also a variety of other governmental services. New services are being instituted to meet the demands of our society and existing services are constantly expanding. Public schools must compete with higher education, welfare, highways, conservation, pollution control, and other services for funds.

#### EXPENDITURES FOR PUBLIC SCHOOLS

Total school expenditures in Minnesota are constantly increasing. The magnitude of this increase is shown in Table 101. From an expenditure of \$5.6 million in 1899-1900, expenditures increased to \$598.4 million in 1965-66. This increase is due to a number of factors. One of the most important is the increased number of pupils to be educated. School enrollments have increased

from 400,000 to 850,000 in that same period of time. Much of this increase has been quite recent. In fact the total pupil units in average daily attendance increased by 44 per cent in the past ten years.

TABLE 101  
TRENDS IN SCHOOL EXPENDITURES, SELECTED YEARS  
1899-1900 TO 1965-66

School Year	Maintenance	Capital Outlay and Debt Service	Total
1899-1900	\$ 4,819,026	\$ 825,635	\$ 5,644,661
1909-10	11,029,945	2,694,492	13,724,437
1919-20	28,271,667	10,086,888	38,358,555
1929-30	45,832,186	8,781,200	54,613,386
1939-40	45,373,826	13,047,085	58,420,911
1949-50	107,744,550	18,009,082	125,753,632
1959-60	270,406,439	111,416,549	381,822,988
1961-62	319,354,879	126,081,144	445,436,023
1962-63	344,043,962	109,705,852	456,731,890
1963-64	372,189,443	123,286,467	499,005,595
1964-65	403,275,132	131,534,135	538,932,605
1965-66	442,765,521	149,582,453	598,485,094

SOURCE: Trends in Minnesota Education, St. Paul, Minnesota: State Department of Education, May 1967, p. 32.

Other reasons for increased expenditures have been the larger number of more highly trained teachers, the provision of a greater number and variety of instructional materials, and the costs of building construction to house the increased enrollment, provide for expanded programs, and replace obsolete facilities. Finally there is the effect of inflation which has affected all aspects of school expenditures to a great degree.

Table 102 translates expenditures to a per pupil unit basis. This table shows that median maintenance cost per pupil unit in average daily attendance has increased 53 per cent since 1957-58. The increase has been steady and will likely continue, probably at a more rapid rate if the trend of the past two years continues. Costs for capital outlay and debt service also show a generally steady, but smaller, increase. Since 1957-58 these costs have risen 37.5 per cent.

TABLE 102  
TRENDS IN PER PUPIL UNIT COSTS, 1957-58 TO 1965-66

School Year	Median Cost Per Pupil Unit in ADA			
	Maintenance		Capital Outlay and Debt Service	
	Amount	Cumulative Per Cent of Change	Amount	Cumulative Per Cent of Change
1957-58	\$266	--	\$56	--
1958-59	279	4.9	61	8.9
1959-60	297	11.7	63	12.5
1960-61	312	17.3	66	17.9
1961-62	330	24.1	78	39.3
1962-63	348	30.8	69	23.2
1963-64	359	35.0	71	26.8
1964-65	378	42.1	74	32.1
1965-66	407	53.0	77	37.5

SOURCE: Selected Data for Districts Maintaining Graded  
Elementary and Secondary Schools for years 1958  
through 1966, St. Paul, Minnesota: State  
Department of Education.

Minnesota ranks high among the 12 comparison states in expenditure per pupil. The data presented in Table 103 are computed on a per pupil basis and thus are not directly comparable to those previously presented in Table 102. These data are estimates based on existing trends and may differ slightly from actual figures. Table 103 shows that Minnesota is second among the 12 states in amount spent per pupil in ADA for current expense (maintenance) for 1965-66. In terms of total expenditure, including current expense, capital outlay and interest on bonded debt, Minnesota is ranked first. Estimates for 1966-67 indicate that Minnesota expenditures would increase but not as much as several other states. Minnesota expenditures in both years are substantially above the average for the United States.



TABLE 103

ESTIMATED CURRENT EXPENDITURES PER PUPIL IN THE TWELVE  
SELECTED STATES, 1965-66 AND 1966-67

State	1965-66		1966-67	
	Current Expense Per Pupil in ADA	Current Expense, Capital Outlay, and Interest Per Pupil in ADA	Current Expense Per Pupil in ADA	Current Expense, Capital Outlay, and Interest Per Pupil in ADA
Wisconsin	\$563	\$695	\$614	\$696
Minnesota	560	721	597	754
Illinois	551	688	603	748
Michigan	544	706	583	755
Kansas	543	649	533	629
Indiana	540	624	580	673
Iowa	503	588	529	615
Missouri	471	571	496	601
North Dakota	459	578	485	604
South Dakota	454	548	467	564
Ohio	452	562	468	581
Nebraska	442	469	462	610
United States Average	\$525	\$652	\$564	\$697

SOURCE: Estimates of School Statistics, 1966-67, Washington, D.C.:  
National Education Association, 1966, pp. 33-34.

#### OTHER GOVERNMENTAL EXPENDITURES

Expenditures for local schools are only a part of the total expenditures which must be supported by the citizens of the state. Table 104 compares per capita amounts for various expenditures of state and local governments in 1964-65 for Minnesota and the other Midwestern states.

Minnesota ranks first among the 12 states in expenditures per capita for local schools. Its per capita expenditure of \$134 for local schools represented 31 per cent of total state and local expenditures. This places Minnesota sixth in the 12 states in the per cent of expenditures committed for local schools and slightly above the United States average.

Minnesota with an expenditure of \$437 ranked second among the 12 states in terms of total per capita expenditure for state and local government and fourteenth nationally. Minnesota spent \$45 per capita more than the national average.

TABLE 104

PER CAPITA AMOUNTS OF SELECTED EXPENDITURES IN THE TWELVE SELECTED  
STATES BY STATE AND LOCAL GOVERNMENTS, 1964-65

State	S e l e c t e d   E x p e n d i t u r e s					Total*
	Total Education	Local Schools	Highways	Public Welfare	Health and Hospital	
Minnesota	\$179	\$134	\$ 83	\$37	\$31	\$437
Michigan	178	129	48	25	34	410
Indiana	176	124	53	15	24	358
Wisconsin	175	125	66	29	27	403
Iowa	175	126	88	31	24	389
North Dakota	174	120	115	30	14	460
Kansas	167	120	83	27	25	393
South Dakota	161	117	139	25	13	405
Nebraska	144	108	80	20	21	335
Illinois	138	106	57	35	30	361
Ohio	126	101	41	26	20	323
Missouri	121	97	64	33	21	328
United States Average	\$149	\$115	\$63	\$33	\$28	\$382

SOURCE: Bureau of the Census, Governmental Finances in 1964-65, Series GF-No. 6, Washington, D.C.: Government Printing Office, 1966, pp. 45-48.

\*Includes expenditures not enumerated in the table.

Comparative data as to expenditures of school districts and other units of government are difficult to find and are often misleading because the dollar amounts expended may not indicate the services covered or the relative effort made by taxpayers. One recent study compared the tax effort made by villages and cities in Minnesota for various purposes.<sup>9</sup> In this study all taxes were computed in terms of mills levied against the EARC valuation, thus making it possible to make statewide comparisons. Table 105 shows the mill rates for five areas of the state for school purposes and the total mill rate for all purposes. The percentage of property taxes levied for school purposes ranged from 38 per cent for the Iron Range to 60 per cent in the Seven County Metropolitan Area.

9. Emil F. Wilken, "An Analysis of the Total Local Property Tax Effort in Regard to the Support of Schools and Nonschool Governmental Units," Unpublished Ph.D. thesis, Minneapolis, Minnesota: University of Minnesota, June 1965.

TABLE 105

TAX RATE IN MILLS ON EARC VALUATION FOR SCHOOL PURPOSES  
AND ALL PURPOSES, 1963

Area	Tax Rate in Mills on EARC Valuation	
	School Purposes	All Purposes
Iron Range	53.50	141.07
Metropolitan (Seven Counties)	50.56	84.31
North Rural	41.32	87.07
South Rural	38.33	79.45
Red River Valley	38.00	76.00

SOURCE: Emil F. Wilken, "An Analysis of the Total Local Property Tax Effort in Regard to the Support of Schools and Nonschool Governmental Units," Unpublished Ph.D. thesis, Minneapolis, Minnesota: University of Minnesota, June 1965, p. 182.

The contention is often made that school districts in a metropolitan area have greater difficulty in obtaining funds from local taxes because the other governmental units demand a greater share of the tax dollar to provide the services needed in the metropolitan area. Wilken's study did not support this view. He reported that "local tax effort, in the form of mill rates on the EARC valuation, of cities for city purposes was smaller for cities in the Seven County Metropolitan Area as compared to the remainder of the state with the median mill rates being 11.68 mills and 18.74 mills respectively."<sup>10</sup>

SOURCES OF INCOME FOR GOVERNMENTAL UNITS

In Minnesota, as in most states, taxation is the major source of governmental revenue. In 1965, Minnesota received 59 per cent of its total state revenue from taxation.<sup>11</sup>

An examination of revenue sources reveals Minnesota's high total tax burden and its reliance upon the property tax as a major source of revenue. Table 106 shows that Minnesota ranks second among the 12 Midwestern states in total taxes

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10. Ibid., p. 252.

11. Bureau of the Census, Statistical Abstract of the United States: 1966, Washington, D.C.: Government Printing Office, 1966, p. 430.

collected per capita and first in property taxes collected per capita. Total taxes paid per capita in Minnesota are \$33 more than the national average and \$37 more than the 12-state median. Property taxes per capita in Minnesota are \$40 more than the national average and \$24 more than the 12-state median. These comparisons point out that Minnesotans carry a heavier per capita property tax burden than any of the other states included in this study even though the 12 states generally have higher property taxes per capita than the rest of the nation.

TABLE 106  
STATE AND LOCAL TAXES FOR 1965

State	Per Capita		Revenue Per \$1,000 of Personal Income	
	Total Taxes	Property Taxes	Total Taxes	Property Taxes
Wisconsin	\$309.53	\$140.43	\$125.45	\$56.92
Minnesota	299.25	158.48	127.19	67.36
Michigan	289.66	128.81	106.72	47.45
Iowa	275.94	155.36	116.31	65.49
Kansas	273.34	154.33	117.00	66.27
Illinois	266.30	134.22	88.88	44.80
Indiana	257.19	126.15	102.39	50.22
North Dakota	248.32	122.66	117.66	58.12
South Dakota	240.71	139.76	126.00	73.15
Ohio	225.26	116.61	86.36	44.70
Missouri	222.67	89.24	87.37	87.37
Nebraska	219.75	156.07	93.35	66.29
United States Average	\$266.11	\$118.25	\$105.04	\$46.68

SOURCE: Bureau of the Census, Government Finances in 1964-65, Series GF-No. 6, Washington, D.C.: Government Printing Office, June 1966.

Another measure of the impact of taxation is the revenue derived per \$1,000 of personal income. Minnesota has the highest total tax burden and the second highest property tax burden per \$1,000 of personal income in the 12 states, as also shown in Table 106. Total taxes in the state are \$22 more per \$1,000 of personal income than the national average and \$17 more than the 12-state median. Property tax revenue per \$1,000 of personal income finds Minnesota deriving over 44 per cent more revenue from property than the national average.

## SOURCES OF INCOME FOR PUBLIC SCHOOLS

Funds for school districts in Minnesota are derived chiefly from local and county sources as shown in Table 107. For the 1965-66 school year, 65.7 per cent of the receipts of public schools came from local and county sources. This represented a decrease from 1956-57 when 71.0 per cent of the funds were from these sources.

TABLE 107

## SOURCES OF PUBLIC SCHOOL REVENUE, 1956-57 TO 1965-66

School Year	Per Cent of Total Revenue from Various Sources		
	Local and County	State	Federal
1956-57	71.0	27.6	1.4
1957-58	70.6	28.1	1.3
1958-59	70.6	28.1	1.3
1959-60	68.2	30.5	1.3
1960-61	67.2	31.2	1.6
1961-62	69.4	29.3	1.3
1962-63	66.5	32.0	1.5
1963-64	65.9	32.6	1.5
1964-65	65.2	33.2	1.6
1965-66	65.7	31.2	3.1

SOURCE: Trends in Minnesota Education, St. Paul, Minnesota: State Department of Education, May 1967, p. 30.

The state share of school district funds has increased from 27.6 per cent in 1956-57 to 31.2 per cent in 1965-66. Federal funds have been a minor part of school district revenue throughout the ten-year period. Until 1965-66 these funds constituted 1.3 to 1.6 per cent of the total. The increase to 3.1 per cent in 1965-66 reflects the financial impact of the Elementary and Secondary Education Act of 1965 (P.L. 89-10).

Estimated revenue receipts available for public school purposes in the 12 Midwest states are shown in Table 108. Projections for 1966-67 estimated that Minnesota would receive 55.6 per cent of its revenue from local sources, 38.3 per cent from state sources, and 6.1 per cent from federal sources. Minnesota's total estimated receipts rank it sixth among the 12 states.

TABLE 108

## ESTIMATED REVENUE RECEIPTS FOR PUBLIC SCHOOL PURPOSES, 1966-67

State	Federal Receipts (Thousands)	Per Cent	State Receipts (Thousands)	Per Cent	Local Receipts (Thousands)	Per Cent	Total Receipts (Thousands)
Illinois	\$ 90,000	6.0	\$ 332,585	22.2	\$ 1,075,000	71.8	\$ 1,497,585
Michigan	70,000	5.5	607,000	47.7	595,000	46.8	1,272,000
Ohio	88,000	7.0	318,000	25.2	858,000	67.8	1,264,000
Indiana	42,669	6.0	276,587	38.7	394,206	55.3	713,462
Wisconsin	32,668	5.9	139,871	25.1	385,000	69.0	557,539
Minnesota	35,000	6.1	220,000	38.3	320,000	55.6	557,000
Missouri	54,313	10.4	166,765	32.0	300,000	57.6	521,078
Iowa	19,000	5.3	55,000	15.3	285,000	79.4	359,000
Kansas	26,000	8.1	99,298	30.9	196,000	61.0	321,298
Nebraska	16,500	10.3	8,600	5.4	134,800	84.3	159,900
South Dakota	14,400	15.6	14,000	15.2	64,000	69.2	92,400
North Dakota	7,500	9.7	20,500	26.5	49,500	63.8	77,500
United States	\$2,148,908	8.0	\$10,689,559	39.9	\$13,983,019	52.1	\$26,891,486

SOURCE: Estimates of School Statistics, 1966-67, Washington, D.C.:  
National Education Association, 1966, p. 32.

When compared with the other Midwest states, Minnesota supports public schools from state funds to a greater degree than all except Michigan and Indiana. On a national comparison, however, Minnesota supports public schools to a greater degree from local sources than the average for the United States. The pattern of a high degree of support from local sources is more common in the Midwest than in other sections of the United States.

The dependency on local support must be considered in light of the economy and tax structure of the state. Local support has been almost exclusively based on the property tax. At this time the ramifications of the sales tax enacted by the 1967 Legislature cannot be fully assessed. However, it seems reasonable to assume that if the tax operates in the manner intended that the effect will be to increase the degree of state support.

## SOURCES OF INCOME FOR OTHER UNITS OF GOVERNMENT

In the earlier discussion of Minnesota's tax structure, the state's reliance on the income tax was pointed out. Table 109 summarizes the per capita amounts collected in the 12 comparison states from various taxes for state purposes. The table reveals a variety of patterns in tax structure and also reflects the extent to which the state supports education and other services. Thus Nebraska, which supports education almost entirely from local funds, ranks last among the 50 states in per capita taxes for state purposes. In 1965 Minnesota ranked third among the Midwest states and seventeenth in the nation in total state taxes per capita. For state purposes Minnesota collected individual income tax, corporation net income tax, and property tax but no general sales tax.

TABLE 109

PER CAPITA AMOUNTS OF SELECTED TAXES COLLECTED  
FOR STATE PURPOSES FOR 1965

State	All Taxes*	Rank in United States	General Sales Tax	Individual Income Tax	Corporation Net Income Tax	Property Tax
Wisconsin	\$176.68	5	\$20.12	\$65.83	\$19.74	\$ 9.94
Michigan	161.63	10	72.26	--	--	8.10
Minnesota	146.12	17	--	48.92	12.67	8.79
Indiana	132.76	27	52.77	25.23	1.92	2.33
North Dakota	125.89	30	36.03	12.20	3.79	4.15
Iowa	120.03	35	33.60	20.85	2.13	1.48
Kansas	118.74	36	40.60	14.81	5.16	4.72
Missouri	114.99	38	48.00	15.68	2.96	1.31
Illinois	114.47	40	58.51	--	--	.14
Ohio	101.09	46	31.63	--	--	4.61
South Dakota	91.30	47	25.93	--	.80	**
Nebraska	78.01	50	--	--	--	23.71
United States Average	\$135.36	--	\$34.77	\$18.25	\$9.99	\$3.97

SOURCE: Bureau of the Census, Compendium of State Government Finance in 1965 and 1966, Washington, D.C.: Government Printing Office, 1966.

\*All Taxes includes more taxes than the four selected taxes presented in the table.

\*\*Less than 0.005.

The picture for Minnesota will change as 1967 legislation becomes operative. The sales tax revenues will be a factor and the property tax will be eliminated as a source of state funds.

One of the major issues faced by the 1967 Minnesota Legislature was the question of property tax relief. The property tax has been the primary source of income for local governments as well as school districts. Table 110 shows the amount of property taxes levied by all governmental units in Minnesota for selected years from 1957 through 1965. During this period the total property tax levy increased nearly 74 per cent.

The table also shows the per cent of the property tax levy received by the various units of government. In 1957, Minnesota school districts accounted for almost 38 per cent of the real and personal property tax levies. In 1965, Minnesota school districts accounted for over 44 per cent of the total property taxes levied. During the 1957-1965 period the per cent of the total property levy made by the county and city, village, and township decreased and the per cent by school district and state increased.

The tax levy increase of 74 per cent from 1957 to 1965 was due to an increase in taxes at all levels. School taxes accounted for slightly over 50 per cent of the increase. The disturbing factor is that while levies were increasing by 79 per cent, the growth in assessed valuation was only 18.5 per cent. Thus, the inevitable result was increased mill rates.

#### FUTURE ECONOMIC PROSPECTS

The relationship between education and economic development is a two-way street. Future economic development is dependent upon the availability of a well-educated labor force. In order to provide the necessary educational programs there is need for expansion of the economy.

In previous sections of this chapter various aspects of the economy have been discussed. In general, Minnesota is not in an extremely favorable position when compared to the entire United States. Minnesota is gaining population, but less rapidly than the nation. There is considerable out-migration of population, especially of young people who have completed high school or college. Highest rates of in-migration are in the older age groups.

The economy has changed from a rural agricultural economy to an urban industrial economy. This change has created a number of problems, the solutions of which are slow in developing and often difficult to accept. The small farm, the small village, and the small school district have been unable to compete in the changing society and, unless unforeseen developments occur, this decline will accelerate.

The Upper Midwest Research and Development Council has made what they term a "disturbing forecast" for the region and Minnesota. Their projections indicate that rural areas will continue to lose population and that urban centers will



TABLE 110

## PROPERTY TAXES LEVIED BY MINNESOTA GOVERNMENTAL UNITS FOR SELECTED YEARS, 1957 TO 1965

Year	State		County		City, Village, and Township		School District		Total Taxes Levied
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	
1957	\$19,955,842	5.4	\$ 97,973,629	26.3	\$113,630,809	30.5	\$140,597,753	37.8	\$372,158,035
1959	23,878,094	5.5	112,975,067	25.8	123,661,272	28.2	177,222,606	40.5	437,737,041
1961	24,801,596	4.9	130,230,247	25.6	141,112,908	27.7	212,672,714	41.8	508,917,466
1963	29,879,359	5.2	151,694,758	26.4	148,568,421	25.8	245,289,177	42.6	575,431,715
1965	38,322,817	5.9	160,194,889	24.8	161,161,245	24.9	286,692,776	44.4	646,371,729

SOURCE: Abstract of Real and Personal Property Taxes Levied by the Several Counties in the State of Minnesota for the Year 1965 With Comparison of Totals for Several Prior Years, St. Paul, Minnesota: State Auditor of Minnesota, March 10, 1966.

grow, but not as rapidly as during the 1950's. Economic development will not increase as rapidly in Minnesota as for the nation. Consequently, there will be an added burden on the existing tax structure to finance the increasing services needed.<sup>12</sup>

One of the problems faced by public elementary and secondary education is the dependency on the property tax as a means of support. This tax base has not grown as rapidly as the demands placed upon it. Table 111 shows the growth of assessed valuation and EARC valuation for the past decade. Since 1956 the total assessed valuation in the state increased by 21 per cent. Over the same period of time the school enrollment increased by 35 per cent and expenditures increased 95 per cent. Thus in order to raise the needed revenue from property taxes, most school districts were forced to resort to raising the mill rates.

TABLE 111  
ASSESSED AND EARC VALUATIONS, 1956-1965

Year	Assessed Valuation	EARC Valuation
1956	\$1,996,821,556	\$5,460,877,371
1957	2,040,882,547	5,541,681,606
1958	2,099,747,348	6,106,577,016
1959	2,126,398,715	6,335,009,020
1960	2,197,689,394	6,907,452,585
1961	2,231,259,993	7,036,611,904
1962	2,318,133,908	7,117,793,734
1963	2,331,903,602	7,218,853,244
1964	2,382,092,972	7,411,849,723
1965	2,418,710,715	7,657,103,655
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Per Cent of Increase 1956-1965	21.1	40.2

SOURCE: Trends in Minnesota Education, St. Paul, Minnesota: State Department of Education, 1964, p. 38; 1967, p. 38.

12. New Ideas in the Upper Midwest, Minneapolis, Minnesota: Upper Midwest Research and Development Council, August 1965, p. 2.

Table 111 also shows that EARC valuations have increased by 40 per cent since 1956. This increase has been accompanied by a 39 per cent increase in pupil units, thus the relative wealth behind each pupil unit has remained unchanged.

Another problem relating to property valuations is the growth of tax exempt property. Because the State Department of Taxation is required to compile these data only every six years, the most recent complete figures are for 1962. In 1962 the assessed valuation of tax exempt property was \$541 million out of a total assessed valuation of \$2.3 billion. While the total assessed valuation increased 11.5 per cent between 1956 and 1962, the assessed valuation of tax exempt property increased 42.6 per cent. Data from individual counties indicate the rate of growth of tax exempt property has continued to increase since 1962. Continued construction of highways, schools, colleges, government buildings, churches, and hospitals and the rapid growth of tax exempt foundations of various kinds is expected to accelerate the growth of tax exempt property and reduce the tax base.

The inability of assessed valuations to keep pace with rising school costs will necessitate finding new sources of revenue to operate the public schools. Since school districts are limited to the property tax it appears likely that new revenue must come from state and federal sources. The 1967 sales tax is a step in this direction.

The role of the Federal government in supporting elementary and secondary education is also expected to increase. The issue currently being debated is not whether federal aid will increase but what conditions will be attached to that aid. The Council of State Governments made the following projections for 1970:

Financing the local public schools in the period ahead will be affected to a large degree by (a) the implementation of new cooperative national-state-local programs that seek to develop the nation's human resources more effectively, (b) state actions designed to strengthen education by raising standards for teacher personnel and by establishing higher salary schedules, and (c) increased state grants to local schools both to facilitate the achievement of such standards and to provide property-tax relief.<sup>13</sup>

The pattern of financing local schools will shift as a consequence. By 1970 federal payments for local schools are projected to grow from a figure equaling 5 per cent of total school funds to one equaling more than 15 per cent.<sup>14</sup>

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13. Local School Expenditures: 1970 Projections, Chicago: The Council of State Governments, November 1965, p. 6.

