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The Establishment of Part-Time Schools with Special Reference to Grand Forks, North Dakota

Milton Leslie Schlechter

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THE ESTABLISHMENT OF PART-TIME
SCHOOLS WITH SPECIAL REFERENCE TO
GRAND FORKS, NORTH DAKOTA

A Thesis
Submitted to the Graduate Faculty
of the
University of North Dakota

By

Milton Leslie Schlechter
"

In Partial Fulfillment of the Requirements
for the Degree of
Master of Science in Education

August

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sity of North Dakota, is hereby approved by the Com-
mittee under whom the work has been done.

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ACKNOWLEDGMENTS

The writer gratefully acknowledges his indebtedness to Dr. A. V. Overn whose ideas and counsel materialized into the choice of the subject of this thesis.

For subsequent guidance, Dr. Erich Selke is cited with cordial appreciation for his helpful criticisms.

To Professor A. W. Gill, Industrial Arts Department, University of North Dakota, the writer tenders his appreciation for reading and criticising the manuscript in its preliminary stages.

A word of thanks is also accorded Theodore Hanson, Principal of South Junior High School, Grand Forks, North Dakota, for his permission and help in making available that school's records for the case studies.

And to all others not herein specifically mentioned, but who contributed to the study, an expression of appreciation is gratefully acknowledged.

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CHAPTER I

THE INTRODUCTION

Between the years 1850 and 1900 two significant principles developed in the consciousness of those who are interested in shaping the current educational programs. These principles were apparent in the educational theories of Rousseau, Pestalozzi, Herbart, Froebel, and others, and have become of prime importance in all of the leading nations during the recent period of economic and social reorganization. The two principles stated in brief are, and require:

(1) The development of the economic training in order that the individual may become an efficient and independent entity, and

(2) The organization of social and political training in order that citizens everywhere may become effective and intelligent members of a progressive, successful society.¹

These two principles postulate the realization of the improvement of society through the improvement of its individual members. It is not necessary to enumerate the various changes which have developed in the school

¹Edgar Draper, Principles and Techniques of Curriculum Making, D. Appleton-Century Company, New York, 1936, p. 84.

systems of the United States in attempting to realize these principles. With the opening of the twentieth century, the emphasis upon the individual pupil was enlarged, rather than replaced, by an emphasis upon society. The need of developing the citizen to take part in an ever changing society became the most important factor in education. The idea that the school should be an example of community life and that this principle should govern all plans of school work--discipline, teaching, and school activity--gained as a result of the thinking, writing, and speaking of Howard Bates, and more especially the eminent John Dewey.¹ The latter has been a potent factor in formulating guiding principles, promoting curriculum revision, and in organizing extracurricular activities. His principles relate closely to the self-activity theory of Froebel. Dewey always stressed "cooperative and mutually helpful living," and has introduced the American people, as well as those of other nations, to many of the fundamental principles that should govern a modern, progressive, educational program for society.

The Problem

In this thesis an attempt has been made to show possibilities of greater emphasis upon more individuals,

¹John Dewey, The Child and the Curriculum, The University of Chicago Press, 1902, pp. 13-14.

and vocational-education needs in the schools and communities of populations of 15,000, or more, with special reference to Grand Forks, North Dakota, as an illustration in point. Further, this study has attempted to show a need for diagnosis to meet social needs, individually and collectively, and at the same time, has endeavored to demonstrate the call for emphasis upon the educational formulations of the school programs as they embody essential elements to be transmitted, more or less upon a basis of uniformity, to every pupil of the community--up to the limit of the child's educational-vocational capacity.

It seemed, therefore, desirable to review effectively, yet very briefly, the trends in trade training, both in and out of school, and to examine into the matter of just what the schools are doing to supply the trade and vocation training to young people who are willing and capable of carrying on the essential traditions of the several types of work represented in the city of Grand Forks. An attempt has also been made to discover what effect the inclusion of trade training in the Grand Forks public schools would have upon the attitudes of the pupils toward continuation, should the establishment of a part-time school program be thought feasible.

Definitions

In order to avoid possible confusion in terms,

the Federal Board of Vocational Education¹ has set up the following definition of a part-time school:

A part-time school is any school conducted for a limited number of hours during the regular working day. Such a school is open to minors and adults who have entered upon employment, and its several aims are to continue neglected or interrupted elementary education, and to prepare for entrance into better occupations, or to supplement and extend knowledge and skill in present occupations.

Such part-time classes must be classes which divide the working day or school time between instruction and practical work in shop, factory, home office, et cetera.

To divide means here not to separate the working day and school time into equal parts, but to apportion or distribute the total working day so that a portion of it is given to employment in shop, factory, or home--whatever the place of work is.

The Federal Board for Vocational Education also recognizes the cooperative courses found in many of the better high schools, and which are intended to provide for the completion of a general education, along with the part-time training gained in the trade work.

Method of Investigation

The material presented in this thesis was organized as a result of extensive reading upon the subject of part-time schools; upon the examination of trends in the current trades; upon the examination of trends in education as it applies to trade training; and upon an analysis of

¹Federal Board for Vocational Education, Washington, D. C., 1937.

the relations between industry and education. There is also included in this study an evaluation of the Occupational Index¹ of Grand Forks City as it applies in showing what the employed population of the city's community is doing in daily activity for a livelihood, and what trades and occupations it is advisable to train for. Finally, through the means of local school case studies made of selected subjects in Grand Forks over a period of considerable time, there is herein shown reasons, it is believed, for the attitudes, both favorable and unfavorable, of pupils toward school. Included in this investigation, for some basic considerations, is a summary report on the part-time programs of education as found in the State of Wisconsin. The meagre work of North Dakota is also included for reference.

Limitations

This study is not exhaustive in that there is no great attempt to answer many of the administrative questions which would arise relative to the actual establishment of a part-time school in Grand Forks. This study, at best, merely opens the discussion locally, and attempts to show whether or not a part-time institution in Grand Forks

¹From the United States Census, 1930.

would eventually provide the following:

(1) A working knowledge of the several trades and occupations as represented in the Occupational Index of Grand Forks,

(2) Opportunities for men and young women already in mechanical, industrial, and commercial pursuits to become efficient workers through part-time training,

(3) The fundamentals of an education for those who have been deprived of school advantages in youth, and

(4) Another chance for boys and girls, who for various reasons, have been misfits in the regular public schools.

If, as the writer hopes, the entire study shows the attainment of the above objectives in any appreciable measure, it will have been very much worth while.

CHAPTER II

HISTORY AND TRENDS IN THE TRADES

The problem of training young workers is not new. Ancient Babylon made rules governing apprentice relations in the Code of 2100 B. C.¹ Ancient Rome and Roman Egypt also provide instances of early thought in the direction of trade training. No great difficulty in the imagination is experienced to visualize the boys and girls of ancient times facing the same prospect of taking their places as young workers, with zest equal to that of youths of today.

It was not until the system of trade apprenticeship of the European guilds of the Middle Ages developed that the beginnings of the modern scheme of definite instruction became apparent. Then, apprenticeship meant education, as suggested by the German word, "Lehrzeit." Then, as now, the educational system had to be adjusted to meet changing economic and social conditions. For centuries, most of the people of England, Germany, and northern and central France had lived as serfs on great estates, rendering service to feudal lords, knowing little

¹Owen D. Evans, Educational Opportunities for Young Workers, MacMillan Company, New York, 1926, p. 3.

or nothing of what occurred even at a distance of a few miles.

About the year 1000 A. D. small towns developed. They grew in size and importance as trade increased. Travelling merchants appeared, and the town dwellers learned that there was profit in producing more goods than was needed for home consumption in order that they might have a surplus to exchange for the goods of foreign merchants. As the towns grew in number and wealth, they also grew in power. With loans, or by bargaining, they bought release from feudal dues and service. These newly won rights were recorded in charters which granted the power to regulate trade and industry. As merchants and artisans learned that the power of the groups was greater than that of the individuals, they formed themselves into associations called guilds. These guilds developed regulations for many kinds of detailed relations, and among these they developed a plan for training their young workers.

The guilds were not labor unions in the modern terminology, but rather, they were associations of employers. In general, apprentices and journeymen could not belong to the guild. The master workman owned the shops, tools, and machines, and determined the policy of the guild.

The subject's term of apprenticeship was usually from five to nine years. The apprentice received no pay, and, in fact, frequently had to pay for the privilege of learning the trade. During this time he was in immediate and intimate daily contact with the master workman, and was instructed in every detail of the craft. At the end of the apprenticeship period he was required to produce a master-piece of craftsmanship in his special field before he was recognized as a journeyman, and later as a "master-workman."

Guild apprenticeship originated because of changing economic and social conditions arising from the growth of cities and towns. It declined for the same reason, as increasing growth of towns brought further complications. As the number of skilled workmen increased, proper supervision of apprentices by the guilds became increasingly difficult. As control of the training of the apprentices relaxed, the number of partly trained workmen increased. Between 1600 and 1700 the power of the guilds, and consequently the thoroughness of trade training of the apprentices, declined rapidly.

While it existed, however, the guild apprenticeship provided a training for young workers not only well adapted to the needs of the time, but also, in a striking degree, directed towards much the same objectives as the

modern part-time schools.¹ It provided him with a "steady" job with a future. The master was expected to give the boy some moral and religious instruction and to train him in the "art and mystery" of the craft. This provided both ethical and cultural guidance. The broadening experience which is given in prevocational shops and in instruction supplementary to the job was there provided by operations covering every phase of construction. That the gap between the sheltered life of childhood and the bewildering complexity of industrial life should be bridged was implied in the very meaning of the word, apprenticeship (apprehendre)--"to catch on."²

As time passed, membership in the guilds was more and more confined to the old handicraft trades. New industries arose, such as the manufacture of glassware, processed porcelain, and silk and cotton goods, which became independent of the guilds and were granted special privileges.³ A group of middlemen appeared to handle the goods manufactured by small tradesmen, especially in the smaller towns, with consequent encouragement to the spread of the domestic system of manufacture. The Durey Statute

¹Franklin J. Keller, Day Schools for Young Workers, p. 42.

²Owen D. Evans, Op. cit., p. 6.

³Ibid., p. 6.

of Apprentices enacted in England in 1563 repealed until 1813 attempted to limit apprenticeship to incorporate or market towns, but the law could not be enforced. It did tend to prolong the use of the formal indenture of apprenticeship, and fixed a tradition of long time apprenticeship which was transplanted to the American colonies. Further, it vested control of apprenticeship in the government instead of in the craft guilds.

In general, the colonies carried the outline of the English system of apprenticeship across the ocean. Many of the statutes required that the apprentice be taught to read and write, that he should be given biblical instruction, and that the master should be a moral man. The system was complicated by the fact that sometimes it was used as a punishment for debt, the indenture being made out for apprenticeship instead of for servitude. Sometimes those deemed idlers were bound out, and sometimes the indenture was used in placing children without parents, or those whose parents were unable to support them. As a result, on occasion indentured servants received the benefit of trade training, and at other times apprentices were treated like bound servants. This system is remembered by many still living, especially in the South, where the handicraft, rather than the factory system, existed.

The final stage of the passing of the old-time apprentice system was under way even while the American colonies were beginning the Revolution which resulted in the formation of the federal union. The application of power--water power, steam power, and later, electric power--to manufacturing processes, put in motion a combination of economic and social forces which completely changed the status of prospective young workers, not only in America, but throughout the industrial world.

The factory system entailed the subordination of the worker to the machine. The conscious application of the energy, care, and thought by the worker was largely replaced by the power, automatic action and precision of the machine. On the one hand were collections of capital in large amounts to provide the machinery; on the other hand the setting off of collections of workers into centralized and strictly regulated establishments.

Expanding markets widened contacts and introduced world competition, fluctuating prices, with periods of over-production, of panic, and of unemployment. The technique of industry tended ever toward greater subdivision of labor with consequent monotony, drudgery, lack of interest in the worker, lack of educational value in the task. As improved means of transportation

tapped the world's reservoir of labor, the situation was further complicated by the immigrant, and the child of the immigrant.

