

TRENDS IN TRADE AND INDUSTRIAL  
EDUCATION IN THE SECONDARY SCHOOLS OF OKLAHOMA

TRENDS IN TRADE AND INDUSTRIAL EDUCATION  
IN THE SECONDARY SCHOOLS OF OKLAHOMA

By

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## CHAPTER I

### INTRODUCTION

#### A. Purpose of Study

The purpose of this paper is to show the general trend of Trade and Industrial education in the secondary schools of Oklahoma since 1917, along with other significant aspects of the Vocational program. Records show that vocational education has made rather extensive gains in our high schools during the past few years. Because of the fact that industry is comparatively new to this state, Trade and Industrial education has lagged behind that of Vocational Agriculture and Home Economics. That is as it should be, so long as agriculture and home making constitute the greater interests of the people of the state. As trades and industries grow and expand in Oklahoma, however, they create a need for an expansion of Trade and Industrial education. It seems logical that this type of education should be located in the Secondary schools of the state, where a majority of the boys and girls are making their final preparation for a life work.

Men desire an education more comprehensive and better in kind for their children than they themselves have secured. This wish includes provisions for several generations, therefore communities frequently spend large sums for school buildings, equipment, and trained teachers.

This leads to the question of the type of education preferred. Academic subjects have been tried very extensively, but they do not seem to be sufficient in many cases at this time. The question might be asked, "Should our public schools undertake to train pupils for a vocation and find jobs for them?" Questions such as this are being asked more and more by the public. The report of the Advisory Committee on Education places before schoolmen the problem of reorganizing the curriculum to meet the needs of all youth, including specialized preparation for non-professional occupations.<sup>1</sup>

A different note was sounded by Homer P. Rainey, director of the American Youth Commission. Speaking on "How Fare American Youth?"<sup>2</sup> Director Rainey declared that, according to a recent research made by the American Youth Commission among 50,000 American youths between the ages of 16 and 24, secondary education was making an error in emphasizing technical and vocational training and that such training should be eliminated from United States high schools. He sought a high school system which would reach as many boys and girls as the nations primary educational system does, and would educate "for the common life," for

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<sup>1</sup>Emerson, Lynn A. "Federal Relations to Vocational Guidance," Occupation, Vol. XVI (June, 1938) p. 814

<sup>2</sup>Rainey, Homer Price, and Others. How Fare American Youth. New York City, Appleton-Century Co., (1937)

the assumption of citizenship and civic responsibility, and for training in avocational interests and the arts, thereby enriching the lives of American youth.

Each year a vast number of boys and girls graduate from our high schools. Many of these boys and girls, after spending a number of years in the classrooms, leave the school without definite plans for a future vocation or are often ill-prepared to follow any specific vocation or field of industry. In the pursuit of an education these young people have in the past been withdrawn from actual life conditions, and deprived of actual practice in meeting the problems they must soon face. This practice also deprives society of the individual's services during this period and frequently leaves him a liability to society rather than an asset.

Realizing the foregoing facts and many others equally significant, Congress recently passed an act known as the George Deen Act which provides in part that part-time Vocational training may be given boys and girls in senior high school in vocations not adapted to day trade programs and in communities too small to provide any other form of vocational education. This is a supplement to the Smith-Hughes Act of 1917, which provided for the teaching of vocational subjects in our high schools.

The main concern of this thesis is a study of Trade and Industrial Education trends in Oklahoma over a period

of twenty years. A brief history is included, taking up bills passed by Congress sponsoring Vocational Education, and its introduction into different parts of the United States, and especially in the state of Oklahoma.

B. Methods Used in Securing Data

In securing the data used in this thesis personal interviews were held with local and State Vocational instructors and Supervisors, Federal documents and Federal and State plans for Vocational work were reviewed, and careful observations of vocational classes over a period of approximately fifteen months were made as further aids in formulating and securing additional data for the study. Attention was also given to references pertaining to the historical and philosophical phases of Vocational Education. The references most beneficial in this study are listed in the bibliography.

## CHAPTER II

### FOUNDATIONS OF VOCATIONAL EDUCATION IN THE UNITED STATES AND OKLAHOMA

#### A. Causes Leading to the Establishment of Trade and Industrial Program.

In order to understand the movement which resulted in Federal cooperation in Vocational Education, it is necessary to review certain economic and social conditions from about 1860. Of primary importance in this connection was the great industrial expansion of the United States, under large scale and power production. An inevitable result of this evolution was a disintegration of many trades which had been developed before the age of machines. As the trades disintegrated and the old type of apprenticeship declined, a demand arose for a form of industrial training which would be in keeping with the new conditions of production.

It can be seen that the industrial situation was national rather than merely local since: industrial organizations were national in scope; the industrial situation was closely related to the National immigration policy; and the population moved easily from place to place.

The remarkable industrial development made it necessary to find new markets outside of the United States for the consumption of American made goods. In this situation

foreign competition had to be faced because manufactured goods constituted a very large part of the exports of foreign countries, especially of Great Britain and Germany.<sup>1</sup> Shrewd business men noted that industrial and technical training was an effective means of promoting the growth of industry and the improvement of the product. Foreign countries, especially Germany, had already instituted an effective system of industrial education. Agents were sent to Europe to study the industrial schools of various countries. At the same time a concerted effort was started in this country to provide adequate facilities for developing industrial skill. This seemed expedient if foreign competition was to be met.

An important question which caused considerable concern in the early years of the twentieth century was the amount of schooling which the average child received. It was thought by many people that the schools were not fully adapted to meet the needs of the masses of the population, but rather were adapted too largely to training select groups. This condition, it was said, was not at all in keeping with democracy's demand for equality of educational opportunity. The first outstanding effort to give

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<sup>1</sup>Blauch, Lloyd E. Federal Cooperation in Agricultural Extension Work, Vocational Education and Vocational Rehabilitation. United States Office of Education. Vol. XV, (1933).

the school curriculum a vocational turn occurred in the seventies through the introduction of drawing in the schools of Massachusetts. Many advocates were interested in manual training for its economic, social, and vocational values. Others were interested in its intellectual and disciplinary aspect. A report of the Massachusetts Commission on Industrial and Technical Education in 1906 stated that manual training had departed from the vocational purpose which many early advocates had in view.<sup>2</sup>

The early years of the twentieth century found numerous national organizations interested in industrial education and the subject was freely discussed. Three points of view were distinctly in evidence, that of the employer, that of organized labor, and that of the educator. A convention of about 250 people representing employers, labor, educators, and social workers was held in New York City in November, 1906. A permanent organization was formed known as the National Society for the Promotion of Industrial Education.<sup>3</sup> At the first annual meeting, in Chicago in 1908, the Society appointed a Committee of Ten to consider the relation of industrial training to the general system of education in the United States.<sup>4</sup>

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<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

<sup>4</sup>Ibid.