14. Ibid., p. 7.

## C H A R A C T E R I S T I C S   O F   A   S O U N D S C H O O L   S U P P O R T   P R O G R A M

The educational program in every state has developed in accordance with the desires of its citizens. In states where the citizens have held education in high regard, the educational program has reflected those expectations. In a similar manner, the method and extent by which education has been supported in a state has been determined largely by the attitude of its citizens.

As various support programs were devised for the developing educational programs, it became apparent that they differed widely in their adequacy. Many studies of public school finance programs have analyzed areas of strength and weakness. Through such studies criteria have been developed for judging the adequacy of school support programs.

The School Finance Charter, reproduced as Figure X, which was formulated in 1933 is an early statement of school support criteria. It expresses in general terms many aspects of a school support program which are significant today.

Many other lists of criteria could be cited. One of the most recent statements of a satisfactory plan of school support was formulated in the statewide finance study of Kentucky.<sup>15</sup> It proposes a partnership of the state, the local district, and the Federal government in school support. Further, it emphasizes the need of a satisfactory foundation program as the basis for the financial plan.

The following listings of the characteristics of a sound plan of school support and of an adequate foundation program have been adopted from the Kentucky Study. They can serve as criteria to evaluate Minnesota's school finance program.

### A. State Support of Education

1. The basic plan of financing public schools should guarantee to all children an equal opportunity for an adequate foundation program of education.
  - a. This does not mean that an identical program must be offered to all students.
  - b. A sense of responsibility for the education of all children must be developed in the entire citizenry.
2. State support should be based on a system of taxation and administration that provides for equitable collection and distribution according to ability to pay and educational need respectively.

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15. Committee for the Study of the Foundation Program, Beyond the Minimum . . . A New Dimension for Kentucky's Foundation Program for Education, Louisville, Kentucky: Kentucky Education Association, 1967, pp. 29-35.

## FIGURE X

# School Finance Charter

### Essentials of a Modern School Finance Program

**B**ELIEVING that the financing of schools is a paramount public concern, basic to the present and future welfare of our democracy, the following program is offered for action by the American people.

#### Educational Opportunity

*Universal education*—Funds to provide every child and youth a complete educational opportunity from early childhood to the age at which employment is possible and socially desirable. This right to be preserved regardless of residence, race, or economic status and to constitute an inalienable claim on the resources of local, state, and national governments.

*Lifelong learning*—Educational opportunities at public expense for every adult whenever such opportunities are required in the public interest.

*Effective teaching*—In every classroom competent teachers maintained at an economic level which will secure a high quality of socially motivated and broadly trained professional service.

#### Adequate Revenues

*Equitable taxation*—For the adequate support of all governmental activities, including the schools, a stable, varied, and flexible tax system, providing for a just sharing of the cost of government by all members of the community.

*Public information*—Accurate, intelligible, and frequent reports to taxpayers and the public on the management of the school money so that complete understanding and constructive attitudes with respect to school taxes and services may prevail.

#### Constructive Economy

*Schoolboard independence*—In every school system a board of education responsive to the will of the whole people and free to adopt and carry out truly efficient and economical financial policies for the schools.

*Economical administration*—A uniform and continuous policy of honest, economical, and productive spending of all school moneys.

#### Local Management

*Adequate local units*—In every community trained educational leadership and other services secured thru a local unit of school administration large enough to make such services financially possible and desirable.

*Community initiative*—For every school district the right to offer its children an education superior to state minimum standards and to seek and develop new methods intended to improve the work of the schools.

#### State Responsibility

*Equalization of educational opportunity*—For every school district, sufficient financial support from the state to permit the maintenance of an acceptable state minimum program of education and to relieve the local property tax when this tax, upon which local initiative depends, is carrying an unfair share of the cost of government.

*Professional leadership*—Competent leadership in every state department of education so that reasonable minimum financial standards may be established and educational progress encouraged thruout the state.

*Fiscal planning*—In every state a longtime financial plan for public education, comprehensive in scope, based on experienced judgment and objective data, cooperatively developed, continually subject to review and revision, and reflecting faithfully the broad educational policy of the people.

#### National Interest

*Open schools*—For every child deprived of education by emergency conditions beyond the control of his own community and state, immediate restoration of these rights thru assistance from the federal government to the state concerned.

*Federal support*—Sufficient federal support for the schools of the several states to protect the nation's interest in an educated citizenship, without federal control over state and local educational policies.

IF AMERICA IS TO RECOVER PROSPERITY AND PERSIST AS A  
DEMOCRATIC NATION THESE ESSENTIALS MUST BE PROVIDED

Note: The above School Finance Charter was adopted by the National Conference on the Financing of Education which met in New York, N.Y., July 31-August 11, 1933. This Conference was under the auspices of the Joint Commission on the Emergency in Education of the National Education Association and the Department of Superintendence.

3. The foundation program supported by the state should be well defined.
  - a. There should be only one foundation program.
  - b. It should cover all public school systems in the state.
4. Provisions should be made for all essential elements of school costs to be included in the state foundation program.
5. State financial support should be large enough to avoid placing an unduly heavy tax burden on local school systems.
6. A state support program should encourage local initiative and responsibility.
  - a. It should provide an organizational structure able to obtain local educational leadership.
  - b. Undesirable state controls should be avoided.
7. Economy and efficiency should be promoted by a state support program.
  - a. Small, ineffective school districts cannot be supported.
  - b. Inefficient attendance units cannot be supported.
8. State support should ensure educational progress in all areas of the curriculum and in all sections of the state.

B. Local Support of Education

1. A local school district should be of sufficient size to ensure that economy of scale shall prevail.
2. An adequate bonding capacity for local school districts is essential.
3. Boards of education should be fiscally independent of other governmental agencies.
4. Local boards of education elected by public vote should have autonomy in determining the tax levy for the support of the educational program.

C. Federal Support of Education

1. Federal support of public schools should supplement local and state support.
2. Federal support should not undermine local and state responsibility and control.

3. Federal funds should be granted to the state and be distributed to local districts by the State Department of Education.
4. Federal aid should be based on the educational needs and the ability and effort of the state.
5. Federal funds should be granted for general educational purposes and not be limited to special programs.

D. A Satisfactory Foundation Program

1. A foundation program should be designed to assure that a high quality program of education can be provided for every child regardless of geographic location, race, creed, intellectual level, economic status, or any other factor.
2. The plans and provisions for a foundation program should place major emphasis on local leadership in the organization, administration, and operation of effective schools and thus provide strong encouragement for the development and exercise of local leadership and responsibilities in education.
3. The foundation program should be a joint venture involving resources of both the state and the local community.
4. A foundation program should make provision for the required local financial participation in public school programs to be calculated on a fair and equitable basis in relation to local financial resources as compared to those elsewhere in the state.
5. In order to ensure an adequate equalized opportunity for every child, provision should be included in a foundation program for local school districts to meet their required effort.
6. A foundation program should provide to the local school district the opportunity, encouragement, and incentive to go beyond the required local effort.
7. A foundation program should include all essential school costs that determine the level of quality to be achieved under the program.
8. A foundation program should provide for maximum instructional benefits to students by promoting adequate staffing and maximum course offerings.
9. The formula for determining the ability to provide financial support at the local level should be based on measurable factors that are common to all school districts.

10. A foundation program should be designed to encourage sound and efficient organization, administration, and operation of local school districts and schools.
11. A foundation program should be able to withstand and reflect changes in the needs, desires, and resources of the state and the educational community.

#### P R E S E N T   F I N A N C I A L   S U P P O R T   P R O G R A M O F   M I N N E S O T A   P U B L I C   S C H O O L S

The total expenditure by the public schools in Minnesota in 1965-66 was \$598,485,094. Sharing the major burden in this big and growing business were the local school districts and the state. While a three-way partnership may be emerging, the federal share has been limited to a small percentage of the total school funds. Essentially, Minnesota public school financial support is a partnership effort of the local school districts and the state which is supplemented by federal and sometimes, county funds. Other states have a similar pattern of school support with variations of percentage shares borne by different levels of government.

#### FEDERAL FINANCIAL SUPPORT

The long history of federal interest in education begins with the Land Ordinance of 1785 and Northwest Ordinance of 1787. These and succeeding federal laws provided land to various states for the general support of public education. A change from general to categorical aids was evidenced by the Morrill Act of 1862. It provided land and money for specific college curricular areas and established the pattern of federal funds for specific educational purposes. Most significant for the public schools was the Smith-Hughes Act of 1917 and later revisions and extensions of it which provided funds to promote vocational education in agriculture, in trade and industrial education, and in home economics.

Federal funds for educational purposes became available during the 1930's through the Works Progress Administration (WPA), the Public Works Administration (PWA), the Civilian Conservation Corp (CCC), and the National Youth Administration (NYA). These and other related programs were planned primarily as welfare and economic "pump-priming" programs rather than educational support measures.

Renewed federal interest in education was made apparent by the National Defense Education Act of 1958 (NDEA), which provided federal funds for the teaching of mathematics, science, and foreign language and the improvement of guidance and counseling programs. Later expansion of this act involved other subject areas such as remedial reading, geography, civics, and humanities. The Vocational Education Act of 1963 provided additional funds for specific vocational programs.



The most significant expansion of federal support came through the Elementary and Secondary Education Act of 1965 (ESEA). Titles I and II of this act provide funds for special services to eligible pupils in public and nonpublic schools. The money is channeled through the State Department of Education to local school districts in accord with federal allocations. Additional funds are allocated to encourage supplementary education centers and to strengthen state departments of education.

Indian education in Minnesota has been supported by the Federal government through a contractual arrangement with the state. Johnson O'Malley funds are made available under this annual contract. Since 1957-58 all Indian children whose parents live and/or work on federal property have also become eligible for aid under Public Law 81-874.

Federal support of education includes provisions for community school lunch programs. Special lunch assistance included money reimbursements for approved meals served by local districts and free food commodities distributed to participating schools. The 1966 Child Nutrition Act provides additional federal funds.

Other recent federal programs with aids for education have included the Manpower Development Training Act (MDTA) and Economic Opportunity Act (EOA) of 1965. MDTA has provided federal funds supporting special programs in area vocational-technical schools and some public secondary schools. EOA has provided funds for educational services often conducted with cooperation of local school districts but not usually channeled through the State Department of Education nor reported by local districts.

Table 112 shows types, amounts, and purposes of federal aids received by Minnesota public schools. It indicates a federal aid total of more than \$38 million in 1965-66 for Minnesota schools. This is a substantial increase over the amounts in previous years. During the period 1949-50 to 1964-65 the federal contribution ranged from 1.0 to 1.6 per cent of the total school funds. With the impact of the new programs, federal funds in 1965-66 increased sharply to 3.1 per cent of the total.

Recent federal support reflects continued interest in vocational education and also indicates new concern in other curricular areas such as science, mathematics, foreign language, education of the disadvantaged, and in special services such as guidance and counseling, library, and school lunch programs. Aids for the education of the disadvantaged opened up a broad range of instructional and special services for this type of youngster. Eligible children in nonpublic and public schools can participate in these programs and services. As a result, some troublesome operational problems have arisen.

Some federal programs, not specifically designed for education, have also been tapped as revenue sources for schools through direct application to the Federal government. This has led to direct negotiations between local school districts and the Federal government agencies. The soundness of such procedures in which state agencies are bypassed are questioned by many.

TABLE 112

## FEDERAL AID TO PUBLIC SCHOOLS IN MINNESOTA, 1965-66

Type of Aid	Amount	Special Purpose
Smith-Hughes	\$ 141,929	Promote vocational education in agriculture, trade and industry, and home economics.
George-Barden	1,261,808	
NDEA, Title III	1,485,369	Improve and strengthen science, math, modern foreign language, and other subject area instruction.
NDEA, Title V	457,766	Improve guidance and counseling.
P.L. 81-874	259,020	Federally affected areas, to assist school districts with high enrollment of pupils from families employed in federal programs.
P.L. 81-874 (Indians)	357,527	Assist schools with high enrollment of pupils from families living and/or working on federal lands.
Johnson O'Malley	230,000	Indian education.
Vocational Education Act (1963)	3,305,592	Improve vocational education.
ESEA, Title I	18,000,000	For educationally disadvantaged.
ESEA, Title II	627,243	Library books and materials.
ESEA, Title III	1,399,000	Encourage regional and interdistrict cooperation for supplementary education centers and innovations.
National School Lunch Reimbursement	2,180,099	Promote health and nourishment.
Special Milk Program	2,229,844	
Special Assistance	14,580	
Food Commodity Value	3,454,333	
Manpower Development Training	2,381,902	Develop necessary vocational skills and training.
P.L. 88-452 (EOA)	<u>146,169</u>	Adult basic education.
TOTAL	\$38,562,181	

SOURCE: Data from State Aids, Statistics and Research Section, St. Paul, Minnesota: State Department of Education.

In general, federal funds for public education have been categorical rather than general aids. Because of their categorical nature, federal aids have been influential in developing particular program areas. Although many persons have questioned the role of the Federal government in selecting the program areas for emphasis, the problem appeared less critical when the funds were relatively small. With the passage of the Elementary and Secondary Education Act of 1965, federal funds were dramatically increased. Under the impetus of this act, the possibilities of further substantial increases become more realistic. Thus the role of the Federal government in determining educational programs and policies has become more pronounced. As a result the pressure for changing funds from categorical aids to a general aid has intensified.

The combination of categorical aids and the proliferation of federal aid programs has developed a substantial source of school support. Combining various programs would assist in simplifications of administration at all levels as well as presenting a more effective school aid effort by the Federal government. Lack of coordination in federal aid programs contributes to confusion at local and state levels as well as some poorly-conceived, fragmented education efforts.

The responses of Minnesota superintendents to various aspects of federal financial support to schools were revealing. Approximately 46 per cent indicated that federal funds were "much" or "very much" needed; 44 per cent responded that present federal support was inadequate in amount; and 67 per cent reported that federal funds were "much" or "very much" restrictive.

#### LOCAL FINANCIAL SUPPORT

On a statewide basis, more than 60 per cent of the funds for public schools are provided by local school districts in Minnesota. The annual support by local districts over a 15-year period has ranged from 63.0 to 68.1 per cent. In the last three years the local districts' share has held relatively constant, with the 1965-66 rate being 63.7 per cent.

Essentially, each local district determines the school budget with its estimated cost, computes the amount of aid for which it qualifies and the tuition which it can collect, and then establishes the property tax levy to produce the additional funds which are needed. Some minor amounts may be collected locally, but basically the entire local source is the tax levy on the property valuation located in the district.

School expenditures are categorized into three broad areas: maintenance, capital outlay, and debt service. Since the fiscal partnership between state and local districts is basically confined to the operational expenditures, (maintenance) considerable significance for the local district is focused on capital outlay and debt service. Except for minor amounts of aid for the purchase of certain special equipment, all expenditures for capital outlay and debt service are dependent upon local funds.

School equipment is generally acquired on a cash basis. Most school districts consider school buildings as long-range investments so school district bonds are issued to finance construction programs. The resulting bonded indebtedness is retired by the district over a period of years. Minnesota statutes, while liberal in establishing school district debt limitations and allowing for local decision-making, place the entire burden of interest payments and bond retirement on local districts. As Minnesota school districts vary widely in property valuations, this procedure results in a wide range of ability to pay for needed facilities. It has proved costly in terms of interest paid by local districts as well as resulting in questionable building programs in some districts. The construction of school buildings has resulted in a bonded debt of \$706.9 million for Minnesota school districts, as of June 30, 1966. Payments on bond retirement and interest during 1965-66 totaled \$84.3 million, or slightly more than 14 per cent of the total disbursements of the school districts for the year.

Considerable pride has been vested in the relative operational and fiscal autonomy of local school districts throughout the history of Minnesota. However, a growing national concern for the improvement of education has caused Minnesota as well as other states to recognize that state responsibility extends further than regulations and supervision. Local school districts, although reluctant to release controls accompanying operational responsibility, are recognizing more and more the need for fiscal support from broad sources such as found at the state and federal levels. Much more than local pride is involved in supporting adequate schools; sufficient financial support is essential. Restricted resources of local districts handicap potentially sound educational opportunities for Minnesota youth.

#### COUNTY FINANCIAL SUPPORT

Historically, fiscal support by counties for public schools in Minnesota has been rather insignificant. County participation reached a high point of 5.0 per cent of all school district revenue in the early 1950's. Since that period, although the amount of money has increased, the per cent of revenue from the county has decreased. Reduction in number of school districts is the primary reason for the decrease in county participation. County support in terms of total school revenue declined to 2.0 per cent in 1965-66.

The county apportionment is distributed to the school districts of the county. It includes money from fines, penalties, and power and light company taxes.

School districts not operating high schools receive transportation aid from county tax funds for the difference between state support and actual cost of transportation of their resident students to high schools. Districts providing high school instruction to nonresident pupils receive payments from the county for the full amount of the tuition. The County Tuition Fund receives the state aid for these students. The additional money needed to pay the high school tuition is collected by the county through taxes levied on property which is located in districts not operating a secondary school.

Each of the entire counties of Cook and Lake forms an independent school district. As independent school districts, local district support in these units is county-wide. Thus no school funds in these two counties are classified as "county financial support."

In St. Louis County the county operates schools in the unorganized territory not located in organized school districts. The unorganized territory functions as a school district and provides both elementary and secondary schools. Some of its funds are received from a county tax. Itasca County has a county-wide tax levy for schools which is collected by the county and distributed to school districts.

Although "county financial support" is treated separately, it might be well included as part of "local financial support." The major source of money in both is the tax on property. Thus, in effect, the 2.0 per cent from "county financial support" can be added to the 63.7 per cent of "local financial support," with the resulting 65.7 per cent of school funds coming from the property tax.

#### STATE FINANCIAL SUPPORT

The money for support of the public schools in Minnesota is secured from various sources and involves a variety of methods and purposes of distribution. In 1965-66 the state provided 31.2 per cent of the revenue of the school districts.

#### SOURCES OF MONEY FOR STATE AID

The money to pay state aid to school districts is derived from three funds: Endowment Fund, Income Tax School Fund, and Elementary and Secondary School Occupation Tax Fund.

The Endowment Fund consists of the revenue of the Permanent School Fund. On June 30, 1966, the Permanent School Fund totaled \$261.6 million. This money cannot be expended but the revenue from its investment is placed in the Endowment Fund and then distributed to all school districts on the basis of the number of pupils in average daily attendance.

The Income Tax School Fund consists of the net revenue from the state income tax. During the year ending June 30, 1966, the net revenue totaled \$287.3 million. The payments from this fund included a flat distribution of \$10 per child 6 through 15 years of age on the school census and per 16-year-old pupil attending school and such transfers as may be appropriated by the legislature for other state aids. However, the 1967 Legislature eliminated the \$10 payment. During the past years the legislature has also appropriated money from the Income Tax School Fund for purposes other than state aid to school districts.

The Elementary and Secondary School Occupation Tax Fund receives 40 per cent of the receipts from the occupation tax on iron ore. This money is then used for the payment of special state aid. For the year ending June 30, 1966, this fund totaled \$5.7 million.

## TYPES OF STATE AID

All Minnesota state aids to schools are statutory with the exception of the Endowment Income Fund. This fund was established by the State Constitution to receive the earnings from the Permanent School Fund which are then distributed to the schools on a flat grant basis. This constitutionally earmarked fund provides less than 5 per cent of the state aids to public schools, so the legislature at each session determines for the biennium the amount of state aid and the basis on which it will be distributed.

Essentially Minnesota provides two types of state school aids, "flat" and "equalization." Flat aid refers to the distribution of state aids to school districts without regard to their financial ability. Equalization aid attempts to equalize educational opportunity by distributing aid to school districts in proportion to their financial ability, paying the most to the least able.

The various Minnesota state aids to school districts are listed in Table 113. The table also shows the amount of money distributed in 1965-66 for each aid and the number of school districts sharing in each aid. More than ten aid categories were used in the distribution of \$196.4 million of state aid. However, four aid categories accounted for more than 93 per cent of all the aid money. The number of districts sharing in the various aids ranged from all districts to a very few. Each of the aids will be treated in some detail.

Foundation Program Aid

Initially Minnesota state support was based solely on interest income from the permanent school fund which was apportioned to schools. Beginning in 1915, supplemental state aids were distributed to increase the state share for poorer school districts. With the realization that flat grant aids were being distributed to all school districts regardless of the local need or ability, Minnesota attempted an equalization approach in state aids in 1947. Limited success with this approach led to a legislative-sponsored study in 1956. The resulting report emphasized the need to equalize educational opportunity through state financial support and proposed an aid program to approach that goal. The proposed program was implemented by the legislature in 1957 and is the basis for the present Foundation Program Aid.

The concept of the foundation program aid is based on the belief that every child, regardless of the level of resources in his district, is entitled to participate equally in the educational program which the citizens of the state deem desirable for its children. It is further based on the idea of equity for all taxpayers in supporting such an educational program. In effect, it means taxing wealth wherever it may be and spending the tax money wherever the children are. Few people contest the equity and soundness of this concept but often they object to putting it into actual operation.

TABLE 113

## STATE FINANCIAL DISTRIBUTIONS TO MINNESOTA SCHOOL DISTRICTS, 1965-66

Type of Distribution	Amount	S t a t e A i d	
		Per Cent	Participating Schools
Foundation Program Aid	\$149,912,970	76.3	<div> <div>Equalizing Provisions</div> <div>1,183 districts</div> <div>Fixed Grant</div> <div>248 districts</div> </div>
Transportation Aid	15,215,122	7.8	1,431 school districts
Endowment Income Fund Aid	9,274,895	4.7	1,431 school districts
Income Tax School Aid (Census Aid)	8,563,065	4.4	1,431 school districts
Aid for Special Classes (Handicapped)	5,387,449	2.7	365 school districts
Vocational Education Aid	4,351,878	2.2	382 school districts
Gross Earnings Refund	1,493,000	.8	8 school districts
Emergency Aid	429,100	.2	7 school districts
Community School Lunch Aid	475,000	0.2	634 school districts
Other Aids (Airport, Non- taxable Land, Etc.)	<u>1,374,846</u>	<u>0.7</u>	--
TOTAL	\$196,477,325	100.0	--
<hr/>			
School Loans (TOTAL)	\$745,000	--	--
<hr/>			
Maximum Effort School Loan Fund	\$745,000	--	--

SOURCE: Data from State Aids, Statistics and Research Section,  
St. Paul, Minnesota: State Department of Education.

The legislature at its 1965 session determined that all public school pupils should have \$321 per pupil unit in ADA available for school support. (Note: each kindergarten pupil is equivalent to one-half pupil unit, each elementary pupil counts as one pupil unit, and each secondary pupil is one and one-half pupil units.) In any school district in which a tax levy of 19 mills on the 1962 EARC valuation did not produce \$321 per pupil unit in ADA, the state paid the difference between \$321 per pupil unit in ADA and the 19-mill tax revenue as state aid. From this total aid the Endowment Income Aid and the Income Tax School Aid for which the district qualifies were deducted and the balance was paid to the district as Foundation Program Aid. If the district did not spend \$321 for school maintenance, the district's actual expenditure was substituted for the \$321 in computing the aid. As indicated in Table 113, this equalizing provision was the method of computing the aid for 1,183 districts.