Little towns which had been comfortable dwelling places increased in population faster than they could increase in facilities for proper care of the population. The rural communities were looked to as an escape from the factory and the factory system. As the public lands were taken up, farming as an escape from the factory became increasingly difficult.

The development of scientific methods in all forms of human endeavor was found in agriculture, as well as urban industry, and this increasing specialization and mechanization on the farms resulted in less demand for farm labor. Instead of the rural communities providing a haven for the surplus labor caused by the factory system, they now had an oversupply of labor themselves, which migrated in increasing numbers to the industrial centers and augmented the problems of factory employment and of urban life.

The division of labor has replaced the practice of individual fabrication whereby the craftsman performed all the operations on his product from beginning to end. As productive machinery became more complex and specialized,

the division of labor has been correspondingly extended until a particular worker may produce a part, or perform an operation, which is only a small part of the finished product, and this may be done at some distance from where the product is finally completed.

The autocratic position of the labor unions in the recent past in not advancing a program for the training of young workers, has resulted in a shortage of skilled labor.¹ At the present time labor unions recognize the impending shortage of skilled laborers, and are advocating a return to a form of the apprentice system in order to replenish the supply of skilled labor.

These same labor unions are now calling on the schools to supplement their efforts by providing trade training, and other vocational education in their school curriculums.

¹"Is There a Shortage of Skilled Labor," National Occupations Conference Board publication, 1937.

CHAPTER III

TRENDS IN EDUCATION AS THEY APPLY TO TRADE TRAINING

Contrary to a quite general impression, educational leaders in every period of American life have thought of the school as a social institution, as well as an agent for transmitting culture, and as a mine wherein the rudiments of knowledge could be gleaned. For the most part, however, the school system was not planned by its leaders in reference to other institutions, or on the basis of a realistic analysis of social actualities and social needs. Most educators advance their arguments for increased public support and control of the schools, for certain types of instruction, and for particular studies in the curriculum; for given schemes of administration, without clearly defining or understanding how their proposed educational policies are to effect our social institutions.¹

Elementary and secondary schools were formerly organized and maintained primarily to prepare students for a classical course in college, which in turn, prepared them for teaching, law, medicine, or the ministry. It soon became evident that many students had no intention

¹Merle Curti, The Social Ideas of American Educators, Charles Scribner's Sons, New York, 1935.

of entering college to train themselves for these professions, and that many others had neither the aptitude nor the ability to qualify for, or to obtain particular benefits from, a college course. Consequently, there is a trend toward fitting the instruction to the needs of classified groups of children, rather than to compel all children to follow a course which was poorly adapted to the needs of many of them. The criticism directed toward the engineering schools, for example, would seem to contradict the above contention in that there is a trend in those schools away from vocational training and toward a more general education. This can be explained in that engineering schools are essentially professional schools, and are supplying industry with executives, as well as skilled workers in the several branches. These potential executives have not had theoretic cultural and academic background education for the reason that their period of training has been occupied in acquiring technical information to the exclusion of other subjects. Consequently, as they advance in their respective fields, they recognize the fact that they have missed much of what would be called a complete education. The engineering schools are attempting to avoid this criticism by offering in their curriculums subjects of a general nature.

The character and results of public education are of importance not only to the individual children directly concerned, but also to employers and to the general public. To a great extent, a child's future depends upon the training which he receives in his early years. His outlook on life and his character are molded during the period of school attendance.¹ These years can either be made highly valuable to the child by cultivating whatever mental ability he possesses by preparing him for further study or for some useful occupation in the business world, or they may be largely wasted through fruitlessly striving to enforce upon him an educational standard which he is incapable, or unwilling to meet.

The trend since 1929 has been toward fewer numbers in employment under sixteen years of age, and the consequent gradual disappearance of that age group from the part-time school. The required part-time school attendance age has been in some cases raised to eighteen years with full-time attendance required during periods of unemployment. Employment under eighteen years of age is relatively diminishing, and much apprenticeship begins after high school graduation. The need for the type of organization represented by the part-time school becomes more apparent

¹Public School and the Worker in New York, National Industrial Conference Board, Inc., New York, 1928.

as the situation is studied.¹

The object of all government must be to make possible wholesome and happy family and individual life, and provide for individual and collective needs and desires. Business must be subordinated to those considerations and must increasingly exist for, and serve those purposes. This must also be the ultimate objective of public education, but in that respect, no special claim should be made for part-time education. It is recognized only that the education of millions of people in their most formative years may not be neglected without society paying the price of neglect. The first point, then, is that literally millions of young people, now going out into employment in this country, are, in fact, being neglected educationally during the most important years of their lives, and that result is not good even for business. Since business occupies the place it does in modern life, what is good or bad for business is likely to receive attention. Economic considerations are most appealing to most people, and a movement is fortunate when the economic factors are in its favor.

Both economic considerations and educational considerations contribute to early entrance into employment. Ordinarily, this has been considered bad by many socially

¹Edwin A. Lee, Objectives and Problems of Vocational Education, McGraw-Hill Book Company, Inc., New York, 1938.

minded people. There are many people who would prohibit entrance into gainful employment and compel full-time attendance until eighteen, and others who object to all regulation in the matter, leaving it entirely to parental control. Generally, the states have recognized the four-teen-year minimum for full-time attendance at school as sufficiently established to be enacted into law. Contrary opinion is, however, as yet sufficiently strong so that the enforcement of these laws is, in many places, inadequate, and provisions for appropriate education even worse. At the present time there is no hope that the millions of young people over sixteen and under eighteen years of age, will be drawn out of full-time employment into the full-time school, nor would it be entirely desirable educationally for them to be so drawn. The part-time school is the only practical and promising remedy for the present neglect of the educational needs of this group.¹

The case for part-time school attendance up to eighteen years of age for the out-of-school group is so strong that it may be confidently expected that part-time schools will multiply rapidly during the next decade. In practically every community there is to be found a group of young people of exactly the same age as those attending

¹Ibid., p. 144.

high school, a group greater in number than those in high school attendance, who are essentially like the high school group, the only major difference being that they constitute an employed group and that the more favored high school group is not employed. There is found too, the group that is not employed and not attending high school. This group apparently can find nothing in school that will better their condition, but are unable, though willing, to find employment.

The part-time school must take these young people as they are, without quarreling about their being as they are. Their needs must become the curriculum. The part-time school has its curriculum handed to it, and is not permitted to lay down a course of study to which all who come must subscribe.

A good citizen must be disposed and sufficiently informed to keep himself in good health, be capable of offering a service worth a good living, have wholesome tastes, and be capable of appreciating the culture of his time. Therefore, every effort should be made to see that the young people are so supervised as to increase the probability of their being: (1) healthy, (2) people of good character, (3) capable of earning a living, and (4) desirous of living upon a decent plane.

The Smith-Hughes Act is still in force and has set

up minimum standards to which states must conform if they desire to receive financial aid from the federal government. Under the Smith-Hughes and the George-Deen Acts, homemaking, trade and industry, agriculture, distributive occupations, and rehabilitation amount to the great sum of \$24,000,000. The fact that federal funds are being educed and expended in these respective fields for the out-of-school group, would seem to insure the fact that attention will be given this work, minimum standards and wide geographic distribution being observed. If this federal aid and wide geographic distribution serve their proper purpose, they must stimulate local interest and local support for their further extension.

This era of emphasis upon trade, industrial and agricultural education outside and beyond the full-time school places the part-time school in peculiar position in that it will be looked to for the solution of many of education's problems. Behind it, however, there must be a philosophy which appeals to the thinking people of the community. Practical, visible, tangible results must be obtained. As a continuing policy, the school's emphasis must be upon the young people from the time they leave the full-time school until they are approximately twenty-five years of age. Just after leaving school, and during the

next few years in the child's life, is, it is usually conceded, the most hazardous period to contend with. This, it seems, can be made plain to the thinking community. The word "practical" can be made to take on an added meaning in the minds of businessmen, as well as in the minds of people generally.

CHAPTER IV

THE GROWING INDUSTRIAL-EDUCATION RELATIONSHIP

Employers have a very real interest in education since most of their working forces are, in respect to their knowledge and training, products of the public educational system. The larger number of the pupils in the public schools must of necessity become wage earners. Their employers are in a peculiarly favorable position to observe the failure or success, the weaknesses and the strong points, of the educational system. Industrialists as a group, have been charged with hostility to the democratization and the expansion program of public education. Statements tinged with criticism of certain favored features of educational effort have been interpreted as attacks on the entire system. But the mere fact that industry observes certain shortcomings in current educational methods and calls for their correction, for the advantage both of industry and the public, hardly is ground for implying that it is hostile to all education.

When so much disagreement exists within the ranks of educators themselves, expressions of opinion from the outside should serve a valuable purpose in focusing attention upon desired actual results.¹

¹Public Schools and the Worker in New York,
op. cit., p. 2.

The interest of the public in education is fundamentally two-fold: (1) it is to the interest of the public that an intelligent, moral citizenry be build up, composed of those who have been trained to become self-supporting individuals or heads of families, and (2) the public is also interested in the disposition of the huge sums of money which are annually levied in taxes for the support of public education. From the comparatively modest total of \$215,000,000, which was expended for the maintenance of the elementary and secondary schools in the United States in 1900, the amount for this purpose had increased to \$2,026,000,000 in 1926, an advance of 84.2 per cent. In 1936 the total expenditure for public elementary and secondary schools had decreased to \$1,656,798,939. This was 9.3 per cent more than in 1934, but 8.5 per cent less than in 1932, 10.1 per cent less than in 1930, and 18.2 per cent less than in 1926.¹

Through misjudgment there is a tendency for education to receive less support, the pressure being brought from many influential quarters. Education is not emerging from the depression as it seemingly has from former depressions. Education is, then, on the defensive. Can the answer for such retrenchment lie in the failure of education

¹U. S. Department of Interior, Bureau of Education, Statistics of State Schools, 1925-26; 1935-36.

to meet the needs of the people as a whole? This study is predicated more or less upon such an assumption in its plea for part-time industrial and trade education.

A large proportion of those who have received their early training in the public schools enter the business world, and other great numbers are absorbed into industry. Since industry as a whole is regaining rapidly, and progressing beyond the hand labor stage to a period of mechanization, which has probably not yet reached its full development, it must look more and more to the schools for the preliminary instruction of its labor personnel, and is therefore, interested vitally in the character of this instruction.

Somewhat as a result of such desired instruction, considerable controversy has been waged over the question of responsibility for an adequate system of trade training. In one respect, it is the problem of equipping youths to go out into the world and earn their living by following the trades that they have learned. In quite another respect, it is the problem of maintaining a skilled labor force which can meet the needs of industrial production. Opinions differ with regard to the point at which the responsibility of public education ends and the responsibility of the business and industrial interests begin.

Should public schools supported by the taxpayers'

money be expected to furnish only general educational background upon which the youth later builds his trade, or, in addition to the general educational background, should the public school system also provide instruction in the rudiments of trade skills? Can the employer reasonably expect the youth coming to him from the schools to possess at least some knowledge of the trade he wishes to follow, or should the trade training be the employer's responsibility? Perhaps, a better solution of the problem lies in the exercise of closer cooperation between the public and its industry and the public and its schools. The problem must, it seems, be worked out by understanding and collaboration of both in the great desire to better prepare youth for industrial employment. Educators and industrialists have differed over the question for years without reaching the desired agreement. The next result, however, has resulted in gain, for there is now, more than ever, a greater willingness on the part of both educators and industrialists to recognize each other's problems, and to work together in more constructive harmony for the mutual advantage of both--all toward the lasting benefit of the youth of the country.

Interest in practical education began about 1870 as a result of the industrial revolution following the Civil War. The real movement occurred in 1906 with the

report of the Douglas Commission to Massachusetts Legislature, and the organization of the National Society for the Promotion of Industrial Education. The instruction in the mechanic arts, especially in woodworking, had been advocated for a number of years by educators for general educational purposes, but was quite generally accepted by the public for its practical and industrial value. While such instruction was offered in the public schools, several trade and technical schools of secondary level were established in order to demonstrate what could be done in the training of skilled workmen. Some based their instruction on tool processes, and others followed a modified apprenticeship method of instruction. The best of these trade schools was a combination of the two. To them was added much related mathematical, science, and technical information, suggested by the schools of engineering and the industries.