The first type of industrial school which attracted attention was the trade school. Closely related to the trade school was the trade preparatory, or intermediate industrial, school. The technical high school, later adopted by several cities, was also considered. Other types of vocational schools which attracted much attention were the part-time cooperative and the evening and correspondence schools. In 1917 the direction which the development of vocational education was likely to take in America was uncertain. Although the Federal Government has no control over education in the states,<sup>5</sup> it has not entirely neglected its opportunity to perform a necessary and very helpful service for the public schools of the nation. This service has been rendered through the Office of Education, established in 1867 as a Department of Education, now a part of Federal Security Agency.

The Federal Government has entered into and influenced education a great deal through the land-grant colleges and universities. This legislation prior to 1907 is found principally in the following four acts:

1. The first Morrill Act, July 2, 1862.
2. The Hatch Act, August 30, 1887.
3. The second Morrill Act, August 30, 1890.
4. The Adams Act, March 16, 1906.

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<sup>5</sup>Ibid.



The effect of this legislation has been far-reaching. The first Morrill Act represents a change in Federal policy from making grants in aid of education in general to grants in aid of specified forms of education,<sup>6</sup> and for this reason plays an important role in the history of Federal subsidies for education.

At the opening of the first session of the sixty-third Congress, a significant step was taken by Senator Hoke Smith, who introduced in the upper branch of Congress a resolution for the creation of a commission

to consider the need and report a plan not later than December first next, for national aid to vocational education.<sup>7</sup>

On January 20, 1914, more than nine months after its introduction, the resolution to create the Commission on National Aid to Vocational Education was approved. This Commission worked for the passage of the Smith-Hughes Bill, which became a law February 23, 1917, and provided for Federal aid in agriculture, trades and industries, and home economics. The George-Reed Act, approved February 5, 1929, aided vocational education by extending the Smith-Hughes program for a four year period.<sup>8</sup>

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<sup>6</sup>Ibid.

<sup>7</sup>Ibid.

<sup>8</sup>Ibid.

Vocational education went through some uncertain and rather distressing years immediately following the passage of the George-Reed Act. In his annual message to Congress, delivered on December 8, 1931, President Hoover stated that there must be "insistent and determined reduction in Government expenses." The gradual elimination of the permanent annual appropriations for vocational education under the Smith-Hughes Act was proposed. However, so much opposition arose that legislation for its elimination was not successful, although material reductions in the appropriations were made. In 1933 the George-Ellzey Act was passed, extending the Smith-Hughes program for a three year period, or up to 1936, at which time the George-Deen Act was passed. This act provided for annual appropriations for vocational education in the States and Territories. The Vocational Rehabilitation Act was also extended in 1932.

Other acts pending in Congress are the Harrison-Fletcher Bill, intended to promote the general welfare through the appropriation of funds to assist the States and Territories in providing more effective programs of public education, by way of grants to States for the improvement of elementary and secondary schools for the purpose of lessening inequalities among States and within States;<sup>9</sup>

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<sup>9</sup>Seventy-fifth Congress, Third Session. Senate Bill No. 419. (1938). (Harrison-Fletcher Bill).

and, the American Youth Act, providing vocational guidance, vocational training, and employment opportunities for youth between the ages of 16 and 25; to provide for increased educational opportunities for high school, college, and post-graduate students; and other things that will preserve the traditional American ideal of opportunity for youth.<sup>10</sup>

No question perhaps is more widely discussed today in this country than the problem of youth. A study that shows some interesting facts and conditions is the report of the Regents Inquiry concerning public education in New York. Following is a brief summary of the report:<sup>11</sup>

The composite portrait of youngsters from academic high schools reveals a singularly resourceless and unrealistic adolescent, adrift in an unknown and indifferent world, with few adults to whom he can look for help. For much of this situation the report holds the school responsible.

So far as getting a job, getting training for it, or advancing in it, the school has usually turned him out literally with no place to go and no map to go by, the survey finds.

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<sup>10</sup>Seventy-fifth Congress, Third Session. Senate Bill No. 1463. (1938). (American Youth Act).

<sup>11</sup>Lee, Edwin A. "An Overview of the Occupational Adjustment Movement." American Vocational Association Journal and News Bulletin. Vol. XIV, No. 1. (Feb., 1939). pp. 17-18.

Pupils know little about business and industrial life before they leave school; they rarely come in contact with employers while they are in school, and few of them get vocational advice from any member of the school staff. They are not advised about future training which they might need.

In their plans for the future, boys and girls were often completely unrealistic. Unemployed or in dead-end jobs, with no chance of going to college, hundreds said that they eventually expected to enter the professions.

No matter what kind of community these young people live in, or in what occupations their parents engage, they want white-collar jobs, and are discontented if they find it necessary to take some other kind.

These attitudes are unconsciously encouraged by the school itself, according to the report, which adds:

Many school people do not seem to feel that vocational problems are any concern to them. Relations between schools and local industries frequently appear to be distant. The ultimate remedy seems to depend almost entirely upon the degree to which schools recognize that this is their problem and then act upon this premise.

The one exception to this melancholy picture seems to be in the case of vocational high school graduates. These boys were found to be eighty-two per cent employed, well adjusted to their work and with good chances of advancement.

Their median starting salary of \$18.50 was about thirty per cent higher than of the boys from academic schools.

Among the major social objectives of the immediate future, special emphasis should be placed upon the provision of improved vocational education services for all children. The American people are committed to the principle that all of the children of this country, regardless of economic status, race, or place of residence, are entitled to an equitable opportunity to obtain a suitable vocational education, so far as it can be provided in the public schools. It is the writers belief that means must be found and placed in effect to prevent situations, such as now exist, in which millions of young people leave the schools without adequate preparation and do not become absorbed into useful occupations for periods often of several years.

The report of the Advisory Committee on Education<sup>12</sup> states that there are few educational problems now before the American people to which they should give more earnest thought than the need for sound and adequate programs of vocational education. In these days of economic insecurity there are no phases of life more vital to young people than getting and holding jobs.

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<sup>12</sup>The Advisory Committee on Education, Feb., 1938. United States Government Printing Office, Washington. (1938).