Unfortunately, in 1957 when the legislature adopted the Foundation Program Aid, a flat grant aid had been in effect for some time. For those districts with high property valuations the old flat grant aid produced more revenue than the district would receive under the application of the new Foundation Program Aid. As a result, the legislature gave districts the option of computing their aids under either method.

In 1965-66 the flat grant method was used by 248 districts, as indicated in Table 113. However, only 54 of these districts operated both elementary and secondary schools. For these districts the aid was computed at \$97 per pupil unit in ADA. The amount of the Endowment Income Fund Aid for which the district qualified was deducted from this aid. Each district also received \$10 for each child 6 through 15 years of age on the school census and for each 16-year old in school.

These two forms of aid, equalizing and flat grant, have commonly been designated as Formula A Foundation Program Aid and Formula B Foundation Program Aid, and the districts have frequently been called Formula A and Formula B schools. This aid designation is technically incorrect. There are not two Foundation Program Aids. Rather, there is only one Foundation Program Aid (the equalization aid) and a flat grant aid to those districts which would qualify for a lesser amount of aid under the Foundation Program due to the greater amount of property valuation which they can tax.

The method of computing Foundation Program Aid has been the same since its introduction by the legislature in 1957. At each legislative session the amounts to be used in the computations have been adjusted to fit existing conditions. The following listing summarizes those changes:

1957 Legislative Session

1957-58 and 1958-59:

\$240 per pupil unit in ADA less 16.5 mills on adjusted assessed valuation

\$85 basic per pupil unit in ADA + \$10 per school census child



1959 Legislative Session

1959-60 and 1960-61:

\$270 per pupil unit in ADA (or actual maintenance) less 19.0 mills on adjusted assessed valuation

\$87 basic per pupil unit in ADA + \$10 per school census child

1961 Legislative Session

1961-62:

\$275 per pupil unit in ADA (or actual maintenance) less 18.5 mills

\$90 basic per pupil unit in ADA + \$10 per school census child

1962-63:

\$285 per pupil unit in ADA (or actual maintenance) less 19.0 mills

\$90 basic per pupil unit in ADA + \$10 per school census child

1963 Legislative Session

1963-64:

\$309 per pupil unit in ADA (or actual maintenance + debt redemption) less 19.0 mills

\$95 basic per pupil unit in ADA + \$10 per school census child (to be reduced if actual maintenance + debt redemption is less than \$309 per pupil unit in ADA or if local tax effort is less than 19 mills)

1964-65:

\$315 per pupil unit in ADA (or actual maintenance + debt redemption) less 19.0 mills

\$95 basic per pupil unit in ADA + \$10 per school census child (to be reduced if actual maintenance is less than \$315 per pupil unit in ADA or if local effort is less than 19 mills)

1965 Legislative Session

1965-66:

\$321 per pupil unit in ADA (or actual maintenance) less 19.0 mills, using 1962 EARC adjusted assessed valuation

\$97 basic per pupil unit in ADA + \$10 per school census child

1966-67:

\$324 per pupil unit in ADA (or actual maintenance) less 19.0 mills, using 1963 EARC adjusted assessed valuation

\$98 basic per pupil unit in ADA + \$10 per school census child

1967 Legislative Session

1967-68:

\$345 per pupil unit in ADA (or actual total debt redemption and maintenance cost) less 19.0 mills, using 1964 EARC adjusted assessed valuation

\$124 basic per pupil unit in ADA (to be reduced if total debt redemption and maintenance cost is less than \$345 per pupil unit in ADA and/or if the tax levy for maintenance is less than 19 mills on adjusted assessed valuation)

1968-69:

\$355 (or actual total debt redemption and maintenance cost) less  
19.0 mills, using 1965 EARC adjusted assessed valuation  
\$127 basic per pupil unit in ADA (to be reduced if total debt  
redemption and maintenance cost is less than \$345 per pupil  
unit in ADA and/or if the tax levy for maintenance is less  
than 19 mills on adjusted assessed valuation)

#### Transportation Aid

Transportation Aid accounted for 7.8 per cent of all state aid disbursed in 1965-66. It is paid under several plans with a separate computation for each.

Independent school districts are reimbursed up to \$60 per year per resident pupil transported or boarded but not to exceed 80 per cent of the cost. The allowance for isolated pupils in a school district is limited to \$72 per pupil per year or 80 per cent of the cost of transportation or board. In order to participate an independent school district must contain at least 18 sections of land. Certain districts with at least 16 sections of land may qualify. Districts that are located entirely within the boundaries of a single municipality do not qualify for this aid. No aid is paid for pupils who are transported to a school located in the municipality in which the pupil lives. Several metropolitan and suburban districts are excluded from this transportation aid, although it has been necessary for such districts to transport large numbers of pupils.

Transportation or board expenses paid by districts operating only elementary schools for their pupils attending secondary schools are reimbursed up to \$48 per pupil per year. The county also reimburses the home district an additional 50 per cent of the state amount for a maximum total of \$72 per pupil per year.

Any district having expenses for transportation, board, or lodging for handicapped or trainable children unable to walk to school or ride on the regular school bus may be reimbursed up to \$225 per year for each resident pupil.

#### Endowment Income Fund Aid

The State Constitution specifies the establishment of the Endowment Income Fund. It consists of the earnings of the Permanent School Fund. The distribution of the Endowment Income Fund Aid is made to every school district on the basis of the number of resident pupils between the ages of 5 and 20, inclusive, in ADA in the schools of the district during the preceding year. The amount per child varies depending upon the yearly earnings and the number of eligible children in the state, but averages are approximately \$12 per child.

This distribution is required by the State Constitution. In actual practice, it is included in computation of Foundation Program Aid for districts under Formula A and under Formula B.

### Income Tax School Aid

The Income Tax School Aid was distributed to all school districts on the basis of the number of children on the school census. The distribution was at the rate of \$10 per school census child between the ages of 6 and 16, inclusive, residing in the district. The 16-year olds to be counted must have been in attendance in school. The Income Tax School Aid was eliminated by the 1967 Legislature.

### Aid for Special Classes

Districts must provide special instruction and services for educable and handicapped children and may provide special instruction for trainable children. In 1965-66, \$5.3 million was distributed to 365 districts as state aid for such classes. The state reimbursement is up to \$4,000 per special educational staff member, but not more than two-thirds of the salary. Reimbursement for supplies and equipment, not to exceed \$50 per child per year, is also provided.

### Vocational Education Aid

Vocational education programs must be organized and operated in accordance with the state plan for vocational education in order to qualify for state aid. The aid for these programs is distributed as reimbursement for district-approved expenditures, including such items as vocational teacher salaries, necessary travel costs, and other items as approved by the State Board for Vocational Education. In 1965-66 Vocational Education Aid in the amount of \$4.3 million was disbursed to 382 school districts.

### Miscellaneous State Aids

All other state aids combined constituted less than 2 per cent of the total aid disbursed in 1965-66. Generally these aids are of significance to only a very few districts.

The Community School Lunch Aid had the greatest number of participating districts (634), but the total distribution in 1965-66 was only \$475,000. Districts must provide approved school lunch services; the aid is based on the number and type of meals served.

Gross Earnings Refund in the amount of \$1.4 million was paid to eight districts. In order to qualify, at least 20 per cent of the district property valuation must be railroad property, which is exempt from local taxation. The payment to each district is based on the school district tax rate, up to 160 mills, times 30 per cent of full and true value of the exempted railroad property; valuation plus value of other district property not to exceed \$3,000 per pupil unit.

The Airport Refund, which is similar to the Gross Earnings Refund, was paid to two districts. It is computed by applying the local school tax rate to 30 per cent of full and true value of detached property used for a major airport, but that value plus the value of other district property not to exceed \$2,600 per pupil unit.

Aid in Lieu of Nontaxable Land was paid to districts having at least 40 per cent of the land area exempt from taxes. It is paid at the rate of 10 cents per acre of nontaxable land, but not to exceed \$25 per pupil unit and \$25,000 per district.

Aid in Lieu of State Trust Fund Lands was paid to districts having two or more sections of state-owned trust fund lands which have not been sold or leased. It is paid at the rate of 5 cents per acre of state-owned trust fund land but not to exceed \$15 per pupil enrolled in grades 1-12.

Emergency Aid in the amount of \$429,100 was granted to seven school districts in 1965-66. Districts must make application, specifying the amount needed and the purpose for which it is to be used. Payments are made from this fund in amounts as approved by the State Board of Education and are for the specific use indicated in the approval.

The development of the taconite industry has an impact on school aids, although there is no direct state aid payment connected with it. The taconite industry is exempt from the property tax but is subject to the occupation tax in the same manner as iron ore and also to a tax on the tonnage of taconite pellets produced. The tax on taconite pellets is 5 cents a gross ton, with slightly higher rates when the iron content exceeds 55 per cent. The school district receives 50 per cent of the tax payments from taconite, with the other 50 per cent being divided among city, county, and state. The school district's adjusted assessed valuation, as determined by the EARC and used in the Foundation Program Aid formula, is increased by 15 per cent of the previous year's payment received divided by the current foundation program local effort rate. In effect, this computation reduces the Foundation Program Aid of the district by 15 per cent of the amount received from the taconite production.

#### The Maximum Effort School Loan Fund

The Maximum Effort School Loan Fund is not a state aid in the usual sense. It is, however, a device to provide state assistance to certain school districts.

This fund has been established to make two types of loans to districts which can qualify. Debt Service Loans cannot exceed one per cent of the outstanding school debt of the district. Capital Loans are made according to district need and available funds. To qualify for a Capital Loan the district must have a net debt in excess of 98 per cent of debt limit or be within \$20,000 of such limit.

In order to receive a Debt Service Loan or a Capital Loan the district must make application to and obtain approval by the State School Loan Committee, composed of the Commissioners of Education, Administration, and Taxation.

Loans must be repaid in 30 years along with a 3.5 per cent rate of interest. The district must levy a qualifying tax rate that exceeds 5.5 mills on correct full and true value of taxable property by 10 per cent or \$5,000, whichever is less.

#### REACTIONS OF SCHOOL PERSONNEL TO STATE FINANCIAL SUPPORT

Through responses on questionnaires the school superintendents and board chairmen reacted to various aspects of the financial support provided by the state.

Foundation Program Aid drew mixed reactions. Two-thirds of the superintendents and one-half of the board chairmen indicated that Formula A Foundation Program Aid should be increased as contrasting to one-half of the superintendents and two-fifths of the board chairmen who responded similarly regarding Formula B Foundation Program Aid. One-fifth of the superintendents and of the board chairmen responded that Foundation Program Aid should be revised. Eight per cent of the superintendents and 7 per cent of the board chairmen reported that Formula B Foundation Program Aid should be eliminated.

More than one-third of the superintendents and almost one-half of the board chairmen indicated that no change was needed in Transportation Aid. Two-fifths of the superintendents and one-third of the board chairmen favored increasing the aid. One-fifth of the superintendents and one-seventh of the board chairmen suggested a need for revision.

Responses of superintendents and board chairmen to Aid for Special Classes were concentrated in two categories. Increasing the aid was favored by 59 per cent of the superintendents and 56 per cent of the board chairmen, while 31 per cent of the superintendents and 32.5 per cent of the board chairmen preferred no change.

An increase in Vocational Education Aid was supported by half of the superintendents and 55 per cent of the board chairmen. In contrast, one-third of the superintendents and one-fourth of the board chairmen favored no change.

Many superintendents did not express any view on Gross Earnings Refund. However, 15 per cent indicated that it should be revised and 7 per cent favored its elimination.

In response to the question "to what extent do you consider state financial support restrictive?", only 3 per cent of the superintendents indicated "very much" and another 10 per cent said "much." This reaction is strikingly different from their responses to the same question regarding federal financial support. To that question 40 per cent indicated "very much" and an additional 27 per cent said "much."

The superintendents were asked to indicate the categories to which they would apply the funds if additional state financial assistance were available. It was somewhat surprising that 50 per cent selected maintenance as the category

for "very much" of the additional funds. Special services rated second as 24 per cent of the superintendents selected that category. Debt service with 17 per cent, capital outlay with 16 per cent, and transportation with 9 per cent were the other categories with "very much" ratings. Some superintendents selected more than one category for "very much" of the additional funds.

#### PROBLEM AREAS IN THE PRESENT SCHOOL SUPPORT PROGRAM

The description and analysis of the school support program in Minnesota has pointed to several problem areas which merit further consideration. Included among these areas are the following: weaknesses in the Foundation Program Aid, educational overburden, the units in state aid computation, methods of computing and distributing state aids, special state aids, state loan program, tax limitations, the EARC valuations, and the Tax Reform and Relief Act of 1967.

#### WEAKNESSES IN THE FOUNDATION PROGRAM AID

In 1957 when the Foundation Program Aid was recommended to the legislature, it was recognized that it was only a partial program, due to money limitations. It is based entirely upon operational costs and ignores completely all the costs of transportation, capital outlay, and debt service. Although the transportation aid program is often criticized as being unduly complicated and in need of reorganization, there is general acceptance that transportation could continue as a separate aid.

No aid, however, is provided for capital outlay and debt service. The expenditures for these purposes are wholly the obligation of the local districts. In recent years these expenditures have become an increasing burden and in some cases have forced districts to cut back on their expenditures for school operation. In 1965-66 the median expenditure for capital outlay (excluding money from bond issues) and debt service was \$77 per pupil unit. All of this money came from local property taxes. It costs just as much or more to provide equipment and pay the bonds and interest for school buildings in the poor districts as it does in the wealthy districts. Yet in a Minnesota district at the tenth percentile in adjusted assessed valuation it would require 20.0 mills to raise the \$77 as contrasted to 6.3 mills in the district at the ninetieth percentile. Surely this arrangement fails to foster equality of educational opportunity and equity in taxation. Minnesota can ill afford to continue ignoring this phase of school costs in its aid program, as it has so blithely done in past years.

When the Foundation Program Aid was first introduced it was proposed that the median maintenance cost in districts offering a program through the twelfth grade be accepted as the cost of the foundation program until the state could formulate an acceptable foundation program and compute its cost. The following listing compares the foundation program cost selected by the legislature for computing Foundation Program Aid and the median maintenance cost in Minnesota school districts:

<u>School Year</u>	<u>Cost Selected by Legislature</u>	<u>Median Maintenance Cost</u>	<u>Difference</u>
1957-58	\$240	\$266	\$ 26
1958-59	240	279	39
1959-60	270	297	27
1960-61	270	312	42
1961-62	275	330	55
1962-63	285	348	63
1963-64	309	359	50
1964-65	315	378	63
1965-66	321	407	86
1966-67	324	424 (Est.)	100
1967-68	345	441 (Est.)	96
1968-69	355	458 (Est.)	103

The median maintenance cost has been higher every year than the cost amount selected by the legislature. In the most recent years the difference has been increasing. In 1965-66 the median maintenance cost exceeded the cost figure used in computing Foundation Program Aid by \$86. This entire amount has to be raised by local property taxes as the state does not share in financing this portion of the maintenance cost. The lower the per pupil unit valuation in the district, the greater will be the local tax burden to raise the \$86.

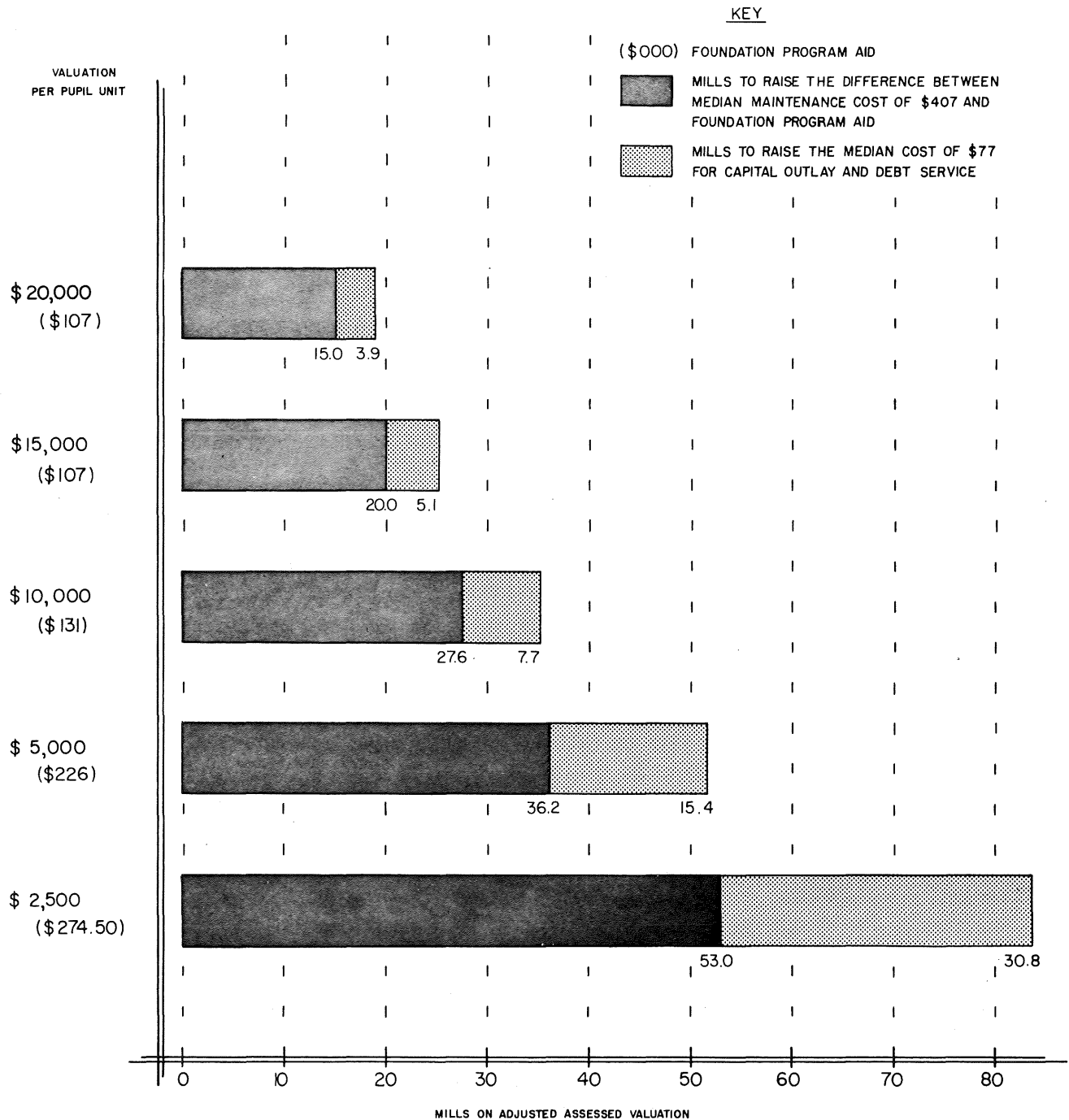
The impact of the Foundation Program Aid payments and the resulting tax rates are illustrated for selected districts in Figure XI. As indicated in the figure, the district with \$2,500 adjusted assessed valuation per pupil unit would be required to levy 83.8 mills to raise the difference between the median maintenance cost of \$407 and the median capital outlay and debt service cost of \$77 and the Foundation Program Aid which it receives. For the district with \$20,000 valuation, 18.9 mills would be required. The other three selected districts would require tax rates of 25.1, 35.3, and 51.6 mills respectively.

Another weakness of the present Foundation Program Aid is its divisive effect. It has created two groups of districts with conflicting goals regarding state support. One group is primarily interested in increasing the amount of flat grant aid while the other is most concerned with establishing larger equalization amounts. With the amount of money for all state aid somewhat limited, substantial time and effort has been diverted to civil war rather than uniting in support of a common program of school support.

The present Foundation Program Aid applies some financial penalties. Aid is reduced in districts which do not make the prescribed local tax effort (19 mills on the adjusted assessed valuation) and in districts which do not comply with

FIGURE XI

EFFECTS OF FOUNDATION PROGRAM AID ON TAX RATES OF  
DISTRICTS WITH VARIOUS AMOUNTS OF ADJUSTED ASSESSED VALUATION, 1965-66





certain expenditure requirements (debt redemption and maintenance cost of \$345 per pupil unit in ADA). However, the aid includes no financial incentives to encourage maximum educational efforts. Districts which have personnel with minimal qualifications receive aid on the same basis as those employing personnel having qualifications far above the minimum certification requirements. Similarly, there is no difference in aid for those districts maintaining a school year that extends beyond the minimum state requirements. Districts with favorable pupil-staff ratios, with superior facilities and equipment, and with various supplementary services receive aid on the same basis as those satisfying the minimum requirements.

The present Foundation Program Aid includes no incentives to encourage school district reorganization. In recent years several instances have arisen in which a reorganized school district would qualify for less aid than the participating districts received before reorganization. In recognition of this problem, a law was passed in the 1967 session of the legislature specifying that a consolidated school district in the first year after consolidation would not receive less in state aid than the separate districts had received.

#### EDUCATIONAL OVERBURDEN

In recent years there has been considerable discussion regarding municipal overburden. Proponents have held that large municipalities provide many services and that the cost of these services imposed a tax load on property which exceeded the corresponding tax load in villages and smaller cities. Because of this claimed higher tax load and the resulting greater difficulty of securing local tax support for schools the argument was made that additional state aid for education in such cities was justified. A recent Minnesota study by Wilken, previously quoted in this report, did not support the claim of higher tax loads in large municipalities.

It is possible, however, to muster substantial evidence that metropolitan centers have a significant educational overburden. Various factors contribute to that situation.

The concentration of lower socio-economic populations in many parts of large cities results in a need for costly educational services. Children of the poor, of nonwhite parents, and of the culturally disadvantaged require more intensive cultural and instructional experiences. Among the conditions contributing to educational overburden are:

1. Greater need for programs for the economically deprived and culturally disadvantaged.
2. Greater need for adult education and summer programs.
3. Greater need for vocational education.
4. High incidence of handicapped and maladjusted children.

5. High proportion of retarded pupils.
6. High pupil failure rates.
7. Low pupil motivation.
8. Excessive problems of health and nutrition.
9. High rate of pupil mobility.

Pointing out the "alarming" fiscal position of large city schools, the Carnegie Corporation of New York concluded in late 1966 that:

. . . the nation is devoting many more resources to educating suburban children than city children. Or to put it another way, it is spending much more money to educate the children of the well-off than the children of the poor. And every shred of available evidence points to the conclusion that the educational needs of poor children are far greater than those of affluent children. By any measure one wants to use -- pupil performance on tests, dropout rate, proportion of students going on to higher education -- the output of the schools in the depressed areas of the cities is very much poorer than that of the suburbs. There is little reason to believe that even to equalize treatment would begin to close the gap. To achieve the substance rather than merely the theoretical form of equal educational opportunity requires the application of unequal resources: more rather than less for the students from poor homes . . . it is clear that the kind of money that is needed simply cannot be raised by the cities from local sources alone. Much of it will have to come from increased state and federal aid.<sup>16</sup>

Many states, recognizing the increased financial needs of their cities, have supplemented "normal" state support with additional grants. New York, for instance, awarded its largest cities an additional flat grant. Illinois initiated the principle of density correction by prorating supplementary funds on the basis of the size of the city. Many federal programs have been directed at these unique problems of the large cities.

