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ABSTRACT

A Statewide Study Team presented a comprehensive plan for educational improvement in North Dakota. Several basic educational problems were identified which can be solved by qualified educational personnel. This document describes the personnel situation. Discussion includes the following: characteristics of public school teachers in terms of educational preparation, professional growth among public school personnel, teacher accessibility to higher education, teaching experience of public school personnel, certification of public school teaching and non-teaching personnel, teaching loads, teacher salaries, and teacher turnover. Related documents are RC 000 179, RC 000 180, RC 004 196, RC 004 197, and RC 004 198. Particular attention should be given to the companion document (RC 000 179), which contains proposals for improving the personnel situation rather than merely describing the situation (as does the present document). (SW)

Educational Development for North Dakota, 1967-1975

A Product of the
Statewide Study of Education

Educational Personnel in the North Dakota Public Schools

The North Dakota Statewide Study of Education

THE NORTH DAKOTA DEPARTMENT OF PUBLIC INSTRUCTION
THE NORTH DAKOTA LEGISLATIVE RESEARCH COMMITTEE
THE UNIVERSITY OF NORTH DAKOTA
1967

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PREFACE

In "Educational Development for North Dakota: 1967-1975," the Statewide Study Team presented a comprehensive plan for educational improvement in North Dakota. The plan was designed to achieve seven specific objectives. These were:

(1) To consolidate and focus the energies of the State's seven public colleges and universities in a dramatic new program of personnel development, research, and service, thereby to make the classroom teacher a vital part of a continuing research and improvement effort.

(2) To prepare and place 1,950 fully qualified and specifically prepared teachers into the State's elementary schools, thereby to improve the quality of education for elementary school children who otherwise would be taught by underprepared teachers (as 23,000 students now are taught).

(3) To place each of North Dakota's 144,000 school children in a reasonably organized and administratively effective school district; each such district would contain at least 12 grades of instruction, and its high school would enroll not fewer than 200 pupils in the upper four grades.

(4) To enlarge the scope, focus and effectiveness of educational services offered by the State Department of Public Instruction, through seven regional service centers; each such center would be designed to energize and facilitate local district study, planning, evaluation, reorganization, and program improvement.

(5) To upgrade the level of financial support for the normal and ordinary recurring costs of education; this requires an improved State Foundation Program that (1) equalizes inequities among local school districts and (2) enables school districts to use local tax funds more freely for program improvements over and beyond the State guaranteed minimum (for example, for public kindergartens).

(6) To shift to state government the responsibility for the extraordinary costs of educational services: the extraordinary costs now are divided inequitably among local districts for such items as school construction, debt service, transportation, and special services for rural isolated pupils.

(7) To employ State funds to reward those local school districts that take the initiative to improve the quality and efficiency of their operations; an appropriate reward would make State aid directly proportionate to the number of fully qualified teachers that a district employs.

When appropriately implemented, this plan for action should guarantee an adequate and equal educational opportunity for every present or future student in the State's education system, regardless of the pupil's place of residence in the State, and without regard to his religion, color, ethnic background, or economic status.

The public school system of North Dakota has several basic problems. These include:

* Administrative organization that is not effective.
* Financial arrangements that are neither efficient nor equitable.
* Instructional programs that are not adequate in scope or quality.

To solve these problems, the State must have a body of fully qualified educational personnel. At present, it does not. Contrary to what has been popular opinion, the fact is that the personnel situation in North Dakota schools now approaches a state of crisis. The personnel situation is described in some detail in this document. Briefly, however, the key facts are these:

* Nearly 60% of the State's elementary teachers are underprepared for their jobs, hence are partly unqualified to teach.
* Secondary teachers, basically, are qualified to teach. However, they are not evenly distributed across the State; moreover, one teacher in five is assigned to teach in fields for which he is not adequately prepared.
* There is a critical shortage of qualified personnel for related services, including: counselors; teachers for the handicapped; librarians; supervisors; and administrators.
* Personnel now in service are improving their preparation, but slowly; at present rates, it would take more than a generation to enable each school in the State to develop a qualified staff.

This situation, fortunately, is neither hopeless nor unresolvable. However, it will not correct itself. To improve matters, the State must organize its instructional and financial resources for a concerted effort to be sustained through the next decade.

After two years of intensive investigation, the Statewide Study Team has devised practical means for the State to mount that sustained effort. Under the general title, "Educational Development for North Dakota, 1967-1975," the Team has described the educational situation and has proposed actions designed to improve matters. We believe that the entire series of reports warrants thoughtful consideration by every parent and interested citizen in the State.

This document **describes** the personnel situation; a companion report, "A Plan: Developing and Placing Educational Personnel in North Dakota," contains the Study Team's proposals for **improving** the situation. It should be clear that the personnel situation cannot be corrected simply by producing more teacher education graduates in the State's several colleges and universities, nor merely by recruiting educational personnel more vigorously. Salary levels must be raised so that the State can retain qualified people. Basic changes must be made in the State's entire pattern of providing financial support for public education, and in the pattern of expenditures for education.

In particular, these changes must affect the small school districts of the State. You will find, as you read this report, that small districts are in the most awkward situation with respect to personnel. Their personnel tend to be underprepared for their work, in terms of professional study. Their salary scales tend to prevent them from either recruiting or retaining the well-qualified candidate for employment. Personnel problems are more acute in non-accredited districts than they are in accredited districts. They are more acute

in small districts than they are in large ones. The facts are unmistakable, and other difficulties combine to build an overwhelming case for substantial re-structuring of the small district, its staffing patterns, it financing, it management and—above all—the educational opportunities which it offers to youngsters of North Dakota.

The Statewide Study Team recommends that additional money shall be provided for education, and that the use of the money shall be governed by two principal factors: one, the extent to which school districts are reorganized into units of justifiable size; and two, the extent to which school districts employ and retain qualified professional personnel.

* * *

The study of educational personnel and related matters reflects a high degree of cooperative effort among three principal agencies. These are:

The North Dakota Department of Public Instruction
The North Dakota Legislative Research Committee
The University of North Dakota.

Funds to support the Statewide Study of Education were provided by the State Legislature, by the Federal Government—under provisions of Title V, Elementary and Secondary Education Act of 1965—and by the University of North Dakota. Grateful acknowledgement is given to the many State and local school personnel that generously gave of their time and resources to make the study complete.

Kent G. Alm, Director
Statewide Study of Education
December, 1967

INTRODUCTION

Quality educational personnel is the key to quality educational experience for children. Today as yesterday, the child looks to the good teacher for his education. Unfortunately, in North Dakota as in numerous other locations in the nation, fully prepared and experienced teachers are not always available in the numbers required.

Teachers and Educational Technology

Modern teaching devices are an adjunct to good teaching, not a substitute for a good teacher. With the advent of programmed materials, television and related audio-visual aids, clearly, the technically and professionally qualified teachers can immensely increase their effectiveness with children. Modern data storage and retrieval systems hold promise of extending library facilities to every classroom, thence to every child.

These modern tools for teaching materially strengthen the effectiveness of the properly trained and otherwise gifted teacher. In the hands of the ill-trained, undertrained or inexperienced person, however, these diagnostic and prescriptive instruments add little to the quality of the child's education.

The moral for North Dakota is: FIRST, with good speed, place a fully trained, experienced, sensitive and interested teacher in each of the State's public school classrooms; SECOND, provide adequate teaching tools and materials suitable for each child; THIRD, maintain high quality—once it is attained in the teaching force—both by materially increasing benefits, to hold the good people in the profession, and by continuing to upgrade the quality of their technical expertness, through in-service development programs.

Assuring Quality Education

A **certified** teacher is not the same as a **qualified** teacher. Under North Dakota State law, a person must be licensed or certificated in order to teach in the public schools. These licenses are issued by the State Department of Public Instruction in accordance with requirements established by the Department. Insofar as possible, the requirements are intended to guard public school children against inadequate or inefficient teaching; in practice, the legal standards for licensing now lag far behind the professional developments in teaching. For example, elementary school teachers in North Dakota still may be licensed to teach if they have completed no more than two years of college study, including 16 hours in professional education courses and in student teaching. Even these out-dated requirements were not established until 1953. Reliance upon these low standards has established so large a backlog of undertrained but licensed teachers in the State that future improvement of instruction in some areas will be extemely difficult.