The schools for many years have furnished the basic training for certain occupations. The traditional program of the secondary school was, and still is to a certain extent, largely a preliminary preparation for the professions of law, medicine, and theology. With the great expansion in high school enrollment in recent years, the traditional program has become unsuited to the needs of the majority of the pupils, most of whom do not enter the professions. It seems, then, that the high school program should be such as will train this majority, who do not go to college, in ways and means of making a livelihood. This can, and should, be done without neglecting the most important of the academic subjects, such as English, History, Mathematics, and Government, in their different forms.

B. Significant Dates and Acts.

About 1802 Congress began receiving numerous petitions for educational aid. They were usually petitions for land, the proceeds of which were to be devoted to furthering education. It was not, however, until 1862 that the first bill giving federal aid to education was passed by both the Senate and House of Representatives, and approved by President Lincoln on July 2, 1862. This was the Morrill Act, or Land Grant Act of 1862.

Following is a brief account of important Acts passed by Congress from 1862 to the present time:<sup>13</sup>

The First Morrill Act.--This act was named after Senator Justin S. Morrill of Vermont, and was the original land-grant act. It was titled:

An Act donating public land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts.

The Hatch Act.--This Act, passed in 1887, appropriated \$15,000 in money to each state for an agricultural experiment station. The purpose of establishing these stations was explained in Section I of the Act as follows:

That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science.

The Second Morrill Act.--The second land-grant act was passed on August 30, 1890, during the administration of President Harrison. It was set forth in the following terms:

An Act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July second, eighteen hundred and sixty two.

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<sup>13</sup>P. T. Struck. Foundations of Industrial Education. New York, John Wiley and Sons, Inc. (1930).

In accordance with the provisions of this act each state and territory received \$15,000 per year, with an automatic increase of \$1,000 per year until the year 1900. Thereafter each state and territory received \$25,000 annually until 1906 when a further modification was put into effect.

The Adams Act.--In accordance with the provisions of the Adams Act, the original \$15,000 to each state provided by the Hatch Act was increased to \$30,000.

The Nelson Amendment.--This amendment was passed in 1907 and provided an additional increase of Federal aid for the land-grant colleges. The former grant of a maximum of \$25,000 per state was raised to \$35,000 per state with annual increases of \$5,000 until \$50,000 was reached.

The Agricultural Extension Act.--This act was passed in 1914 and is commonly known as the Smith-Lever Act. It provides for a program of cooperative extension work in agriculture and home economics. It defines the extension work as follows:

That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in the said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise.

The early federal grants in aid of education are characterized by very few restrictions imposed by congress.



Beginning with the Smith-Lever Act of 1914 a number of restrictions were inserted seeking to safeguard the use of federal funds for definite purposes specified in the act. All of the acts and amendments mentioned deal with vocational education of college grade or with education administered by colleges and universities. Within the last decade or two there has developed a rather strong demand for vocational education of less than college grade, located in our secondary schools and financed through public taxation.

The Commission on National Aid to Vocational Education was created by act of Congress, January 20, 1914. The answers to the Commission's findings are to be found in the principles, the policies, and the provisions of the National Vocational Education Act of 1917, sometimes known as the Smith-Hughes Act.

The National Vocational Education Act of 1917.--Under this Act the Federal Board for Vocational Education is charged with the duty of disbursing Federal moneys to the states for approved instruction in trade and industrial fields, agricultural fields, and home economics, of less than college grade, and of promoting, in cooperation with the states, the establishment of such instruction.

According to Bulletin No. 17, the Act established the following funds:<sup>14</sup>

1. A fund for payment of salaries of teachers, supervisors, and directors of agricultural subjects.
2. A fund for payment of salaries of teachers of trades, home economics, and industrial subjects.
3. A fund for maintenance of the training of teachers of agricultural, trade, home economics, and industrial subjects.

In the latter part of July, 1917, the President made appointments to the Federal Board for Vocational Education, and the organization of the board was effected. Next an executive staff was appointed and representatives of all the states which had accepted the act were invited to Washington for a conference in August, 1917. On January 1, 1918, the plan of the last state of the forty-eight had been approved. In 1922 the Federal Board found it advisable and expedient to request the states to formulate their plans for a period of five years.

The George-Reed Act.--In 1929 the American Vocational Association appointed a legislative committee to work toward further aid for vocational education. The efforts of

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<sup>14</sup>Trade and Industrial Education. Revised Edition. Bulletin No. 17. Federal Board for Vocational Education. Government Printing Office, Washington, D. C. (March, 1924).

the committee resulted in the passage of the George-Reed Act. In accordance with the provisions of this act approved February 5, 1929, the programs of vocational agriculture and vocational home economics education were given additional support, the sum of \$500,000 was appropriated for the year ending June 30, 1930, and the sum of \$500,000 additional to that granted the preceeding year, for four years. The fifth allotment will thus be five times the first or \$2,500,000. One half of this sum is allotted to the states and territories in the proportion that their farm population bears to the total farm population of the United States, exclusive of the insular possessions. The other half is allotted on the same basis except that of rural instead of farm population, and is for aiding home economics education.

In addition to the funds mentioned there was allotted to the Federal Board for Vocational Education the sum of \$100,000 annually, as long as the act was made effective, for the purpose of carrying out the provisions of the act.

No direct allotment was made in this act for industrial education. Nevertheless, the amount of vocational industrial funds available for trade and industrial education purposes were increased in the following manner. The National Vocational Education Act, Section 3, reads:

That not more than twenty per centum of the money appropriated under this act for the payment of the salaries of teachers of trade, home economics, and

industrial subjects, for any year, shall be expended for the salaries of teachers of home economics subjects.

The George-Deen Act,<sup>15</sup> approved June 8, 1936.--This act provided for the further development of vocational education in the several states and territories, authorizing for the year 1937-1938 and annually thereafter additional appropriations for vocational education in agriculture, trade and industries, home economics, and the distributive occupations, and for teacher training in each of these fields. Every dollar of George-Deen Federal funds expended for the maintenance of teacher-training in agriculture, trades and industries, and home economics must be matched by a dollar of state or local money, or both. Every dollar expended from George-Deen funds for purposes other than teacher training in these three fields must be matched by at least fifty cents of state or local money, or both, until June 30, 1942, and by 1947 dollar for dollar matching.<sup>16</sup>

Following are other significant acts which helped furnish a foundation for vocational education.<sup>17</sup>

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<sup>15</sup>Digest of Annual Reports of State Boards for Vocational Education to the Office of Education, Division of Vocational Education. Fiscal Year Ended June 30, 1937. United States Department of Interior, Office of Education, Vocational Division.