The large cities also have more than the average number of handicapped children. Many communities provide no special programs for the physically and/or mentally handicapped children. As a result, families having children needing special care tend to migrate to the metropolitan centers where such services

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16. Carnegie Quarterly, Volume XIV, No. 4, Fall 1966; as quoted in "Why City Schools Need More Money," by H. Thomas James, James A. Kelley, Walter L. Garms, Determinants of Educational Expenditures in Large Cities of the United States, Chicago: Research Council of the Great Cities Program for School Improvement, 1967.

are available. For example, in 1965-66 the three first class cities with 17.6 per cent of the state public school enrollment had the following proportions of the state enrollment in the various classes of handicapped:

<u>Handicapped</u>	<u>Per Cent in Three Cities of the First Class</u>
Educable mentally retarded	33.8
Trainable mentally retarded	33.1
Deaf	80.5
Vision	51.7
Crippled	78.2
Speech	12.9
Special learning difficulties	74.1
Homebound hospital domiciled	32.4

These programs are expensive and the special state aids are only a partial reimbursement. The local share of the cost of these services to the handicapped also contributes to the educational overburden of the metropolitan centers.

#### THE UNITS IN STATE AID COMPUTATION

In computing state aid and for comparative purposes "pupil units in average daily attendance" has been a common unit of measurement. In recent years questions have been raised regarding the method of computing "pupil units" and the justification for "average daily attendance."

Some people have advocated replacing "average daily attendance (ADA)" by "average daily membership (ADM)." It is claimed that "average daily membership" is a better measure in all cost computations. The district must provide the facilities, the equipment, and the staff for all pupils enrolled, regardless of how many may be absent at any one time. Each day of absence reduces the pupils in "ADA" but has no effect on the number in "ADM." When school attendance was poor, ADA served as an incentive for more regular attendance. It may cause some districts to encourage the attendance of children at times when they should stay at home.

The weighted resident pupil unit is utilized in the existing Minnesota state aid formula to compensate for the differentiating costs of education at the kindergarten, elementary, and secondary levels. The concept of a weighted pupil unit was first introduced into Minnesota aid payments with the aid revision law of 1947. Prior to passage of the 1947 revision the pupil unit concept was explained as follows: "A kindergarten pupil attending half-day sessions will count as one-half a pupil unit, an elementary pupil unit for one pupil unit, a high-school pupil for one and one-half pupil units, because high-school instruction costs about one and one-half times as much as elementary school instruction. Seventh and eighth grade pupils attending a junior high school or a six-year

high school will count as high-school pupils."<sup>17</sup> The adoption of these ratios among the various educational levels constitutes a legitimate attempt to recognize the varying costs of education at these levels, but there is reason to doubt that the ratios established in 1947 reflect the actual cost differences in 1967.

The Bureau of Field Studies and Surveys<sup>18</sup> expressed doubt, concerning the established ratio of one to one and one-half between elementary and secondary per pupil costs, in 1956 and indicated that studies conducted in other states had shown the cost difference to be less than the one to one and one-half ratio.

Also, a renewed look at the validity of a varying ratio for elementary and secondary education is necessitated by recent curriculum and organizational changes. The development of departmentalized programs at the intermediate elementary school level and the variety of grade placement patterns (middle school) which are being used or discussed requires a reassessment of which students realistically qualify for a higher rate of state reimbursement.

Since 1956 two investigations have been conducted in Minnesota to determine the correctness of the ratio of secondary to elementary costs. In a 1959 study it was concluded that "Aids based on the 1.5 ratio tend to be over paid for two-thirds of the secondary pupils in the state";<sup>19</sup> and in a 1962 study it was concluded that "Aids based on the 1.5 ratio tend to be over paid for three-fourths of the secondary pupils in the state or underpaid for elementary pupils in those same school districts depending upon the point of view."<sup>20</sup> The overall state cost ratio of secondary to elementary pupil in average daily attendance was found to be 1.46 for 1956-57 and 1.44 for 1960-61. These ratios are very close to the established 1.5 ratio. For each of the years investigated the ratios vary considerably for the various secondary enrollment groupings. The size of the secondary to elementary cost ratio was found to vary inversely with the secondary enrollment size. In both studies the smaller schools had the higher ratios.

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17. Strengthening Public Education in Minnesota -- A Proposal to Revise and Improve School Aid, St. Paul, Minnesota: State Department of Education, December 1946, p. 4. (Monograph)

18. Bureau of Field Studies and Surveys, State Support for Public Education in Minnesota, Report to the Legislative Interim Commission on School Aids and Reorganization, Minneapolis, Minnesota: University of Minnesota, May 1956. (Mimeographed)

19. A. F. Harbo, H. C. Hall, H. M. Lokken, A Foundation Program for Minnesota Public Schools, St. Paul, Minnesota: State Department of Education, January 1959, p. 24.

20. Dean M. Schweickhard, State Aid to Public Schools Report to the State Board of Education, St. Paul, Minnesota: State Department of Education, September 1962, p. 34.

To further substantiate or negate the findings of the two earlier cost ratio studies or the soundness of the existing ratio, an analysis was conducted as part of this study, using 30 selected districts. Only the instructional costs were used. No attempt was made to apportion other costs, as was done in the 1959 and 1962 studies. The overall ratio of the 30 districts was 1.26. This was less than the ratios found for the larger districts in 1959 and 1962. The range of the ratios in the 30 schools was from a low of 1.12 to a high of 1.61. The median ratio was 1.31.

In a 1965 publication<sup>21</sup> the United States Office of Education summarized the practices followed in the state finance programs during the 1962-63 school year. Although each state finance program is unique, a number of the states reported the use of a weighted unit or ratio giving recognition to the differences in elementary and secondary education costs. In Illinois the elementary pupil is reimbursed at a higher rate than secondary pupils. Missouri, Ohio, and Wisconsin distribute aid on an equal basis for elementary and secondary pupils. Indiana had a ratio of 1.14, Illinois used 1.42, and North Dakota had 1.32.

It is generally agreed that the ratio of 1.5 to 1 does not represent the relative costs of secondary and elementary education. With the expanded use of specialists to supplement the work of the elementary classroom teacher and the general adoption of a single salary scale, the differential between elementary and secondary school costs will no doubt continue to decrease.

#### METHOD OF COMPUTING AND DISTRIBUTING STATE AIDS

Attention has already been directed to some possible changes in computing state aid such as substituting average daily membership for average daily attendance and changing the ratio of pupil units for secondary school students. The responses of superintendents to the questionnaire posed some additional problem areas.

At the present time state aids are first computed on the enrollment data of the previous school year. The aid is then recomputed after the close of the school year, using the actual enrollment data of that year. The adjustment aid payment in the fall is then based on this final computation. Many superintendents suggested that the first aid payments be based on September estimates of current school enrollment, rather than using the enrollment data of the previous year. This method would be of particular value to districts with rapidly-growing enrollments.

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21. Albert R. Munse, State Programs for Public School Support, Office of Education, United States Department of Health, Education, and Welfare, Washington, D.C.: Government Printing Office, 1965, pp. 12-94.

The superintendents also suggested that state aid payments be made directly to the districts rather than being distributed through the various county treasurers. They report substantial delays in the payment of aids in some counties. With the reduction of the number of school districts, it should be possible for aid payments to be made directly to the districts.

#### SPECIAL STATE AIDS

Minnesota has a group of special aids to a few districts because there is property in the district which cannot be taxed by the district. The Airport Refund Aid, the Gross Earnings Refund Aid, the Aid in Lieu of Nontaxable Land, and the Aid in Lieu of Taxes on State Trust Fund Lands are examples of such aids. Although not a special aid, the treatment given to a school district's receipts from the taconite tax produces a similar effect.

Attention has already been directed to the increase of tax exempt property. All districts have some property in that category; in some districts the proportion is substantial. Except for the special aids listed above, the state gives no recognition to tax exempt property in distributing state aid to districts. In the case of some special aids, districts receive a double benefit. They receive the special aid and adequate adjustments are not made in their valuations for the computation of Foundation Program Aid.

If Foundation Program Aid were based on the cost of the entire program (maintenance, capital outlay, debt service) and on the valuation of property which the district could tax, all districts would be treated alike. The equity of making special aid distributions to a few districts because of tax exempt property and ignoring all other districts might well be questioned.

#### STATE LOAN PROGRAM

The Maximum Effort School Loan Fund has been described. Debt service loans and capital loans can be secured through applications to the fund. The conditions of eligibility severely restrict the number of districts which can secure loans. In effect, it is an arrangement to help those districts which cannot secure adequate funds through the usual borrowing methods.

Suggestions have been made for a major state loan program whereby all districts meeting the criteria of an acceptable school district would be eligible for state loans. Under such an arrangement, substantial savings in interest costs could result. Some superintendents proposed that the state underwrite all school district bonds in order to secure more favorable interest rates.

The large amount of outstanding bonded indebtedness and the heavy annual payments on bonds and interest suggest that all methods for reducing such costs should be thoroughly examined.

## TAX LIMITATIONS

A variety of taxing limitations apply to school districts. The school board has the power to adopt the budget and establish a levy which is needed to provide the necessary funds. State law, however, limits the amount of the levy to specified amounts per pupil unit or per capita as modified by changes in the Consumers Price Index issued by the United States Bureau of Labor Statistics. The levy for debt service may be in addition to the per capita limitation and is not limited as to millage. There is no provision for exceeding these limits by electoral approval. As a result districts which could not levy enough money under these restrictions to operate the schools have been forced to seek relief from the legislature through special legislation. These tax limitations originated years ago as a device to control exorbitant spending in districts on the Iron Range.

Districts may levy as much as an 8-mill tax on the Equalization Aid Review Committee valuation for the acquisition of school sites and for the construction and equipping of school buildings. This levy is in addition to the levies for school operation and debt service.

Districts are also limited in respect to issuance of bonds. Bond issues must be approved by a majority of the qualified electors who participate in the election. The state limitation on bonded indebtedness is 10 per cent of the correct full and true value as determined by the Equalization Aid Review Committee. Certain restrictions are placed on the length of the bond issue and the proportion of bonds to be retired each year.

The few special districts in the state are governed by the provisions of the charter under which they operate. Often the charter provisions restrict the school board unduly, giving the board less fiscal authority than has been granted to boards in independent districts.

The question may well be raised whether taxing limitations for school operation are a hindrance to good schools and should be eliminated. Certainly there is no justification for charter provisions which give school boards in special districts less fiscal authority than is given to boards in independent districts. The bonding restrictions of special districts are more reasonable and are in accord with general procedures throughout the country.

Another form of school tax limitation relates to the different tax treatment given to agricultural property and nonagricultural property. Agricultural property is taxed for school operation at one-half of the rate on nonagricultural property until the rate reaches 50 mills. All taxes after reaching 50 mills on nonagricultural property are levied equally on both types of property. Thus agricultural property receives preferential treatment and pays up to 25 mills less in school taxes than nonagricultural property. It is difficult to understand the reason for this difference or to justify its existence.

In some districts the most severe taxing limitation stems from the large proportion of property which is classified as tax exempt. These nine categories of property have been classified as exempt: (1) all public burying grounds;

(2) all public schoolhouses; (3) all public hospitals; (4) all academies, colleges, and universities, and all seminaries of learning; (5) all churches, church property, and houses of worship; (6) institutions of purely public charity; (7) all public property exclusively used for any public purpose; (8) all natural cheese held in storage for aging by the original Minnesota manufacturer; and (9) Class 2 property of every household of the value of \$100. The amount of tax exempt property has been increasing. As previously pointed out in this report, the 1962 assessed valuation of tax exempt property was \$541 million out of a total assessed valuation of \$2.3 billion. Between 1956 and 1962, the total assessed valuation increased 11.5 per cent; in contrast, the assessed valuation of tax exempt property increased 42.6 per cent. Whenever property is classified as exempt and is removed from the tax roll the levies have to be spread over a smaller tax base and increased tax rates result. Some people are questioning whether tax exemption is sound and whether some of the tax exempt categories are justified.

#### THE EARC VALUATIONS

Some criticisms have been leveled at the use of EARC valuations in computing state aids. Until all assessing is done on a professional basis, the EARC valuations appear to provide the most equitable method of determining the ability of each district to support education. The legislature in the 1967 session moved toward better assessing by requiring each county to have a county assessor responsible to the Commissioner of Taxation.

It may be possible to improve the procedures of computing EARC valuations. Some have suggested using a larger number of property samples in establishing the values. The practice of using three-year-old EARC valuations may result in some unequities especially as regard districts with rapidly increasing or decreasing valuations. The use of three-year-old EARC valuations has been especially beneficial to the suburban districts and all other districts with rapidly growing enrollments.

In computing EARC valuations the valuation of household goods, as listed previous to its exemption, continues to be used. With substantial amounts of property becoming tax exempt under the Tax Reform and Relief Act of 1967, the continued use of such exempt property in computing EARC valuations may create serious problems. Under that arrangement, the EARC valuations may become substantially inflated and not be a true picture of the ability of a district to support education.

Large increases or large decreases in valuation can produce severe financial problems. The legislature has protected such districts by limiting the amount of change in any one year. At the 1967 session, the legislature appropriated \$1.7 million for aid to districts experiencing extreme distress because of sharp decreases in valuation due to the closing of iron ore mines.



## TAX REFORM AND RELIEF ACT OF 1967

The Tax Reform and Relief Act of 1967, passed by the legislature at the special session in 1967, will have a decided impact on Minnesota school districts. Unfortunately, this report is being prepared before the impact of the act has been experienced. However, some of the effects can be projected.

The state property tax will be eliminated. The present state mill rate is 17.24 mills except in the first class cities. Thus when the 1967 taxes (payable in 1968) are computed, the total mill rate will include no state tax.

School district valuations will be reduced because certain types of property are now exempt from taxation. They include: tools, implements, and machinery used by the owners in agricultural pursuits; livestock, poultry, and other animals used exclusively for agricultural purposes; and either inventories, stocks of merchandise, furnishings of motels, hotels, etc. or tools and machinery formerly classified as personal property.

The formula for distributing the funds from the sales tax is interesting. One-fourth of the sales tax revenue (minimum of \$37,000,000 per year) will be divided into two sums, one for the first class cities and the other for the rest of the state, on a per capita basis. If \$37,000,000 is distributed it would give approximately \$9,000,000 to the first class cities and approximately \$28,000,000 to the rest of the state. The \$9,000,000 to the first class cities will be divided, with two-thirds going to the municipalities and one-third to the school districts, all based on a per capita distribution. The \$28,000,000 for the rest of the state is divided equally between local governmental units and school districts. The \$14,000,000 for the townships, villages, and cities will be distributed on a per capita basis. The \$14,000,000 for the school districts will be distributed on the basis of the number of children 6-16 years of age on the school census. There is one difference in regard to the way in which these money distributions can be used. The distributions to the first class cities, to the school districts in the first class cities, and to the townships, villages, and cities in the rest of the state have no restrictions and can be used at the discretion of the respective governing bodies. The funds distributed to school districts in the rest of the state are specifically restricted; they must be used to reduce the tax levy of the district.

Thus all school districts outside the first class cities must certify their levies for the full amount of their needs, after taking into account their anticipated revenue from state and federal aids, tuition and all other sources. The auditor will deduct the anticipated amount from the sales tax and spread the tax levy for the balance. The district can expect to receive only the amount of the levy. However, some of the money will come from the district's share of the sales tax receipts and the balance will come from the property tax.

At the time of preparing this report, there is no information regarding the extent of the reductions in valuations due to the new exemptions. Thus an accurate determination of the required mill rate to be inserted in the Foundation Program Aid formula becomes impossible. There has been no determination whether local effort, as used in computing Foundation Program Aid, will be based on the amount of the levy certified to the auditor or on the amount of taxes which the auditor spreads on the property.

## CHAPTER X

### C O N C L U S I O N S ,   R E C O M M E N D A T I O N S , A N D   I M P L I C A T I O N S

This chapter contains a brief summary of the significant findings of the survey staff in each of the areas covered by the study. Only the major findings and conclusions are presented. They are, of necessity, brief and may not give all the information needed to interpret the recommendations. The reader is urged to refer back to the detailed presentation in the report for the necessary background.

In the preceding chapters of this report, references have been made to aspects of Minnesota education which should be revised or otherwise improved. This chapter of the report outlines the recommendations of the survey staff dealing with the problems which have been enumerated in earlier chapters.

The final section of this chapter presents, in general terms, the major implications of the findings, conclusions, and recommendations of the report.

### M A J O R   S U R V E Y   F I N D I N G S   A N D   C O N C L U S I O N S

This section is designed to serve a summarizing function. From the voluminous data collected and analyzed, the survey staff developed the material presented in the preceding chapters of this report. From these chapters the staff has drawn the major findings and conclusions.

The order of presentation used in this section follows the order in which the basic material was presented in Chapters I through IX with one exception. Those findings and conclusions which applied to the educational programs of both elementary and secondary schools are presented first, followed by those findings and conclusions which apply only to elementary school program and those which apply only to secondary school program. The remaining findings and conclusions are presented in the same order as the chapters appear in the report.

EDUCATIONAL PROGRAM IN ELEMENTARY AND SECONDARY SCHOOLS

1. Although the programs of most Minnesota schools are well founded and are diverse in their characteristics, the differences fall within a limited range. While the meagerness of many programs can be attributed to the smallness of school sizes, even our best schools are exceedingly traditional and overly cautious in their approaches to innovation. As a result, Minnesota educators must travel to other states in order to observe "lighthouse" practices.
2. There is general agreement among teachers, administrators, and board members that Minnesota schools are providing acceptable education for most children but doing less well in meeting the needs of exceptional children.
3. The educational programs offered in Minnesota schools are basically traditional, but there is evidence that innovation and change are increasing.
4. The K-6-6 or K-6-3-3 systems of organizing schools in Minnesota appear to be satisfactory; however, questionnaire returns indicate that little recognition has been given to newer alternative organizational patterns.
5. School children in Minnesota are now housed in better buildings, are provided with more instructional materials and equipment, and are taught by teachers having more extensive preparation than formerly was the case.
6. Descriptive comments of respondents and sampling of instructional materials indicate that the complexity and difficulty of curriculum content at the various grade levels have risen in recent years.
7. Although administrators consider teachers to be the major determiners of quality in the school program, Minnesota teachers spend large portions of their time doing secretarial and clerical tasks, supervising lunchrooms and hallways, and routine classroom duties for which professional training is unnecessary.
8. The State Department of Education has served almost exclusively as a force for stability in educational programs. Its leadership has been toward uniformity rather than toward experimentation and diversity.
9. A majority of principals reported that the State Department of Education exerts little influence toward improving the instructional program.
10. Teachers and principals report the influence of professional educational organizations in the improvement of the instructional program to be minimal.
11. Responses of both principals and teachers indicate that inservice programs to improve the quality of teaching on the job are sporadic, incidental, and unsatisfactory in a majority of schools.

12. Little information exists with respect to what actually goes on in the classrooms of the state. It is not generally known to what extent various teaching techniques, methods, and materials are used by teachers.
13. Comparison of responses from principals and teachers suggests that the principals' belief in the value of classroom supervision for improving instruction is not shared by teachers.
14. Principals and teachers report that they are seldom visited by State Department of Education personnel for supervisory or evaluative purposes.
15. State guides for the instructional program are incomplete and a significant number of such publications are seriously outdated.
16. The school year in Minnesota is shorter than in most states.
17. Culturally disadvantaged students are present in all districts of the state. However, in urban areas their attendance is generally concentrated in a few schools within a district rather than being evenly distributed throughout all schools of the district.
18. Although Minnesota statutes require districts to provide educational services for retarded children, less than half of the districts provided special classes in 1966-67.
19. The responsibility for providing adequate educational programs for exceptional children rests not only with the local school district but also with the State Department of Education which needs to exercise more authority to see that state laws in this area are followed.
20. Data obtained from school administrators indicate that utilization of systematic procedures for identifying slow learning and gifted children is the exception rather than the rule.
21. Data indicate that in many cases of ability grouping, provisions are not made for differentiated instructional materials.
22. Only one-fourth of all districts with less than 250 secondary enrollment cooperates systematically with other districts in providing special service personnel such as psychologists.
23. Despite the growing recognition of needs in secondary schools for psychologists and social workers, the State Department of Education does not presently employ anyone with special backgrounds in these areas.
24. There is a direct relationship between the size of the school district and the adequacy of the school libraries.
25. School libraries are restricted in their availability to teachers and students outside of class hours.

26. Local collections of audio-visual equipment have been improved under the provisions of the National Defense Education Act and Public Law 89-10.
27. The larger the school district, the greater the probability that written statements of objectives will exist, that teachers will have read these statements, and that teachers will have written objectives for the courses they teach.
28. There is little research on local or state levels in the area of curriculum, and the dissemination of research findings is inadequate.
29. Curriculum development as a group endeavor involving several teachers is strikingly more prevalent in larger school districts.
30. The instructional programs of individual schools appear to be influenced very little by the practices followed in neighboring schools.
31. Survey data indicate that few school systems encourage or support organized programs of interclass and interschool visits by teachers.
32. Survey data indicate that little use is made of the talents of local nonschool people as human resources for enrichment of classroom work.
33. Schools in large districts are better able to support the provisions necessary to adopt innovative practices and do in fact innovate more frequently.
34. Districts which enroll fewer than 1,000 secondary students seldom employ curriculum and instructional specialists and thus rely heavily on the inadequate number of State Department of Education consultants to supply outside help to their teachers.
35. State Department of Education consultants tend to visit least schools in districts with more than 2,500 secondary students and less than 400 secondary enrollment.
36. The greatest untapped reserve of outside curriculum consultants for Minnesota schools is college and university personnel. The statewide average number of visits from these people is considerably less than one per year per school.
37. Survey data suggest that districts with fewer than 2,500 secondary students -- and most noticeably those with less than 400 students -- do not support provisions which expose their teachers to new ideas and challenges.

ELEMENTARY SCHOOL PROGRAM

1. There has been a tremendous increase in the proportion of elementary school children being educated in multiteacher schools and a drastic decline in the proportion educated in one-teacher schools in the past 20 years.
2. Comparisons of curricular offerings with staff size and enrollment figures lead to the inescapable conclusion that many of Minnesota's elementary schools are too small to do an effective educational job.
3. Data from all sections of the state highlight the fact that rural ungraded schools are poorly equipped with facilities for science, library, physical education, audio-visual instruction, and some other portions of a well-balanced curriculum.
4. About one-half of Minnesota's school districts provide kindergarten instruction, with an increase of 64 schools adding such instruction from 1965-66 to 1966-67, most of the increase resulting from funds provided by Title I of Public Law 89-10.
5. Elementary schools can become so large that adequate attention to individual pupils is difficult and they may be too small to provide the breadth of instruction and services appropriate to identifiable pupil needs.
6. Comments of principals and teachers provide convincing evidence that adequate preparation time for classroom teaching in elementary schools is not provided within the school day.
7. Although class size has been reduced, information collected during the course of the survey indicates continuing widespread dissatisfaction with large classes, particularly as class size exceeds 30 pupils.
8. Little counseling of elementary pupils is provided by specially-prepared personnel in Minnesota; there were only 12 certificated elementary school counselors in Minnesota during the 1966-67 school year.
9. The elementary school principals reported rather strong dissatisfaction with the teacher education programs in Minnesota.
10. The increasing complexity of subject content in the elementary school requires teachers with improved educational backgrounds, supported in the classroom by subject specialists.
11. The physical education program in a third of Minnesota's elementary schools consists of a free-play recess rather than a planned program of body building and skills development.
12. One-half of the elementary school principals reported having teaching responsibilities. This, combined with inadequate clerical assistance, seriously limits the role of the principal as an instructional leader.