Today, the average education level of the population has materially increased. Parents, employers and citizens at all levels increasingly are critical of the quality as well as quantity of our young people's education. Quality in teaching comes from our best prepared professional teachers, notably those who are capable of employing the full range of our educational knowledge and technology. Today in teaching—as in medicine—the bare minimum of essential knowledges and skills rarely can be mastered in four years of university level

study, much less in two. Increasingly, citizens and professional educators alike deem a full four-year university education to be minimal preparation for the beginning teacher.

In recognition of these changes in our society and technology, the North Dakota Legislature in 1965 enacted into law a requirement that all persons who propose to teach must—beginning in 1969— present a college degree in an appropriate field in order to be licensed to teach in the State's public elementary schools. This will bring the minimum requirements for teachers of most of our children in line with those earlier enacted for high school teachers.‡

Upgrading Teaching Competence

The new legislation undoubtedly will have a good effect upon the schools in the long term; however, immediate benefits will be limited. The fact is that three-fourths of the State's elementary school teachers in service in 1966 would not be qualified to enter teaching under the new requirements. They will be permitted to continue to teach, of course. Indeed, 51.4% of these teachers may—under present law—continue to teach without any additional study or preparation until retirement.

This "permanent certification" provision of existing law—that a person may be licensed to teach for life without any additional training—was enacted just after the turn of the century. At that time, changes in educational content, method or technique were few and far between and teachers were jealously seeking to become "professionals" in much the same sense as medical doctors have become "professionals". Today, however, conditions are radically different. The content of education and the tools and materials that teachers employ are changing rapidly. Moreover, teaching has become an accepted profession, indeed the largest in the nation. The integrity and meaning of the profession, however, is threatened by obsolesence of the preparation of its members. We would not knowingly tolerate that situation in medicine, and should not tolerate it in the public education of our children. As long as a person may be licensed for life, there are few effective inducements to the continuing preparation of teachers. The "life certificate" therefore must be eliminated or, at least, provisions should be made for periodic renewals of the original certificate based upon progressively updated requirements.

CHARACTERISTICS OF PUBLIC SCHOOL TEACHERS

In 1965-66 there were a reported 4,542 elementary school teachers in the public schools of the State, and 2,465 high school teachers. These persons were responsible for the formal education of 104,703 public elementary and 42,781 public high school children respectively. These numbers of teachers and students did not materially change in 1966-67.

Who are these people to whom we entrust our children? Just how qualified are they for the important positions they hold? What steps are they taking to keep abreast of modern education technology and to upgrade the quality of public education in North Dakota? How adequate are the conditions under which they are expected to teach? Are the rewards for good teaching and the other benefits in

‡In 1955, a similar policy and administrative requirement was established by the Department of Public Instruction for secondary school teachers and administrators. This was enacted into statute in 1965.

their profession commensurate with those in other important fields of public endeavor?

To examine these and related questions, the Statewide Study Team reviewed reports and documents submitted by each employed teacher in the State for the school year 1965-66. Information was obtained from the "Certificated Administrative and Teacher Personnel" (Form G F & S), a form required by the State Department of Public Instruction in September of each year. Additional information was obtained from the "Annual Report of Schools Offering a High School Program" and also from the "Annual Elementary School Report (A-1)".

Formal Preparation of Educational Personnel

The extent of formal training for teaching—while no absolute guarantee of effective performance—is considered to be the best single indicator of quality teaching. Coupled with a few years of active experience, the teacher with four or more years of appropriate preparation typically will out-perform the lesser-prepared person in all important diagnostic and prescriptive tasks.

Public policy would dictate that every child in the State shall have the opportunity to study under a fully prepared teacher at each grade level. Moreover, public policy also would dictate that each teacher's preparation constantly should be upgraded to remain abreast of new developments in educational content, method and technology. This does not mean that a gifted individual might not perform creditably without extensive formal preparation as a teacher. However, in teaching as in other important professions, most members—while capable and dedicated—are not extraordinarily gifted. In order to perform consistently well, they need the fullest preparation and—when in service—the best continual upgrading that can be provided.

Educational Level of High School Personnel

A few states in the nation have reached the point where each teacher is prepared appropriately and where arrangements exist for constant ugrading. Most states, however, are still striving to reach that situation. This is the case in North Dakota, although considerable progress has been made.

Indeed, at the high school level, the school districts in the State have in general attained a commendable level of achievement. In 1965, almost every full-time high school teacher in the State was reported by the State Department of Public Instruction to have at least a bachelor's degree in an appropriate field. Over 12% had earned a master's degree and a few had attained a specialist degree at the advanced graduate level.

As expected, the larger, more efficient high school districts are the districts that were able to attract and hold the better qualified high school teacher. Among districts enrolling 400 or more high school students, for example, over 30% of the high school teachers had earned master's degrees in their respective fields of major. Only 3.5% had done so in districts enrolling fewer than 150 high school students, and seven percent in districts enrolling 150-399 students.

Comparably high standards were being established among

secondary school administrators. Almost three-fourths of the superintendents had earned master's degrees, or had studied beyond the master's. Forty-five percent of the secondary school principals had earned master's degrees.

Most of these advanced degree-holders were employed in accredited districts. Among principals of unaccredited high schools, none held master's degrees; in accredited high schools, however, 46% of the principals held the master's degree or higher. Moreover, the size of the district clearly is important. Among accredited high school districts, the larger districts tend to be more successful than smaller ones are in attracting qualified principals. In relatively large districts—those enrolling 400 or more high school students—89% of the principals held M.A. degrees and nearly five percent held the doctorate. Smaller districts do not do so well: only 48% of the principals held M.A. or higher degrees in districts enrolling 150-399 high school children, and only 20% in districts enrolling fewer than 150 high school students.

Accredited high school districts were the only ones which employed special service personnel during 1965-66. Characteristically, these personnel were trained more extensively than secondary teachers, but not yet trained as fully as high school administrators. These statistics are reproduced in Table 1

Educational Level of Elementary School Personnel

In contrast to the relatively well-qualified cadre of secondary school teachers in the State, elementary teachers in the majority of the State's public school districts are neither fully nor adequately prepared for their positions. This is quite apart from the fact that each teacher has been certificated (either temporarily, provisionally or for life) by the State Department of Public Instruction. For the State as a whole, almost two-thirds of the elementary teachers employed in 1965-66 were non-degree teachers, i.e., had not completed a minimally acceptable program of professional preparation. In certain classes of districts, as may be seen in Table 2, fewer than one percent of the teachers were adequately prepared. Among small districts (those enrolling fewer than 400 students in their high school) over three-fourths of the elementary teachers had less than a college education. By contrast, 75.6% of the elementary teachers in large districts had completed bachelor's or master's degree programs.

Seventy-one elementary administrators were reported to be employed in the public schools during 1965-66. Of these, all had completed college, 69% had obtained master's degrees and a few the Education Specialist's degree. The overwhelming majority of these were employed in the six school districts that enroll 1,000 or more high school pupils.

A well-qualified elementary school administrator is not simply a bureaucrat present to perform housekeeping tasks; he is a major force for achieving quality in the educational offerings of the schools. The fact that 504 operating districts employed only 71 such persons is one more bit of evidence in support of the view that reorganization is essential: small school districts do not—and, in fact, truly are not economically able to—engage or retain the professionals that modern schools demand.