The first recorded proposal for a plan of part-time education was made by Milton P. Higgins, superintendent of the Washburn Shops of the Worcester Polytechnic Institute, in 1899. Mr. Higgins drew attention to the effects of the factory system which had developed after the Civil War with its resultant shortage of skilled labor, and also the increasing demands that were being made

upon the skilled laborer. The division of labor had asserted itself, and the machinist, for example, no longer completed one product, but must now be able to read blue prints in order that he might be made a part of the scheme of contributing only partly to the assembly of a machine. Such division of tasks was leading toward specialization which called for skilled training. Mr. Higgins said that the public schools were not giving the prospective machinist the required training, and the engineering schools were beyond his reach for economic and intellectual reasons.

To provide the needed instruction, Mr. Higgins then proposed what he called the "half-time school." The essential features of the early schools proposed follow:¹

(1) A school which shall include a first-class commercially successful and productive machine shop which is a department coordinate in importance, influence, and educational value with the academic department.

(2) A school in which the pupils are to have instruction and practice in this shop during half the working hours in five days of each week for a period of four years.

(3) Instruction in the public schools during the portion of the other half of the time, equivalent to the high school course, restricted, abridged, and improved to meet the needs of these pupils.

(4) Special care and method of selection of pupils who finish the grammar school course and who have special aptitudes for mechanical work.

(5) Management under a corporation whose trustees shall be practical business men.

¹Charles A Bennett, History of Manual and Industrial Education, Manual Arts Press, Peoria, Illinois, 1937.

These proposals constituted an answer to the question of whether trade instruction was a responsibility of the public schools, or whether it was a problem that industry would have to work out independently. The subsequent demand for vocational instruction came largely from the manufacturers who found that the skilled workers of 30 years before were gradually disappearing, and that new workers, trained in new skills, were needed for their replacement.

Labor recognized the problem, too, and favored industrial education in general, but differed with capital in the details of administration. Now, both capital and labor considered trade training a part of the responsibility of the public through financial support. Both held also that the subsequent training was the direct responsibility of the public school system. Labor opposed, then, trade schools managed by corporations, because they believed the real motive behind the organization for this purpose, was to create and maintain a surplus of unwelcome cheap labor. It was also felt by labor leaders that only those who were working in a trade, or who had gained some practical experience in the trades, should be permitted trade training. There was generally, positive agreement between manufacturers and labor leaders that trade school work should be preparatory in nature.

The problem of the educators was quite as serious as the familiar capital-and-labor controversy and difficulties. The schools were organized on traditional lines, and it was most difficult to persuade educators that trade training ought to have a place in the general educational program of the public school system. The influential leaders, among the educational group who were interested in industrial education, believed that the program of state and federal aid might be safely promoted with successful results. These leaders felt that much of the opposition would be overcome if the program of industrial education was not made subject to local support with its attendant restrictions and regulations.

With the increasing demands of the manufacturers, labor leaders and the public generally, urged more patent and practical instruction in the public schools, and with this, and the increased lessening of the opposition to the expenditure of public funds to teach the trade training, a great variety of experimental training in industrial education gradually developed. In communities where the influence of labor unions was strong, efforts were chiefly exerted toward providing some kind of preparatory trade, or pre-vocational instruction for boys and girls under the age of 16 and still in school, and part-time improvement or continuation schools for those who had dropped out of the schools

and had become workers in the industries without further thought of school improvement. In communities where the trade unions influence was not so militant, day-trade schools and part-time cooperative trade courses were ultimately established. The type of school to be organized depended upon local conditions, especially with reference to manufacturing and labor interests, and the extent to which schoolmen and boards of education had overcome prejudices against trade and vocational education.

The first actual operation of a plan for part-time education appeared in Fitchburg, Massachusetts, in September, 1908, after Daniel Simonds of Fitchburg had heard Dean Herman Schneider of the University of Cincinnati, explain his cooperative plan of training engineers. The plan impressed Mr. Simonds as being feasible, and upon his return to his school, received the approval of the school authorities and the manufacturers to place such plan of part-time education in operation. W. B. Hunter, a man with considerable trade experience, was secured to act as the coordinator between the school and the industries.

The fundamental idea of this plan was to provide an opportunity for learning a trade or occupation, and at the same time, to secure a secondary education to accompany such trade or occupational training. One element which

contributed to the ultimate success of this newly inaugurated plan was the correlation between the school work and the shop work in each of the several trades. It was found that the plan was adaptable to clerical and mercantile, as well as manufacturing occupations, and to the girls as well as the boys. Notwithstanding its many details and difficulties in administration, it has appealed to educators ever since, as being in many respects, superior to most other plans of vocational education, and is at present receiving more attention as the idea of such educational-vocational training progresses with the advance of modern times.

CHAPTER V

THE OCCUPATIONAL INDEX OF GRAND FORKS

A study and analysis of the Occupational Index¹ of Grand Forks, North Dakota, a city which has a total population of 17,112² revealed interesting and enlightening facts relative to occupational classifications. For example, the industry groups, the numbers represented in the employed classification, totaled 6,727, or 39.3 per cent of the total city population. The tabulation included 4,733 males and 1,994 females over ten years of age who were gainfully employed in the several occupations represented in the city (Table 1).

From the Index, too, it is learned that the wholesale and retail trades, except automobiles, employed the greatest number of people--908 males and 345 females, or a total for both sexes of 1,253. Professional and semi-professional services accounted for the next greatest number reported, 406 males and 481 females, or a total for both of 887. The above services included doctors, lawyers, ministers, religious workers, school teachers, nurses,

¹Occupation Statistics, U. S. Department of Commerce, Bureau of the Census, Washington, D. C., 1930.

²Population Bulletin, U. S. Department of Commerce, Bureau of the Census, Washington, D. C., 1930.

Table 1
Occupation Index¹ of Grand Forks City Showing
Persons Ten Years of Age, and Over, En-
gaged in Gainful Occupations, by
Sex and Industry Group

Industry Group	Male	Female	Total
Agriculture	196	---	196
Forestry and fishing	2	---	2
Extraction of minerals	1	---	1
Building industry	425	8	433
Chemical and allied industries	15	---	15
Clothing industries	25	31	56
Bakeries	38	4	42
Slaughter and packing houses	79	19	98
Other food and allied industries	174	31	205
Automobile factories, repair shops	69	---	69
Iron and steel industries	139	12	151
Paper, printing, allied industries	70	14	84
Textile industries	1	1	2
Independent hand trades	34	51	85
Other manufacturing industries	150	27	177
Construction, maintenance streets	48	1	49
Garages, greasing stations	74	4	78
Postal service	47	6	53
Steam and street railroads	582	14	596
Telegraph and telephone	44	42	86
Other transportation, communication	88	2	90
Banking and brokerage	75	23	98
Insurance and real estate	100	48	148
Automobile agencies, filling stations	155	12	167
Wholesale, retail trade	908	345	1253
Other trade industries	63	18	81
Public service (not cared in above)	137	24	161
Recreation and amusement	59	24	83
Other professional, semi-professional	406	481	887
Hotels, restaurants, boarding houses	143	221	364
Laundries and dry cleaning shops	44	68	112
Other domestic and personal service	89	420	509
Industry not specified	253	43	296
Total of all industries	4733	1994	6727

¹Occupational Statistics, U. S. Department of
Commerce, Bureau of the Census, Washington, D. C., 1930.

musicians, photographers, and others. The railroads compared with 582 employed representing the males, and 14 representing the female group--a grand total of 596 people.

Domestic and personal¹ service divisions employed 89 males and 420 females, or a total of 509. The building trades ranked fifth, and employed 425 males and 8 females, a combined total of 433.

Hotels, restaurants, and boarding houses accounted for a total of 364 employed, 143 males and 221 females. Agriculture utilized the labor of 196 males and that of no females, and was the seventh in line in point of number employed. There were 155 males and 12 females employed in automobile agencies and filling stations, or a total of 167. Public service (not elsewhere classified) employed 137 males and 24 females to total 161.

The iron and steel industries, including boiler-makers, blacksmiths, and machine operators, employed 139 males and 12 females for a total of 151. Insurance and real estate agencies accounted for 100 males and 48 females for a total of 148 employees in their various departments. The next largest industry group represented was the laundry and dry cleaning shops, which employed 44 males and 68 females, totaling 112. Slaughtering and packing industries employed 98 persons, 79 males and 19 females.

¹Barbers, beauty operators, maids, et cetera.

Banking and brokerage also accounted for 98 of the total number reported, 75 being males and 23 females. Telegraph and telephone offices employed 44 males and 42 females, a total of 86. Independent hand trades employed 34 males and 51 females to total 85, while paper, printing, and allied trades, accounted for the employment of 70 males and 14 females, totaling 84 people. Recreation and amusement activities employed 59 males and 24 females for a total of 83. Other trade industries reported the employment of 65 males and 18 females, a total of 81.

In the more mechanical group, garages, greasing, and similar occupations, employed 74 males and 4 females, while automobile factories and repair shops used the services of 69 males and no females. Construction and street maintenance accounted for the employment of 48 males and 1 female, or a total of 49.

The city's postal service included 47 males and 6 females for a total of 53, while the clothing industries reported 25 males and 31 females in their employment for a total of 56 employees.

Bakeries employed 38 males and 4 females to total 42, and the chemical and allied industries employed 15 males and no females. Two males were employed in the forestry and fishing industry, while one male and one female

were employed in the textile industries, and one male was engaged in the extraction of minerals.

The miscellaneous food and allied industries employed 174 males and 31 females for a total of 205. Also, miscellaneous manufacturing industries reported 150 males and 27 females, totaling 177 employed. Transportation and communication, not already listed, accounted for the employment of 88 males and 2 females, or a total of 90, while there were 253 males and 43 females, or a total of 296, who did not specify their occupations.

In Grand Forks it would seem from this brief analysis, that it would be desirable to train for the occupations listed in Table 1. Automobile repair shops are employing 69 male workers in the several establishments. Garages, filling stations, and automobile agencies account for 235 other employees, or a total of 304 men and women. This number is 4.5 per cent of the total number employed in Grand Forks, and would lead to the assumption that it would be advisable to train for these jobs through actual employment in garages, filling stations, service stations, top and body factories, foundaries, and other allied local establishments. The suggestion is significant.

The meat packing industry included 98 males and females. Meat markets and allied industries accounted for others in this same, or similar grouping. Training for

these occupations could be accomplished in meat markets and packing plants through a part-time vocational program. Training on the job could also be a definite part of the training of the 42 bakery employees.

The building industry, and allied occupations, usually associated with the earlier forms of apprenticeship training, employed 425 males and 8 females, or a total of 433. Part-time instruction could be made a part of the education of these individuals through an agreement with such establishments concerning work in welding, electricity, hardware, sheet metal, lumber yards, cabinet shops, brick yards, and the like.

The community of Grand Forks also includes other occupations, some of which are listed below, and in which part-time training and education could be provided for. Among these latter occupations are such services as errand boys, watch and shoe repairing, radio service, creamery workers, hotel and restaurant employees, and others.

In general, the study and use of the city's occupational index figures would serve in showing the advisability and feasibility of certain very definite groupings of daily pursuits for part-time consideration and training. The city's occupational index should be the basic guide for use of those responsible for formulating the community's part-time vocational and educational programs.

CHAPTER VI

ATTITUDES OF PUPILS TOWARD SCHOOL IN GRAND FORKS

The personal cases of 60 pupils¹ who had discontinued school in the Grand Forks public school system were used in this analysis. By means of their school records, and through the cooperation and counsel of the Principal of South Junior High School, Grand Forks, these pupils were selected primarily because they had dropped out of their school through apparent lack of interest, scholastic difficulty, or other reasons. No attempt was made to select recognized problem cases or slow-learners, although cases of this nature did show themselves at times in the analysis of the cases.

A questionnaire (see Appendix) was prepared and filled out by the writer in the presence of the subjects. This method was used because it was felt that more accurate answers could be obtained through leading questions in the event that the pupils were reluctant in answering any part of the questionnaire. The school nurse supplied the health data and much of the information pertaining to the pupils' home conditions.