13. Although 82 per cent of principals rate their libraries as average or better, fewer than one-half of all principals reported their school met basic standards in providing library services.
14. Data collected from teachers and principals indicate that experimental trials of team teaching and other innovations have occurred in only a few Minnesota elementary schools; however, such experimentation occurs more frequently as school size increases.
15. A variety of evidence obtained in the study suggests that many staff members of Minnesota elementary schools have not kept abreast of changes in curriculum content or advances in the technology of teaching devices. This educational lag appears to be due to (1) unawareness of new developments, (2) lack of equipment, and (3) inability to use new equipment.
16. The descriptions of the curricular offerings and modifications attempted point to the conclusion that the only widespread innovation in subject matter has been the almost universal (93 per cent) adoption of the "new math." Apparently this has been due to the availability of texts from commercial sources.
17. Educational television is being used in nearly one-half of Minnesota elementary schools, but is much more prevalent in larger schools than in small schools.
18. Summer school programs are found in nearly three-fourths of Minnesota elementary schools, but the practice is more prevalent in the larger schools. The number of summer school programs has increased dramatically in the past five years.
19. Data collected during the course of the survey indicate that nursery school education is a rarity in Minnesota school districts.
20. Elementary school principals report a wide variety of practices relating to the grouping of children according to academic ability.
21. Principals vary widely in the emphasis placed on classroom visitation and supervision.
22. Specialized facilities for instructional programs in art, music, and science are found in relatively few elementary schools.
23. Only 18 per cent of Minnesota's elementary schools provide any instruction in a foreign language. The incidence of such instruction increases as the size of school increases.
24. The language laboratory and the electronic classroom are little used in the state's elementary schools.

SECONDARY SCHOOL PROGRAM

1. Equality of educational opportunity does not exist in Minnesota. Most Minnesota secondary schools are too small to offer an adequate educational program. Too many children are being shortchanged educationally because of their place of residence.
2. Data from the study indicate the desirability of having at least 600 students in a secondary school.
3. A simple and clear line can no longer be drawn between education which prepares students for further study and education for entry into the labor force.
4. All sectors of society increasingly expect that all persons of secondary school age will graduate from high school.
5. Large numbers of secondary students who are academically able do not make plans for post-high school attendance, thus resulting in a loss of trained manpower to both the state and the nation.
6. The structure of course offerings in secondary schools with respect to the proportions of time that students devote to various areas of instruction has remained remarkably stable since the beginning of this century, almost to the point of crystallization.
7. The primary process of curriculum development used in the secondary schools is that of adding courses. Schools find it exceedingly difficult to discontinue subjects or to combine content from several disciplines into new courses.
8. Information collected about dropouts by the State Department of Education is not adequate to even identify the problem, much less aid in finding solutions. The reporting procedures are so poorly defined that the reasons for most dropouts cannot be determined from the reports. Little, if anything, appears to be done with the data after it is collected.
9. Data gathered in the survey indicate that districts with fewer than 1,000 secondary students are seldom able to offer as many as 80 courses in their secondary programs.
10. Regulations of the State Board of Education with respect to the amounts of time which students must spend in the various required courses and subject areas are in dire need of revision -- particularly at the junior high school levels.
11. Emphasis upon textbook reading and recitation as the major teaching activity seems to be inversely related to school district size. Small districts, inasmuch as they are often professionally as well as geographically isolated, appear to be strongholds in preserving the heavy use of this technique.



12. Survey data indicate that, for the state as a whole, heavy use of printed materials other than textbooks characterizes the work of only slightly more than one out of four secondary teachers.
13. Small districts appear to have no advantages toward enhancing the prospects that teachers will work individually with students; although irrespective of school district size, approximately half of the teachers indicated that they heavily emphasize this technique.
14. Minnesota secondary schools place more emphasis on having students learn facts and information than on any other type of educational aim with relatively little effort directed toward attainment of objectives having to do with fostering critical and reflective thinking, attaining values and attitudes, or developing sensitivities and feelings.
15. Special programs for physically handicapped students are considered by school administrators to be highly adequate in slightly less than 20 per cent of the secondary schools and it appears that larger districts are more likely to foster this adequacy than small ones.
16. Special programs for mentally handicapped students and specially-talented students are considered to be highly adequate in slightly more than one-third of the secondary schools and large districts are considerably better able to offer these programs.
17. School administrators reported that provisions in secondary programs for average students are highly adequate in approximately three out of four secondary schools.
18. Districts with fewer than 1,000 students in secondary enrollment are less able to offer special provisions for educating gifted and slow-learning students.
19. Principals in two-thirds of the districts (irrespective of size) reported separate classes for remedial reading.
20. Individualization of instruction (e.g., providing special education classes, ability and other types of grouping, etc.) is severely affected by small school district size -- especially as this size falls below 1,000 secondary enrollment.
21. Nearly six out of ten districts provide extensive homebound instruction for long-term absentees, but the ability of districts with more than 1,000 secondary students to provide this support is clearly superior.
22. Approximately nine out of ten districts in the state use ability grouping procedures in the secondary school, but only half of these support this administrative system with the use of differentiated materials. Moreover, districts with more than 2,500 secondary students offer this support to a much higher degree.

23. Districts with more than 700 secondary students are considerably more able to employ techniques by which to identify slow learners; moreover, techniques by which to identify gifted students are better provided in districts with more than 2,500 students.
24. Districts with more than 1,000 secondary students more heavily support special provisions for gifted students.
25. The most commonly used methods of providing for individual differences are likely to be supplanted in the future by more sophisticated devices such as computer-assisted-instruction and grouping of students on more flexible bases and schedules.
26. Approximately one out of three secondary school principals reported that their program needs updating in the areas of English and social studies. New curricula in these areas developed under projects of the United States Office of Education have been implemented by less than 4 per cent of the schools in the state.
27. Curriculum areas which stand out as those in which the schools have adopted newly-written national curricula are mathematics (72 per cent), science (31 per cent), foreign language (29 per cent), chemistry (21 per cent), and physics (17 per cent).
28. For the state as a whole, the areas of technology which have been used by the most schools are language laboratories and programmed instruction.
29. For the state as a whole, the most frequently used organizational innovation is that of team teaching -- but this is being tried in only 27 per cent of the secondary schools.
30. Approximately one-half of the secondary principals are highly satisfied with the extent of student participation in extracurricular activities: moreover, the proportion of principals satisfied with the extent of participation was not larger in small school districts.
31. Districts with more than 1,000 secondary students appear to be better able to include the following types of activities in their extracurricular programs: intramural athletics, subject area clubs, hobby clubs, debate teams, and service clubs. Moreover, their general offerings for girls are more complete.
32. About 40 per cent of the secondary principals feel that athletics are overemphasized in their extracurricular programs.
33. In approximately one-third of Minnesota's districts, teachers are required to be responsible for extracurricular activities to a high degree without a corresponding reduction in teaching load. Small schools have a greater problem because there are fewer teachers to supervise activities and the load per teacher is increased.

34. Nearly 40 per cent of the high schools in the state lack the services of a full-time librarian, with the districts having fewer than 1,000 secondary students being considerably less able to meet this criterion.
35. Districts with more than 700 secondary students are considerably better able to provide materials which meet standards of the American Library Association.
36. Teachers in districts with more than 1,000 secondary students have greater access to the use of a professional librarian as a resource person than do teachers in smaller districts.
37. The greatest priorities for improving libraries, in the eyes of the principals, are construction of better facilities, procurement of more full-time personnel, and addition and improvement of audio-visual equipment.
38. The three most adequate types of facilities, in the eyes of the principals are home economics, regular academic classrooms, and music rooms; the three least adequate are those for fine arts, foreign language, and agriculture.
39. Approximately six out of ten teachers feel that instructional materials, supplies, and equipment available to them are highly adequate, but the school districts with more than 400 secondary students seem better able to satisfy teachers in this respect.
40. Counseling, as a part of the guidance services, is given considerably more emphasis in school districts with more than 1,000 secondary students and, thus, it appears that students in these districts receive more help in making the increasingly complex decisions which confront them.
41. Guidance programs in large districts are more likely to place emphasis on activities generally considered by experts to be appropriate functions while counselors in small districts more often engage in activities considered inappropriate for this field (e.g., scheduling pupils, discipline, etc.).
42. In terms of importance, the function of college placement ranks first in districts with less than 250 secondary students despite the fact that less than one-third of their students continue on to college. In contrast, in districts with more than 1,000 secondary students this function ranks behind counseling, testing, providing information, orienting students, coordination with outside agencies, and vocational placement.
43. For the state as a whole, far greater efforts are expended through guidance departments toward placing students in college than in vocational placement despite the fact that eight out of ten students will enter the labor market with less than a college diploma.

44. A serious shortage of qualified counselors persists which renders many districts, especially those with fewer than 400 secondary students, without the availability of full-time personnel. Approximately 45 per cent of all schools in the state do not have full-time counselors and the present statewide counselor-student ratio of 1 to 509 is inadequate in terms of nationally-stated criteria.
45. Class sizes are increasing in approximately 30 per cent of the secondary schools, decreasing in approximately 20 per cent, and remaining constant in the others.
46. The ideal of the comprehensive high school is increasingly being eroded in the metropolitan centers, which follows a nationwide trend toward increased segregation of social and income classes in urban areas.
47. To better educate average students, principals report the greatest needs are in the areas of industrial arts, vocational education, and business or commercial courses, but the need for these kinds of additions is expressed with less frequency as the size of the district gets larger.
48. The highest priority area of improving educational provisions for potential dropouts as reported by secondary principals is in the general area of vocational and industrial education.
49. Considerably less secretarial and administrative help is provided to principals in districts with less than 1,000 secondary students.
50. Although approximately two out of three teachers indicate that the primary source of their supervision is the principal, less than one-third report that he exerts much influence upon their work. Thus, although the principal is the prime source of supervision, the extent of his impact seems to be considerably less than its potential.
51. There is an extremely wide variation in the extent to which teachers devote their full professional competencies and energies to preparing for and teaching classes.
52. Increasing the size of a school district and attendance centers increases the probabilities that teachers will work primarily or entirely in their major fields of preparation.
53. Secondary principals appear to be better prepared to provide instructional leadership with reference to broad and general questions of curriculum than with respect to providing specific suggestions to teachers in such matters as constructing courses of study or resource units.

VOCATIONAL, TECHNICAL, AND ADULT EDUCATION

1. Minnesota like many other states, appears to be moving in a number of different directions in trying to solve the problems of vocational-technical education. This situation causes some confusion and likely leads to unnecessary duplication of educational effort.
2. In addition to the programs operating in the area vocational-technical schools, two-year post-high school vocational programs exist in several other Minnesota institutions (state colleges, University of Minnesota, junior colleges), all of which receive financial assistance from the Division of Vocational-Technical Education of the State Department of Education.
3. There is difficulty in identifying which phases of post-high school vocational-technical education should be reserved for each type of institution offering vocational-technical education in Minnesota.
4. There are now 24 locally-operated area vocational-technical schools in Minnesota offering training in numerous occupations included in 34 major fields to 8,000 daytime students.
5. Approximately 170,000 adults throughout Minnesota enrolled in vocational, cultural, recreational, academic, and enrichment courses during 1965-66; of these, 130,000 adults were enrolled in courses offered by secondary schools and 40,000 adults were enrolled in courses offered by area vocational-technical schools.
6. The number of area vocational-technical schools has more than doubled since 1960.
7. State and federal financial support of vocational education within school districts maintaining area vocational-technical schools is, on the average, 80 per cent of the total support, with local support (including student tuition) providing the remaining 20 per cent.
8. It is difficult to actually determine the cost of operating an area vocational-technical school because of the present procedure which combines all vocational funds within a school district without separate accounting for the area school.
9. It is commendable that all but four of the area schools are located in either new or remodeled facilities.
10. Enrollments in the area schools have generally been on the increase, with the greatest growth in business and office fields and the smallest growth in agriculture-related programs.
11. No tuition is charged to the student under 21 years of age who attends an area school.

12. A student's precommitment to a specific occupation is a requirement for admission to an area school.
13. Professional personnel of the area schools feel strongly that reading and mathematics skills are highly essential to success in an area school.
14. The dropout rate in area schools is reported by the directors to be approximately 10 per cent.
15. Ninety per cent of the graduates of the area schools immediately enter the work force, and 93 per cent of these enter the occupations for which they were prepared.
16. All but one of the directors of the area schools holds at least a bachelor's degree.
17. The majority of the directors have had eight or more years of work experience in the vocational or technical field for which they are qualified to teach.
18. Sixty-one per cent of the area school teachers who responded to the questionnaire hold at least a bachelor's degree.
19. Two-thirds of the responding teachers reported that they are not presently working on a planned degree program.
20. Almost half of the responding teachers reported that they had more than ten years of work experience in nonteaching jobs related to their present teaching fields.
21. Only seven of the 24 area schools had full-time certificated counselors in 1966-67.
22. No two area schools offer identical curriculums; rather, they are locally developed with the assistance of advisory committees and approved by the State Board of Education.
23. Written objectives pertaining to any area school as a whole and those used for specific courses are generally locally developed. Most curriculum material is developed by the teachers themselves in consultation with local advisory committees. Viewpoints of parents and other members of the community appear to have limited influence on the teaching in area schools.
24. The area school directors responded two to one that the needs of students have more influence on their instructional program than do the requirements of the State Department of Education.
25. The area school directors indicated little or no obligation to articulate their programs with secondary schools but rather place emphasis on the responsibility to articulate with the requirements of business and industry.

26. General education subjects are typically not offered in the area schools, but related courses are given for some specific fields.
27. Demonstration, student practice, and individual work with students are typical techniques of instruction in the area schools.
28. Over half of the responding area school teachers reported that they considered supervisory visits by State Department of Education personnel to be of little or no use in helping them with their instructional programs.
29. Forty per cent of the responding teachers reported that their directors are of little or no help in keeping their teaching up-to-date while half of the directors indicated that they were highly satisfied with their supervisory contacts with their teachers.
30. The types of inservice training used most often in area schools are departmental meetings and pre or post-school workshops; the type least used is part-time employment in the occupation which is related to the teaching area.
31. Area school teachers reported that generally they consider faculty meetings to be of little help in improving instruction.
32. Almost two-thirds of the teachers responding did not have class-free time during the day to use in preparation for their instruction.
33. The directors are generally satisfied with the adequacy of their instructional equipment and their classroom libraries.
34. The majority of the teachers reported that they consider the adequacy of the physical facilities of their area school to be above average.
35. New audio-visual devices for aiding instruction, such as 8 mm. (single concept) projectors, filmstrips, and videotape recorders, are generally not available for use in the area schools; however, those audio-visual aids that are available were reported to be used extensively by the teachers.

#### POPULATION AND ENROLLMENTS

1. The Minnesota population growth rate lags behind the national growth rate. For the period 1950-1960 the United States growth rate was 18.5 per cent compared with 14.5 per cent for Minnesota. For the period 1960-1965 the national increase was 8.1 per cent compared with 4.1 per cent for Minnesota.

2. Minnesota population trends follow a pattern common to the 12 Midwest states. The general pattern is a low growth rate for the state as a whole, but various growth rates for areas within the state. Minnesota is one of the Midwest states which has experienced a net out-migration of population during the 1950's and 1960's.
3. Within the state of Minnesota, population changes have shown vast variations. For the period 1950-1965 the per cents of change in five geographical areas of the state were as follows:

Area A (Metropolitan - 7 counties)	+40.7 per cent
Area D (Southeast - 29 counties)	+13.0 per cent
Area B (Northeast - 13 counties)	+ 4.0 per cent
Area C (Northwest - 15 counties)	- 0.6 per cent
Area E (Southwest - 23 counties)	- 4.8 per cent

4. In Minnesota for the period 1950-1965, 15 counties had population gains above the state increase (19.2 per cent), 28 counties had increased populations but the rate of increase was less than for the state, and 44 counties had a population decrease for the period. The counties with the greatest population growth were in the Metropolitan Area.
5. The number of annual births recorded at all governmental levels has been declining in recent years. The number of births in Minnesota has declined at a faster rate than on the national level. From 1961 to 1966 Minnesota births decreased by almost 23 per cent, while births in the nation decreased by only 15 per cent. It is expected, however, that this period of declining births may be near an end. School enrollments will be affected as the smaller number of children born in recent years progresses through the grades.
6. Minnesota school census data show that since the peak year of 1961 the number of children in the 0-5-year-old group has continually declined. This means that enrollment on a statewide basis will decline. The impact is already being felt on the elementary school level and will be reflected in the secondary school-age level by 1975.
7. The public school enrollment pattern for the period 1956-1966 has shown continuous growth. The overall grades 1-12 enrollment has increased by 33 per cent during the past ten years; the secondary enrollment increase of 45 per cent is almost twice the 24 per cent increase at the elementary school level during the ten-year period. The lower rate of increase in elementary school enrollment leads to the conclusion that secondary enrollment will continue to increase but at a slower pace than in the past.
8. The public school enrollment trends have varied within the state. The largest increases in public school enrollments have been in the Metropolitan Area. In 1956-57, 36 per cent of the public school enrollment for the state was in the Metropolitan Area, while in 1965-66, 44 per cent was in the Metropolitan Area.



9. The relative enrollment distribution between public and nonpublic schools has not changed substantially during the past ten years. However, while nonpublic school enrollment was 18 per cent of total enrollment for the school years 1956-57 and 1965-66, the nonpublic school percentage was as high as 20 per cent for the period 1959-1962.
10. Total public school enrollment (grades 1-12) in Minnesota is projected to decline slightly from 1967-1977. This projection is predicated on the decline in number of births and the decreases recorded for the early age groups on the school census. This predicted trend might be modified by a change in birth rates, increased migration, a change in the pattern of nonpublic school attendance and increased holding power of the schools. The peak (grades 1-12) enrollment is predicted to occur in 1969-70 at 802,756. This is an increase of 37,074 over the 1965-66 grades 1-12 enrollment of 765,682.
11. The projected enrollment trends for the next decade differ for the elementary and secondary school levels. For the state as a whole, elementary school (grades 1-6) enrollments from 1967-1977 will decline by 14.9 per cent to 348,090; secondary school (grades 7-12) enrollments will increase by 9.0 per cent to 414,937.
12. Projected public school enrollments vary considerably for the five geographical areas of the state. For the period 1967-1977 the per cents of projected changes by areas for the total grades 1-12 enrollment are:
 

Area A (Metropolitan)	+ 8.9 per cent
Area D (Southeast)	- 6.2 per cent
Area C (Northwest)	-13.8 per cent
Area B (Northeast)	-19.6 per cent
Area E (Southwest)	-22.2 per cent
Statewide	- 3.4 per cent
13. A continued recording and analysis of population, enrollment, and school census data is very valuable in the overall educational planning process. The State Department of Education has already recognized the need for careful evaluation of the pupil accounting function by the employment of a study group (ARIES Corporation) to conduct a systematic study of what information is needed and to develop guidelines for streamlining the retrieval and dissemination of this information.
14. Generally the information on population, enrollment, and school census is readily available, on a reasonably accurate basis, but the accuracy of school enrollment and school census data is still highly dependent on the conscientious concern of administrators in each local school district.
15. The weakest links in the pupil accounting system are the enumeration of the preschool-age children on the school census and the reporting of nonpublic school enrollments.

PROFESSIONAL PERSONNEL

1. On the basis of facts disclosed by the study of professional personnel, it has been determined that teacher preparation, teacher qualifications, professional assignment, availability and distribution of educational specialists, and compensation reflect a situation which is more educationally sound in the larger school districts of the state.
2. In districts maintaining both elementary and secondary schools, more than 20 per cent of the elementary school teachers have less than four years of preparation and only 6 per cent hold graduate degrees. In districts maintaining only elementary schools, 82 per cent of the teachers have less than four years of preparation and only 2 per cent hold graduate degrees.
3. Less than one per cent of all secondary school teachers have less than four years of preparation; however, graduate degrees have been earned by only 21 per cent of these teachers, while the national average is 34 per cent.
4. In districts with more than 500 secondary school pupils, a significantly higher percentage of secondary teachers have five or more years of professional preparation.
5. Approximately two-thirds of elementary and secondary school teachers have attended a college or university within the past two years, but only one-half of those who attended are pursuing a planned program.
6. Almost 6,000 elementary school teachers hold life certificates. Many of these were obtained under certification standards which no longer exist and are based on qualifications which are below current minimum standards.
7. It is undesirable that one elementary school teacher of each 30 holds a limited or provisional certificate.
8. More than one-third of the high school principals in districts with fewer than 250 secondary pupils do not have a master's degree.
9. Ten per cent of all superintendents and assistant superintendents do not hold a master's degree.
10. The number of class preparations of secondary school teachers is inversely related to school district size.
11. The smaller the secondary school district, the greater the likelihood that specific subjects are taught by teachers uncertificated to teach in those subject areas.

12. In the districts maintaining both elementary and secondary schools, 48 per cent of the elementary school principals and 33 per cent of the secondary school principals teach classes all or part of the time. Principals are more commonly assigned teaching duties in the smaller schools.
13. Seven per cent of elementary school teachers in districts maintaining both elementary and secondary schools, and 87 per cent of teachers in districts maintaining only an elementary school teach classes composed of more than one grade.
14. The pupil-teacher ratio of elementary schools is 26:1, slightly less than the national average. The ratio within districts varies from 8:1 to 40:1.
15. The pupil-teacher ratio in secondary schools ranges from 14:1 to 23:1, with the lowest pupil-teacher ratios to be found in the smallest districts, and the highest pupil-teacher ratios to be found in the largest districts.
16. In recent years, the most serious shortages of teachers were in the areas of elementary education, English, music, girls' physical education, counseling, library services, and special education.
17. Although there has been a shortage of elementary school teachers and a general surplus of secondary school teachers, more graduates of Minnesota teacher-preparing institutions are prepared in secondary education than in elementary education.
18. Of all education graduates from Minnesota insitutions in 1966, only 52 per cent took a teaching position in a Minnesota public school upon graduation. In elementary education, an area of chronic and critical shortage, four out of every ten 1966 graduates did not teach in a Minnesota public school the following year.
19. There is a severe shortage of librarians in the state. Only ten of the 106 districts with fewer than 200 secondary pupils have a librarian. Two-thirds of all elementary school librarians are employed in the 27 largest districts. Minnesota teacher-training institutions are not preparing an adequate number of librarians to keep pace with the state's increased demand.
20. Data available for the 1965-66 school year indicate that the services of guidance counselors were not available in one-half of the districts maintaining both elementary and secondary schools. The larger the district the greater the chance that there will be a secondary school guidance counselor.
21. In the entire state of Minnesota, there are only 12 certificated elementary school counselors. The services of a guidance counselor are not available in 94 per cent of the elementary schools in Minnesota. No certification standards and no preparatory programs for elementary school guidance counselors presently exist in the state.