TABLE 1

HIGHEST DEGREE EARNED BY EDUCATIONAL PERSONNEL BY TYPE OF DISTRICT

(IN PERCENT)

Type of Personnel	Type of District	Educational Level Attained: 60-89 credits	90 or more credits	B.A. Degree	M.A. Degree	Ed.S. Degree	Ph.D.
Elementary Teachers n = 4541							
	Non-Accredited High Schools	1.2	4.4	1.1	0.0	—	—
	Accredited High Schools	8.3	34.9	35.2	3.2	—	—
	Graded Elementary	1.6	4.2	.9	0.0	—	—
	One-Teacher Schools	2.0	2.4	.3	0.0	—	—
	All Schools	13.2	45.9	37.5	3.3	—	—
	Under 400 Students	19.4	58.3	21.8	0.5	—	—
	400 or More Students	1.8	22.7	66.9	8.7	—	—
	Total	13.2	45.9	37.5	3.3	—	—
Secondary Teachers n = 2457							
	Non-Accredited High Schools			8.0	0.4	—	—
	Accredited High Schools			79.4	12.0	0.2	—
	All High Schools			87.5	12.3	0.2	—
	Under 150 Students			96.4	3.5	.1	—
	150-399 Students			93.0	7.0	—	—
	400 or More Students			69.0	30.5	0.4	—

SOURCE: State Department of Public Instruction Personnel Card 1

TABLE 1 (Continued)

HIGHEST DEGREE EARNED BY EDUCATIONAL PERSONNEL BY TYPE OF DISTRICT

(IN PERCENT)

Type of Personnel	Type of Districts	Educational Level Attained: 60-89 credits	90 or more credits	B.A. Degree	M.A. Degree	Ed.S. Degree	Ph.D.
Elementary Administrators n = 71							
	Non-Accredited High Schools			1.4	—	—	—
	Accredited High Schools			22.5	67.6	1.4	—
	Graded Elementary			5.6	1.4	—	
	Total			29.6	69.0	1.4	
Secondary Administrators n = 483							
	Non-Accredited High Schools			11.2	3.9	—	—
	Accredited High Schools			23.0	59.8	1.2	0.8
	All Secondary Schools			34.2	63.8	1.2	0.8
	Under 150 Students			43.6	54.5	1.9	—
	150-399 Students			30.3	69.0	0.7	
	400 or More Students			11.9	83.3	—	4.8
	Total			34.2	63.8	1.2	0.8
Secondary Service Personnel n = 165							
	Non-Accredited High Schools						
	Accredited High Schools			64.2	35.1	—	0.6

SOURCE: State Department of Public Instruction Personnel Card 1

TABLE 2

EDUCATIONAL LEVELS OF ELEMENTARY TEACHERS

Type of School District	Level of Educational Attainment				
	Less Than 3 years	Less Than 4 years	Bachelor's Degree	Master's Degree	Total
Non-Accredited High Schools	1.2	4.4	1.1	0.0	6.7
Accredited High Schools	8.3	34.9	35.2	0.0	81.6
Graded Elementary Schools	1.6	4.2	0.9	0.0	6.8
One-Room Rural Schools	2.0	2.4	0.3	0.0	4.8
Districts with Fewer Than 400 High School Pupils	19.4	58.3	21.8	0.5	—
Schools with 400 High School Pupils or More	1.8	22.7	66.9	8.7	—
Total	13.2	45.9	37.5	3.3	100.0

SCURCE: State Department of Public Instruction Personnel Card 1

Sex of Educational Personnel

A well-organized school system normally endeavors to develop and maintain a reasonable balance with respect to age and sex, within its personnel force. A similar objective is established for each elementary and secondary school within school systems, to assure that children will be exposed appropriately to both masculine and feminine influences during their educational development.

Historically, teaching was a task for men. The early community's most respected citizen often was the schoolmaster. Not until the Civil War did women begin to dominate the teaching field, particularly in the early grades. This feminine trend continues today in most places, although men still dominate in the upper grades and administrative posts.

North Dakota is no exception. Eighty-five percent of its elementary teachers are women. The numbers of men in the elementary schools are increasing, but their employment is limited principally to the large urban school districts. For most men—as will be seen later—elementary school teaching salaries are not a sufficient inducement. Two-thirds of the State's high school teachers are men, however, as are three-fourths of the elementary school principals and over 95% of the high school principals. It is generally believed that men have continued to dominate the administrative field (although they are not inherently better qualified to do so) for reasons of prestige and income. Traditionally, low salaries for classroom teaching have led many men to seek and accept higher-paid administrative or supervisory posts in order to remain in the profession. However, among educational service personnel—examples include counselors, librarians, supervisors, audio-visual technicians and curriculum specialists—women hold from one-third to one-half the present positions in secondary and elementary schools respectively. These statistics are presented in Table 3. For the future, a better balance—particularly in administrative positions and in the elementary schools—would probably produce a better environment for the education of our children at all levels.

Age of Educational Personnel

Normally, a school district will endeavor to attain and sustain a reasonable balance between young and aging teachers and related personnel. Otherwise, if the majority of teachers are middle-aged, for example, a faculty may have difficulty in maintaining effective communications with its youthful clientele. A faculty composed predominantly of young people, on the other hand, may lack essential experience in managing the complexities of classroom and school. More importantly, the opportunity to interact with teachers—men and women—of various ages aids children in their own maturing.

In practice, few schools pursue these matters deliberately. Economic and social factors, rather than educational considerations, tend to determine the age or sex distribution of faculty members in a given school or community, or in schools of a specific type. This would appear to be the case in North Dakota.

Of the State's 4,542 elementary teachers in 1965-66, about 30% were in their twenties. Ten percent were sixty or older, and a few were in their seventies. The average age of elementary teachers was 42 years. However, teachers in one-room rural schools tend to be older: their average age was 51 years, and about 23% were 60 or

TABLE 3a

SEX OF EDUCATIONAL PERSONNEL BY TYPE OF DISTRICT

(IN PERCENT)

	Type of School District	Elementary Personnel						Secondary Personnel					
		Teachers		Administrative		Service		Teachers		Administrative		Service	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Non-Accredited High School Districts	1-24	.0	.4	.0	.0	.0	.0	.4	.2	1.0	.0	.0	.6
	25-49	.5	3.6	1.2	.0	.0	.0	3.6	1.8	9.7	.6	.0	.0
	50-74	.1	1.1	.0	.0	.0	.0	.8	.5	2.3	.0	.0	.0
	75-99	.0	.5	.0	.0	.0	.0	.4	.4	1.2	.0	.0	.0
	100-149	.1	.4	.0	.0	.0	.0	.2	.1	.4	.0	.0	.0
	SUB TOTAL	.8	6.0	1.2	.0	.0	.0	5.4	3.0	14.6	.6	.0	.6
Acredited High School Districts	1-24	.0	.1	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0
	25-49	.1	1.3	.0	.0	.0	.0	1.8	.7	3.9	.0	.0	.6
	50-74	.6	4.7	.0	.0	.0	.0	5.2	2.6	10.3	.2	.6	.0
	75-99	1.0	6.7	.0	.0	.0	12.5	8.1	2.9	11.7	.4	1.2	1.8
	100-149	1.0	7.5	.0	.0	.0	.0	1.8	3.3	11.3	.0	1.2	2.3
	150-199	1.5	8.2	.0	.0	.0	25.0	8.6	3.3	12.1	.4	4.1	6.4
	200-299	1.5	7.8	.0	.0	12.5	.0	8.5	3.3	11.1	.0	5.3	9.9
	300-399	.7	4.2	.0	.0	.0	.0	4.5	1.9	5.6	.2	3.5	4.1
	400-499	.6	1.5	.0	.0	.0	.0	1.1	.6	1.2	.2	1.8	2.3
	500-599	.7	4.0	3.7	.0	.0	.0	4.1	1.8	4.5	.0	2.9	9.4
	1000 or more	5.7	22.2	58.0	19.8	.0	.0	14.0	7.3	9.7	1.6	17.0	25.0
	SUB TOTAL	13.4	68.2	61.7	19.8	12.5	37.5	63.7	27.9	81.7	3.1	37.4	62.0
Graded Elementary Districts	1-49	.2	2.2	1.2	1.2	25.0	.0						
	50-99	.2	1.4	.0	1.2	12.5	.0						
	100-199	.1	1.3	4.9	3.8	.0	12.5						
	200 or more	.1	1.4	4.9	.0	.0	.0						
	SUB TOTAL	.6	6.3	11.1	6.2	37.5	12.5						
	One Room Rural	.3	4.5	—	—	—	—						
	GRAND TOTAL	15.0	85.0	74.1	25.9	50.0	50.0	69.1	30.9	96.3	3.7	38.0	62.0

SOURCE: State Department of Public Instruction Personnel Card 1

TABLE 3b

SEX OF EDUCATIONAL PERSONNEL BY TYPE OF DISTRICT
(IN PERCENT)