<sup>16</sup>Oklahoma, Superintendent of Public Instruction, Seventeenth Biennial Reports; and State Board of Education, Fourteenth Biennial Reports. July 1, 1936-June 30, 1938. Oklahoma State Board of Education. (1938).

<sup>17</sup>Op. Cit.

The Vocational Rehabilitation Act, to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to employment. Approved June 2, 1920, as amended June 5, 1924, June 9, 1930, and June 30, 1932.

An act extending the benefits of the vocational education and vocational rehabilitation acts to the Territory of Hawaii. Approved March 10, 1924.

An Act to provide for the vocational rehabilitation of disabled residents of the District of Columbia. Approved February 23, 1929.

An Act extending the benefits of the vocational education and vocational rehabilitation acts to the Island of Puerto Rico. Approved March 3, 1931.

An Act (Social Security Act) authorizing additional appropriations for 1936 and 1937 and an annual appropriation thereafter for cooperation with the states and in Hawaii in extending and strengthening their programs of rehabilitation of the physically disabled. Approved August 14, 1931.

Randolph-Sheppard Act authorizing the operation of stands in Federal buildings by blind persons. Approved June 30, 1936.

G. Types of Programs Organized and Legalized.

Several types of Trade and Industrial Education programs have been included in the plans of the several states.

Following is a list, along with a brief explanation of each, taken largely from Oklahoma State Plans for Vocational Education:<sup>18</sup>

Diversified Occupations. In this type program the student works in some industry or trade part-time and attends school part-time. Any legitimate trade or industry requiring a minimum of 2000 hours training may be used in the program, as a laboratory for offering the 2000 jobs training to supplement the school work of the student. Subjects related to the particular work he is doing are taught in school by a Related Subjects teacher or coordinator. This is becoming one of the most popular types of programs used in the schools of Oklahoma.

Part-time General Continuation. This school is established and maintained in a community for the purpose of giving instruction of less than college grade to persons over fourteen who have entered upon employment, which instruction shall be given in subjects to enlarge the civic or vocational intelligence of young workers. The instruction in a general continuation part-time school must (1) be designed to meet the needs of persons over fourteen and less than eighteen years of age, and (2) be given for not less than 144 hours per year. Full compliance with an adopted and approved state plan is required.

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<sup>18</sup>Oklahoma State Plans For Vocational Education.  
1932-37. 1923-27. 1927-32. State Board for Vocational  
Education.

Day Unit Trade School. This school is established and maintained in any community for the purpose of fitting a person for useful employment in a particular trade or industrial pursuit, through instruction of less than college grade (1) designed to meet the needs of persons over fourteen years of age; (2) giving not less than half the time to practical work on a useful or productive basis; (3) extending over not less than nine months, thirty-six weeks per year, and not less than thirty clock hours per week.

Part-time Trade Preparatory. This school is established and maintained in any community for the purpose of giving instruction of less than college grade to persons over sixteen years of age who have entered upon employment; (1) the education program must be in an occupation other than that followed in daily employment, and be organized and directed to carry out this aim; (2) only workers over sixteen years of age, employed in productive occupations for which profitable supplementary instruction can be given, are eligible.

Part-time Trade Extension. Believing that the part-time school which provides supplementary training for those who have already entered upon employment in a trade, or industry, is most important, the State Board promotes and encourages the organization of such schools at all points in the state where such programs can be justified by local

industrial conditions, and to reimburse from Federal funds to the amount of fifty per cent of the salary of teachers in so far as the funds will permit.

Evening Industrial School or Glasses. Established under the National Act is a program or class established and maintained in any community for the purpose of giving instruction of less than college grade in a particular trade, supplemental to the daily employment, to persons over sixteen years of age, who have entered upon employment in that trade or industrial pursuit.

General Industrial. A General Industrial School or class established in accordance with the terms of the National Act is a school or class under public control, established and maintained in any city or town for the purpose of fitting persons for useful employment in trade or industry through instruction of less than college grade, (1) designed to meet the needs of persons over fourteen years of age; and (2) giving not less than half the time to practical work on a useful or productive basis. This program offers preparation in related trades since workers in smaller communities need to be able to work in a variety of occupations in order to be employed the year around.



## CHAPTER III

### TRENDS IN THE DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

#### A. Schools Offering Program.

In 1918, five schools had qualified for vocational trade and industrial education in Oklahoma. These were as follows:

Oklahoma City Trades School

Tulsa High School

Oklahoma A. and M. College

Enid High School

Oklahoma University

The program was introduced into the secondary school departments of Oklahoma A. and M. College and the University of Oklahoma.

The Trade and Industrial Program was offered in twenty-one centers during the year 1927-28, and had expanded "in some phases of industry" over the previous year's program. The total enrollment for all types of schools or classes in trade and industrial education in Oklahoma for 1928 was 7076.

In 1931-32 twenty schools were cooperating with the State Department of Trade and Industrial Education in carrying on Day Trade, Part-time, and Evening Trade Extension classes. The total enrollment for 1932 for all types

of trade and industrial education schools or classes in Oklahoma was 7,635.

In 1933-34 the Trade and Industrial program was being offered in thirty-six centers in the state of Oklahoma, with a total enrollment of 8,191.

In 1937-38 there were eighty-three centers in the state of Oklahoma offering the program of Trade and Industrial Education, with a total enrollment of 7,606.<sup>1</sup>

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<sup>1</sup>Oklahoma, Annual Report of State Supervisor of Trade and Industrial Education. (1927-28, 1931-32, 1937-38).

TABLE I

TABLE INDICATING TRENDS IN NUMBER OF CENTERS, NUMBER OF TEACHERS, ENROLLMENT, AND MONEY SPENT FOR TEACHERS AND TEACHER TRAINERS IN TRADE AND INDUSTRIAL EDUCATION IN OKLAHOMA.<sup>2</sup>

year	centers	number of teachers	enrollment		salaries	
			male	female	teachers	teacher trainers
1938	83	296	6,666	940	\$158,587.47	\$11,482.44
1936	48	177	3,810	595	95,677.98	12,602.91
1934	36	241	6,091	2,092	47,191.96	17,200.39
1932	20	119	5,527	2,108	46,002.87	16,531.13
1930	22	238	6,472	1,912	72,577.16	29,839.76
1928	21	254	5,349	1,727	54,799.62	16,422.22

<sup>2</sup>Oklahoma, Superintendent of Public Instruction, Biennial Reports; and State Board of Education, Biennial Reports. Oklahoma State Board of Education. (1938, 1936, 1934, 1932, 1930, 1928).