22. Districts with fewer than 1,500 secondary school pupils employ very few educational specialists.
23. During the past ten years Minnesota has compared very favorably with other states on the basis of teacher salaries; however, in recent years increases in salary for Minnesota teachers have not kept pace with salary increases for teachers throughout the nation.
24. Compensation for professional educators is better in the larger school districts.
25. Elementary school teachers' salaries are directly related to school district size. In the smallest schools, approximately 65 per cent of elementary school teachers earn less than \$5,000 while in the largest schools approximately 65 per cent of elementary school teachers earn more than \$6,000. In districts maintaining only elementary schools, more than 86 per cent of the teachers earn less than \$5,000 a year.
26. The average maximum salary paid to secondary school teachers at the bachelor's degree level is approximately \$2,000 more in the Twin Cities metropolitan area than the state average; average maximum salary at the master's degree level is approximately \$2,500 more than the state average.
27. Among the 12 Midwest states, Minnesota's average secondary school teacher's salary is exceeded only by Illinois, Indiana, and Michigan.
28. Only a small percentage of Minnesota's school districts provide adequate fringe benefit coverage for their teachers. Only 27 per cent underwrite some form of health insurance; 11 per cent underwrite some form of life insurance; only one-half allow more than 60 days accumulated sick leave; 29 per cent provide some form of tuition reimbursement; and only 7 per cent provide for sabbatical leaves.
29. The Minnesota state teacher retirement system benefits are among the least adequate in the Midwest. The Minnesota retirement system is one of few in the United States which does not pay interest on funds withdrawn by a teacher before he is eligible for retirement.
30. One out of every four school districts does not have any form of written board policies. Moreover, on the basis of questionnaire responses, it appears that most teachers and a majority of principals do not participate in policy formulation.
31. The Minnesota Legislature in 1967 took a significant step in improving the Minnesota teacher tenure law by adopting a law which provides for a year's probation each time a teacher changes positions from one district to another.

STATE DEPARTMENT OF EDUCATION

1. The State Department of Education is making strong efforts to provide leadership and service to Minnesota public schools, but it has problems relating to definition of role, organization, authority, staffing, and public and professional relations.
2. Authority of the State Department of Education is lacking or inadequate in important educational affairs, such as school district organization, school district bonding, school sites, plant construction, state aids, and management of Department personnel.
3. The State Department of Education has given more emphasis to regulatory and operational functions than to its leadership role.
4. There is need for greater flexibility in Department regulations that will encourage innovation and experimentation in local school systems.
5. The State Department of Education has been slow in enforcing accreditation and classification standards for local schools.
6. The State Board of Education unfortunately lacks authority in the recruitment, selection, and determination of salaries of Department professional staff.
7. Professional personnel can be more effectively recruited, retained, motivated and organized if removed from State Civil Service.
8. Conflict of interest as related to membership on the State Board of Education is not clearly defined in the Minnesota statutes.
9. Special investigating or "fact-finding" committees of the State Board of Education are not appropriate to the Board's chief function of policy-making.
10. The Commissioner of Education is overburdened with administrative details which result in unnecessary delays in both internal and external communications, thereby frequently impairing effective relations with local school districts, other governmental agencies, and the public.
11. Lines of responsibility and authority in the State Department of Education are not sufficiently well defined for control, coordination, and direction of activities of the Department.
12. The utilization of advisory committees is desirable but there is need to emphasize that their function is advisory only and that the ultimate responsibility always rests with the State Department of Education.

13. The salaries of the Commissioner of Education and other key Department personnel have not been commensurate with the qualifications and responsibilities of the positions.
14. In 1948, the salary of the Minnesota Commissioner ranked second in the group of 12 selected states, ranked seventh by 1964, and dropped to eighth rank by 1966-67.
15. The position of Assistant to the Commissioner is not in keeping with an effective organization plan for the Department as authority and responsibility cannot be vested effectively in a position of this type.
16. There is a need for a Deputy Commissioner to assist in the control, coordination, and direction of all Department activities and to relieve the Commissioner of administrative detail.
17. The Special Education Section, while involved with Vocational Rehabilitation Division efforts to some degree, is charged with assisting local school districts in elementary and secondary education; therefore, Special Education is more appropriately placed in the Division of Instruction.
18. Teacher Placement Services and existing operational aspects conducted by the Vocational Rehabilitation Division and the Vocational Education Division are not appropriate to the primary functions of the Department.
19. There is a need for the State Department of Education to provide employment counseling to school districts rather than a placement service for individual teachers and administrators.
20. The service and leadership functions of the State Department of Education can best be strengthened by concentrating all personnel and services in the central location rather than moving toward a decentralized arrangement.
21. Title I regional offices and Title II regional demonstration centers were established to expedite project proposals for federal funds. Although these regional offices are intended to be service centers, there is a danger that they may assume authority with a resulting conflict between the regional and state offices.
22. The State Department of Education has not developed a strong relationship with educational research and development councils.
23. The need to assimilate new activities and additional personnel resulting from the increase in federal programs has created internal problems in communication and coordination for the State Department of Education.
24. Research conducted by the State Department of Education is limited and not coordinated; dissemination of research findings is restricted and the findings have little impact in local school districts. Studies now being conducted should assist in designing an informational system which will facilitate research.

25. Department professionals tend to become generalists because of the broad scope of their assignments.
26. The conflicting nature of responsibilities and duties in regulatory and leadership functions of the Department professionals reduces the effectiveness of their relations with public school personnel.
27. Consultant assistance by the Department professional staff is restricted because of limited opportunity for direct relations with classroom situations.
28. Survey responses by board chairmen, superintendents, and principals indicate that school visitations by State Department of Education professional staff are insufficient in number, inadequate in purposes, and often do not relate directly to the instructional personnel and processes.
29. School personnel in Minnesota report dissatisfaction with state curriculum guides citing obsolescence and inadequate content.
30. The State Department of Education has essentially been concerned with educational problems and programs of outstate school districts and has had minimal relationships with metropolitan area school districts.
31. The establishment of a Learning Resources Unit within the Department was a forward step but in practice the library and audio-visual units continue to function as two separate operations.
32. Trained legal assistance is not available to the desired extent to the State Department of Education nor are legal information, case descriptions, opinions, and decisions compiled and catalogued adequately for prompt service to local school districts.
33. Inadequate clerical personnel make it necessary for professional staff members to perform clerical duties, a practice which is uneconomical and a waste of professional talent.
34. Unattractive salaries and Civil Service Department regulations pertaining to the clerical staff have resulted in high turnover, lower than desirable performance standards, and inadequate incentives.
35. Inadequate provisions and rigid restrictions relating to professional growth and improvement have retarded interest by State Department of Education staff in continuing education and development. The plan to provide internships, inservice training, travel, and assigned study opportunities for the State Department of Education under Title V of the Elementary and Secondary Education Act is commendable.
36. The Personnel Unit is inadequately staffed to provide job descriptions which clearly indicate authority and responsibility of staff members, orientation, and inservice training programs for staff personnel.

37. Although most of the State Department of Education services are in the Centennial Building, a shortage of space has caused some essential and related activities to be relocated in other separate facilities. Poor office arrangement and excessive storage of materials beyond necessary utilization are factors in this shortage; however, the major cause is the lack of floor space.
38. Professional library materials are not centralized and provisions for collection are inadequate; therefore, utilization by the State Department of Education staff is not facilitated.
39. Department leadership in the development of a modern data processing system, as evidenced by the ARIES Corporation study and the Department's involvement in the Midwestern States Educational Information Project is commendable. However, there is a need to coordinate and implement the studies, to improve and expand forms control and design, and to update and revise information requested from local school districts.
40. Accounting procedures based on single-entry bookkeeping and involving the complexities of multiple funds lack the essentials of program accounting and fail to provide up-to-date financial information.
41. Present accounting procedures, which do not separate costs of elementary, secondary, and area vocational-technical schools, do not permit adequate cost analysis studies to be made.
42. Procurement restrictions for local purchase authority are not realistic for modern business operations of the Department.

#### SCHOOL DISTRICT ORGANIZATION

1. Education in Minnesota is a state responsibility, for the State Constitution charges the legislature with the responsibility for establishing "a general and uniform system of public schools."
2. The establishment of sound school district organization in Minnesota, despite some improvements, has not kept pace with changing conditions and educational demands.
3. The establishment of sound school district organization and the formation of attendance centers which are of sufficient size to promote educational efficiency are of the highest priority if Minnesota is to fulfill its obligation of an equal and adequate educational opportunity for every school-age child.



4. While there has been a substantial reduction in the number of school districts under permissive legislation enacted by the legislature in the last 20 years, there has been virtually no progress in creating or developing a sound pattern of district organization. In fact, the reorganization of the rural common school districts under the permissive 1947 legislation which established County School Survey Committees has been a slow and disrupting process. In some cases it has resulted in reorganization proposals designed primarily to bolster high school districts which even after the addition of the common school district territory must be considered weak and ineffective districts.
5. The enactment of Chapter 547 into law in 1963 provided for the mandatory merging of all districts not operating a school with districts maintaining schools after July 1, 1965. The smooth manner in which 197 of these districts voluntarily merged with districts operating schools during the 1964-65 school year, and in which 267 of these districts were legislated out of existence during the 1965-66 school year is evidence of the effectiveness of mandatory legislation in the reorganization process.
6. The 1967 Legislature is to be commended for its leadership in the passage of legislation which will require all territory of the state to be in a school district maintaining both elementary and secondary schools by 1971. This legislation, if properly implemented, will pave the way for the next step in school district reorganization.
7. Great care should be exercised in the implementation of the 1967 reorganization law to insure that the school districts which operate only elementary schools will be attached to high school districts which are soundly organized or to districts which have the elements necessary for the development of a strong district.
8. The State Advisory Commission on School Reorganization and the State Department of Education have provided valuable leadership in working toward sound school district organization in the state.
9. The State Department of Education does not have sufficient authority to promote the establishment of sound school districts and to prevent undesirable mergers of existing districts.
10. The experiences in Minnesota and in other states demonstrate that effective district organization can be best attained through mandatory legislation.
11. Minnesota has done little to establish school districts with enough students to offer a comprehensive program; of the 452 school districts operating elementary and secondary schools, 49 have fewer than 150 secondary students, 148 have between 150 and 299 secondary students, 107 have between 300 and 500 secondary students for a total of 304 districts with fewer than 500 secondary school students.

12. Approximately 75 per cent of the Minnesota school districts offering programs of secondary education have secondary enrollments too small to support the necessary breadth of program offerings.
13. The continued existence of many school districts with small high school enrollments represents an uneconomical utilization of state funds available for education and it results in an uneconomical use of the limited number of qualified professional personnel in the various specialized fields.
14. It is important that a distinction be made between the terms "administrative unit (school district)" and "attendance area (the area served by a particular school building)." This is a difficult distinction to make in Minnesota since most school districts and attendance areas have the same boundaries. However, it is essential that the citizens of Minnesota understand that an administrative unit may operate several attendance areas, and that the development of sound attendance centers can proceed only with the operation of larger school administrative units.
15. Research on the desirable pupil enrollments for elementary school attendance centers (grades 1-6) suggests from 300 to 600 pupils as a recommended standard. Research further supports a school size of two to four sections per grade and no elementary attendance center with less than one section per grade.
16. Research on secondary attendance centers supports the desirability of having more than 1,000 students in a secondary school attendance center and no fewer than 600 in any secondary school. Separate senior high schools require a minimum of 750 for a senior high school and a minimum of 500 for a junior high school or middle school.
17. Research on school district size suggests a minimum of 10,000 enrollment (grades 1-12) if a district is to provide the multitude of special services and the staff desirable on a district-wide basis, as well as have adequately-sized attendance centers.
18. The county superintendency in Minnesota has served a useful role in enhancing educational opportunity in the past generations, but it was established to serve a type of school and condition that no longer exists. The 1967 legislation requiring the merger of all districts operating only elementary schools removes all justification for an intermediate unit coterminous with county boundaries.
19. Minnesota school districts, including the larger well-organized districts, have called attention, largely through the establishment of research and development councils, to the need for area-wide educational service development. Some of the service functions already identified by well-organized districts as needing area-wide coordination are: (a) special education programs, (b) curriculum development, (c) data processing, (d) assistance with federal grants and programs, and (e) inservice programs for professional staff.

20. Research and development councils have developed largely through the efforts and initiation of the local school districts and are rapidly responding to the service needs of the participants. The Educational Research and Development Council of the Twin Cities Metropolitan Area has been in existence for four years and is now well established with several service functions well under way but it is now establishing separate boards to operate some of the service functions it has developed.
21. The research councils that now exist have a variety of stated purposes and the State Department of Education has not played a role in guiding the development of these organizations. The Twin Cities Metropolitan Area Council has chosen to define its role as that of research, demonstration, and development, but most of the other councils consider the providing of services as their major purpose.
22. The outstate research councils, all developed since 1965, are utilizing federal funds (Title III of Elementary and Secondary Education Act) as their major support in the initial stages of their development.

#### PUBLIC SCHOOL FINANCE

1. Minnesota's economy is increasing but at a less favorable rate than the United States average.
2. Minnesota's economy is capable of supporting a sound public education system, however, because Minnesota has a per capita income slightly below the national average this requires an above average effort.
3. Minnesota is changing from an economy based on natural resources to one based on human resources.
4. Minnesotans have made a high tax effort in order to finance public schools.
5. Nearly two-thirds of the support of public schools comes from local sources and one-third comes from state sources. Federal support was negligible until the passage of the Elementary and Secondary Education Act of 1965.
6. Equalized state support has been difficult to obtain because of a wide range in property valuations per pupil among school districts and geographic areas in the state.
7. The property tax base has not increased as fast as the educational finance demands placed upon it. This has been caused by the failure of property values to keep pace with rising enrollments, increased education costs, and the increased scope of education programs.
8. Latest complete figures showed a 42.6 per cent growth in tax exempt property compared to only an 11.5 per cent growth in total assessed valuation.

9. State support has not increased as fast as the decline in adjusted assessed (EARC) property valuations per pupil in Minnesota, thus placing a greater burden on local tax support.
10. A local economic index would not be appropriate as a measure of local ability in the computation of state aid distribution for the following reasons:
  - a. A local economic index is appropriate only in states in which county or regional units of government are coterminous with school districts.
  - b. Use of the local economic index is particularly inappropriate in a state where local school boards have no authority to levy taxes upon sales or personal and corporate income, but are limited to property taxation alone.
11. The ratio of adjusted assessed valuation to full and true valuation (EARC ratio) would be subject to less yearly fluctuation if the ratio were established on a biennial basis and/or if valuations were computed on a larger assessment base, i.e., a county.
12. The present Foundation Program Aid formula is based on the premise that all school districts have equal access to the property tax base. The above premise is valid only if statutory and charter restrictions on local school tax rates are eliminated or modified.
13. School districts which include property subject to taconite and/or gross earnings taxation currently receive an excess in Foundation Program Aid because the present equalization formula does not fully reflect the direct aid received from taconite and/or gross earnings taxes.
14. Special state appropriations to school districts which have tax exempt property such as railroads, airport, trust fund, and/or forest lands are not justified. All districts have tax exempt property and certain types of tax exempt property should not receive special treatment.
15. State income tax receipts, which furnish the largest share of the funds for state support for education, are subject to many fluctuations in the state and national economy.
16. Although the receipts from the state income tax are dedicated by statute to elementary and secondary education, diversion of funds from this source for other purposes has been common.
17. The best method of providing property tax relief for local school districts is to increase state support for the public schools.
18. The effect of the Tax Relief and Reform Act of 1967 in school districts outside the cities of the first class will be to provide property tax relief rather than to provide additional revenue.

19. The Tax Relief and Reform Act of 1967 will provide school districts with a substantial amount of money which will be distributed outside the state aid program. These funds will be distributed as a flat grant rather than on an equalization basis.
20. An increasing share of the local tax levies is being used for public school purposes; and a decreasing share of the local tax levies is being used for county, city, village, and township purposes.
21. Minnesota's numerous property tax classifications serve to place unequal tax valuations on properties of equal market value.
22. The establishment of a system of county assessors was a forward step and should help equalize assessment practices.
23. Cities of the first class are unable to raise sufficient funds for public schools due to local demographic, sociological, economic, and political factors.
24. The median maintenance cost per pupil unit has increased 53 per cent since 1957. The increase is a result of inflation, the increased scope of educational programs, and educational staff salary increases.
25. Minnesota's current expense per pupil is greater than the United States average because of above average teachers' salaries, quality education programs in some districts, and inefficient school district organization throughout the state.
26. State Foundation Program Aid is distributed on a flat grant basis (Formula B) as well as on an equalization basis (Formula A).
27. The per pupil unit cost used in the computation of Foundation Program Aid, as established by the legislature, is considerably below the average cost in the state. As a result the low ability districts have to make a much greater tax effort than the high ability districts.
28. A Foundation Program Aid, based on the average cost in the state, will bring about better equalization of educational opportunity among school districts.
29. Because the present foundation program does not include capital outlay and amortized debt service costs, many school districts are forced:
  - a. To direct funds that would normally be expended for maintenance into capital outlay and debt service requirements.
  - b. To increase local tax rates.
  - c. To operate with inadequate facilities.

30. Capital outlay and debt service costs will continue to increase in Minnesota as construction and interest costs increase and educational programs expand.
31. The present pupil weighting of 1.0 for elementary pupils and 1.5 for secondary pupils does not reflect the true difference in per pupil costs.
32. Average daily membership (ADM) is a better measure than the currently used average daily attendance (ADA) for determining costs.
33. Financial rewards from the state would encourage school districts to establish quality features in their educational programs.
34. Financial penalties imposed by the state would curtail unjustifiable and harmful practices and procedures currently found in some school districts.
35. The existing Foundation Program Aid does not prevent or discourage undesirable pupil-staff ratios.
36. Attraction and retention of highly-qualified certificated staff members are not encouraged by the present Foundation Program Aid.
37. An extension of the school year is not encouraged by the present Foundation Program Aid.
38. The present Foundation Program Aid does not adequately compensate for the educational overburden that exists in some school districts.
39. Inadequate school districts are not encouraged to reorganize effectively by the present Foundation Program Aid.
40. State transportation aid limitations prevent some school districts from receiving aid for the transport of their pupils. This is a particular hardship for some school districts because they are unable:
  - a. To provide for the safety of children who must traverse congested traffic lanes.
  - b. To eliminate de facto segregation patterns.
  - c. To alleviate the effects of a mobile and shifting population.
  - d. To prevent the diversion of self-borne transportation costs from maintenance funds.
41. The ceiling of \$60 per pupil transported placed upon the amount a school district can receive from the state for transportation aid is unfair to districts in areas with high transportation costs due to sparsity and distance.

42. The present method of transportation aid distribution does not encourage efficiency and economy.
43. The impact of density and sparsity factors on transportation costs per pupil are not recognized by the present transportation aid distribution formula.
44. The varying ability of school districts to pay for transportation costs is not recognized by the present transportation aid formula.
45. Special education aids are best distributed outside the foundation aid formula.
46. Special education aid is not sufficient to cover the added cost of providing the required special education services.
47. A state guarantee of school district bonds would result in lower interest costs to school districts.
48. The present state loan program is minimal and only those few districts which have reached their bonding limitations are eligible.
49. The manner in which state aids are calculated and paid is overly cumbersome.

## R E C O M M E N D A T I O N S   O F   T H E   S U R V E Y   S T A F F

The findings and conclusions and the data presented in previous chapters formed the basis for the recommendations of the survey staff. These recommendations represent the efforts of the survey staff to find solutions to the problems revealed by the study. The recommendations, like the rest of the report, represent the combined efforts of the staff. These recommendations also reflect the background of experience and knowledge of the survey staff and to this degree they are subjective -- but subjective in terms of professional judgments.

The recommendations represent the professional judgment of the survey staff and were arrived at independently. While many of these may have been suggested by various individuals and groups, their inclusion here is solely on the basis of their appropriateness as determined by the survey staff.

The order of presentation is the same as was used in presenting the major findings and conclusions in the previous section.

E D U C A T I O N A L   P R O G R A M   I N   E L E M E N T A R Y   A N D   S E C O N D A R Y   S C H O O L S

It is recommended:

1. That the State Department of Education develop an accreditation system for schools under its jurisdiction and that such an accreditation system include the power needed to insure the enrollment of every public school child in a quality educational system.
2. That personnel in the Division of Instruction in the State Department of Education adopt as their primary leadership technique that of coordinating the forces necessary for improving education in local districts rather than the function of trying to supply, directly, supervision, consultation and innovative thinking to local personnel. Its specific leadership role in curriculum and instruction should be three-pronged: (1) coordination, (2) dissemination of information, and (3) regulation toward higher levels of innovation and more comprehensive programs.
3. That the school year be lengthened immediately to a minimum of 175 days in session on a statewide basis.
4. That the State Department of Education implement a statewide framework to insure clarity, breadth, and openness in the development of educational goals and objectives. Specifically, this should include processes at both the local and state levels by which the general public representatively formulates overall statements of educational goals which reflect needs identified at these and at the national level. In addition, the State Department of Education should endeavor to inform professional educators and the public of the directions in which local districts have decided to move if they depart from goals identified at the state level.



5. That the State Department of Education working with other professional organizations and college and university personnel organize and implement a statewide plan of consultation wherein every teacher will be exposed to the ideas of college and university experts in his field and in the general curriculum area at least every two years.
6. That the State Department of Education coordinate curriculum specialists from colleges and universities to supplement visits to local school districts, that the resulting written recommendations be acted upon by local boards of education, and that records of this action be forwarded to the State Department of Education.
7. That the State Department of Education, upon identifying the recommendations submitted by college personnel but not adopted by local districts, form task forces to stimulate the changes that have been recommended but not accomplished.
8. That the State Department of Education institute a program to insure continuous updating or revision of curriculum guides provided to schools.
9. That greater attention be given to the local development of curriculum guides, particularly in areas where local conditions are unique.
10. That school systems be encouraged to utilize in appropriate ways local citizens and staff members whose talents, backgrounds, or occupations would supplement the instructional program. Appropriate guidelines to aid schools in formulating such programs should be developed by the State Department of Education.
11. That the State Department of Education include in the information gathered annually from local districts data showing not only the rationales behind innovations undertaken, but, also, similarly comprehensive information explaining lack of experimentation or change. Districts which do not innovate should be required to justify their actions at least as much as those who do.
12. That the State Department of Education systematically gather information from local districts showing the extent to which various teaching techniques and educational practices are characteristic of classroom and other types of instruction as a basis for statewide planning to improve teaching through inservice education, to develop new staffing patterns, and to implement new technology.
13. That the standards of the State Board of Education relating to the use of textbooks encourage the use of a wide array of printed materials particularly in the "knowledge explosion fields such as science, social studies, and technology."
14. That a special task force be appointed to develop plans for implementing present and forthcoming innovations directed at individualizing instruction for all types of students, such as computer-assisted-instruction and pupil grouping based on many variables.

15. That research in curriculum areas be greatly increased on local and state levels, with professional assistance from colleges and universities, and that the results of such research be widely disseminated.
16. That the State Department of Education, in cooperation with other interested groups within the state, undertake studies of the "middle school" and other forms of organization for instruction to determine their relative effectiveness.
17. That the State Department of Education adopt policies by which districts which undertake new organizational forms, such as the "middle school," will not have undue difficulty in regard to teacher certification or the awarding of state aids.
18. That systematic procedures for the identification of the culturally deprived, the physically and/or emotionally handicapped, the talented, and the retarded be provided in all school systems.
19. That every school system provide, for those children so identified, programs such as individualized instruction, ability grouping, enrichment, and use of differentiated instructional materials, appropriate to the needs of the culturally deprived, the physically and/or emotionally handicapped, the talented, and the retarded.
20. That local school districts reexamine and improve their efforts in identifying and encouraging academically-able students from low income backgrounds.
21. That the State Department of Education include among the data gathered in annual reports from local districts information showing the extent of pupil mobility within and between districts inasmuch as increased mobility generally requires additional costs to individualize instruction.
22. That all professional organizations in education accept their responsibilities in the area of educational program in Minnesota schools and give greater emphasis to program improvement.
23. That local school systems increase markedly the amounts of clerical and administrative assistance to school principals.
24. That local school systems provide more teacher aides and secretarial help to relieve teachers of nonprofessional duties.
25. That supervisory and inservice programs be improved and that principals work closely with teachers in planning and implementing such programs.
26. That the State Department of Education in cooperation with teacher-training institutions develop a comprehensive plan for training quickly the number of counselors needed to staff adequately the state's high schools and elementary schools.