		All Personnel							
	Type of School District	Teachers		Administrative		Service		Total	
		Male	Female	Male	Female	Male	Female	Male	Female
Non-Accredited High School Districts	1-24	.2	.4	.8	.0	.0	.6	.2	.3
	25-49	1.6	3.0	8.5	.5	.0	.0	2.1	2.7
	50-74	.4	.9	1.9	.0	.0	.0	.5	.8
	75-99	.2	.5	1.1	.0	.0	.0	.2	.4
	100-149	.1	.3	.4	.0	.0	.0	.1	.2
	SUB TOTAL	2.4	5.1	12.7	.5	.0	.6	3.1	4.4
Accredited High School Districts	1-24	.1	.1	.2	.0	.0	.0	.1	.1
	25-49	.7	1.1	3.4	.0	.0	.5	.9	1.0
	50-74	2.2	4.0	8.8	.2	.5	.0	2.6	3.6
	75-99	3.5	5.4	10.1	.4	.9	1.8	3.9	4.9
	100-149	3.4	6.1	9.7	.0	.9	1.8	3.8	5.5
	150-199	4.0	6.5	10.4	.4	3.2	5.9	4.4	6.0
	200-299	4.0	6.2	9.5	.0	4.6	7.8	4.4	5.8
	300-399	2.0	3.4	4.8	.2	2.7	3.2	2.3	3.2
	400-499	.8	1.2	1.1	.2	1.4	1.8	.8	1.1
	500-599	1.9	3.2	4.4	.0	2.3	7.3	2.1	3.1
	1000 or more	8.6	16.9	16.6	4.2	13.2	19.6	9.3	16.0
	SUB TOTAL	31.1	54.0	78.8	5.6	36.5	61.2	34.7	50.6
Graded Elementary Districts	1-49	.1	1.4	.2	.2	1.0	.0	.1	1.3
	50-99	.1	.9	.0	.2	.6	.0	.1	.8
	100-199	.1	.8	.7	.5	.0	.6	.1	.8
	200 or more	.1	.9	.7	.0	.0	.0	.1	.8
	SUB TOTAL	.3	4.1	1.6	.9	1.7	.6	.5	3.8
	One Room Rural	.2	2.9					.15	2.65
	GRAND TOTAL	34.0	66.0	93.1	6.9	38.8	61.8	38.5	61.5

over. Only 27% of the elementary teachers in rural elementary and non-accredited high school districts were under age 40, whereas over 50% of those in accredited high school districts were in their twenties or thirties. These statistics are summarized in Table 4.

The relatively advanced age of elementary teachers is most notable in small districts and rural areas (specifically: the rural one-teacher school, the graded elementary districts and the non-accredited high school districts and also accredited high school districts with fewer than 400 pupils in the high school). This may not in itself be bad. Rather, it is symptomatic of a series of social and economic conditions that tend to signify substandard educational opportunities. As will be seen later in this report, these are the same school districts that characteristically:

* provide lower salaries for teachers, yet
* incur abnormally high per pupil costs for education because of their small enrollments;
* limit the role of the school teacher principally to teaching of basic skills and maintaining discipline, and consequently
* employ underprepared teachers (specifically, those who hold Life Certificates based upon two years of college preparation).

These factors tend to combine—as would be expected—to mitigate against rapid or substantial educational change. The **status quo** is generally valued in these districts. The older women teachers in these communities typically tend to support and perpetuate the **status quo.**

The situation at the secondary school Statewide seems somewhat more encouraging. Here, every teacher must hold at least a bachelor's degree in an appropriate field in order to be certificated to teach. Salaries generally are higher for secondary school teachers than for elementary teachers, and other conditions also make high school teaching more attractive to the young college graduate. Consistently, high school teachers tend to be younger. The average age in accredited high school districts is but 34 and in non-accredited districts, 36. Over 47% of the teachers are in their twenties; less than 5% are in their sixties or seventies. As indicated earlier, two-thirds of these teachers are males.

Among administrators in the elementary schools, the average age is about 47 years. Among high school administrators, the average age is lower, 43 years. Only 6.2% and 9.2% of elementary and secondary administrators respectively are still in their twenties. About one in six elementary administrators, however, is in his sixties; one in ten high school administrators is 60 or more.

PROFESSIONAL GROWTH AMONG PUBLIC SCHOOL PERSONNEL

It was established earlier that elementary school personnel in the State were under-educated for their important work. Secondary school teachers generally hold a bachelor's degree in an appropriate field; nevertheless, their preparation in most instances also is minimal by present standards, particularly in the advanced fields. Librarians and counselors also were noted to be underprepared in relation to good standards.

Fortunately, many of these personnel voluntarily are returning to their advanced undergraduate or graduate study, to upgrade

TABLE 4

AGE OF NORTH DAKOTA EDUCATIONAL PERSONNEL BY TYPE OF DISTRICT (IN PERCENT)

Type of Personnel	Type of Districts		Age of Personnel							
			20/29	30/39	40/49	50/59	60/64	65/69	70+	Total
Elementary Teachers n = 4542										
	Non-Accredited High Schools	(48.5)	1.4	1.0	1.3	1.9	0.8	0.2	0.0	6.6
	Accredited High Schools	(40.6)	27.0	14.5	14.5	18.7	5.8	1.0	0.1	81.6
	Graded Elementary Schools	(47.4)	0.9	0.9	1.4	2.5	0.7	0.2	0.0	6.6
	Rural One-Teacher Schools	(51.6)	0.3	0.5	1.0	1.8	0.8	0.3	0.1	4.8
	All Schools (Total)		29.7	16.9	18.3	24.9	8.2	1.7	0.3	99.9
	Mean: 41.9 years									
Secondary Teachers n = 2465										
	Non-Accredited High Schools	(35.7)	4.0	1.8	0.9	1.0	0.4	0.0	0.0	8.4
	Accredited High Schools	(34.4)	43.5	24.6	12.7	7.1	2.5	1.0	0.1	91.5
	Under 400 High School Students									
	400+ High School Students									
	All High Schools (Total)		47.5	26.4	13.7	8.1	3.0	1.1	0.1	99.9
	Mean: 34.5 years									
Elementary Administrators n = 81										
	Non-Accredited High Schools	(25)	1.2	—	—	—	—	—	—	1.2
	Accredited High Schools	(48.3)	1.2	19.7	25.9	19.7	11.1	3.7	—	81.3
	Graded Elementary	(44.3)	3.7	3.7	1.2	7.4	1.2	—	—	17.2
	All Elementary (Total)		6.2	23.4	27.2	27.2	12.3	3.7		99.9
	Mean: 47.3 years									
Secondary Administrators n = 486										
	Non-Accredited High Schools	(42.2)	1.4	7.4	2.5	1.8	1.2	0.8	0.0	15.1
	Accredited High Schools	(43.3)	7.8	29.8	24.1	14.8	5.8	2.5	0.0	84.8
	All High Schools (Total)		9.2	37.2	26.5	16.7	7.0	3.3	—	99.9
	Mean: 43.1 years									

SOURCE: State Department of Public Instruction Personnel Card 1

their professional preparation. In the 70 school districts that have adopted salary schedules, teachers may receive regular salary increments in recognition of appropriate study beyond their certification requirements. In general, these districts employ a greater proportion of fully prepared teachers than other districts. Among the larger of these districts, the majority of teachers at all levels are degree teachers. They also are among the most active with respect to advanced study.

The most crucial professional growth problem, however, rests with elementary teachers in the small high school and related rural districts. During the period 1961-65, only an estimated one-fourth returned to college to improve their professional preparation. Only 17% of them completed as much as one course per semester during that period. The average teacher completed only one course per year. Half of the teachers completed fewer. These statistics may be seen in Table 5.

To earn a college degree at these rates of progress, it would require up to 20 years for the elementary teacher who now has completed only two years of college study; that is a long while to wait for teachers to become eligible for First Class certification. Thirteen percent of the State's elementary teachers now have completed only 60-89 semester hours, hence would require (at the present average rate of progress) an average of 15 years to become fully prepared for their positions. An additional 46% of the elementary teachers have completed three but not all four of the years required in the degree programs. Hence, at present rates, teachers must invest an average of five years in advanced study; however, with relatively little college work to complete, in-service programs and summer school may be practical as means to qualify this group for First Class Professional Credentials. But for the 13% that require 15 to 20 years of additional study (at the present rate of one course per year), part-time study programs seem highly impractical. Either these teachers must be assisted to complete the required advanced study on a full-time basis, or they should be permitted to retire from the profession at the earliest convenient opportunity.