¹Sixty cases were felt to be representative of the type of pupil to be studied who would provide information valuable to this study. The subjects were pupils of South Junior High School, Grand Forks, North Dakota.

Pupils who had discontinued school in the seventh, eighth, ninth, and tenth grades were interviewed. In the seventh grade the ages were about equally divided between 15 and 16 years. In the eighth grade more pupils left school at the age of 14 years than at the age of 13, 15, or 16 years. This mortality is accounted for by the fact that these pupils had fulfilled the requirements of the state attendance laws and could not be compelled to continue their school work longer. It was noted that one hundred per cent of those dropping out of school upon the completion of the eighth grade had no further interest in school, although 67 per cent of those satisfactorily completing the first eight grades were not retarded. Fifty per cent of those discontinuing school work in the ninth grade were 15 years of age, and 40 per cent were retarded. The average age for school discontinuance in the tenth grade was 17 years, and 23.1 per cent of these pupils were retarded in their school work.

In the seventh grade health entered as an important elimination factor in that 40 per cent of those students reporting were not in good health. One pupil had a physical handicap which was the result of a nervous disorder earlier in life. Eighty per cent of those reported for the seventh grade were below the average in intelligence, and 100 per cent were reported unsatisfactory in scholarship.

Further analysis of the subjects revealed that

exactly 100 per cent of these young people out of school were, as would be supposed, retarded at least one year, and 50 per cent of the subjects were retarded two years in their classroom studies. Ninety per cent of those dropping out of school in the seventh grade were reported as unsatisfactory in both interest and application. It is interesting to note also that only 20 per cent of those reported for the seventh grade admitted having a hobby, and they were, incidentally, divided equally on the matter of subject interest--one-half being interested in the vocations, and the rest manifesting no appreciable interest at all. Only 10 per cent of those reported for the seventh grade came from desirable homes, according to nurse records.

In the eighth grade there were no cases reported showing a physical handicap. However, in 15.3 per cent of the cases only average health was reported, while 84.7 per cent of the pupils were in good or excellent health. In the case of one boy who had discontinued school at the close of the eighth grade at the age of 13, his intelligence was reported as a "B." The other subjects were reported as having an intelligence rating of "C" or "D."¹

Fifty-three and eight-tenths per cent of the pu-

¹Grades of B in the Grand Forks school system are rated "above average." Grades of C are "average," while grades of D are "below average." A grade of A is excellent.

pils had a recorded scholarship rating of "satisfactory," while 46.2 per cent were doing "unsatisfactory" work. Sixty-one and seven-tenths were retarded, while 38.3 per cent were not so affected. Only 15.4 per cent were reported as being satisfactory in application, and 100 per cent had no further interest in school. In contrast, of the cases reported in the seventh grade, 69.2 per cent of the pupils had a hobby. Seventy-six and nine-tenths per cent were interested in vocational subjects, and 23.1 per cent had no subject interest. Eighty-four and seven-tenths per cent were interested in the trades, while 15.3 per cent reported other interests. The home conditions did not seem to enter as often, as in the eighth grade, 46.22 per cent of the pupils lived under wholesome conditions, while 53.8 were recorded as living under unwholesome conditions.

In the ninth grade the most frequent appearing age group for those discontinuing school was the group of 15-year-old youngsters. One hundred per cent of these pupils were reported in good to excellent health, and 40 per cent of them had an intelligence rating of B, while 60 per cent were rated C in intellectual capacity. The reported scholarship was satisfactory in 80 per cent of the cases, and where the scholarship was reported unsatisfactory, interest and the feeling of worth had waned, and the home conditions were not conducive to further school attendance.

Forty per cent were retarded, but only in one or two studies. Application and interest were lacking in 60 per cent of the cases.

Again, it is interesting to note that 80 per cent of those discontinuing school at the age of 15 years upon completion of the ninth grade had a hobby. There is perfect correlation between the hobby interest, subject interest, work interest, and home conditions, the case analysis revealed. In every one of the cases reported as having a hobby interest, these same cases reported an interest in vocational training, interest in the trades, and were from desirable homes. An opposing tendency is found in the cases of the 16- and 17-year-old students. The desirable factors decreased perceptibly so that in the ninth grade the following figures are shown: Eighteen and two-tenths per cent of the total reported had an intelligence rating of B, 63.6 per cent had a rating of C, 18.2 per cent had a rating of D, and 72.6 per cent were reported as doing satisfactory work while still in school. Fifty-four and four-tenths per cent of the 16-year-olds were retarded, as compared to 100 per cent of those of the age of 17 who were retarded. application was reported satisfactory in 45.5 per cent of the cases, but interest was reported satisfactory in only 36.2 per cent of the cases. Sixth-three and eight-tenths per cent of the total number of cases reported a hobby interest, while 36.2 per cent of them had no hobby. A

vocational interest was shown in 54.5 per cent of the cases, while 45.5 per cent had no interest beyond school. In 63.8 per cent of the cases, trade interest was reported, but 36.2 per cent said they had other interests. In 72.6 per cent of the cases the home conditions were satisfactory, while in 27.4 per cent of the cases the home conditions were recorded as unsatisfactory.

In the tenth grade, the ages 16, 17, and 18 years were represented. None below the age of 16 and none over the age of 18 years, was reported. More than 50 per cent of the cases were of the age of 17 when they discontinued their school work. One hundred per cent of those reporting were of excellent health. Fourteen and six-tenths per cent had an intelligence rating of B, 57.1 per cent a rating of C, and 15.7 per cent a rating of D. This showed a perfect correlation with the recorded scholarship in that 84.3 per cent were doing satisfactory work when they discontinued school, and 15.7 per cent were doing unsatisfactory work. Only 20 per cent of those reporting at the age of 16 years were retarded, while 23.1 per cent of those at the age of 17 years were retarded. In the majority of the cases the reported application and interest were satisfactory. This is shown in 60 per cent of the cases of thoses at the age of 16 years and in 53.9 per cent

of the cases at the age of 17 years. One hundred per cent of those reported at the age of 16 and 18 years had a hobby and 84.3 per cent of those 17 years of age reported a hobby. It was also found that 100 per cent of those reported in the tenth grade preferred vocational subjects and showed an interest in the trades. Eighty-one per cent lived under satisfactory home conditions, while 19 per cent of the pupils did not do so.

Case records of both boys and girls were made, but were not kept separate in the summary of the case records. This procedure was followed because there were only a few girl cases for study in the seventh, eighth, and ninth grade, and none in the tenth year. Apparently, the girls who intended to discontinue their school work did so before entering the tenth grade. The inclusion of the few cases of girls who did drop out of school changed the reported subject interest and work interest in that, without exception, the girls had no further interest in school. In only two cases did they admit a trade interest. In the tenth grade, where no girls were reported, there was 100 per cent trade and vocational interest shown. The home conditions in the case of only one girl reported were wholesome. Most of the girls expressed themselves as expecting to marry, thus felt that they needed no further interest beyond that of actually realizing their ambitions in this respect.

The progression from the seventh through the tenth grade showed a more settled attitude in the matter of subject and work interest. This same tendency is shown in home conditions and hobby interests. The reported application was much higher in the ninth grade than in any of the other grades analyzed in this report.

This study also revealed that more pupils were discontinuing school at the end of the tenth year than were leaving school at the end of the eighth or ninth year of school in the Grand Forks school system. This assumption is made because it was easier to find representative cases in the tenth year than in either of the other two years. The establishment of the junior high school and the 6-3-3 plan of school organization is intended to keep the pupils in school for a longer period of time. At least an extra year is gained under this organization, making the ninth grade the point of school discontinuance in many cases. Whether the reorganization is accountable, either wholly or in part, for the fact that pupils are continuing school for another year or more is open to more investigation for any final and definite confirmation. The ninth grade was expected to show greater numbers dropping out of school than was the tenth grade, but in this investigation, such was not the case. Possibly, the unemployment situation, with

its accompanying problem of locating suitable work, has forced many to continue into the tenth grade where otherwise they would not.

At the time of this study (1939), the total enrollment in the seventh, eighth, ninth, and tenth grades in the Grand Forks public schools was 1,492 pupils, of which 771 were girls and 721 were boys. Fifty-seven selected case studies were made, or 3.8 per cent of the school system's total enrollment. It was deduced that the 57 actual studies made were representative of 300-500 more such maladjusted pupils. More than 50 per cent of the case studies analyzed showed indication favoring trade tendencies, thus actual trade training was recommended for these subjects, as opposed to academic education by the school's Principal. Accordingly, 300 pupils or more would be interested in a different type of school--seemingly a part-time vocational school of the non-academic type. The reader is invited to see the following four tables for statistical analyzing of case studies.

Table 2
 Summary of Case Records of Pupils Who Dis-
 continued the Grand Forks Public
 Schools in the Seventh Grade

Items of Record Surveyed	Age of Pupils		Per Cent of Total Reporting
	15	16	
HEALTH			
Good*	60.0	60.0	60.0**
Average	40.0	20.0	30.0
Physical handicaps	0.0	20.0	10.0
INTELLIGENCE			
A (Superior)	0.0	0.0	0.0
B (Above Average)	0.0	0.0	0.0
C (Average)	20.0	20.0	20.0
D (Below Average)	80.0	80.0	80.0
RECORDED SCHOLARSHIP			
Satisfactory	0.0	0.0	0.0
Unsatisfactory	100.0	100.0	100.0
RETARDATION			
Yes	100.0	100.0	100.0
No	0.0	0.0	0.0
APPLICATION			
Satisfactory	0.0	20.0	10.0
Unsatisfactory	100.0	80.0	90.0
SCHOOL INTEREST			
Satisfactory	0.0	20.0	10.0
Unsatisfactory	100.0	80.0	90.0
HOBBY INTEREST			
Yes	20.0	40.0	20.0
No	80.0	60.0	80.0
SUBJECT INTEREST			
Vocational	40.0	60.0	50.0
Academic	0.0	0.0	0.0
None	60.0	40.0	50.0
WORK INTEREST			
Trade	40.0	60.0	50.0
Other	60.0	40.0	50.0
HOME CONDITIONS			
Wholesome	0.0	20.0	10.0
Unwholesome	100.0	80.0	90.0

*All figures are in per cent and calculated from the Questionnaire.

**This column of percentages showing grade status is computed from the number reporting in a particular age-grade situation as compared to the total number in the grade.

Table 3
Summary of Case Records of Pupils Who Dis-
continued the Grand Forks Public
Schools in the Eighth Grade

Items of Record Surveyed	Age of Pupils				Per Cent of Total Reporting
	13	14	15	16	
HEALTH					
Good*	100.0	67.0	100.0	100.0	84.7**
Average	0.0	33.0	0.0	0.0	15.3
Physical handicap	0.0	0.0	0.0	0.0	0.0
INTELLIGENCE					
A (Superior)	0.0	0.0	0.0	0.0	0.0
B (Above Average)	33.0	0.0	0.0	0.0	73.0
C (Average)	67.0	33.0	0.0	0.0	31.0
D (Below Average)	0.0	67.0	100.0	100.0	61.7
RECORDED SCHOLARSHIP					
Satisfactory	67.0	67.0	0.0	50.0	53.8
Unsatisfactory	33.0	33.0	100.0	50.0	46.2
RETARDATION					
Yes	67.0	33.0	100.0	100.0	61.7
No	33.0	67.0	0.0	0.0	38.3
APPLICATION					
Satisfactory	33.0	16.0	0.0	0.0	15.4
Unsatisfactory	67.0	84.0	100.0	100.0	84.6
SCHOOL INTEREST					
Satisfactory	0.0	0.0	0.0	0.0	0.0
Unsatisfactory	100.0	100.0	100.0	100.0	100.0
HOBBY INTEREST					
Yes	67.0	84.0	50.0	50.0	69.2
No	33.0	16.0	50.0	50.0	30.8
SUBJECT INTEREST					
Vocational	67.0	84.0	50.0	100.0	76.9
Academic	0.0	0.0	0.0	0.0	0.0
None	33.0	16.0	50.0	0.0	23.1
WORK INTEREST					
Trade	67.0	100.0	100.0	100.0	84.7
Other	33.0	0.0	0.0	0.0	15.3
HOME CONDITIONS					
Wholesome	33.0	50.0	50.0	50.0	46.2
Unwholesome	67.0	50.0	50.0	50.0	53.8

*All figures are in per cent and calculated from the Questionnaire.