27. That the State Department of Education formulate a plan to make available to all districts specialists in psychology, social work, and other general pupil personnel services.
28. That the State Board of Education appoint a special task force to formulate a plan by which every school of the state would have access to a quantity and quality of instructional materials equal to the best now offered in the state through the use of a computer-based information retrieval system and other new techniques.
29. That future school construction and remodeling of schools in Minnesota reflect the growing importance of the library or learning materials center as a primary center of learning.
30. That every elementary and secondary school have an adequate library staffed with a trained librarian and have access to an adequate instructional materials center.
31. That staff services and facilities of school libraries be available to pupils, teachers, and the community beyond the conventional school day and school year.
32. That the present library standards of the State Department of Education be replaced with the higher standards of the American Library Association.
33. That all school districts be required to provide facilities, equipment, and staff necessary for a well-equipped instructional materials center.
34. That local school systems be encouraged to make wider use of summer school programs and that state aid for such programs be continued.
35. That all school districts provide adequate homebound instruction for long-term absentees.
36. That planning and construction of school buildings be based on sound educational planning. Such planning should reflect the goals, objectives pupil population, and resources of the community to be served.

#### ELEMENTARY SCHOOL PROGRAM

It is recommended:

1. That every elementary school have the services of: a certificated, nonteaching principal, a trained librarian, a counselor, a nurse, specialists in subject areas such as art, science, music, and physical education, remedial teachers, and clerical personnel.

Additionally, the State Board of Education should recognize in its policies that the research supporting figures for maximum sizes of attendance centers is somewhat uncertain. Therefore, it should be noted that in order to obtain comprehensiveness of student population in urban areas, it may be necessary to either exceed these maximums or to concentrate attendance centers at one location.

5. That the Department of Education revise requirements relative to the proportions of time students must spend in the various subjects implementing the current proposals of the joint committee of the Minnesota Association of Secondary School Principals and the Division of Instruction. It is further recommended that similar flexibility be incorporated into the regulations for high school requirements as outlined below:

Based on the idea that the three-year periods of junior and senior high school can be generally viewed as comprising a total of 3,060 hours of instruction in each, the following amounts of time expressed in clock hours for mandated subjects are proposed:

<u>Subject</u>	<u>Hours in Grades 7, 8, 9</u>	<u>Hours in Grades 10, 11, 12</u>
Language Arts	360	260
Social Studies	360	260
Mathematics	360	130
Science	240	130
Health	60	60
Physical Education	240	200
Music and Art	240	130
Industrial Arts or Home Economics	<u>120</u>	<u>--</u>
Total Required Hours	1,980	1,170
Total Elective Hours Made Available	<u>1,080</u>	<u>1,890</u>
Total Clock Hours	3,060	3,060

Elective hours could be used to provide additional instructional time in either required or elective subject areas. Period length and grade placement of the above required and elective clock hours should be left to the discretion of the local school district.

6. That the State Department of Education, at least every five years, review proposals for changes in the requirements relative to amount of time students spend in the various subjects, determine areas of the secondary curriculum that should be either deleted altogether or removed from the mandatory course requirements, and determine feasible combinations of previously separate subject areas.
7. That procedures and forms used for collection of data relating to dropouts be revised to provide more complete and meaningful information.
8. That the State Department of Education appoint a special committee of curriculum experts whose task should be that of developing innovative programs planned to reduce the number of dropouts.
9. That secondary education become more flexible with respect to the distinctions made between enrollees and dropouts by allowing students to interrupt their education for exploratory work experiences without penalty and with the expectation that they will continue their schooling until graduation on irregular or part-time programs of study.
10. That the State Department of Education include in its annual reports information that shows the numbers of students graduating from Minnesota secondary schools who enroll in the various types of post-high school education including programs under the auspices of private industry and the military services.
11. That better cooperative programs including better counseling be developed by secondary schools, institutions of higher education, and the State Department of Education to guarantee that all able students will continue their education beyond the secondary level.
12. That all secondary schools and especially those with small enrollments, broaden the focus of their guidance work from an apparent overconcern for placing college-bound students to emphasize placement for a wider variety of students.
13. That every secondary school provide remedial programs with special emphasis in reading.
14. That the State Department of Education appoint task forces to recommend needed changes in the instructional areas of language arts and social studies.

15. That the State Department of Education continuously gather and disseminate information regarding the status of educational change and innovation in Minnesota, similar to that recently compiled by the North Central Association for its schools.
16. That the State Board of Education incorporate into its regulations, standards relating to comprehensiveness of student participation in extra-curricular activities. Specifically, large attendance centers should be required to show that they offer adequate numbers of sections in the various activities.
17. That the practice of extra pay to teachers for supervision of extra-curricular activities be eliminated in favor of reduced teaching loads during the regular school day.

#### VOCATIONAL, TECHNICAL AND ADULT EDUCATION

It is recommended:

1. That, except in the Twin Cities metropolitan area, efforts to expand post-high school vocational-technical education be directed toward expansion of programs and facilities in existing area schools rather than establishing additional schools.
2. That additional area vocational-technical schools be established by individual school districts in the Twin Cities metropolitan area rather than establishing a school for two or more districts under a new governing body with its own taxing power.
3. That the primary role of the area vocational-technical schools be the serving of post-high school students and adults.
4. That a statewide study be made of the role of various institutions, such as area vocational schools, junior colleges, state colleges, University of Minnesota, and private trade schools, in providing post-high school vocational-technical education.
5. That more effort be made to articulate area school programs with the programs of high schools, without reducing the emphasis on meeting the employment needs of business and industry.
6. That a new system of cost accounting be established in order to identify more accurately the actual cost of area school programs separately from the cost of other vocational programs operated by the school district.
7. That certificated counselors be provided in all area schools.
8. That, in order for teachers to keep abreast of current developments, in service education programs include part-time employment of the teachers in occupations related to their teaching areas.

9. That a realistic supervisory program be established by school and state administrators and supervisors to facilitate improvement of the instructional program.
10. That adequate class-free time be allowed all full-time instructional staff for class preparation.
11. That, in addition to the audio-visual aids currently used, consideration be given to such new developments as 8 mm. (single concept) projectors and films, closed-circuit television, and videotape recorders, which appear to have unlimited instructional possibilities for demonstration techniques.

#### POPULATION AND ENROLLMENTS

It is recommended:

1. That administrators in the local school districts comply closely to the uniform pupil accounting system and that they stress accurate collection and reporting of enrollment and census data.
2. That the State Department of Education demand accuracy by the local school districts in the collection and reporting of enrollment and census data, especially in the enumeration of preschool-age children.
3. That administrators review and analyze enrollment and census data annually for their school district and that they revise enrollment projections annually as a means of enhancing long-range educational planning.
4. That public school administrators communicate regularly with nonpublic school officials in their school district, so that the effects of policy changes in nonpublic school attendance which affect the needs for public school education are planned for well in advance of the changes.
5. That the State Department of Education develop and encourage communication with nonpublic school officials concerning enrollment policies of the nonpublic schools in order that any policy changes in nonpublic school attendance which affect the need for public school education locally or on a state level will be reported to public school officials well in advance of the effective date of change.

#### PROFESSIONAL PERSONNEL

It is recommended:

1. That the issuance of life certificates and limited or provisional certificates be discontinued and that only two certificates for teachers be issued:

- a. A Standard Teacher's Certificate requiring a baccalaureate degree based on an approved teacher preparation program, valid for two years and renewable, but once, for a period of five years; and
  - b. A Professional Teacher's Certificate requiring two years of experience and a master's degree based on an approved teacher preparation program. This certificate should be valid for five years and renewable for periods of five years.
2. That requirements for the Professional Administrator's Certificate be ammended to include renewal of this certificate every five years.
3. That adequacy of preparation of professional staff members be included as an incentive in the state aid program.
4. That a council composed of representatives of organizations and groups such as the State Department of Education, teacher preparation institutions, associations of professional educators, and lay citizens be formed to develop criteria for evaluating teacher performance.
5. That the State Department of Education establish criteria to determine reasonable teacher load, in terms of number of pupils and courses, for specific subject matter areas.
6. That the total professional staff of each school district reflect a ratio of one certificated staff member for each 20 pupils and that a district's pupil-staff ratio be a factor in determining its state aids.
7. That professional library service be provided in every school based on the following standard: a ratio of one librarian for each 300 pupils or major fraction thereof for the first 900 pupils, and a ratio of one librarian for each additional 400 pupils or major fraction thereof.
8. That standards of certification for school librarians include library science and audio-visual and other communication media background equivalent to at least a college major.
9. That guidance counselors be provided in each school in accordance with the following standards: one counselor for each 300 secondary school pupils or major fraction thereof and one counselor for each 600 elementary school pupils or major fraction thereof.
10. That certification standards be adopted by the State Department of Education and that programs for preparation of elementary school counselors, based on these standards, be initiated in teacher-preparing institutions.



11. That a joint effort be made by educational groups and interested lay groups to improve the quality of the teaching profession in Minnesota: by encouraging superior students to prepare for a career in public school education, by attracting highly-qualified professional educators from other states, and by making teaching more attractive to career teachers.
12. That efforts be made to encourage interested students to consider majoring in areas of critical shortage or potential shortage, such as elementary education, English, library science, guidance, and special education.
13. That greater effort be made to encourage graduates of Minnesota teacher-preparing institutions to accept teaching positions in this state.
14. That special financial consideration be given to the urban centers of Minneapolis, St. Paul, and Duluth to aid them in their unique problems of recruiting and retaining teachers and other educational personnel needed to meet the needs of the urban pupil.
15. That the level of compensation, especially minimum salaries, be increased to reduce the need for teachers to seek supplementary employment.
16. That the State Department of Education serve as a source of information relative to educator compensation based on research within and without the state, and that the Department support a basic salary recommendation to include a minimum salary, the number and size of increments to reach the maximum, a factor which recognizes differences in preparation and degree status, and a factor which recognizes differences in the quality of performance.
17. That the length of the annual term of employment of teachers be extended to more fully utilize the talents of professional personnel, to encourage additional professional preparation, to provide for a more desirable level of compensation, and to lessen the desirability of supplementary employment in fields other than education.
18. That the Minnesota Legislature enact into law the proposal of the Minnesota Teachers Retirement Association whereby benefits are based on 50 per cent of the five highest annual salaries during the last ten years of service.
19. That the Minnesota Teachers Retirement Association pay interest on funds withdrawn by teachers who leave the profession before they are eligible for retirement.
20. That school districts provide fringe benefits which will give their teachers the degree of security already enjoyed in many private industries. This should include coverage in health insurance, life insurance, accumulated sick leave, plus other benefits unique to the teaching profession, such as tuition reimbursement, sabbatical leaves, and legal protection.

21. That every school district have written board policies relating to personnel and general school district matters, and that teachers have the opportunity to play an active role in their formulation.

STATE DEPARTMENT OF EDUCATION

It is recommended:

1. That the State Department of Education be strengthened to provide more adequate leadership and service to the public schools of Minnesota.
2. That regulations and/or legislation be enacted to increase the authority of the State Department of Education to establish desirable school district organization, to supervise and approve school district bonding, and to require that school districts select sites and construct plants which meet approved standards.
3. That regulations established by the State Department of Education be made more flexible and that existing regulations be revised to provide flexibility to encourage experimentation and innovation in local school systems.
4. That action in accreditation and classification of schools by the State Department of Education be firm and prompt, with provisions for appropriate penalties for noncompliance.
5. That the State Department of Education professional staff be removed from State Civil Service.
6. That the salaries of the Commissioner and other State Department of Education personnel be raised to a level commensurate with their responsibilities and qualifications.
7. That the professional staff be relieved of clerical tasks and that the assignment, performance, and numbers of clerical personnel be analyzed and that appropriate changes be made.
8. That statutes be enacted whereby "conflict of interest" preventing membership on the State Board of Education is defined to prohibit such conflicts as concurrent employment by a local school district, concurrent membership on a local board of education, or conflicting business or professional relationships.
9. That the position of Deputy Commissioner be established. The Deputy Commissioner should assist in the control, coordination, and direction of all Department activities and relieve the Commissioners of administrative detail. With the establishment of this position, there will be no further need for the position of Assistant to the Commissioner.

10. That the Commissioner, Deputy Commissioner, and Assistant Commissioners form the administrative team which plans and coordinates State Department of Education activities.
11. That a Planning and Development Unit be established to serve the Commissioner and his administrative team.
12. That the Special Education Section be transferred to the Division of Instruction and that the Publications Unit be transferred to the Division of Administration.
13. That serious consideration be given to the transfer of the following operational activities of the State Department of Education to other state agencies: Teacher Placement Services, Vocational Rehabilitation, and operating instructional programs of the Vocational Education Division.
14. That a school employment consultant service be established within the Teacher Personnel Section of the Department.
15. That the Personnel Unit be restructured and strengthened to encompass all personnel services, such as recruitment and selection, orientation, inservice training and professional development, preparation of job descriptions, and establishment and operation of a professional library.
16. That the existing Title I and II Regional Offices be viewed as temporary service agencies for these specific purposes. As school districts become larger through reorganization and have more adequate staffs, these regional offices should be terminated.
17. That a Metropolitan Education Unit, with appropriate professional and clerical staffing, be established in the Division of Instruction.
18. That the position of Director of Learning Resources be established in the State Department of Education.
19. That the State Department of Education secure additional legal services, either from the Minnesota Attorney General's office or by employment of a qualified attorney, and that compilation and dissemination of legal and quasi-legal information be improved.
20. That the State Department of Education utilize the information and data processing systems proposed by ARIES and MSEIP in developing a modern functional informational system for the Department and that continued emphasis be given to forms control and design, standardization of reporting terminology, and continuous review of the collection, processing, and dissemination of information.
21. That the State Department of Education recognize the potential that a well-designed information system offers for increasing significant educational research. This should be stressed as a basic reason for changing and improving the informational system.

22. That the State Department of Education collect, process, and disseminate more complete information regarding educational programs and professional personnel, such as class enrollments, number of professional specialists by field, salaries of certificated personnel, and the level of preparation and recency of preparation of certificated personnel.
23. That the State Department of Education expand and improve its program of school visitations.
24. That the State Department of Education, recognizing that permanent staff consultants are essentially generalists, employ on a part-time and/or temporary basis special consultants with national or regional reputations to provide strong instructional leadership for Minnesota schools.
25. That the State Department of Education seek to improve relations with local school districts through a planned program of publications and appropriate inservice clinics and workshops.
26. That state curriculum guides be continually revised, updated, and replaced, that adequate financial support for this effort be provided, and that the State Department of Education personnel prepare and revise the guides with the assistance of advisory committees.
27. That consideration be given to the existing office arrangement of the State Department of Education for improvement of space assignments to the various services and operations. Furthermore, that reduction of materials stored or filed be accomplished through establishment of priority needs and transition to modern data processing. Every effort should be made to locate all State Department of Education services and activities in one building, if not on one floor of a building.
28. That the State Department of Education develop and adopt accounting procedures which will permit adequate cost analysis studies of elementary, secondary, and area vocational-technical schools.
29. That modernization of the accounting services be implemented through data processing and that program accounting be initiated as soon as possible.
30. That local purchase authority of the Procurement Unit be liberalized.

SCHOOL DISTRICT ORGANIZATION

It is recommended:

1. That the recommended criteria for sound school district organization be adopted and supported by the State Board of Education, the State Department of Education, the legislature, and other organizations and individuals concerned with educational leadership in the state as an essential first step in the establishment of a public school system fully capable of making available an adequate and equal educational opportunity to every child in Minnesota.
2. That the criterion of at least 10,000 student enrollment (grades 1-12) be adopted for the establishment of sound school district organization in Minnesota, for this size school district affords the possibility of providing educational programs and services at an optimal level. Recognizing that sparsity of population will preclude attainment of the 10,000 student standard in some areas of the state, it is recommended that under no circumstances should an administrative unit have fewer than 1,500 students enrolled (grades 1-12), unless it encompasses an entire county.
3. That optimum criteria of school district organization, rather than minimal criteria, be utilized for reorganizing the state, so that the reorganization accomplished now will have some permanency and the legislature and the citizens of the state will not have to go through another reorganization in a few years.
4. That the establishment of larger administrative units not be interpreted as automatically resulting in adequate attendance centers; and that the following criteria for school attendance center size be adopted:

<u>Grade Level</u>	<u>Minimum Enrollment</u>	<u>Optimum Enrollment</u>	<u>Maximum Enrollment</u>
Secondary Schools			
Grades 10-12	750	1,200	1,800
Grades 7-12	600	*	1,250
Grades 7-9	500	750	1,000
Middle Schools			
(Three or four grades)	500	750	1,000
Elementary Schools			
(Six grades)	150	500	720

\*No optimum is specified, because at an optimum level a school district should plan to separate the junior and senior high schools.

5. That the establishment of sound district organization be accomplished on a statewide basis through mandatory legislation.
6. That the State Department of Education provide for a careful study to assist the citizens and the legislature in the development of a statewide plan of district organization which should then be legislated into existence.
7. That steps be taken to assure the orderly termination of the county superintendency, and that the reporting and accounting functions now handled through the county superintendency or the designated county administrator be carried out by a direct reporting procedure between local school administrators and the State Department of Education.
8. That the legislature authorize the State Department of Education to develop a plan assuring that school district mergers generated under the 1967 legislation or any voluntary mergers proposed prior to passage of a statewide plan adhere to the criteria recommended for developing sound district organization and that the Department be given the authority to prevent undesirable mergers.
9. That the staff of the School District Organization Section be increased to provide efficiently and effectively the services necessary for carrying out reorganization which will result from the 1967 Consolidation Law and future developments.
10. That all school systems in the state become independent school districts governed by nonpartisan lay boards, elected at large by popular vote of the eligible voters of the district, and that all special district designations and the special charter restrictions now in existence be removed.
11. That the State Legislature establish a program of district organization which assures the availability of a foundation program for every school-age child and that the State Department of Education be given authorization to establish accreditation standards for both elementary and secondary schools and an appropriate system of regulations to enforce the accreditation standards.
12. That the State Department of Education initiate a study of the services which are beyond the resources of even the most adequately-organized school districts, the role of the research and development councils in providing such services, the possibilities of securing such services through district cooperation, and the possible need to establish area-wide educational service units.

13. That the research and development councils be recognized as valuable organizations capable of stimulating desirable improvements and experimentations in education and that the State Department of Education become involved in the development of these councils throughout the state and prepare a state-wide plan for assuring that all parts of the state are included in a research and development council strong enough to effectively carry out the research, development, and demonstration missions.
14. That extreme caution be exercised before taxing power is granted to any unit of school organization that may be established between the State Department of Education and the local school district.

#### PUBLIC SCHOOL FINANCE

It is recommended:

1. That state financial support be based on the ability to pay and educational needs of school districts.
2. That state financial support be large enough to avoid requiring unduly heavy taxes in local school districts.
3. That the Foundation Program include maintenance, capital outlay (exclusive of receipts from bond sales), and amortized debt service costs.
4. That the weighting of pupils in the computation of Foundation Program Aid be based upon 0.5 unit per kindergarten pupil, 1.0 unit per elementary pupil, 1.25 units per secondary pupil, and 1.50 units per area vocational-technical pupil.
5. That pupil weightings be measured in terms of average daily membership (ADM) rather than average daily attendance (ADA).
6. That all pupils enrolled in grades 7-12 be designated as secondary pupils if the local school organizational pattern has been approved by the State Department of Education.
7. That the base amount used in computing the Foundation Program Aid (designated as Base Foundation Program Amount) be computed by the following procedure:
  - a. Average the maintenance, capital outlay (exclusive of receipts from bond sales), and amortized debt service costs of all school districts enrolling more than 1,500 pupils which are between the fortieth and sixtieth percentiles in adjusted assessed (EARC) valuations per resident weighted pupil in ADM.
  - b. Exclude from the computation those school districts that have a high proportion of nonpublic school enrollment or are subject to other unique conditions.
  - c. The cost of the Foundation Program computed for 1965-66 resulted in a Base Foundation Program Amount of \$578 per weighted pupil in ADM. This included maintenance at \$495 and capital outlay and amortized debt service at \$83 per weighted pupil in ADM.
  - d. Using current cost projections under this recommended procedure, it is estimated that the Base Foundation Program Amount for the 1969-70 school year will be \$694 per weighted pupil in ADM.

8. That the Foundation Program Aid provide incentives to the local school district to go beyond established minimums and to discourage unsound educational practices and procedures.
9. That a State Support Index be established to compute the amount of State Foundation Aid per resident weighted pupil in ADM for each school district. The index, as described below, is to be applied to the Base Foundation Program Amount or the district's actual Foundation Program cost, whichever is least.

## STATE SUPPORT INDEX

State Support Category	EARC Per Resident Weighted Pupil in ADM	State Support Index
1	Less than \$1,400	.90
2	\$ 1,400-1,699	.88
3	1,700-1,999	.86
4	2,000-2,299	.84
5	2,300-2,599	.82
6	2,600-2,899	.80
7	2,900-3,199	.78
8	3,200-3,499	.76
9	3,500-3,799	.74
10	3,800-4,099	.72
11	4,100-4,399	.70
12	4,400-4,699	.68
13	4,700-4,999	.66
14	5,000-5,299	.64
15	5,300-5,599	.62
16	5,600-5,899	.60
17	5,900-6,199	.58
18	6,200-6,499	.56
19	6,500-6,799	.54
20	6,800-7,099	.52
21	7,100-7,399	.50
22	7,400-7,799	.48
23	7,800-8,199	.46
24	8,200-8,599	.44
25	8,600-8,999	.42
26	9,000-9,399	.40
27	9,400-9,799	.38
28	9,800-10,199	.36
29	10,200-10,599	.34
30	10,600-10,999	.32
31	\$11,000 and Over	.30



10. That the amount of Basic Foundation Program Aid to be received by a school district from the state be computed by the following formula:

$$\begin{array}{rclclcl} \text{Base Foundation} & & \text{State} & & \text{Number of Resi-} & & \text{Basic} \\ \text{Program Amount or} & \times & \text{Support} & \times & \text{dent Weighted} & = & \text{Foundation} \\ \text{the district's} & & \text{Index} & & \text{Pupils in ADM} & & \text{Program} \\ \text{actual Foundation} & & & & & & \text{Aid} \\ \text{Program cost which-} & & & & & & \\ \text{ever is the lesser.} & & & & & & \end{array}$$

11. That the Basic Foundation Program Aid for each school district be adjusted for the five following factors: (a) staff quality index, (b) extended school year, (c) pupil-certificated staff ratio, (d) educational overburden, and (e) inadequate district organization.
12. That a staff quality index, which will be applied to the Basic Foundation Program Aid, be established in the following manner:
- a. Certificated staff members, to include instructional and administrative staff should be categorized as follows:
    - (1) Nondegree -- those certificated staff members without a four-year degree.
    - (2) Four-year degree -- those certificated staff members holding a bachelor's degree but no additional degree.
    - (3) Advanced degree -- those certificated staff members holding a master's, specialist, and/or doctorate degree(s).
  - b. The following weightings would be applied to the three staff categories:
 

Nondegree	0.9
Four-year degree	1.0
Advanced degree	1.1
  - c. The total of all staff weightings divided by the number of staff members determines the Staff Quality Index.
  - d. Foundation Program Aid adjustment for staff quality equals Basic Foundation Program Aid times the Staff Quality Index minus the Basic Foundation Program Aid.