The table indicates that the number of centers remained about the same from 1928 through 1932, then took a rather sharp turn upward through 1938. The number of teachers have been irregular through the period, with a slight increase in 1938 over 1928. Enrollment has been regular with the exception of 1936 when it fell off approximately a third from the average. Money for teacher training is decreasing, which appears to the writer to show a trend that creates a different method of financing local education programs.

TABLE II

TABLE SHOWING ENROLLMENT TRENDS BY TYPES OF PROGRAMS IN TRADE AND INDUSTRIAL SCHOOLS OR CLASSES, ORGANIZED UNDER THE STATE PLANS OF OKLAHOMA, FROM 1917 TO 1938.<sup>3</sup>

Year	Part-time							
	Evening		Trade Extension		General Continuation		All-day	
	Male	Female	Male	Female	Male	Female	Male	Female
1938	966	27	3,951	407	571	197	990	155
1937	1,252	47	1,840	248	339	232	971	94
1934	3,243	593		1,318	851	106	1,188	64
1930	2,752	249		298	2,181	785	257	7
1926	1,587	239	32		709	207	33	
1923	297	29	71	16	534	343		
1917	No data found							

<sup>3</sup>Digest of Annual Reports of State Boards of Vocational Education to the Office of Education, Division of Vocational Education. (1917, 1923, 1926, 1930, 1934, 1937, 1938). United States Department of Interior, Office of Education, Vocational Division.

The table indicates an increase in enrollment in all types of schools up to about 1930-34. The Trade Extension school is the only one showing an increase in 1938 over 1934. In most cases the boys outnumber the girls. A possible explanation of the downward trend in the Evening school might be the attitude of employers toward the value of the program, as well as opportunities for employment. The Part-time program was possibly affected by the George-Deen Act, and by transfers from the All-day schools.

B. Types of Programs Organized and Offered in Oklahoma Since 1917.

The following tables show trends in the development of the Trade and Industrial program in Oklahoma, taking up each type and the occupations under each type, and showing opposite each occupation the number of centers, enrollment, number of teachers, and amount of Federal money spent on any particular occupation.

TABLE III

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM.<sup>4</sup>

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time Trade Extension and Trade Preparatory												
Fireman (T. E.)									14	1052	22	\$ 1750.42
Household Employee (T. E.)									3	89	3	526.00
Costodian (T. E.)									6	563	53	1240.87
Water Works and Sewage Operation (T. E.)									1	510	1	1122.65
Cafeteria Manager (T. E.)									1	40	1	90.00
Personnel Manager (T. E.)									1	94	2	152.52

<sup>4</sup>Oklahoma, Annual Report of State Supervisor of Trade and Industrial Education.  
(1927-28, 1931-32, 1937-38).

TABLE III (Continued)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time Trade Extension and Trade Preparatory												
Painter and Decorator (T. P.)									1	9	1	32.00
Show Card Writing (T. E.)									2	26	2	293.50
Electrician (T. E.)									2	36	2	216.00
Carpentry and metal trade (T. P.)									2	33	2	181.50
Plumber and Welder (T. E.)									1	34	2	156.00
Machinist (T. E.)									4	80	4	313.00
Petroleum Industry (T. E.)									1	121	6	204.00
Dry Cleaner (T. E.)									1	19	1	22.75



TABLE III (Continued)

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time Trade Extension and Trade Preparatory												
Finance Officer (T. E.)									1	619	1	1914.15
Policeman (T. E.)									1	566	15	756.75
Waiter (T. E.)									1	15	1	30.00
Beauty Operator (T. E.)									1	18	1	30.00
Household Maid (T. E.)									3	58	4	281.00
Mechanic (T. E.)									1	26	1	98.87
Nurses Training (T. P.)	8	455	117	\$3469.76	10	1028	46	\$2861.87				

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TABLE III (Concluded)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time Trade Extension and Trade Preparatory												
Industrial (T. E.)					1	23	1	1287.00				
Dress Making (T. E.)					1	16	1	475.00				
Coordination (T. P.)	1	1		240.00								
Totals	9	456	117	3709.76	13	1079	49	4811.37	46	4396	125	10600.72

The Part-time Trade Extension and Part-time Trade Preparatory school enrollment is on the increase, and appears to have a better classification of occupations in 1937-38.

TABLE IV

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Blue Print Reading	8	143	8	\$ 265.25	4	49	4	\$ 249.37	2	26	2	\$ 60.00
Applied Mathematics									30	639	30	1216.00
Applied Electricity									1	16	1	36.00
Show Card Writing					2	25	2	123.37	1	9	1	54.00
Combustion Engines	2	29	2	\$12.00	4	60	4	80.00	2	59	2	29.25
Applied Science									2	35	2	72.00
Housekeeping									2	21	2	47.00
Engineering					2	46	2	123.38	1	10	1	33.00
Catering									1	15	1	24.00
Petroleum Refining					3	47	3	91.50	1	11	1	24.00

TABLE IV (Continued)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Welding: Acetylene and Electric	3	59	3	128.00	2	23	2	97.88	2	19	2	42.00
First Aid									1	25	1	16.00
Petroleum Produc- tion Practice									3	62	3	108.00
Practical Radio	1	20	1	45.00	3	46	3	80.50				
Natural Gas Production									1	42	1	72.00
Carpentry	3	45	3	118.00	3	42	3	96.00				
Child Care for Colored Maids					1	18	1	34.00				
Paints and Pig- ments for Painters					1	40	1	27.00				

TABLE IV (Continued)

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Nursing Ethics for Nurses					3	32	3	160.00				
Anatomy and Physi- ology for Nurses					3	33	5	203.00				
Gynecology for Nurses					3	31	3	91.00				
Trade Mathematics for Carpentry					1	10	1	32.00				
Auto Mechanics	5	69	5	220.63								
Chemistry for Nurses					3	71	3	158.00				
Maid Service					4	80	4	154.00				
Barber Science					5	75	5	108.00				

TABLE IV (Continued)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial School												
Electricity	8	182	8	553.25	4	47	4	197.38				
Janitor Engineering					9	129	9	275.37				
Machine Shop	8	264	8	921.37	2	25	2	120.75				
Domestic Service					4	84	4	96.00				
Bacteriology					3	36	3	130.00				
Sewage and Sanitation					2	32	2	108.00				
Dry Cleaning					1	12	1	22.00				
Normal Dietetics for Nurses					1	23	1	24.00				