**This column of percentages showing grade status is computed from the number reporting in a particular age-grade situation as compared to the total number in the grade classification.

Table 4
 Summary of Case Records of Pupils Who Dis-
 continued the Grand Forks Public
 Schools in the Ninth Grade

Items of Record Surveyed	Age of Pupils			Per Cent of Total Reporting
	15	16	17	
HEALTH				
Good*	100.0	75.0	100.0	90.9**
Average	0.0	0.0	0.0	0.0
Physical handicap	0.0	25.0	0.0	9.0
INTELLIGENCE				
A (Superior)	0.0	0.0	0.0	0.0
B (Above Average)	40.0	0.0	0.0	18.2
C (Average)	60.0	75.0	50.0	63.6
D (Below Average)	0.0	25.0	50.0	18.2
RECORDED SCHOLARSHIP				
Satisfactory	80.0	75.0	50.0	72.6
Unsatisfactory	20.0	25.0	50.0	27.4
RETARDATION				
Yes	40.0	50.0	100.0	54.5
No	60.0	50.0	0.0	45.5
APPLICATION				
Satisfactory	40.0	50.0	50.0	45.5
Unsatisfactory	60.0	50.0	50.0	54.5
SCHOOL INTEREST				
Satisfactory	40.0	25.0	50.0	36.2
Unsatisfactory	60.0	75.0	50.0	63.8
HOBBY INTEREST				
Yes	80.0	50.0	50.0	63.8
No	20.0	50.0	50.0	36.2
SUBJECT INTEREST				
Vocational	80.0	25.0	50.0	54.5
Academic	0.0	0.0	0.0	0.0
None	20.0	75.0	50.0	45.5
WORK INTEREST				
Trade	80.0	50.0	50.0	63.8
Other	20.0	50.0	50.0	36.2
HOME CONDITIONS				
Wholesome	80.0	75.0	50.0	72.6
Unwholesome	20.0	25.0	50.0	27.4

*All figures are in per cent and calculated from the Questionnaire.

**This column of percentages showing grade status is computed from the number reporting in a particular age-grade situation as compared to the total number in the grade classification.

Table 5
 Summary of Case Records of Pupils Who Dis-
 continued the Grand Forks Public
 Schools in the Tenth Grade

Items of Record Surveyed	Age of Pupils			Per Cent of Total Reporting
	16	17	18	
HEALTH				
Good*	100.0	100.0	100.0	100.0**
Average	0.0	0.0	0.0	0.0
Physical handicap	0.0	0.0	0.0	0.0
INTELLIGENCE				
A (Superior)	0.0	0.0	0.0	0.0
B (Above Average)	40.0	15.7	0.0	14.6
C (Average)	60.0	68.6	0.0	57.1
D (Below Average)	0.0	15.7	100.0	28.3
RECORDED SCHOLARSHIP				
Satisfactory	80.0	84.3	75.0	81.0
Unsatisfactory	20.0	15.7	25.0	19.0
RETARDATION				
Yes	20.0	23.1	75.0	33.1
No	80.0	76.9	25.0	66.9
APPLICATION				
Satisfactory	80.0	69.2	75.0	71.2
Unsatisfactory	20.0	31.8	25.0	28.8
SCHOOL INTEREST				
Satisfactory	60.0	53.9	50.0	57.1
Unsatisfactory	40.0	46.1	50.0	42.9
HOBBY INTEREST				
Yes	100.0	84.3	100.0	95.1
No	0.0	15.7	0.0	4.9
SUBJECT INTEREST				
Vocational	100.0	100.0	100.0	100.0
Academic	0.0	0.0	0.0	0.0
None	0.0	0.0	0.0	0.0
WORK INTEREST				
Trade	100.0	100.0	100.0	100.0
Other	0.0	0.0	0.0	0.0
HOME CONDITIONS				
Wholesome	62.9	75.0	75.0	81.0
Unwholesome	30.8	25.0	25.0	19.0

*All figures are in per cent and calculated from the Questionnaire.

**This column of percentages showing grade status is computed from the number reporting in a particular age-grade situation as compared to the total number in the grade classification.

CHAPTER VII

THE PART-TIME PROGRAMS OF OTHER STATE SCHOOL SYSTEMS

The groups of people to be served by a vocational program such as is found in a part-time school may be classified by either age and school status, or by the extent of their employment experience. In view of the fact that this analysis is concerned with those individuals who see fit to discontinue their formal schooling before the age of 18 years, the earliest age at which they are usually considered for employment, this study confined its application to that age and school status. It is also possible to consider a classification upon the basis of individual abilities.

On the basis of age and relationship to school systems, five classes of people may be clearly distinguished as having need for vocational education: (1) The group of young people attending the full-time schools, generally from the age of 14 years to 18 years; (2) those attending school of post-secondary level; (3) the group of young people who have recently left the full-time school for employment experience, and included in this group are those who have recently left school but are unemployed; (4) the older adult group, employed and unemployed, which has been out of contact with the full-time school for a considerable period; and (5) those who are physically disabled and

require training for vocational rehabilitation.

It is generally recognized that the elementary and junior high school periods should be devoted to general education, including exploratory and diagnostic experience that may provide help in the wise choice of a vocation, or in the selection of future types of training to be received. It is also recognized, however, that there are those who are no longer interested in the full-time school, are not accepted in regular employment, and consequently, are drifting along without a purpose.

It is important to remember that one-fourth of the children who reach the fifth grade of the elementary schools now drop out of the classroom before entering high school, and only about one-half of those who reach the fifth grade ever get as far as the junior class, or third year of the regular high school.¹ Many of those who drop out of school before reaching the level at which vocational education seems appropriate, will enter either the ranks of unskilled labor, for which it seems that specialized vocational education in the schools is not appropriate, or will become apprentices and will obtain their training on the job. In all these cases the school

¹Based on grade distribution in 1933-34. Biennial Survey of Education: 1932-1934, ch. II, pp. 56-57.

has the important responsibility of continuing to serve the educational needs of these young people through offerings of part-time, and evening classes.

A reform of the educational system is needed that will especially hold more of these young people in school, and will adjust the program so that they may obtain the type of educational experience that will be most useful to them. Most of those who drop out of school before reaching the high school level, or during the early years of the high school, are of an age for which vocational education in the schools would be suitable.

The purpose of the vocational courses, designed for those whose full-time schooling is at an end before the completion of the secondary school period, should be to develop in each pupil: (1) Such habits and attitudes as will lead him to work cooperatively and happily with others in the general field of vocational activity which he has chosen; (2) such acquaintance with the major vocational processes in that field as will make him an apt learner on the job, and able to adjust himself to various requirements; (3) a knowledge of the kind of training necessary for advancement in the field, and of where and how to obtain that training; and (4) enough limited specialized skill to provide him with the marketable ability necessary to obtain a beginning job. For these pupils there should be a provision for education which will enable the pupil to get, and hold

a job in a vocational field broad enough to give reasonable assurance of opportunity for self-support and vocational advancement to the limit of the pupil's potential ability.

The State of Wisconsin, as a case in point, has recognized the problem of keeping the youth in the schools, the problem of training youth for employment, and has realized that a reform was needed to make the schools serve youth better. As a result, it is well to refer to this program of vocational educational education as it has been in operation in the near-by State of Wisconsin since 1911, and as an expanded program since 1926, and comment on the programs found in cities comparable in industry and other occupations to those found in Grand Forks.

Antigo, Wisconsin, is a city of 8,599,¹ with a day vocational school enrollment of 106 and an evening school enrollment of 295, or a total of 401.² Antigo is in an agricultural section of the state and has several smaller industries. Some of the young people of the community work in a pea canning factory in the summer, and pick potatoes in the fall, then migrate to the city for employment, with part-time school attendance during the winter season.

¹United States Census Report, 1930.

²All references herein are made to the school year, 1937-1938.

The day school enrollment of 106 pupils was classified (1938-1939) as follows: Apprentices, 4; part-time, 65; half-time, 23; special, 18. The day school staff consisted of the director, who taught cabinet making, drawing, and social science; a teacher of homemaking, and a teacher of commercial subjects, general English, and mathematics.

The evening school courses in this school and the enrollment were as follows:

Auto mechanics	23	Public Speaking	32
Clothing	16	Bookkeeping-Accounting	22
Cabinetmaking	7	Business English	32
Foods	15	Shorthand	15
Home nursing	13	Typing	59
Athletics	9	English, Citizenship	1

The evening school staff consisted of the director and 12 teachers--the day vocational school teachers of commercial subjects and of home economics, 2 men and 1 woman engaged in trade and industry, 5 housewives, 3 teachers in the local high school and grades, and the public health nurse.

Appleton is a city of 25,262 with a day vocational school enrollment of 417 and an evening school enrollment of 1,406, or a grand total of 1,823 pupils. Appleton is in a rich dairying section of the state and is one of the centers of paper making. The vocational school has its own building, constructed exclusively for part-time work.

The 417 day school pupils enrolled were classified as follows: Apprentices, 14 (plumbing, printing, machine shop, drafting, and shop repairing); part-time, 314; half-time, 80; and full-time, 11. The day school staff consisted of the director; the coordinator, who taught mathematics and science; 1 teacher in cabinetmaking, 1 in electricity, 1 in machine industries, and 1 in printing; 3 teachers in home economics; 1 teacher of commercial subjects; 1 teacher of English and social science; and 1 teacher of English, social science, and business English.

Evening school courses and enrollment were as follows:

Blue print reading	17	Accounting	7
Cabinetmaking	16	Bookkeeping	24
Drafting	15	Business English	32
Electricity	11	Letter writing	6
Electrical maintenance	10	Penmanship	18
Machine shop	24	Secretarial work	11
Shop mathematics	21	Shorthand	33
Plumbing	9	Show card writing	20
Printing	10	Typing	63
Printing, linotype	7	Citizenship	63
Slide rule	12	English Grammar	10
Foods	35	Public speaking	11
Home nursing	8	Lip reading	10
Meal planning	11	Clothing	152

The evening school staff consisted of the director and 36 teachers: 13 from trade and industry, or commercial occupations, 10 from the vocational school staff, 2 from high school or grades, 5 housewives, the

city clerk, a local attorney, a local nurse, and the teacher of the deaf at Kaukauna, Wisconsin.

Ashland is a city of 10,623, with no day vocational school, but with an evening school under the direction of the local board of vocational education. The evening school enrollment was 258. Ashland is located about 70 miles east of the city of Superior, and is the county seat of Ashland County, the shopping and wholesale center of a prosperous farm territory.

The Elden (Ashland) evening school courses and enrollment were as follows:

Woodwork	15	Bookkeeping	19
Food	15	Shorthand I	11
Clothing	25	Typing I	48
Block print and fabric painting	12	Typing II	10
Reed wood work	41	Dictating	10
Weaving, rugs, baskets	10	English and Citizenship	6
Physical education	36		

The evening school staff consisted of the director, who was the instructor in industrial arts for the full-time day schools of the city, and 17 teachers: 14 teachers in the local schools, 2 housewives, and 1 other.

Fort Atkinson is a city of 5,769, with an evening school enrollment of 241. Fort Atkinson is located in a rich dairy community and has a few industries such as knitting mills and nurseries. The local board of voca-

tional education has purchased machine shop, sheet metal, and other equipment now used by the high school classes, and is looking forward to the establishment of day part-time classes during the 1939-1940 school year.

The evening school classes, with courses and enrollments follow:

Mechanical drawing	25	Home nursing	16
Sheet metal	10	Clothing	48
Wood working	44	Bakery	34
Typing, bookkeeping	28	Rug weaving	5
English	14	Public Speaking	17

The evening school staff consisted of the director, who is a manager of a local hardware company, and 9 teachers: 2 from industry, 2 dressmakers, 1 high school teacher, 2 housewives, the city nurse, and 1 student of the Whitewater Teachers College.