13. That an extended school year be encouraged by applying the following adjustments to the Basic Foundation Program Aid:
- School districts that fail to provide a school year of at least 175 days (with pupils in attendance) would have their Basic Foundation Program Aid reduced by 1/175 for each day less than 175 days.
  - School districts that have a school year beyond 175 days would have their Basic Foundation Program Aid increased by 1/175 for each day of school over 175 days.
14. That acceptable pupil-certificated staff ratios be established and that those school districts failing to maintain acceptable ratios have their Basic Foundation Program Aid reduced in the following manner:

<u>Category</u>	<u>Pupil-Certificated Staff Ratio</u>	<u>Penalty</u>
1	23.5:1 to 23.9:1	1 per cent
2	24.0:1 to 24.4:1	2 per cent
3	24.5:1 and over	3 per cent

15. That school districts in the cities of the first class, because of their educational overburden, receive an additional 10 per cent of their Basic Foundation Program Aid.
16. That any school district which has fewer than 1,500 students enrolled in grades 1-12, unless it encompasses an entire county, receive only 75 per cent of its Basic Foundation Program Aid. The balance of 25 per cent should be held in abeyance until it becomes a part of a school district enrolling at least 1,500 pupils in grades 1-12. Funds held in abeyance should not accumulate for more than five years; at the end of that time such funds should revert to the State School Aid Fund.
17. That school districts which do not make an acceptable local effort receive a reduction in their Basic Foundation Program Aid. Until the effects of property tax exemptions authorized by the Tax Relief and Reform Act of 1967 are determined it is impossible to establish the mill rate on the EARC valuation which would represent an acceptable local effort.

Calculations made prior to the passage of the Tax Relief and Reform Act of 1967 indicated that a levy equivalent to 25 mills on the EARC valuation would represent an acceptable local effort. Using the example of 25 mills (the actual figure may well differ from this), school districts which do not levy an amount equivalent to 25 mills on their EARC valuation receive a reduction in their Basic Foundation Program Aid of 1/25 for each mill below the 25 mill minimum.

18. That the method of calculating Foundation Program Aid outlined here be used only for those districts which operate both elementary and secondary schools. Calculation of aid for those districts not operating both elementary and secondary schools and for the County Tuition Fund for the 1969-1971 biennium should be based on the aid received per pupil unit in ADA for the 1968-69 school year.
19. That the adjusted assessed valuation (EARC) remain the measure of taxpaying ability upon which the state bases the distribution of the Foundation Program Aid until such time that uniform assessment practices and procedures are established.
20. That only such property as is subject to taxation by school districts be included in the determination of EARC valuations.
21. That the ratio between adjusted assessed valuation and full and true valuation, which is known as the EARC ratio, be fixed for a two-year period and that the EARC valuations be based on the most recent available data.
22. That a thorough study be made of the status of tax exempt property and the impact of its rapid expansion on tax revenue. Such a study should carefully consider the justification for classifying various types of property as tax exempt.
23. That the state provide not less than 50 per cent of the financial support for the total Foundation Program plus the payment of transportation, special education, and other special aids.
24. That local property tax relief for school districts be accomplished by increasing state support for the public schools.
25. That federal aid to public schools supplement local support and not be used to reduce the state aid distributions to school districts.
26. That special aid distributions, i.e., gross earnings, airports, trust funds, forest lands, and other aids in lieu of taxes, be eliminated.
27. That the portion of taconite taxes earmarked for school districts be collected by the state and be placed in the funds used in the payment of state aids.
28. That the portion of receipts from the sales tax allocated for school districts be placed in the State School Aid Fund and be distributed on the basis of the Foundation Program Aid formula.
29. That if the policy of having dedicated funds is to be continued that the Income Tax School Fund be used only for the payment of aids to public elementary and secondary schools.
30. That statutory and charter restrictions, which curtail the local school district's ability to support its schools, be removed.

31. That the differential in tax rates for school maintenance on property classified as agricultural and nonagricultural be discontinued.
32. That the state aid for transportation services to public school children be extended to all school districts and that all restrictions relating to area of districts and municipal boundaries be eliminated.
33. That the limitation of \$60 per pupil transported, currently imposed upon state aid distribution for transportation costs, be removed and that the state pay 60 per cent of approved transportation costs for all school districts.
34. That an in-depth study be made to determine the proper reimbursement determinants that would best reflect an equitable distribution of state transportation aid. Some of the factors that should be studied include:
  - a. Actual transportation costs,
  - b. Length of bus routes,
  - c. Students transported per bus mile,
  - d. Cost of contracted services compared with district-owned services,
  - e. Impact of various school district organization patterns on transportation costs and,
  - f. Use of units other than pupils transported to determine reimbursement.
35. That state aid for special education support all otherwise unreimbursed costs up to an amount not to exceed \$6,000 per special education staff member and 50 per cent of the added costs of materials and equipment associated with special education and that aids for handicapped and other special education services be distributed outside the foundation formula.
36. That provisions for emergency aid and aid to districts experiencing severe declines in valuations be continued but restrictions insure that such aids do not serve to perpetuate ineffective and inefficient districts.
37. That a state revolving loan fund be established to provide funds to school districts for financing construction of approved school buildings and that until this fund is large enough to meet all needs, the state guarantee all school district bonds, thus insuring the lowest possible interest rate on bond issues sold publicly.
38. That a study be conducted to determine the added cost of educating the vocational-technical pupil, the handicapped pupil, and the pupil requiring other special education services.

39. That the initial payment of state aids be based on the September estimate of average daily membership for the current school year.
40. That all state aid payments be made directly to the local school districts rather than making the distribution through the county treasurer.
41. That summer school sessions continue to be supported by the state on the proportional basis now in effect.
42. That no school districts incur a loss in state aids due to reorganization and that the amount of aid paid to districts following approved reorganization should not be less than the total paid the previous year to the components of the reorganized district.

#### I M P L I C A T I O N S   F O R   T H E   F U T U R E

This survey report has presented a comprehensive picture of public elementary and secondary education in Minnesota. Problems have been pointed out, possible solutions have been considered, and recommendations have been made. The entire study has been conducted with one goal in mind: the provision of equitable and comprehensive educational opportunities for all children of Minnesota. Each child in Minnesota is entitled to:

- \* Educational opportunities in a coordinated K-12 school system.
- \* Comprehensive educational programs at the elementary and high school levels.
- \* Well-trained and effective teachers.
- \* Be housed in a good school building with adequate facilities.
- \* Extensive instructional equipment.
- \* Counseling and guidance.
- \* Access to basic health service.
- \* Transportation as necessary.
- \* Access to a school lunch program.
- \* The opportunity to develop to his full capacity.
- \* An opportunity to develop individual aptitudes, abilities and salable skills.
- \* Training in citizenship.
- \* Participate in recreational and cultural activities.

The basic concern of all individuals and organizations involved in education must be the implementation of these provisions of a good education for every child. Areas such as school finance, district organization, professional personnel, and the State Department of Education are important only as they facilitate the providing of the necessary educational program.

Quality education is not only important to each individual child; it is also of vital importance to the state. Minnesota is not a wealthy state. With the lessening importance of industries based on natural resources such as agriculture and mining, the most important resource Minnesota has is its human resources. Economic growth in Minnesota is dependent, and will become more dependent, upon the development and exploitation of these human resources. Public elementary and secondary education will play a major role in this development.

The entire area of post-high school education is another vital aspect of Minnesota's future. Efforts in the past have been directed largely toward collegiate institutions. This effort must be continued while greatly increased attention is given to other types of post-high school education.

While this study focused primarily on elementary and secondary education, attention was also given to the area vocational-technical schools. One of the most overriding questions in this area concerns the relationship of these schools to the junior colleges. Both systems are relatively new and growing rapidly. Many observers are concerned that much effort will be wasted in competition and duplication of effort. The problem was beyond the scope of this study, however, the resolution of this problem has already been too long delayed.

While such factors as finance, district organization, and the State Department of Education are not ends in themselves but only means toward the end of providing the necessary program, it would be naive to expect that the desired program can be provided without changes in these factors.

For over 100 years Minnesota has proclaimed that education is a function of the state. In actual practice it has been largely left to the local district, especially in the area of finance. Such a policy cannot support the educational program demanded of the present and the future. The state must provide the dominant share of the financing, supplemented by local taxes levied by the district and by a growing share of federal funds. The state must assume its share of financing school construction, an area where it has not assumed any responsibility in the past.

These proposals for increased funds from state and federal sources are certain to be opposed on the grounds that it will destroy local control. The exact opposite is true. Increased funds will make it possible for districts to expand their programs and services beyond the minimum. There is no local control over decisions in a poor district. Its minimum program is mandated by the state. Only in districts with additional funds can the board, the professional staff, and the citizens exercise any control over what will be offered.

Changes in the role and function of the State Department of Education are also essential to provide the necessary program in all schools for all children. The State Department of Education has been looked upon too often as a maker of regulations and receiver of reports when the essential role is that of educational leadership. There is need for the State Department of Education to clearly define its role, to communicate this definition to local districts, and to obtain and develop the personnel necessary to carry out this role.

Another area where change is needed is in district organization. Judged on the basis of the evidence gathered during the study, the majority of Minnesota school districts are too small to provide a modern, comprehensive educational program. The merger of a substantial number of districts and the high schools they operate is needed. The state and its present and future citizens cannot afford to waste human and material resources in educational units that are incomplete, inadequate, and inefficient. The farmer of 1967 uses a self-propelled combine, not a horse-drawn reaper. So too must education discard once useful, but now outmoded forms of school district organization.

While the goal of education in Minnesota is equality of educational opportunity, that goal will not be reached without major changes in school district organization. To paraphrase a statement from an earlier section of this report: the genuine progress of education depends upon efficient school district reorganization. Every educator of authority said it. Superintendents said it. Teachers said it. School board members said it. The United States Office of Education said it. The Conant Report said it. The Report of the Committee on Economic Development said it. The President's Committee on National Goals said it. This report says it, reiterates it, and underlines it. Without new and larger school districts, all of the higher teachers' salaries, curriculum developments, and finance programs here offered are as sounding brass and tinkling cymbals.

The historian Henry Steele Commager once remarked: "No other people ever demanded so much of education as have the American. No other was ever served so well by its schools and educators." This statement is particularly applicable to Minnesota. Minnesotans have expected much of education in the past and will expect more in the future. Its educational system has met these expectations in the past, and if developed to its potential, will meet those of the future.

This survey report represents a comprehensive and detailed study of Minnesota education. The survey staff found much that is good and should be continued. Many things were also found which need change or improvement. However, the potential for making the needed changes and improvements is available. This potential, if developed, can produce the educational system of the future that will provide for all Minnesota children the equitable and comprehensive educational opportunities and programs presented in Education 1967.





A P P E N D I X

CALCULATION OF FOUNDATION PROGRAM AID

MAP OF MINNESOTA SCHOOL DISTRICTS, JULY 1966

MAP OF MINNESOTA HIGH SCHOOL AREAS, JULY 1966

MAP OF TOTAL ENROLLMENTS OF HIGH SCHOOL AREAS, 1965-66

CALCULATION OF FOUNDATION PROGRAM AID

A. Determination of Basic Foundation Aid

For the 1965-66 school year it was found that the maintenance cost per weighted pupil in ADM was \$495. Capital outlay and amortized debt service costs per weighted pupil in ADM were \$83.

These costs would have established a Base Foundation Program Amount of \$578 per weighted pupil in ADM.

The determination of the amount of Foundation Program Aid to be received by a school district from the state is based on the following formula:

Basic Foundation Program Aid Formula

Base Foundation Program Amount or the district's actual Foundation Program cost, whichever is the lesser.	x	State Support Index	x	Number of Resi- dent Weighted Pupils in ADM	=	Basic Foundation Program Aid
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Example 1

District X has 50,000 resident weighted pupils in ADM. The district's adjusted assessed (EARC) valuation is \$12,000 per resident weighted pupil in ADM. District X has a maintenance cost of \$500 and a capital outlay and amortized debt service cost of \$100 per weighted pupil in ADM. Adding the maintenance, capital outlay, and amortized debt service costs gives District X a total Foundation Program cost of \$600. Although this exceeds the established Base Foundation Program Amount of \$578, District X's aid is based on \$578.

Using the State Support Index shown on page 422, District X is in Category 31 because it has an adjusted assessed (EARC) valuation of over \$11,000.

District X's aid computation is as follows:

Basic Foundation Program Aid

\$578	x	.30	x	50,000	=	\$8,670,000
Base Foundation Program Amount		State Support Index		Number of Resi- dent Weighted Pupils in ADM		Basic Foundation Program Aid

### Example 2

District Y has 2,000 resident weighted pupils in ADM. The District's adjusted assessed valuation is \$2,500 per resident weighted pupil in ADM. District Y has a maintenance cost of \$450 and a capital outlay and amortized debt service cost of \$50 per weighted pupil in ADM. Adding the maintenance, capital outlay and amortized debt service costs, gives District Y a total Foundation Program cost of \$500. This Foundation Program cost of \$500 is less than the Base Foundation Program Amount of \$578. Therefore, the amount of aid that District Y is to receive is based on District Y's actual Foundation Program cost of \$500.

District Y's aid computation is as follows:

Basic Foundation Aid				
\$500	x	.82	x	2,000
				= \$820,000
Actual Foundation Program Cost		State Support Index	Number of Resi- dent Weighted Pupils in ADM	Basic Foundation Program Aid

#### B. Adjustments

Six specific adjustments to Basic Foundation Program Aid are provided in the proposed plan. They are: (1) staff quality, (2) extended school year, (3) pupil-certificated staff, (4) educational overburden, (5) school district size, and (6) school tax levy. Each of these six adjustments are illustrated.

##### 1. Staff Quality

The attraction and retention of quality staff members is desirable. An objective measure of staff quality is the educational training of the staff members.

Staff members are defined as all administrative and instructional personnel who have been certificated by the state.

Three staff-member categories are defined as follows:

- (a) A nondegree staff member is one who has not received a four-year degree.
- (b) A four-year degree staff member is one who has received a four-year degree. Even though he may have accumulated credits beyond the four-year degree no additional credit is granted in the weighting.
- (c) An advanced degree staff member is one who has received a master's, specialist, and/or doctorate degree.

For school districts which have a favorable ratio of advanced degree staff members to four-year staff members and nondegree staff members, a reward is provided. In contrast, school districts which have more nondegree than advanced degree staff members would incur a penalty.

The following weightings are applied to the three staff categories.

Nondegree	0.9
Four-year degree	1.0
Advanced degree	1.1

### Example 3

District X has 2,080 certificated staff members. Sixty staff members have no degree, 1,720 have four-year degrees and 300 have advanced degrees.

The determination of District X's Staff Quality Adjustment would be as follows:

#### a. Staff Weighting

<u>Category</u>	<u>Number of Staff</u>	<u>x</u>	<u>Staff Weighting</u>	<u>=</u>	<u>Total Staff Weighting</u>
Nondegree	60		0.9		54.0
Four-year degree	1,720		1.0		1,720.0
Advanced degree	<u>300</u>		1.1		<u>330.0</u>
Total	2,080				2,104.0

#### b. Staff Quality Index

$$2,104 \div 2,080 = 1.0115$$

Total Staff Weighting	Number of Certificated Staff Members	Staff Quality Index
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#### c. Staff Quality Adjustment

$$(1.0115 \times \$8,670,000) - \$8,670,000 = +\$99,705$$

Staff Quality Index	Basic Foundation Program Aid	Basic Foundation Program Aid	Staff Quality Adjustment
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Example 4

District Y has 84 certificated staff members. Ten staff members have no degree, 70 have four-year degrees, and four have advanced degrees.

## a. Staff Weightings

<u>Category</u>	<u>Number of Staff</u>	<u>x</u>	<u>Staff Weighting</u>	<u>=</u>	<u>Total Staff Weighting</u>
Nondegree	10		0.9		9.0
Four-year degree	70		1.0		70.0
Advanced degree	<u>4</u>		1.1		<u>4.4</u>
Total	84				83.4

## b. Staff Quality Index

$$83.4 \div 84.0 = 0.9929$$

Total Staff Weighting	Number of Certificated Staff Members	Staff Quality Index
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## c. Staff Quality Adjustment

$$(0.9929 \times \$820,000) - \$820,000 = -\$5,822$$

Staff Quality Index	Basic Foundation Program Aid	Basic Foundation Program Aid	Staff Quality Adjustment
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## 2. Extended School Year

An extended school year is encouraged by an adjustment (increase) in Basic Foundation Program Aid for school districts providing more than 175 days in full session.

School districts providing less than 175 days in full session are penalized by an adjustment (decrease) in Basic Foundation Program Aid.

Days in full session are defined as those days in which pupils are in regular attendance.

The following formula is used to compute the Extended School Year Adjustment:

Extended School Year Adjustment

$$\left( \frac{\text{Actual Days in Full Session}}{\text{Minimum Days in Full Session}} \times \text{Basic Foundation Program Aid} \right) - \text{Basic Foundation Program Aid} = \text{Extended School Year Adjustment}$$

Example 5

District X provides 178 days in full session. This is three days more than the minimum of 175 days in full session. District X's adjustment (increase) would be computed as follows:

$$(3 \div 175) \times \$8,670,000 = \$148,257$$

Actual Days in Full Session Beyond Minimum	Minimum Days in Full Session	Basic Foundation Program Aid	Extended School Year Adjustment
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Example 6

District Y provides 172 days in full session. This is three days below the minimum of 175 days in full session.

District Y's adjustment (decrease) would be computed as follows:

$$(3 \div 175) \times \$820,000 = -\$14,022$$

Actual Days in Full Session Below Minimum	Minimum Days in Full Session	Basic Foundation Program Aid	Extended School Year Adjustment
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### 3. Pupil-Certificated Staff

To insure that every child shall have appropriate access to certificated staff members, the State Foundation Program Aid formula recognizes the desirability of maintaining an adequate pupil to certificated staff ratio. Certificated staff members would include all members of the staff -- instructional and administrative -- holding a valid Minnesota certificate. Pupils are to be measured in terms of weighted pupils in ADM.

The following explains the procedures used to compute the penalty imposed upon these school districts that are maintaining a pupil to certificated staff ratio in excess of 23.5:1.

a. Pupil-Certificated Staff Ratio

$$\begin{array}{rcl} \text{Weighted Pupils} & \div & \text{Number of} \\ \text{in ADM} & & \text{Certificated} \\ & & \text{Staff Members} \end{array} = \text{Pupil-Certificated Staff Ratio}$$

b. Pupil-Certificated Staff Ratio Index

<u>Category</u>	<u>Pupil-Certificated Staff Ratio</u>	<u>Penalty</u>
1	23.5:1 to 23.9:1	1 per cent
2	24.0:1 to 24.4:1	2 per cent
3	24.5:1 and over	3 per cent

Example 7

School District Y has 84 certificated staff members and 2,000 weighted pupils in ADM.

The computation of District Y's ratio and subsequent adjustment (decrease) is as follows:

$$2,000 \div 84 = 23.8$$

$$\begin{array}{rcl} \text{Weighted Pupils} & & \text{Pupil-Certificated} \\ \text{in ADM} & \div & \text{Staff Ratio} \\ & & \text{Staff Members} \end{array}$$

This places District Y in Category 1 in the Pupil-Certificated Staff Index.

$$.01 \times \$820,000 = -\$8,200$$

$$\begin{array}{rcl} \text{Pupil-Certificated} & \text{Basic} & \text{Pupil-Certificated} \\ \text{Staff Penalty} & \text{Foundation} & \text{Staff Ratio} \\ & \text{Program} & \text{Adjustment} \\ & \text{Aid} & \end{array}$$

4. Educational Overburden

School districts within cities of the first class incur added costs associated with their educational and cultural conditions. School districts within cities of the first class receive an adjustment of an amount equal to 10 per cent of their Basic Foundation Program Aid.

Example 8

District X receives Basic Foundation Program Aid of \$8,670,000. District X is within a city of the first class. This entitles District X to receive an educational Overburden Adjustment equal to 10 per cent of its Basic Foundation Program Aid.

The determination of District X's Educational Overburden Adjustment is as follows:

$$.10 \quad \times \quad \$8,670,000 \quad = \quad \$867,000$$

Educational	Basic	Educational
Overburden	Foundation	Overburden
Factor	Program	Adjustment
	Aid	

## 5. School District Size

School districts not having 1,500 pupils or more (excepting those that encompass an entire county) are to receive only 75 per cent of the Basic Foundation Program Aid to which the district would otherwise be entitled.

The balance of 25 per cent is to be held in abeyance until consolidation into a district having 1,500 pupils or more is effected.

Example 9

School District M qualifies for a Basic Foundation Program Aid of \$350,000. District M, however, has but 1,200 pupils. District M is eligible to receive only 75 per cent of its Basic Foundation Program Aid until consolidation is effected, so its aid is reduced by 25 per cent.

District M's adjustment is computed as follows:

$$0.25 \quad \times \quad \$350,000 \quad = \quad -\$87,500$$

Reduction	Basic	School
Factor for	Foundation	District
Inadequate	Program	Size
District Size	Aid	Adjustment

The adjustment of \$87,500 is held in abeyance.



## 6. School Tax Levy

Any school district levying an amount which is less than 25 mills or its EARC valuation incurs an adjustment (decrease) in its Foundation Program Aid (25 mills may not be the correct rate).

This adjustment is a reduction in Foundation Program Aid based on the number of mills that its levy is below the minimum of 25 mills on its EARC valuation.

### Example 10

School District T levied an amount equal to 23.5 mills on its EARC valuation, which is 1.5 mills less than the proposed minimum levy.

District T qualified for Basic Foundation Program Aid of \$1,000,000.

District T's adjustment would be as follows:

$$(1.5 \div 25) \times \$1,000,000 = \$60,000$$

Deficiency in Mill Rate on EARC Valuation	Minimum Mill Rate on EARC Valuation	Basic Foundation Program Aid	School Tax Rate Adjustment
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### C. Determination of Net Foundation Program Aid

Net Foundation Program Aid is computed as follows:

$$\text{Basic Foundation Program Aid} + \text{Adjustments} = \text{Net Foundation Program Aid}$$

### Example 11

School District X

Basic Foundation Program Aid		\$8,670,000
Adjustments:		
Staff Quality	+\$	99,705
Extended School Year	+	148,257
Educational Overburden	+	<u>867,000</u>
		<u>+\$1,114,962</u>
Net Foundation Program Aid		\$9,784,962

Example 12

## School District Y

Basic Foundation Program Aid	\$820,000
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## Adjustments:

Staff Quality	-\$ 5,822
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Extended School Year	- 14,022
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Pupil-Certificated Staff	- <u>8,200</u>
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	-\$ <u>28,044</u>
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Net Foundation Program Aid	\$791,956
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