Secondary school teachers in general are more active in pursuing advanced studies. An estimated 61% of those employed in 1965-66 had returned to college at least once in the previous five years. For approximately 47% of these, post-graduate college credit was completed at the rate of one course per semester during these years. However, teachers in the small high school districts pursued advanced study at a considerably slower rate than those from the larger high school districts. For example, in high school districts enrolling 400 or more high school students, over 90% of the teachers were enrolled for advanced study in the five-year period, and more than half of them enrolled for at least one course per semester per year. By contrast, in small districts (fewer than 400 students in the high school), only 49% of the teachers were so enrolled, and only 43% undertook the equivalent of one course per semester during the five years.

Through example and salary increments, teachers in the larger districts are encouraged to continue advanced study; teachers' willingness to study apparently is reflected in these statistics. It should be immediately apparent, however, that the State faces a challenging task if it undertakes to educate fully its teacher personnel. College and university programs must be offered more effectively to teachers

TABLE 5

ADVANCED STUDY[1] COMPLETED BY DEGREE TEACHERS, 1961-65, BY TYPE OF DISTRICT

Type of School Districts	Elementary		Secondary	
	Percent of Degree Teachers Making Progress	Average Graduate Credits Earned	Percent of Progress	Average
Non-Accredited High Schools	14.0 N=7	12.0	47.57	16.7
Accredited High Schools	20.3 N=355	17.4	62.1	19.6
Graded Elementary	20.9 N=9	19.2	—	—
One Room Rural Schools	20.0 N=3	22.0	—	—
TOTAL	20.2 N=374	18.1	60.8	19.4

[1]Advanced Study refers to graduate credits earned

SOURCE: Annual Report of Schools Offering A High School Program, 1965 and the Annual Elementary School Report (A-1), 1965

and service personnel at both the graduate and undergraduate level, if the task is to be completed within a reasonable period of time. Moreover, to rely upon the voluntary return of teachers to advanced study, without offering appropriate and significant financial and professional inducements, is clearly an impractical means to qualify the teaching force. Hence, significant new steps must be taken by the State to set and enforce appropriate new standards for licensing teachers. Local districts must also provide—with appropriate State assistance—appropriate salaries and salary increments for the fully qualified teacher.

ACCESSIBILITY TO HIGHER EDUCATION

One part of the problem requires immediate restudy. At present, it is patently impossible for the majority of teachers to perform college-level study on a part-time basis. For most, attendance during summer sessions is the only means to pursue additional studies. During the school year, centers of higher education are inaccessible to many. Extension programs from the State universities are limited, although attendance at courses that are offered is usually large.

Therefore, higher education must re-examine its responsibilities for upgrading the quality of performance of teachers now in service. It must consider and then initiate means to qualify each teacher for the highest State credential within the coming five-year period. At the same time, the teacher preparation programs themselves must be improved. The Statewide Study Team has prepared a separate report on these and related maters, under the title: "A Plan: Developing and Placing Educational Personnel in North Dakota".

THE IMPACT OF UNDERPREPARATION ON THE SCHOOLS

The impact of non-degree teachers in the elementary schools is profound and extensive. During 1965-66, an estimated 61,984 elementary school children (59.2% of the total) were attended by non-degree teachers; 13,832 of these by teachers with less than three years of college preparation. The influence of non-degree teachers is, of course, most keenly felt in small urban and rural schools. Of the 2,392 children enrolled in one-teacher rural schools, all but 165 were attended by teachers with less than a college degree. Only 764 of the 5,539 children enrolled in graded elementary districts studied under college-prepared teachers; the same was true of an estimated 1,023 of the 6,274 elementary enrollees in non-accredited high school districts. Fortunately—from the point of view of Statewide policy—these districts served only 13.6% of all the elementary school children (104,703) enrolled in that year.

The vast majority of elementary children (90,498 or 86.4% of the total) were enrolled in accredited high school districts. Here, the size of a district is very clearly and directly an indication of the percent of elementary teachers that are qualified; typically, the smaller districts employed proportionately fewer fully qualified teachers than larger, urban districts. Those districts that enrolled fewer than 400 pupils in their high schools, for example, enrolled an aggregate of 50,246 elementary pupils; 38,438 or nearly two-thirds of these were instructed by underprepared teachers. In other words, of all the pupils taught by inadequately prepared teachers in 1965-66, 62% of them were enrolled in **small accredited high school districts;** over 70% of them were enrolled in small high school districts of all types.

By contrast, fewer than 10,000 (approximately 16%) of the 61,984 elementary children taught by non-degree teachers in 1965-66 were in large high school districts. Clearly, then, **the small high school district** in North Dakota is the source of much of the State's basic education problem, namely: **inadequate elementary school instruction.** The statistics in this regard are duplicated in Table 6.

TABLE 6

ENROLLMENT BY TYPE OF DISTRICT, 1965-66

(IN PERCENT)

Type of School Districts	Pupils Enrolled Elementary	Secondary	Total
Non-Accredited High School Districts	6.0	6.6	6.2
Accredited High School Districts	86.4	93.4	88.4
Graded Elementary School Districts	5.3	—	3.8
One-Room Rural School Districts	2.3	—	1.6
TOTAL	100.0	100.0	100.0
Districts with Fewer than 400 High School Pupils	61.6	64.1	56.9
Districts with 400 High School Pupils or More	38.4	35.9	43.1

SOURCE: State Department of Public Instruction Education Directory — September, 1965

It is unreasonable to expect that children from the small high school and from related elementary school districts will perform very well later in high school; it is predictable that they will not do as well as children who have been instructed by fully qualified elementary school teachers, regardless of the quality of instruction at the high school level. Indeed, standardized test information of high school freshmen (taken recently from a sample of the State's high schools) strongly suggests just that. Boyle's study demonstrates that the freshmen in small high school districts perform significantly less well on measure of vocabulary, English usage, mathematics and general information than their counterparts in large high school districts.‡

TEACHING EXPERIENCE OF PUBLIC SCHOOL PERSONNEL

Most school authorities believe experience to be an indispensable part of the total preparation of the professional teacher-educator. However, it is no substitute for systematic study in an appropriate academic program of higher education. Furthermore, years of unconsidered experience are not necessarily of great value. It has been said that some teachers fail to grow measurably on the job after the

‡"Summary Analysis of 1965 Iowa Tests of Educational Development: State of North Dakota." University of North Dakota: Grand Forks, 1966. Table 8. Ninth Grade Students.

first two or three years of experience. Probably the most desirable situation is one in which well-prepared teachers profit from their experience in their profession by continuing to upgrade their proficiency through on-the-job training and further study. It probably is advantageous for a school to enjoy a balance within its faculty, with some members of great experience, some of brief experience, and some fresh and inexperienced in the profession.

In North Dakota, the "average" teacher has accrued nearly eight years of professional experience; the "average" administrator has completed over 16 years; and service personnel have completed an average of 14 years. A significant part of the total experience among North Dakota teachers, and to a lesser extent among its administrators, was acquired out-of-state. Twenty percent of public school teachers have taught previously out-of-state an average of four years. Thirty-five percent of the State's public school administrators have acquired an average of 5.3 years of experience out-of-state.

The larger districts tend to employ a greater proportion of teachers with out-of-state experience than smaller districts. The State's six largest districts, for example, have employed 35% of their teachers following out-of-state experience. Similarly, 40% of the administrators in the six largest districts have completed out-of-state experience. These statistics are reproduced in Table 8.

CERTIFICATION OF PUBLIC SCHOOL TEACHING PERSONNEL

The responsibility to license public school teachers rests with the State Department of Public Instruction, in accordance with laws enacted by the State Legislature. At the present time, the Legislature authorizes issuance of four types of teaching certificates. These are:

(a) **First Grade Professional Certificate** (Temporary), issued upon completion of an appropriate four-year college preparation program without teaching experience.
(b) **First Grade Professional Certificate** (Permanent), issued following a minimum of 18 months of successful teaching experience while holding the First Grade Professional Certificate (Temporary).
(c) **Second Grade Professional Certificate** (Temporary), issued upon completion of an appropriate two-year college preparation program without teaching experience.
(d) **Second Grade Professional Certificate** (Permanent), issued following successful teaching experience while holding the Second Grade Professional Certificate (Temporary).