Kaukauna is a city of 6,582, with a day vocational school enrollment of 126, and an evening school enrollment of 350, or a grand total of 476. Kaukauna has many paper-making concerns, and one plant manufacturing paper-making machinery.

The day school enrollment of 126 was classified as follows: Part-time, 101; half-time, 31; full-time, 1. The teaching staff consisted of the director, 1 instructor in machine shop, 1 employed jointly with the full-time school board who gave work in wood instruction, electri-

city, drawing, mathematics, and physical education; the itinerant coordinator for trade extension work; the itinerant instructor in foreman training; 1 full-time instructor in home economics, and 1 full-time instructor in general subjects.

The evening school courses and enrollment follow:

Armature winding	8	Home nursing	12
Automobile ignition	14	Interior decoration	15
Automobile mechanics	6	Parental education	5
Foreman training	48	Sewing	77
General woodwork	18	Selection and design	15
Machine drawing	16	Bookkeeping	9
Pattern making	10	Shorthand, typing	34
Sheet metal drafting	11	Business English	10
Welding	16	Reedwork	8

The evening school staff consisted of the director and 22 teachers, including 3 from the local vocation school; 1 from the Appleton vocational school; 5 from the local high school; 1 teacher of the deaf; 3 housewives, one of them a trained nurse; and a professor from the state university.

Kimberly is a city of 2,256, which has recently organized courses for adults. There were 79 people enrolled last year (1938-1939) in the evening school. Kimberly is one of the smaller paper-making cities of the Fox River Valley, and is 3 miles from Appleton.

Evening school courses and enrollment follow:

Electricity I	11	Electricity II	25
Paper-making	24	Millright pipe fitter	11
Homemaking	11	Garment making	8

The teaching staff consisted of the educational director and the plant chemist of the Kimberly Clark Paper Company, and 2 others from industry, a housewife and a seamstress. For the coming year, (1939-1940), a home economics teacher has been employed on a full-time basis. She will teach half-time, full-time, and adult classes--some of each. A unit kitchen and clothing room will be equipped for the coming year, according to present plans.

Marshfield is a city of 8,775, with a day vocational school enrollment of 121, and an evening school enrollment of 262, or a total of 383. Marshfield is in the center of the state in an important cheese and butter making center.

The 110 day school pupils enrolled were all in part-time attendance (8 hours a week). There were no apprentices, half-time, or full-time pupils. The teaching staff consisted of the director and 5 teachers employed jointly with the full-time school board: 3 shop men who gave cabinetmaking, drafting, and general sheet metal work, 1 teacher of general subjects, and 1 of homemaking. There was also an itinerant instructor in electricity.

Evening school courses and enrollment were as follows:

Cabinetmaking	16	Foods	12
Electricity	26	Clothing	23
Bookkeeping	27	Americanization	14
Commercial law	18	Physical education	81
Typing	35	Shorthand	23

The evening school staff consisted of the director and 11 teachers: 7 vocational and high school teachers, 1 housewife, 1 public accountant, 1 stenographer, and 1 attorney at law.

Two Rivers is a city of 10,048, with a day vocational school enrollment of 259, and an evening school enrollment of 365, or a total of 624. Two Rivers is a summer resort city, and also has several small industries.

An outstanding feature of this school was the fine organization of the work into short units and carefully planned lessons which made it possible to have pupils work on either an individual or a class basis. It also enabled absentees to make up their work, rather than make up time, on their return to school.

The day school enrollment of 259 pupils was classified as follows: Part-time, 183; and half-time, 76.

The day vocational school staff consisted of the director, a teacher of drafting and related science, employed on a part-time basis, a teacher of home mechanics, mathematics, and general metal; a teacher of printing and social science, a teacher of foods, a part-time teacher of clothing; and 3 itinerants: the itinerant coordinator for trade extension, the itinerant instructor in foreman training, and an itinerant instructor in plumbing.

Evening school courses and enrollments were as follows:

Auto mechanics	17	Clothing	14
Drafting	17	Dressmaking	22
Cabinetmaking	18	English, Citizenship	9
Plumbing	7	English for foreigners	10
Printing	28	Individual and social adjustment	34
Business Law	46	Mathematics	46
Shorthand	20	Basketball	12
Typing	45	Orchestra	9

The evening school staff consisted of the director and 19 teachers: 4 from the vocational school, 6 from the high school, 1 housewife, 1 dressmaker, a professor of the University of Wisconsin, and several others. There were also 12 different lecturers for the course on Business Law.

Watertown is a city of 10,603, with a day vocational school enrollment of 168, and an evening school enrollment of 366, or a total of 534. Watertown is in a rich agricultural district and has a variety of industries, including a condensery, flour mills, and paper box factories. Plans are now being considered (1939) for a new school building for vocational education.

The day school enrollment was classified as follows: 13 apprentices, electricity 5, painting and decorating 3, plumbing 4, and 1 not specified; part-time 126; half-time, 42. The day school staff consisted of the director; a teacher of carpentry and general subjects; 3 itinerant instructors, 1 in electricity, 1 in painting and decorat-

ing, and 1 in plumbing; 2 instructors in home economics; and 1 in commercial and general subjects.

Evening school courses and enrollments were as follows:

Agriculture	11	Clothing	22
Cabinetmaking	19	Foods	15
Carpentry	23	Interior decoration	10
Electricity	13	Applied art and design	93
Painting, decorating	10	Chemistry	10
Plumbing	12	English	22
Bookkeeping	17	English grammar	11
Business correspondence	18	German	13
Commercial law	19	Physical education	12
Salesmanship	12	Weaving, basketry	25
Shorthand	16	Typing	37

The evening school staff consisted of the director and 16 teachers: 4 vocational school, and 6 high school teachers; 1 elementary school teacher, and the teacher of physical education; 3 home makers, and 1 attorney.

In this analysis an attempt was made to select Wisconsin cities which were about the same size, or in a few instances, smaller than Grand Forks. Those were selected too, which had about the same industrial activity. Seven of the 9 cities selected had part-time classes, and 1 of the remaining 2 expressed hindering circumstances, but hoped to have part-time classes within the next school year.

The courses offered were determined by the need of the community in which the particular city was situated. The courses were more general than specific in trade-

training courses, and were intended as exploratory courses, and to prepare the individual pupils for initial entrance into an industry. Accordingly, after the individual has entered a trade it is possible for him to return to the evening classes as part of a continuation course.

Commercial subjects were offered more than other courses, with foods, clothing, and home nursing next in order. Blue print reading, drafting, cabinet making, electricity, plumbing, printing, and shop mathematics, as well as shorthand and typing, were the subjects of a vocational nature offered the greatest number of students, while business law, business English, and public speaking were the most popular non-vocational subjects taught.

The part-time school was developed primarily for the benefit of the young worker. It is realized by some that the part-time school is not completely fulfilling its mission. There still remains the apprentice who needs training he can not get on the job, the journeyman who desires increased skill in his trade, and the youth who seems to be out of his 'element' in the full-time school. The general plan of the part-time school is to correlate the instruction with the qualifications, occupations, and the desires of the pupil. There is little agreement as to the proper ratio between vocational, academic, and cultural subjects. In some states, notably Wisconsin, the vocational

side is stressed. In Massachusetts there is about equal consideration given the fields in question--vocational subjects receiving 50 per cent, related subjects 25 per cent, and cultural subjects 25 per cent of the time. Pennsylvania emphasizes academic subjects, although the non-academic lines of work are not neglected. In connection with this state's plan, the pupil is not forced to comply with the sole judgments of teachers, but rather, emphasis is placed upon the actual needs and desires of the pupils.

Though it is not extensively developed or used, North Dakota has a State Plan for Vocational Education¹ in operation which includes training in agriculture, trades and industries, home economics, distributive occupations, and vocational rehabilitation. It is a plan for the cooperation between the United States Office of Education and the State Board for Vocational Education, and is designed at present to extend over the period from July 1, 1937 to June 30, 1942.

In setting up an effective plan for an efficient program for trade and industrial training for North Dakota, due regard must necessarily be given to the needs that must be met, and the affecting conditions in the state.

¹State Plan for Vocational Education, State of North Dakota, State Board for Vocational Education (Board of Administration), Bismarck, North Dakota, 1937.

North Dakota is sparsely settled, and the system of training for the skilled trades, especially, must naturally differ markedly from that of the more purely industrial sections of the United States.

With regard to the North Dakota state-wide program for the present, the major points for consideration are:¹

1. All-day program.

(a) As far as the all-day program is concerned, one institution is sufficient to give such training as is necessary for the skilled trades most common to the state.

2. Evening school (part-time and continuation).

(a) An evening school (part-time) program for trade and industrial workers should be continued and expanded in the larger cities (Grand Forks, et cetera) in the state.

3. The apprentice.

(a) The time is now reached for the development of an apprenticeship program in the state which can best be developed in conjunction with the program of the trade school of the Wahpeton Science School.

4. Occupational classes.

(a) The smaller cities in the state could profit immensely from further development of the part-time general cooperative occupation classes for the skilled trades.

Similar programs to the above outline exist in 19 states of this country. As early as 1911, Wisconsin enacted a law setting up compulsory continuation schools. Pennsylvania followed in 1915, administering a worthy program. Then followed the states of Arizona, California, Illinois, Iowa, Massachusetts, Michigan, Missouri, Nevada,

¹State Plan for Vocational Education, op. cit., p. 38.

Montana, Nebraska, New Jersey, New Mexico, Oklahoma, and Utah. With the addition of the State of Washington to the list a little later, the number of commonwealths promulgating a part-time plan of vocational education were arousing public opinion and support for such education, and as a result, it can be safely said that the part-time schools have become a factor in the general educational programs of the United States.

In North Dakota, however, only two attempts to date have been made to use the primary provisions of the George-Deen Act in providing for part-time classes. These have been at Wahpeton in connection with the state school of science, and at Park River in conjunction with the county agricultural high school. The apparent reason for the lack of more of these schools is that federal money, through the George-Deen Act, has been available to only state operated institutions, and county schools eligible to such funds. As more money is made available under the Act, and restrictions relieved, the several states will receive increased amounts of money for the part-time work.

The two schools referred to above as using the part-time program of work were successful according to Edward Erickson, State Director for Vocational Education and Vocational Re-habilitation, University Station, Grand Forks. Said the Director in this connection, it is only necessary

for other schools to set up a program for part-time classes in order to qualify for federal aid. Thus, a continuation and expansion of trade and industrial education is expected as the requirements of the George-Deen Act are met, more money becomes available, and the general public educated and enlightened as to the genuine benefits of such a worthy program of local community and federal effort.

CHAPTER VIII

A PLAN FOR A PART-TIME PROGRAM OF EDUCATION IN GRAND FORKS

In making the case study of the pupils who had discontinued school in Grand Forks in the seventh, eighth, ninth, and tenth grades, it was revealed that at least 300 were interested in an educational program which would provide them with specific training for a job. The 60 cases studied in detail were said to be representative of 500 cases which could have been selected in the city of Grand Forks. About 60 per cent of these subjects could be expected to take part in a part-time program of education, according to the interviews with them.

The City's Occupational Index¹ showed that many diversified occupations existed in Grand Forks, and a study of these occupations revealed that many had the same fundamental operations, and required the same adaptations and academic training. The existing North Dakota state plan for part-time education includes training for the above occupations. This plan conforms with the suggestions of the Federal Board for Vocational Education so that federal funds are available for the promotion of the plan of part-time training and education.

¹ See Chapter V for its description.

Many of the pupils studied are in some employment, either full-time or part-time, and could spend a portion of their time in classes that would provide for the continuation of the education of boys and girls in Grand Forks who have dropped out of school. This plan would also keep the boys and girls at home and prepare them for possible success in their own home community. It would do so by meeting needs for new workers. There would also be provided training in occupations for which no training is now available. A program of part-time education would aid in adjusting the young people to full-time employment.

The administration of the part-time program locally would be carried on through a coordinator whose duty it would be to organize the classes and enlist the cooperation of the school authorities, employers, and labor organizations. The coordinator would have complete understanding of the objectives of the part-time program, a sympathetic attitude toward this type of education and toward the pupils in the program. It would be necessary for him to have a working knowledge of the problems of the employers, and have the ability to fit the training plan into the existing organization in such a way as to secure the cooperation of the entire community linked in the endeavor (see Chart 1).