TABLE IV (Continued)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Coal Mining					18	256	18	627.00				
First Aid and Mine Safety					34	1156	34	574.00				
Mine Electricity					4	60	4	110.00				
Drawings for Machinists	1	20	1	40.00								
Sheet Metal Layout	1	11	1	30.00								
Chemistry for Cleaners and Dyers	1	14	1	32.50								
A.R.A. Manual and Rules	4	105	4	157.00								
Beauty Culture	3	36	3	131.25								

TABLE IV (Continued)

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Valves and Locomotives	1	16	1	32.00								
Mechanical Drawing	2	32	2	45.50								
Drafting	1	16	1	32.00								
Cabinet and Furniture Making	1	10	1	175.00								
Trades and R.R. Shop Drawing	5	93	5	332.00								
Science	2	96	5	249.00								
Mathematics for Electricians	1	18	1	72.00								
Shop Mathematics	1	12	1	70.00								



TABLE IV (Concluded)

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening Trade and Industrial Schools												
Mathematics for Boiler Makers	1	12	1	72.00								
R.R. Boiler Layout	1	12	1	44.00								
Waterworks Operation	1	45	1	162.00								
Composition for Apprentice printing	1	25	1	51.75								
Printing	1	13	1	38.25								
Foremanship Training	1		1	625.00								
<b>Totals</b>	<b>68</b>	<b>1397</b>	<b>95</b>	<b>5509.25</b>	<b>130</b>	<b>2848</b>	<b>132</b>	<b>4246.00</b>	<b>56</b>	<b>993</b>	<b>50</b>	<b>1943.25</b>

There is some difficulty in making comparisons because of changes in course titles. The total for enrollment, centers, teachers, and Federal money indicates a downward trend for the Evening Trade and Industrial schools.

TABLE V

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time General Continuation												
Diversified Occupa- tional Cooperative									11	327	18	\$10611.97
Nurse Training									8	141	35	2053.00
General Education	2	234	3	\$ 807.01					3	286	6	3925.24
Academic	3	185	3	1949.95	3	809	10	\$5984.20				
Academic and Commercial					2	952	9	4730.23				
Academic, Commer- cial and Trade					2	1127	17	6804.45				
Trade	1	10	1	202.50	1	11	1	262.65				

TABLE V (Concluded)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Part-time General Continuation												
Commercial	2	603	12	3364.25								
General and Commercial	3	378	9	5468.00								
Total	11	1410	28	11791.67	8	2899	37	17781.53	22	754	59	16590.81

The enrollment and Federal money spent fell off in 1937-38. The number of centers and number of teachers saw a sharp increase.

TABLE VI

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
All-Day Trade and Industrial												
Drafting					7	1	1	\$ 266.25	4	106	64	\$ 1649.55
Carpentry									12	347	17	8558.99
Tailoring					1	16	1	375.00				
Auto Mechanic	2	35	2	\$ 911.66	5	108	5	1203.75	4	87	7	2458.91
Cabinet Making	1	20	1	650.00	1	19	1	1319.74				
Printing	2	42	2	1133.32	3	60	5	1673.25	7	183	9	3002.96
Mill Work					1	28	1	453.33				
General Industrial									1	23	1	612.50
Applied Mathematics					3	72	5	531.96				

TABLE VI (Continued)

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
All-Day Trade and Industrial												
Book Binding									3	37	3	1176.65
Science for Auto Mechanics					2	39	2	321.46				
Metal Trades					1	28	1	495.84	3	74	4	1328.75
Painter and Decorator												
Commercial Cooking					1	7	1	640.00	6	114	8	2639.69
Machinist					3	46	3	684.10	2	27	2	690.06
Electricity					3	56	3	672.42	1	14	1	333.33
Commercial Art									1	23	1	450.00

TABLE VI (Concluded)

TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
All-Day Trade and Industrial												
Dress Making									2	15	1	711.74
Welding									1	14	2	453.13
Laundry									1	10	1	337.50
Shoe Rebuilding					1	16	1	375.00	1	10	1	337.50
Total	5	97	5	2694.98	32	471	30	9002.10	49	1160	62	29404.12

The totals indicate a sharp upward trend for the all-day trade and Industrial Program.

TABLE VII

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Evening and Part- time Distributive Occupational												
Show Card Writing									1	9	1	\$ 54.00
Salesmanship									4	63	2	69.00
Retail Selling									2	30	1	48.00
Sales English									1	16	1	32.00
Sales Costs									1	45	1	21.00
Advertising									2	34	1	48.00
Total									11	197	7	272.00



This program was not started until 1937-38, which makes it impossible to show any trends in this particular program, but it does indicate a change or expansion for the entire Trade and Industrial program.

TABLE VIII

## TRENDS IN DEVELOPMENT OF THE TRADE AND INDUSTRIAL PROGRAM

Occupation or Field and Type of Program	1927-28				1931-32				1937-38			
	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money	Centers	Enrollment	Number Teachers	Federal Money
Cooperative part- time Distributive Occupational												
General Store									6	145	8	\$3877.40
Total									6	145	8	\$3877.40

This program was not started until 1937-38 which makes it impossible to show any trends in this particular program, but it does indicate a change or expansion for the entire Trade and Industrial program.

C. Ages of Students Admitted into the Programs.

TABLE IX

TRENDS IN MINIMUM AGE OF STUDENTS ENTERING TRADE AND INDUSTRIAL PROGRAMS<sup>5</sup>

Type Program	1923-27	1927-32	1932-37	1937-39
1. Evening Industrial Schools or Classes	16 years	16 years	16 years	16 years
2. Part-time Schools or Classes				
a. Trade Extension	16 "	16 "	16 "	16 "
b. Trade Preparatory	16 "	16 "	16 "	16 "
c. General Continuation	14 "	14 "	14 "	16 "
d. Cooperative Part-time	14 "	14 "	14 "	16 "
3. Day Unit Trade Schools	14 "	14 "	14 "	
a. Type A--Unit Trade				16 "
b. Type B--General Industrial				16 "
4. General Industrial Schools for Cities and Towns of less than 25,000 Population	14 "	14 "	14 "	

<sup>5</sup>Oklahoma State Plans for Vocational Education. (1932-37, 1923-27, 1927-32).  
State Board for Vocational Education.

The minimum age for students has remained the same throughout the period from 1923 to 1937. Judging from the age requirements for boys and girls entering industry, it appears that the minimum entrance age for students entering the trade and industrial program should be not less than sixteen years, which is the minimum age at the present time. Handbook of Labor Statistics, Bulletin No. 616, says,<sup>6</sup>

Employment of boys and girls of 16 and 17 years has a distinct trend away from manufacturing and mechanical occupations and into miscellaneous work.