The initial or temporary certificate recognizes two different levels of professional preparation. The license to practice is given for "life" (at each professional grade level) after as little as 18 months of teaching experience. First Grade Professional Certificates are issued to both elementary and secondary teachers who meet the educational and experience requirements. Second Grade Certificates, however, no longer are issued to secondary teachers, and their issuance to elementary teachers is scheduled to be eliminated September 1, 1969. However, the practice persists that a "life" certificate (i.e., a permanent license to teach) is awarded exclusively on the basis of experience, without reference to the teacher's effort to upgrade his professional preparation subsequently.

In 1965-66, 2,426—virtually all of the State's 2,465—public secondary school teachers were reported to be college graduates and

TABLE 7

PREPARATORY INSTITUTIONS OF NORTH DAKOTA PUBLIC SCHOOL PERSONNEL

(IN PERCENT)

Institution	Teachers Elem.	Teachers Sec.	Administrators Elem.	Administrators Sec.	Service Personnel Elem.	Service Personnel Sec.
North Dakota						
University of North Dakota, Grand Forks	4.9	12.8	40.7	37.6	12.5	28.1
North Dakota State University, Fargo	1.5	12.5	4.9	10.5	—	12.9
State Colleges	75.1	48.4	29.6	23.7	37.5	35.7
North Dakota Private Colleges						
Jamestown	1.8	3.8	1.2	1.8	—	2.3
Mary College	—	—	—	—	—	—
Other States						
Minnesota	9.7	12.6	11.1	7.0	12.5	11.1
Montana	0.5	0.6	—	3.5	12.5	1.7
South Dakota	1.7	1.9	1.2	3.5	—	1.7
Others	4.3	7.2	11.1	12.3	25.0	6.4
SUB TOTAL	16.2	22.4	23.4	26.3	50.0	21.0
GRAND TOTAL OF PERSONNEL	4542	2465	81	468	8	171

SOURCE: State Department of Public Instruction Personnel Card 2

TABLE 8

OUT-OF-STATE TEACHING EXPERIENCE, NORTH DAKOTA TEACHERS

Type of School Districts	Teachers		Administrators		Service Personnel	
	Percent with Out-of-State Experience	Average Years Experience	Percent	Average	Percent	Average
Non-Accredited High Schools	20.5	4.7	32.0	4.8	—	—
Accredited High Schools	21.4	4.0	28.5	5.4	32.9	4.7
Graded Elementary Schools	13.8	3.3	—	—	33.3	3.0
One-Room Rural Schools	24.7	7.6	—	—		
TOTAL	21.1	4.1	28.9	5.3	32.8	4.7
Districts Enrolling More Than 400 High School Students	33.7	3.6	36.0	6.6	41.0	5.1
Districts Enrolling Fewer Than 400 High School Students	14.6	4.2	26.3	4.6	21.6	3.9

SOURCE: State Department of Public Instruction Personnel Card 2

to hold First Grade Certificates; information was not available regarding the other 39 teachers. Of the 2,426 reported, 1,000 or 41.2% held temporary certificates, pending completion of successful teaching experience. The other 1,426 (58.8%) held permanent certificates.

Matters were quite different among the State's 4,542 elementary teachers, however: only 40.7% held First Grade Certificates, and 980 of these were temporary. The majority of elementary teachers—not college graduates—could hold only the Second Grade Certificates; unfortunately, 51.3% of these elementary teachers already hold "life" certificates, despite the fact that they have not yet completed four years of professional preparation. An additional 7.9% (making a total of 59.2% of all elementary teachers) are now licensed on Second Grade Temporary Certificates; upon completion of 18 months of successful teaching experience, they too may receive "life" certificates. These 2,691 partly qualified but fully licensed teachers will remain in the profession for many years to come, it is clear, unless the basic legislation concerning certification of teachers is altered; and they may remain relatively unchanged, unless requirements and opportunities for their professional upgrading are significantly altered.

The situation in the State varies by type of school district, as may be seen in Table 9. It is notable (and predictable) that small high school districts and related graded and rural schools employ the largest proportion of non-degree Second Grade certificated employees. Large high school districts, by contrast, employ principally college graduates, the First Grade professional certificated employees.

CERTIFICATION OF NON-TEACHING PERSONNEL

School administrators in North Dakota public schools need not be licensed, except in certain classes of accredited school districts. Even when licensing is required, however, conformance is not always enforced.

Typically, the administrator is expected to hold a master's degree in an appropriate field; also, he is expected to have had three or four years of successful teaching experience, as a holder of an appropriate First Class Teaching Certificate. However, the elementary administrators certificate is not a condition for appointment as principal or superintendent in non-accredited high school districts or in graded elementary or one-room rural districts. Certification is required only of elementary principals employed by accredited districts of the first class (i.e., districts enrolling at least 450 elementary pupils and 215 high school students). However, as may be seen in Table 10, these requirements are rather extensively ignored.

Specifically, 46.3% of elementary principals in districts with 215 or more students in the high school do not hold an appropriate administrative certificate, according to the State Department of Public Instruction. Even more remarkable is the fact that the majority of secondary school principals of accredited high school districts are not certificated. Indeed, 44.5% of the principals of first class accredited schools are not reported to be certificated, nor are a significant number of superintendents in similar districts.

Aside from any legal interpretation, the data reveal a serious need to upgrade the training of public school administrators, particularly in the small high school districts. Only 302 (or 32.5%) of

TABLE 9

PROFESSIONAL LICENSES OF ELEMENTARY TEACHERS

(IN PERCENT)

Type of District	First Class (Permanent)	First Class (Temporary)	Second Class (Permanent)	Second Class (Temporary)
Non-Accredited High Schools	.5	.6	4.9	.8
Accredited High Schools	17.6	20.7	37.2	6.0
Graded Elementary Schools	.5	.4	5.2	.7
One-Room Rural Schools	.3	.1	4.0	.5
TOTAL ALL DISTRICTS	18.9	21.8	51.3	7.9
Districts Enrolling Fewer Than 400 High School Students	10.1	12.1	67.5	10.3
Districts Enrolling 400 or More High School Students	35.6	40.1	20.7	3.4

SOURCE: State Department of Public Instruction Personnel Card 1

TABLE 10

CERTIFICATION OF PUBLIC SCHOOL ADMINISTRATORS
(IN PERCENT)

Type of District	Superintendents Certificated	Superintendents Not Certificated	Secondary Principals Certificated	Secondary Principals Not Certificated	Elementary Principals Certificated	Elementary Principals Not Certificated
Non-Accredited High Schools	0.4	18.7	0.0	11.3	0.0	4.6
Accredited High Schools	63.3	13.5	15.9	72.8	20.4	50.8
Third Class (70-119)*	74.6	25.4	2.9	97.1	1.6	98.4
Second Class (120-214)*	90.7	9.3	20.7	79.3	2.0	98.0
First Class (215 or more)*	95.2	4.8	55.5	44.5	53.7	46.3
Graded Elementary Schools	0.0	0.0	0.0	0.0	0.3	24.0
One-Room Rural Schools	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	196	93	38	201	68	261

*Extrapolated

SOURCE: State Department of Public Instruction

RAW DATA FOR TABLE 10

EXTRAPOLATIONS FROM "CREDENTIALS HELD BY NORTH DAKOTA SCHOOL ADMINISTRATORS BY TYPE OF DISTRICT, 1965-66"

Accredited High School Districts	Superintendents A	Superintendents B	Secondary Principals C	Secondary Principals D	Principals Elementary E	Principals Elementary F
Third Class (70-119 High School Students) also includes 1-70	94	32	3	102	1	61
Second Class (110-214 High School Students)	49	5	11	42	1	50
First Class (215 or More High School Students)	40	2	24	30	65	56
TOTAL	183	39	38	174	67	167

the State's 857 administrators are certificated. Admittedly, a large number of small high school districts must stretch their resources in order to acquire and hold competent licensed administrators in the positions of superintendent and of high school (and preferably elementary as well) principal. Perhaps this suggests that these districts are not properly constituted or economically efficient. In the long range future, the number of districts must decline, and the reduction in their number may relieve, in part, the need to prepare new administrators. However, it is clear that for those administrators now in service, extensive upgrading of their preparation is required to qualify them fully for service in the schools.