In the organization chart below is shown in graphic form the working structure of a part-time recommended personnel for Grand Forks as it is linked with the State Department of Education. All vitally concerned officers and agencies are indicated. The chart follows:

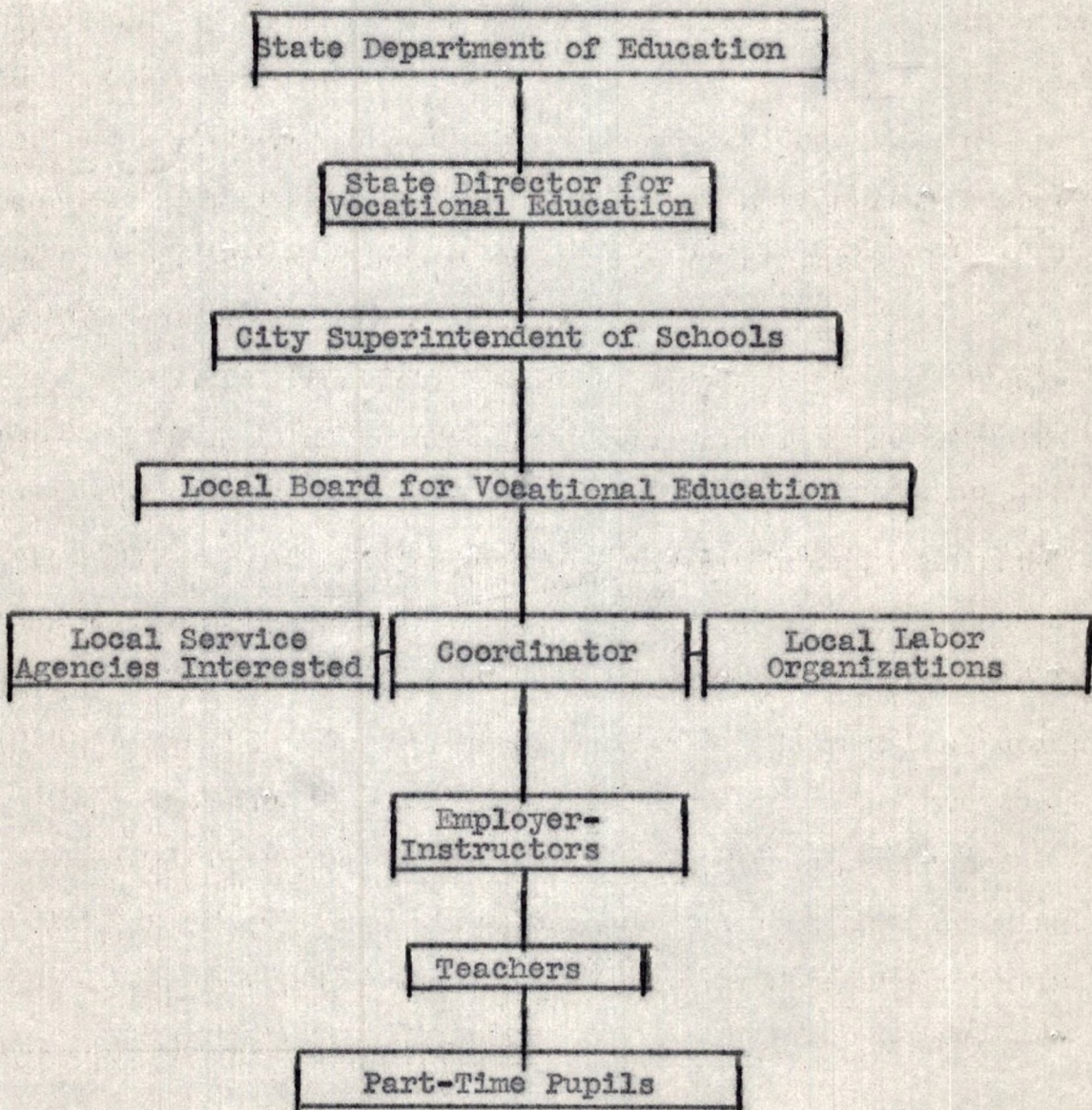


Figure 1. Organization and Personnel Plan for Grand Forks, North Dakota.

In addition to the coordinator, there is herewith proposed a staff of 6 instructors who would be responsible for the teaching of related materials to the occupations, and who would assist the coordinator in the following duties: (1) Enlightening and enlisting the general agencies of Grand Forks able to be of assistance; (2) selecting the pupils; (3) placing the pupils; (4) collecting, organizing, and teaching related material; (5) making occupational analyses; (6) training employer-instructors; (7) arranging pupil's schedules; (8) checking each pupil's program while on the job and while in school; and (9) keeping records and reports of the progress and status of each pupil.

The time spent at work should equal or exceed the time spent in school, with a minimum of at least fifteen hours per week at work. The time spent in school would provide for continuance of academic subjects and occupational information. The general occupational information would consist of material which would apply, in a very large degree, to all occupations. This would differ from technically related information in that the technical information would apply specifically to a particular job. Any addition--free of other related matters--hours the pupil might have would be devoted to that subject of training which would prepare him better in his chosen occupation.

The selection of the pupils for part-time training

would be important. This would require the cooperation of the Principals in the two junior high schools in Grand Forks, namely, the head of the Central Junior High School, and the Principal of South Junior High School. Such would be advisable because this type of program deals with young people between the ages of 14-16 years, or junior high school ages. The pupils for the part-time program would be selected through a bureau of vocational guidance whose activity would be city-wide. The records in each of the two schools would show social, educational, and psychological data of each pupil. Provision for individual counselling would be made on the basis of the above named information concerning the individual, and on the basis of information as it pertains to occupational and vocational education opportunities. The information of the vocational guidance bureau would be obtained through a complete testing program in which intelligence, aptitudes, and interests would be measured.

The work of the placement bureau would be to act as an employment bureau in the matter of placing pupils in part-time employment, and would also follow up each case in order to maintain contact with all pupils and their employers. It would be necessary for the placement bureau to gather information as to local employment opportunities in order to promote and place deserving pupils in work which would be in keeping with their interests and aptitudes.

There are several organizations in Grand Forks which could be made to see the purpose and value of a program of part-time education. Such organizations as the city's service clubs--Rotary, Kiwanis, Lions--, labor unions, Boy Scouts, church organizations, Juvenile Court, the board of health, the Parent-Teacher organizations, the American Legion and Auxiliary, and the police department would be sympathetic toward this type of program, and would very certainly offer much genuine assistance. Contacts could be made by the coordinator with the above named organizations, which in turn, would allow acquaintance with potential employers in Grand Forks as they represent the various business, occupational, and social organizations.

As in the case of the Wisconsin program for vocational education, it is suggested that a separate vocational board of education be selected, which would represent the industrial and commercial interests of Grand Forks. In the Wisconsin plan the superintendent of schools was found to be an ex-officio member of the vocational board of education. Such a board could be made up of three or five members selected by the employers with the approval of the existing board of education, and the North Dakota State Department of Public Instruction.

The advantage of having a separate vocational board of education would be in effect to make this group the

policy-making body concerned only with the program of part-time education in the local community.

The employer-instructor would be trained in the objectives of the program by the coordinator through individual conferences, or by means of general meetings. The employer-instructor would be prepared to teach the trades or occupations and direct the pupils in the appreciation of the value of subjects or a general academic nature as they apply to the trades and occupations.

The question of housing facilities for conducting a part-time education program seems to be rather easily answered in the case of Grand Forks. As a result of the shifting of the school population as shown by the records in the city superintendent's office, the Washington grade school district might be re-zoned, thus leaving this building to the disposal of the vocational board of education. This building is reasonably centrally located, and would provide ample space for classes in the part-time education program.

The matter of financial support also requires some explanation. In the Wisconsin program of vocational education, the support of the several city programs of part-time education is not divorced from that of the local school district. Reports¹ show that the cost is little more than that of the full-time schools. Provision would have

¹ City Vocational School Division, Biennial Reports, 1937, State Board of Vocational Education, Madison, Wisconsin, 1937.

to be made for these same pupils in another form so that the cost would merely be transferred from one school to another. The Supervisor of Vocational Education in Milwaukee made this statement: That the part-time pupils under his direction actually earned more than the pupils enrolled in the full-time schools, and who sought employment on a full-time basis.

In no state was it found impossible to obtain funds through the operation of the Smith-Hughes Act and the George-Deen Act. Thus in North Dakota it follows that funds could be obtained from the above sources, and could be matched with local funds. In Wahpeton, North Dakota, where the part-time program has been tried, the cost is about \$.12 per pupil hour, and half of this cost was defrayed by the federal government. This reduced the local cost to about \$.06 per pupil hour. The Wahpeton program included one coordinator who taught part-time, and one teacher, for an enrollment in the part-time classes of 100 pupils, including those from the State School of Science located in Wahpeton. Grand Forks would require one coordinator and at least six teachers, on the basis of the Wahpeton figures, to carry on the instruction of 300 pupils, which is a conservative estimate of the number that would undoubtedly be interested. On this basis, the cost per pupil hour would be \$.21, or if 300 pupils were enrolled, the cost per day, locally, would be \$126.00, or a yearly cost of \$22,680. This represents an annual

cost of \$75.00 per pupil, which compares very favorably with the current annual cost for education per pupil in Grand Forks of \$68.36.

The plan for part-time education in North Dakota places much emphasis on related occupation information and recommends that one period of each week be devoted to a study of subjects common to all occupations. Such studies as the following are suggested:

1. Personal health
2. Safety first
3. Job pride
4. More emphasis on personal service
5. Qualifications for the various jobs
6. How to meet customers
7. System in business
8. Advertising and display material
9. Study of insurance
10. Individual promotions
11. Elements of business law
12. Credit and credit bureaus
13. Partnerships
14. Employer and employee relationships
15. Advantages of entering business
16. Disadvantages of going into business
17. Miscellaneous subjects as they pertain to occupations in general.

The Wisconsin program emphasizes the vocational aspect of the part-time enterprise, and in so doing, prepares for business and industrial positions in the schools as a medium of such preparation. This is found to be the case particularly where the evening school program is

carried on in connection with the program of the part-time education and industrial training.

Beginning typing, shorthand, bookkeeping, accounting, and calculating machine operation, as well as some of the elements of actual office practice, are introduced in the school, and are to be followed by practical experience on the job. The basis operations in drafting, blue print reading, electrical work, sheet metal work, painting, plumbing, printing, cabinetmaking, automobile mechanics, sewing, and chemistry are to be taught in the school, and are to be continued in training with the part-time employer.

Continuing education in the academic subjects is found in the study of arithmetic, English, business English, geography, history, social science, public speaking, languages, commercial law, and literature.

With the two plans in mind, the course used in Grand Forks could use the best and most practical subjects as found in the above listing, together with any additional subjects needed to meet the local demand. The establishment and success of a part-time school depends upon local occupational conditions; the amount and kinds of employment open to young people; the local educational standards and traditions; and upon the existing opportunities for occupational training and adjustment in the community.

CHAPTER IX

SUMMARY AND RECOMMENDATIONS

In Grand Forks, North Dakota, there are approximately 300 young people between the ages of 15 and 18 years not interested in continuing their school work through the regular high school level. In many of these cases the pupils are able to do the work required in the academic subjects, but have not wished or desired to do the work because "it does them no good."¹ Because of the unemployment situation, there are few positions open to these young people, consequently, they are without work, lack the desirable qualifications that would give them a beginning job, and if successful in obtaining a job, there is practically no opportunity for them to improve themselves. These young people do not have a wholesome attitude toward society, and feel that they are "living without hope."²

Doubtless the above situation is true, but there is little realization of the extent of this until the case studies of the 60 boys and girls who had discontinued their formal schooling locally, were analyzed and the findings supplemented by very similar studies in other surveys.

As noted previously, personal interviews were conducted with these boys and girls, and in some cases,

¹ A typical pupil response.