The child labor amendment was submitted to the country in 1924. It states that Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age.<sup>7</sup> In the three years following its passage, five states ratified it. By 1933 fourteen states had ratified it, and by 1936 twenty-four states had ratified it. In the Annual Report of Secretary of Labor for 1938 we read:<sup>8</sup>

Studies indicate a continuing need for completion of ratification of the Child Labor Amendment to the Federal Constitution.

#### D. Trends in Teacher's Qualifications.

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<sup>6</sup>Handbook of Labor Statistics, Bulletin No. 616. United States Department of Labor, Bureau of Labor Statistics. (1936).

<sup>7</sup>House Joint Resolution No. 184, Child Labor Amendment. United States Statutes at Large. Vol. XLIII, Part 1. Government Printing Office, Washington. (1925). P. 670.

<sup>8</sup>Twenty-sixth Annual Report of the Secretary of Labor. United States Government Printing Office, Washington. (1938).

TABLE X

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS.<sup>9</sup>

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
1. Evening Industrial Schools (1) Shop Teachers	General Educ: Elementary Professional: Approved by State Board Experience: 2 years in trade taught; 23 years old	General Educ: 7th grade of equivalent Professional: Approved by State Board Experience: 2 years in trade taught; 24 years old	General Educ: 7th grade or equivalent Professional: Pursue Teacher Training Course for Voc. Educ. Experience: 2 yrs. practical experience plus apprenticeship period; 24 years old	General Educ: H. S. graduate or equivalent Professional: Pursue Teacher Training Course for Voc. Educ. Experience: 2 yrs. practical experience plus apprenticeship period; 24 years old
(2) Related Subjects Teacher	H. S. Graduate and 2 years training in school of college grade	H. S. graduate and 2 years training in school of college grade; must pursue teacher training courses	H. S. graduate and 2 years experience in trade taught, or complete 2 yr. course in approved technical college; pursue teacher	H. S. graduate and 2 years experience in trade or occupation taught, or 2 yr. course in an approved technical college the course to

<sup>9</sup>Op. cit.

TABLE X (Continued)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
1. Evening Industrial Schools (2) Related Subjects Teacher			training course for Voc. Education.	include practical work in manipulative skills; pursue teacher training course for Voc. Education
(3) Coordinators				<p>Experience: 3 years in Trade or Industrial pursuit or occupation 1 year to be continuous employment</p> <p>General Education: Graduate of standard college or university or its equivalent.</p> <p>Teaching Experience 2 yrs. or its equivalent in personnel direction, foremanship,</p>

TABLE X (Concluded)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
1. Evening Industrial Schools (3) Coordinators				supervision, or managerial experience. Professional Educ.: Pursue Teacher training courses for Voc. Educ. teachers; within 4 yrs. after employment complete listed required courses as outlined in State Plans

Requirements have gradually increased from year to year over the period studied. Shop teachers were required to be high school graduates for the first time in 1937.

TABLE XI

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (1) Trade Extension a. Shop Teachers	Same as for Evening Schools	Same as for Evening Schools	Same as for Evening Schools	General Educ.: H. S. graduate or its equivalent Professional Education: Pursue Teacher Training Courses for Voc Educ. until completed Experience: 24 yrs. old; 2 yrs. practical experience plus apprenticeship in trade or occupation to be taught
b. Related Subjects Teachers	Same as for Evening Schools	Same as for Evening Schools	Same as for Evening Schools	H. S. graduate and 2 yrs. experience in a



TABLE XI (Continued)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools				
(1) Trade Extension				
b. Related Subjects Teachers				or occupation; or, complete a 2 yr. course in an approved technical college, including practical work in manipulative skills, pursue teacher training courses for Voc. Education.
(2) Trade Preparatory				
a. Shop Teachers	Same as for Evening Schools	Same as for Evening Schools	Same as for Evening Schools	General Educ.: H. S. graduate or its equivalent. Professional Edu. Pursue teacher training courses for Voc.

TABLE XI (Continued)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (2) Trade Pre- paratory a. Shop Teachers				Educ. until com- pleted. Experience: 24 yrs. old and 2 yrs. practical ex- perience plus ap- prenticeship period in work to be taught
b. Related Subjects Teachers	Same as for Evening School	Same as for Evening School	Same as for Evening School	H. S. graduate and 2 yrs. experience in trade or occupa- tion taught; or, a 2 yr. course in an approved technical college, which inclu- des practical work in manipulative skills; pursue teacher training course for Voc. Educ.

TABLE XI (Continued)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (3) General Continuation	Properly certified teachers with 2 yrs. successful experience; must satisfy State Board as to their knowledge of industry, living and working conditions, and ideas and aims of students enrolled.	Chosen by good judgment of local communities; should have a sympathetic understanding of the peculiar problems of the part-time schools; same certificate, character, personality, and spirit of co-operation as teachers of the regular day school.	Chosen by good judgment of local communities; should have a sympathetic understanding of the peculiar problems of the part-time schools; same certificate, character, personality, and spirit of co-operation as teachers of the regular day school.	a. For enlarging the civic or voc. intelligence of workers over 16 yrs. old. Local boards of Educ. should use good judgment in selecting teachers who are acquainted with industries where pupils work; should have sympathetic understanding of the peculiar problems of the part-time school. Same certification in character, personality, and a spirit of co-operation as is

TABLE XI (Continued)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (3) General Continuation				expected or re- quired of teach- ers of the regu- lar day school.  b. For enlarging the Voc. intelli- gence of workers over 16 yrs. old regularly em- ployed in of- fices and stores, as follows: (a) On full- time basis 1. Voc. sub- jects One year practical ex- perience in type of work being taught, or approved teacher train. course may

TABLE XI (Continued)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-37
2. Part-time Schools (3) General Continuation				meet the re- quirements. ii. Related Sub- jects 2 yrs. work beyond H. S. in content and methods of teaching re- lated subjects. (b) On cooperative basis i. One year ex- perience in work being taught for Voc. subjects teachers. ii. Two years be- yond H. S. in subjects taught in methods of teaching, for related sub- jects.