CERTIFICATION OF SERVICE PERSONNEL

Increasingly, full-time school librarians and counselors are considered to be essential personnel, particularly in the secondary schools.

In North Dakota, 204 high school districts employed a professionally trained librarian in 1965; in many cases, however, the librarians performed library services only on a part-time basis. This represented 72.5% of the small high school districts (i.e., those enrolling less than 400 in the high school) and 92.3% of the large high school districts. No State license is required for librarians; however, school districts tend to expect the librarian to have completed at least a nominal number of courses in library science.

The "average" high school librarian has completed about 13 semester hours of library science, or about four to five courses. Librarians employed by the large high school districts, however, had completed an average of 21.8 semester hours, about two to three courses more than the Statewide average. Those employed by nonaccredited high school districts had completed the least amount of professional instruction in library science, an average of only 8.8 semester hours, or approximately three courses.

To graduate from the University of North Dakota with a four-year degree in library science, a person normally would be expected to complete 33 semester hours in the major field of study; that is approximately 15-16 courses, or two to three times more than the average for librarians now employed. This suggests that North Dakota needs to upgrade markedly the quality of preparation of its high school librarians, and to impose more stringent standards in the employment of persons to serve as librarians in the public schools.

No statistics are available on the employment and training of elementary school librarians. Nor were there data on the incidence of elementary school counselors, a relatively new field of endeavor.

High school counselors are employed in North Dakota; to practice their profession it is desirable, but not mandatory, that they be licensed by the State Department of Public Instruction. Indeed, only 112 high school counselors were employed by the 278 high school districts in the State in 1965-66. Of these, only 74 or 66% were certificated. The State Department of Public Instruction has authority to issue two counselor certificates: the "Standard Credential" and the "Professional Credential." To acquire the "Standard" the counselor must have completed at least 15 semester hours of appropriate study in counseling. The "Professional" certificate requires 30 or more semester hours of such study. By contrast, the college graduate who carries a major in counseling and guidance normally completes no less than 32 semester hours in his major

field. It would appear, therefore, that North Dakota still needs to make progress in this important area of professional service. At the present time, (i.e., 1965-66) there was but one professionally trained counselor in the public high schools for each 578 enrolled students. A ratio of 1:300 generally is considered to be acceptable, particularly in those states such as North Dakota in which counselors are not fully trained.‡ A questionable practice is the employment of the 38 counselors who had not received even a minimal professional preparation in the field.

Teaching Loads of Public School Personnel—Secondary

In 1965-66, the typical high school teacher taught approximately 120 different students in five daily class periods. Teachers in non-accredited high schools had slightly lesser responsibilities, as did those in small accredited high schools. The sizes of classes varied considerably, and class size appears to be related to size of school district. Smaller schools, despite staff limitations, attempt to offer a reasonable variety of courses to their relatively few students; therefore, they tend to conduct a great proportion of classes that enroll very few students. This is a source of financial difficulties in small districts. With few people on the staff, but with the desire to offer a suitably varied program of courses, it is inevitable that the small district will assign people to teach courses for which they are not qualified. It is ironic, of course, that good intentions should lead to unfortunate consequences. It is inevitable, however, as long as the State continues to rely upon small and intrinsically ineffective districts. Larger schools do not encounter this problem. In Table 11 the estimated class size in each of the State's high school districts may be seen to vary from less than 5 to 36 or more students. The median class size was approximately 17 students.

The use of small classes among small (accredited as well as unaccredited) high schools is, in fact, so frequent that it raises serious questions about their cost and about the efficiency of such schools. For example, over 35% of all class sections in non-accredited high schools enrolled fewer than 11 students. Small classes offer definite instructional virtues, but they are extremenly expensive; therefore, they should be used sparingly, in precisely those cases in which their advantages are essential. One such class at each grade level (grades 9-12) might be justified as a "seminar", for example; the fact that fully one-third of all classes enrolled so few students, however, begs examination.

By contrast, in the large high school districts, only two percent of the classes enroll fewer than 11 students. Perhaps large districts should offer more small classes, so that each student may enjoy at least one small group experience per semester at each grade level. At the other end of the scale, nearly 45% of the sections in large high school districts enrolled greater than 25 students. Recent studies suggest that the large high school is most efficiently operated with combinations of very large and very small classes. However, high school programs in North Dakota are not organized to employ well either the large or the small class section. Until they move in this direction the classes that now exceed 30 in number should probably be reduced.

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‡For example, in 1964 the North Central Regional Accrediting Association formally adopted the ratio of 1:300 to be used in its high school accrediting program.

Teaching Loads of Elementary Teachers

The elementary school teacher in North Dakota is normally expected to teach the full range of subjects to children of a single grade. There are a few exceptions, the most remarkable of which are the rural one-teacher schools. Here, teachers offer each grade and, perhaps, teach all grades—one through eight—to such children as from time to time are enrolled. Combinations of elementary grades—one through six—during 1965-66, although still a problem in the State, occurred in only an estimated 15% of all elementary classes taught. Clearly, however, the majority of the State's elementary school children are enrolled in single grade classrooms.

The typical elementary school teacher served a class of approximately 23 children. Smaller schools, attempting to offer separate grades, enrolled fewer pupils per teacher. A low ratio of students to teachers, of course, normally is considered advantageous. The graded elementary school districts, for example, enrolled 18.3 children per class, on the average. One-teacher rural schools enrolled an average of but 11.2 children per teacher. Non-accredited high school districts enrolled about 20.4 pupils per teacher in their elementary grades.

However, the apparent benefits of these relatively favorable pupil-teacher ratios were more than offset by a major disadvantage: the fact that a large majority of the elementary school teachers involved lack proper preparation for their profession. Placing a non-degree teacher with few children, perhaps, might produce as good a result as placing the degree teacher with a greater number of children. However, neither situation is desirable. If it were possible to alter the situation in the State, it would seem to be far better to have the fully trained teachers working with the smaller groups of children.

Larger high school districts tend to have more students in each elementary school class than smaller districts do. Indeed, the ratio of students-to-teacher exceeds 25:1 in many elementary grades of large high school districts. Although that ratio compares favorably with those reported for large city schools throughout the nation, it would be unfortunate to permit class sizes to creep still higher. In view of the increasing urban migration in the State, the large school districts face expanding enrollments; extreme care must be taken to preserve the integrity of their elementary school programs.

TEACHER SALARIES

North Dakota ranked 43rd among the states in 1965 with respect to the level of salaries. Only 70 of the State's 278 high school districts have adopted salary schedules, in which increments are given for advanced training and experience of teachers; of the schedules none provides recognition for superior performance. There exists no regional or Statewide guide for the development of appropriate schedules.

Some districts offer relatively high salaries to the inexperienced college graduate being engaged as a beginning teacher. No district, however, does well at each step of its schedule; most do not provide adequate increments to their teachers after 10 years of experience. Consequently, salary levels tend to level off at the upper or near upper ranges. Those districts that reward beginning teachers suffer

TABLE 11

SIZE OF HIGH SCHOOL CLASSES: 1965

(IN PERCENT)

Type of District	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36 or More
Non-Acredited High Schools	6.2	29.8	27.8	17.8	11.0	4.6	1.9	0.9
Accredited High Schools	1.6	9.8	15.9	19.6	21.0	20.7	9.2	2.0
Small High Schools (Under 400 Pupils)	2.8	15.4	21.1	20.0	19.7	13.6	5.4	1.9
Large High Schools (400 or More Pupils)	0.1	1.8	6.4	14.5	21.9	35.6	17.7	1.9

SOURCE: Annual Report of Schools Offering A High School Program, September, 1965

most from turnover when it occurs. In those districts where most teachers are non-degree, relationships are obscure between years of experience, level of training and salary.

TEACHER TURNOVER

The personnel situation in the State's public elementary and secondary schools would not be completely depicted without reference to personnel turnover. "Turnover" refers to the rate of changes in the number and composition of personnel who staff the schools. Unfortunately, it is not possible to examine turnover in North Dakota schools on a long term basis; the necessary data are not available. However, for the two-year period, 1964-65 and 1965-66, some information is available; although not totally reliable, the data are helpful in forming a preliminary view of teacher turnover in the State.