² Ibid.

the desired information was gained by suggesting a response which the pupil concurred in, when sufficiently explained. In this connection the pupils felt reluctant to reply to some questions, for to a few of them, this seemed like someone prying into their private lives and home conditions. The data-gathering form (questionnaire) used in the case studies (Appendix A), was designed to gather the following information: (1) Health; (2) intelligence (Stanford Achievement Test, given in 1937 and repeated in 1938, and the Detroit Intelligence Test administered in 1938); (3) school history; (4) ages of entering and leaving school; (5) reported scholarship; (6) retardation; (7) subjects, with their likes and difficulties; (8) reported school interest; (9) school application; (10) future plans; (11) social life; (12) home conditions; (13) pupil's economic condition; (14) present job, if any; (15) trade ability; and (16) remarks or recommendations. These case studies were made throughout the school years of 1937 to 1939 inclusive.

Grand Forks is situated in the Red River Valley of the North, and in an agricultural community. The industrial activities include milling, beet sugar making, several small miscellaneous industries, and is a large marketing and wholesale center for the northeast section of the state of North Dakota. It is one of the larger educational centers of the state, having a good public school system,

parochial schools, business colleges, and the state university. Attention is especially drawn to the fact that Grand Forks represents a cross section of agricultural, industrial, business, and educational activity, thus the educational program should not be confined to any one occupational group to the expense or exception of interests of all of the others concerned.

This study concerned itself especially with the future plans of the young people of Grand Forks who had discontinued school and were interested in obtaining work. Many of those who reported, indicated that they had dropped out of school because they were forced, for financial reasons, to seek work. Upon further questioning, such reasons were not entirely borne out, as the majority of students finally admitted that they could, and would, continue their schooling if they saw any decided advantage in so doing. Only five subjects who reported insisted that they discontinued school because their support was needed in the home.

To reiterate what has been said previously in this manuscript, the seventh, eighth, ninth, and tenth grades of school were included in this study, and included in all, a total of 1,492 pupils for general consideration. Of this total there were 771 girls and 721 boys who were served by 44 teachers, an average, or pupil-teacher ratio of 34. Four teachers of industrial arts and 4 teachers of home economics

were included. The schools receive their major support from taxes levied locally, share in the State Equalization Fund, and obtain a small amount of aid from the federal government for Smith-Hughes work carried on in the home economics department. The federal aid moneys could be increased automatically by expanding the local program of vocational education.

The pupils discontinuing their school work at the tenth grade showed a marked increase over those discontinuing their school at the end of the seventh, eighth, or ninth grades. Compulsory attendance laws held many in the seventh grade, although a few were excused through work permits, and some in the eighth grade dropped out for similar reasons. The study revealed that the close of the eighth year of school work is not the point of greatest discontinuance, as it once was, as more students are continuing into the ninth and tenth grades, than they did formerly, according to the records studied. The subjects interviewed indicated that they had continued in school because there was nothing else for them to do, and for the reason that they thought they might be better able to find work, eventually, if they did continue their studies.

While more than half of those studied indicated an interest in the trades and trade training, many of them reported that they had no particular dislike for some of the

regular academic subjects, but could not see any further advantage in them. English grammar, with history and geography closely following, presented the greatest subject matter difficulties to the pupils investigated. Shop work and arithmetic were liked in the majority of cases.

When asked whether they would be interested in attending a trade school 100 per cent of the tenth grade pupils said they believed it would help them. Sixth-three and eight-tenths per cent of the ninth grade pupils were interested in trade training, while the seventh and eighth grade pupils were favorably inclined toward its consideration, although they were not positive about their future plans. The seventh grade pupils were 100 per cent retarded, and all were doing unsatisfactory work when they discontinued school.

Home conditions entered into the factors studied, and it was found that with the lower grades, unfavorable home conditions were reported in more than they were in the upper grades. Home conditions included for the study's analysis were such data as (1) the occupation of the parent, (2) the type of neighborhood, (3) the hygienic conditions of the home, and (4) parental attitude toward school in general.

The case study work included selected¹ cases of boys and girls who had discontinued school before completing

¹The cases were 'selected' in the sense that the subjects used had discontinued school before their high school completion, and apparently, because of the lack of school interest.

high school. There was no deliberate attempt made to confine the study to any one particular difficulty group, such as delinquents, slow-learners, retarded pupils, or so-called problem cases. The study was made to ascertain whether or not there were enough pupils who might be interested in continuing in a different type of school, after the regular full-time school had failed, to warrant the ultimate establishment of such an institution as a continuation school.

Recommendations

Briefly, in conclusion, the following recommendations are herewith specially listed and commented upon:

(1) The establishment of a part-time program of education which will provide for specific training in order that young people might get a beginning position or job. The difficulty that most of the young people have had, seemingly, is that of getting located in an initial job. Once they have become established as an employee, they do not appear to have a great deal of trouble remaining in the place previously secured. Many business men are willing to cooperate with the young people to the extent of providing part-time employment for them while they attend school. These employers would be willing, the study revealed, to help train these young people for advancement, by showing

them certain operations, as in the case of a butcher who would show a boy how to properly cut meat, or a girl how to keep an acceptable file of business papers. In the case of the boy's training in meat-cutting, he could, and would, apply himself to the job and to the training--all with a view in the end of being recognized industrially as a skilled meat-cutter. This is in line with, and is the type of training found in the part-time employments, and in the part-time schools of established vocational activities.

To accomplish such a composite training would necessitate well civic cooperation between the business men and local school officials. This has been shown to be possible, and probable, through a study by the writer of the Wisconsin vocational training program, and in the lesser experimental programs now existent in North Dakota--in the science school at Wahpeton, and in the county agricultural high school in Park River, where the work has been supervised by a corps of teachers headed by a coordinator who arranged for the school and vocational training program of the attending students. In Grand Forks, it would be necessary to appoint one of the present school officials, preferably, as a coordinator, or to employ a trained individual in such work to act in the capacity of coordinator. It is recommended further, that this person have specific training

in vocational work similar to what he would be expected to deal with in the local situation. He should also be trained as a guidance counselor for the pupils.

(2) A second recommendation is the establishment of a part-time program of education which will permit young people to attend school while they are working. This is not difficult in that it is being done in some cases in the Grand Forks schools at the present time. The course of study now is so arranged in the junior, and senior high schools of the city, and it is varied and flexible enough to meet these recommendations. Subjects, too, are repeated in the daily program often enough each day to make it further possible for a boy or girl to attend school one-half of the school day to take the school work he or she wishes, and at the same time, enable them to work in occupations the other half of the same day. This is primarily administrative in its function, and a problem which does not seem too difficult to solve.

(3) A further recommendation projected here is the establishment of a workable program of pupil guidance which will help the young people to discover what they are interested in, and in what activity they might reasonably hope to be successful. Its accomplishment would require the services of a guidance counselor who is trained in testing, who has a broad knowledge of the trades and industries, and who

at the same time, is able to cooperate with outside agencies, make needed recommendations for adjustments as they arise, and one who has the unquestioned fortitude to rest his confidence and understanding in young people. The guidance bureau accompanying such a program should provide for placement of the young people in the various occupations, and should, at the same time, serve to keep in contact with them after they have completed their part-time schooling.

The fact that these young people have dropped out of school before completing the high school, indicated that the school continues to fail in interesting or serving them. In their idleness they might, as a result of their maladjustment, become delinquents, and eventually present a far graver problem and cost to society than would be likely under the better adjusted program of vocational training. Many teachers had considered the boys and girls reported in this particular study, "problem cases." It was found, however, that as a rule, they were generally serious-minded young people who want to be able to "get work." That they dropped out of school does not minimize the situation; it does, however, emphasize the failure of the regular schools to interest them sufficiently to hold them.

The recommendations herein are further defended by application of the conditions surrounding the part-time programs of other schools, principally the Wisconsin schools,

which are considered among the best developed to date. A study of these schools indicated that a part-time program was carried on successfully in the smaller community of Kimberly, which has a population of but 2,256 people. Only 79 pupils in this city were enrolled in the evening classes, but marked success was reported, and an expanded program, including increased part-time education, was recently recommended. The program of vocational education in Appleton, Wisconsin, a city of 25,262 people, has an extensive organization. Appleton is a center of paper making, its one large industry, but it is also in a rich farming community. The situation as found in Appleton is quite similar to that found in Grand Forks, or so nearly similar as to make a vocational school program applicable.

Appleton reported (1938-1939) 405 pupils who took work in mathematics and science, cabinet making, electricity, information on machine industries, printing, home economics, commercial subjects, English, business English, and social science. These subjects were taught by 13 teachers. To be noted is the fact that the above named subjects are not strictly trade subjects, yet these young people were reported able to learn a trade under actual working conditions out of school, which at the same time, was allowing continuation of their formal schooling through part-time classes.

The program here cited has been in Appleton fourteen

years, and has become a part of the regular educational program to the extent that a new building was recently erected solely for vocational training. This would not be the case in Grand Forks as to building accommodations. The Washington grade school is reporting decreasing enrollments, and the plan to move the pupils to another school because of a decreasing, as well as a shifting population in the school's attendance area.

Locally, a minor recommendation in the projected plan would be to consider part-time education interests to the extent that pupils doing unsatisfactory work would be separated from the ones doing their work in an approved way. These latter would be thought of as most assuredly determined to finish the full 12 years of the full-day school. Such separation, it is contended, would permit the teaching of subjects of particular interest to the first group, and accordingly, permit the raising of the level of instruction of the second group.

The above recommendation is based upon the premise that some provision must be made, of necessity, for the young people who have to discontinue, or will discontinue, school, and will, in any event, continue to be a responsibility of the community. More teachers for the instruction of the separated classes would not be additional personnel, but their sphere of endeavor would be transferred from

the performance of community duties relating to these mal-adjusted individuals, to the more worthy field of part-time instruction in the local vocational school. The actual decrease, if any, in the regular school faculty would seem to justify the employment of additional teachers for the part-time school. Eventually, it is thought, there would be little actual added cost, for the reason that federal aid would be made available in sufficient amounts, once the local program emerges into actual operation.

Perhaps the greatest obstacle in the way of establishing a part-time program of education locally, would be that of surmounting uninformed public opinion. It is generally thought by the uninformed element of the community that a program for vocational education, or part-time instruction, is more for those less favorably situated economically. As a result, where the program is eventually set up, the schools established on the part-time program are thus compelled to use the oldest buildings, given the less desirable equipment, and receive the most direct criticism. Such treatment is almost sure to accompany any program of part-time training until it has established itself as being worthwhile to the youth of the community. For these reasons, it is further recommended that a proposed part-time program of education for Grand Forks be placed under the immediate supervision of a very capable

and careful administrator.

The foregoing recommendations for the establishment of a program of part-time education in Grand Forks, as elsewhere, are made in an attempt to provide an opportunity for every working youth of the community to come into contact with men and women interested in his welfare, and capable at the same time, of giving him needed inspiration and practical trade instruction. Until the part-time school is established, there will be the unfortunate condition in which one group of young people will be getting most of the school experience, and another group obtaining most of the work experience. Such is not desirable for either the youth or the community. To avoid such unbalanced training, each group needs something of what the other group is getting. Those in school are missing the work experience; likewise, those out of school are being deprived of that which might aid them to appreciate, and get the most out of life's endeavors.

Finally, as an educational agent, labor by itself is not a substitute for school, nor is school a substitute for what labor has to offer. By joining these two forces of training in this community, through the establishment of a part-time educational-vocational program in Grand Forks, an arrangement is thereby placed in operation for securing full value for all concerned.

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APPENDIX A

QUESTIONNAIRE USED IN THE CASE STUDIES

Name _____ Age _____ Sex _____ Grade _____

Health _____ Physical defects _____

Standard Tests _____

School History _____

Age on entering school _____ Scholarship _____

Years retarded _____ Grades repeated _____ Attendance _____

Subjects excelled in _____

Subjects giving difficulty _____

Cause for failure (teacher opinion) _____

Cause for failure (pupil's opinion) _____

Application (teacher opinion) _____

Student's interests _____ Future plans _____

Amusements _____ Associates _____

Hobby interests _____

Work history _____

Reasons for working _____

Present job _____ Where _____

Trade or occupational ability _____

Home conditions _____

Family history _____

Remarks _____