Degree of Teacher Turnover

It is estimated that 1,404 teachers, who were employed at the end of the 1964-65 school year, did not teach in the State during 1965-66. These 1,404 represented approximately 19.2 % of the 7,326 (estimated) teachers who had taught in the public schools in 1964-65; that is a very substantial loss for one year. Approximately 16.3% of the 1,404 were 60 or more years of age, and may be presumed to have retired. However, 47.6% of them were under age 30; it is not known whether they left teaching for reason of marriage, accepted positions outside the State, or left teaching to enter other lines of work.

To offset these losses, an estimated 1,477 teachers were newly employed in North Dakota schools for 1965-66. About 46% of these (i.e., 677) were beginning teachers. The others were experienced persons who previously had taught outside the State, or had taught prior to 1964-65 in North Dakota public or private schools. These new and returning teachers made up about 21% of the teaching force (1,477/7,007) in 1965-66. In other words, about one in five teachers in 1965-66 was not employed in his position the previous year. This would be a somewhat higher ratio than the national average which, in that year, was reported to be approximately one in six.

Effect of Teacher Turnover

It is difficult to assess the effect of teacher turnover on the quality and continuity of instruction. It may be that little damage is done when turnover occurs principally, if not exclusively, at the end of each year. If it occurs during the year, when studies might genuinely be interrupted, it could be very disruptive. Whenever turnover occurs, however, it must cause some undesirable effect on curriculum planning in the schools, and it clearly is harmful if those schools lose their better trained personnel.

By comparing the qualifications and characteristics of the new teachers of 1965-66, and of those whom they replaced, it is possible to judge some of the likely effects of that year's turnover. For example, slightly more than one-half (54.0%) of those who left the teaching force were persons who held bachelor's degrees and First Class Teaching Certificates. Almost two-thirds of the new teachers held First Class Certificates. In this respect, turnover yielded a net gain of nearly 15%. Similarly, relatively few new teachers had

completed only three years of college training, as compared to the teachers they replaced. These facts may be seen to be net pluses, as far as the educational qualifications of the State's public school teachers are concerned. However, there were minus factors also. The proportion of teachers with even less than three years of college training was essentially the same in both groups—about one-fourth. Potentially disabling to the leadership capacity in the profession, furthermore, was the fact that 8.3 percent of those lost to the public schools held M.A. or higher degrees, but only 3.9 percent of their replacements were equally prepared.

In terms of formal training, therefore: through turnover in 1965-66, the State lost more than it gained among its very best (i.e., M.A.) educated teachers; it failed to diminish markedly the proportion of its least (i.e., under three years) qualified teachers; and it gained substantially in minimally qualified four-year teachers. The overall effect seemed to be one of improvement. These relationships are made explicit in Table 12.

A similar study was made of the ages of the two groups of teachers. As might be expected, the teachers who left the schools were, in general, older than the replacements. This was true among both men and women teachers. For example, it is estimated that the average age of outgoing men teachers was 36, and that the average male replacement was 27. Among female teachers, the corresponding averages were 40 and 32. These figures are reproduced in detail in Table 13.

When leaving and entering teachers were compared simultaneously by age and degree of formal training attained, as in Table 14, three significant changes could be observed. They are:

(1) A substantial net reduction (i.e., a greater proportion of leaving teachers than of entering teachers) among **underprepared, elderly** teachers.

(2) A substantial net gain of young (under 25) beginning teachers who hold the B.A. or equivalent degree and First Class Teaching Certificate.

(3) Net losses, at nearly all age levels, among M.A. degree-holders. This suggests that completion of graduation work may encourage a significant number of the State's teachers to leave their public school teaching positions, a potentially dangerous effect, if true.

TABLE 12

DEGREE HELD AND SEX OF TEACHERS ENTERING AND LEAVING PUBLIC SCHOOLS IN 1965-66

SEX	Degree Attained	Leaving	Entering	Net Change
MALE	Less Than 90 Hours	2.0	.7	−1.3
	90 Hours or More	0.6	0.2	−0.4
	B.A. Degree	24.8	31.7	+6.9
	M.A. Degree	6.4	3.3	−3.1
FEMALE	Less Than 90 Hours	25.4	21.3	−4.1
	90 Hours or More	9.6	5.9	−3.7
	B.A. Degree	29.2	35.8	+6.6
	M.A. Degree	1.9	1.1	−0.8

SOURCE: State Department of Public Instruction
Personnel Card 1

TABLE 13

AGES OF ENTERING AND LEAVING TEACHERS IN 1965-66

(IN PERCENT)

AGE	Men Teachers			Women Teachers		
	Leaving	Entering	Net Change	Leaving	Entering	Net Change
Less Than 30	15.5	27.1	+11.6	32.0	35.8	+3.8
30-44	14.5	6.7	− 7.8	13.7	13.7	0.0
45 or More	3.8	2.2	− 1.6	20.4	14.6	−5.8

SOURCE: State Department of Public Instruction Personnel Cards 1 and 2

TABLE 14

AGES AND EDUCATIONAL ATTAINMENT OF ENTERING AND LEAVING TEACHERS IN 1965-66

(IN PERCENT)

AGE	Levels of Educational Attainment										
	Less Than 90 Hours			90 Hours or More			Bachelor's Degree			Master's Degree	
	Leaving	Entering	Net	Leaving	Entering	Net	Leaving	Entering	Net	Leaving	Entering
Less Than 30	12.7	9.2	−3.5	3.5	2.5	−1.0	30.5	49.7	+19.2	.8	1.6
30-44	5.6	4.9	− .7	1.4	1.7	+0.3	16.3	12.3	− 0.4	4.6	1.7
45 or More	9.2	7.9	−1.3	5.0	2.2	−2.8	7.2	5.5	+ 1.7	2.9	1.2

SOURCE: State Department of Public Instruction Personnel Cards 1 and 2, 1964-65 and 1965-66

TABLE 15

TEACHER TURNOVER BY LEVEL OF INSTRUCTION, 1965-66

(IN PERCENT)

Level	Entering	Leaving	Net Change
Elementary	56.1	56.0	+0.1
Secondary	43.9	44.0	−0.1
TOTAL	1477	1404	+73

SOURCE: State Department of Public Instruction
Personnel Card 1

TABLE 16

TEACHER TURNOVER BY TYPE OF DISTRICT, 1965-66

(IN PERCENT)

Type of District	Entering	Leaving	Net Change
Non-Accredited High Schools	9.1	8.8	+ .3
Accredited High Schools	84.7	83.5	+ 1.2
Graded Elementary Schools	3.5	3.8	− 0.3
One-Room Rural Schools	2.6	3.9	− 1.3
TOTAL	1477	1404	+ 73
Districts Enrolling 400 or More High School Students	26.9	28.5	− 1.6
Districts Enrolling Fewer Than 400 High School Students	73.1	71.5	+ 1.6

SOURCE: State Department of Public Instruction Personnel Card 1

To repeat, it is apparent that if the State is to improve the quality of its educational program at the public elementary and secondary school levels it must be able to attract and retain a cadre of well-qualified educational personnel. The Statewide Study Team has made specific recommendations toward that end. These recommendations are presented in the following publications:

"A Plan: Developing and Placing Educational Personnel in North Dakota"

"The Foundation Program".

* * * *

The ideas expressed here are deemed to be valid. Moreover, they are feasible of achievement. Now a serious and systematic review of the proposed new plan of public expenditure should be conducted by all responsible educational agencies and institutions. Following that review, a coordinated and appropriate new program of legislative and administrative action should bring these first vital steps of the plan into reality.

THE STATEWIDE STUDY OF EDUCATION

The published materials of the Statewide Study of Education are reproduced in six volumes. These are:

* PERSONNEL NEEDS IN NORTH DAKOTA PUBLIC SCHOOLS
* PUBLIC EXPENDITURE FOR EDUCATION IN NORTH DAKOTA
* EDUCATIONAL DEVELOPMENT FOR NORTH DAKOTA 1967-1975: OVERVIEW
* DEVELOPING AND PLACING EDUCATIONAL PERSONNEL IN NORTH DAKOTA
* A PLAN OF PUBLIC EXPENDITURE FOR EDUCATION IN NORTH DAKOTA
* DEVELOPING STATE LEADERSHIP FOR EDUCATION IN NORTH DAKOTA

Copies of these documents are available through the Office of the State Superintendent of Public Instruction, State Capital, Bismarck, North Dakota.