TABLE XI (Continued)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (3) General Continuation				<p>c. For enlarging the civic and Voc. intelligence of regularly employed workers 16 yrs. old or over in trades or occupations.</p> <p>Practical Experience 3 yrs. in trade or industrial pursuit or occupation, one yr. to be continuous employment.</p> <p>General Education Graduate of standard college or university or its equivalent.</p> <p>Teaching Experience: 2 years or time equivalent in personnel direction, foremanship,</p>

TABLE XI (Concluded)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
2. Part-time Schools (3) General Continuation				supervision, or managerial ex- perience. Professional Educ.: Pursue teacher training courses for Voca. Educ., minimum of prof. training required for Voc. teachers, and within 4 after employment complete listed courses as out- lined in the State Plans for Voc. Educ.

Requirements for the Trade Extension and Trade Preparatory teachers remained the same until 1937 when they were increased. Requirements for General Continuation teachers show a gradual increase through the period studied. This program was divided into three parts in 1937.



TABLE XII

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
3. Day-unit Trade Schools (1) Shop Teachers	Same as shop teachers in evening schools	Same as shop teachers in evening schools	Same as shop teachers in evening schools	Type A--Unit Trade. General Educ.: H. S. graduate or its equivalent Prof. Educ.: Pursue teacher training courses for Voc. Educ. Pursue such technical courses as assure the equivalent of a H. S. educ. for continued certification. Experience: 24 yrs. old and 2 yrs. practical experience plus apprenticeship

TABLE XII (Continued)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
3. Day-unit Trade School				
(1) Shop Teachers				in trade or occupation they are to teach.
(2) Related subjects teachers	Same as for related subjects teachers in evening schools	Same as for related subjects teachers in evening schools	Same as related subjects teachers in evening schools	Same as those set up for related subjects teachers in evening schools.
(3) Non-vocational subjects in trade schools	Satisfy State Board as to general understanding of Voc. Educ. problems.			
(4) Coordinators				Same as for coordinators of part-time schools.

TABLE XII (Concluded)

TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
3. Day-unit Trade Schools				<b>Type B--General Industrial</b>
(1) Shop Teachers				Same as for shop teachers for evening schools.
(2) Related Subjects Teachers				Same as teachers of related subjects in a unit-trade school.
(3) Coordinators				Same as for part-time school coordinators

Teacher qualifications remained the same until 1937, when they were increased. The Non-vocational teacher was dropped in 1927, and the coordinator was added to the program in 1937.

TABLE XIII

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
4. General Industrial Schools for cities and towns of less than 25,000 population (1) Shop or trade teachers	Same as unit-trade schools. If a teacher instructs both in shop and related subjects he must be a H. S. graduate or its equivalent and 2 yrs. experience as fully qualified mechanic or workman in some trade related to subjects taught.	Same as shop teachers for evening schools	Same as shop teachers for evening schools	

TABLE XIII (Concluded)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
4. General Industrial Schools for cities and towns of less than 25,000 population				
(2) Related subjects teachers	Same as for unit-trade schools	Same as for unit-trade schools	Same as for unit-trade schools	
(3) Non-vocational subject teachers	Same as for unit-trade schools			

Teachers qualifications remained the same, with the exception of shop or trade teachers from 1923-27. The Non-vocational subjects teacher was dropped in 1927. The requirements limiting the General Industrial schools to cities and towns of less than 25,000 population was dropped in 1937, and the General Industrial schools transferred to the Day-unit Trade Schools as type B.

TABLE XIV

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type Program	1923-27	1927-32	1932-37	1937-39
1. State Supervisors	Graduation from 4 yr. technical course or its equivalent; 2 yrs. as teacher in voc. school work or its equivalent.	Graduation from a 4 yr. technical course or its equivalent; 2 yrs. as teacher of approved trade courses; 2 yrs. as local supervisor of T. & I. Educ. courses; 240 clock hrs. of technical instruction and training.	Trade Exp.: 3 yrs. as wage earner in trade or ind. occupation. Teaching Exp.: 3 yrs. as teacher of trade prep. or trade ext. classes which meet standards of State Plan. Supervisor Ex: 3 yrs. in responsible adm. or supervisory capacity, 1 yr. which will include teacher training in	Trade Exp.: 3 yrs. as wage earner in trade or ind. occupation. Teaching Exp.: 3 yrs. as teacher of trade prep. or trade ext. classes which meet standards of State Plan. Supervisor Exp.: 3 yrs. in responsible adm. or supervisory capacity, one year which will include teacher training in T. and I. Educ. Prof. Educ.: Pursue teacher training

TABLE XIV (Concluded)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
1. State Supervisors			T. & I. Education Professional Edu. The equiv. of 540 clock hrs. in approved Educ. subjects. General Educ.: Graduation from a 4 yr. techni- cal course or its equivalent.	courses for Voc. Educ. 540 clock hours in ap- proved educ. subjects. General Educ.: Graduation from a 4 yr. technical course or its equivalent

Qualifications for the State Supervisor of Trade and Industrial Education have remained the same in general education throughout the period studied. The requirements in teaching experience have been raised, and a number of others added, such as trade experience, professional education, and a supervisory experience.

TABLE XV

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Local Supervisors	Same as for State Supervisor of T. & I. Education.	Graduation from 4 yr. technical course or its equivalent; 2 yrs. successful exp. with 144 clock hrs. a yr. as teacher of approved trade courses; 3 yrs. practical exp. as wage earner in trade or ind. occupation. 180 hrs. prof. improvement courses under qualified teacher trainer.	Trade Exp.: 3 yrs. practical exp. as wage earner in trade or ind. occupation. Teaching Exp.: 2 yrs., with a minimum of 144 clock hrs. a yr. as teacher of approved trade courses. Prof. Educ.: 180 hrs. of prof. improvement courses under a qualified teacher trainer. General Educ.: Graduate of 4 yr. technical course or its equivalent.	Trade Exp.: 3 yrs. practical exp. as wage earner in trade or ind. occupation. Teaching Exp.: 2 yrs., with a minimum of 144 clock hrs. a yr. as teacher of approved trade courses. Prof. Educ.: Pursue teacher training courses for Voc. Educ. 180 hrs. of prof. improvement courses under qualified teacher trainer.



TABLE XV (Concluded)

## TRENDS IN MINIMUM QUALIFICATIONS OF TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
2. Local Supervisors				General Education: Graduate of an accredited college or university or its equivalent.

Qualifications for Local Supervisor of Trade and Industrial Education remained the same in general education until 1937 when the requirement for college graduation was added. Teaching experience has been raised, and other requirements added, such as trade experience, supervisory experience, and professional education.

TABLE XVI

## TRENDS IN MINIMUM QUALIFICATIONS FOR TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
3. Teacher Trainers	Same as for State Supervisor of T. and I. Education.	<p>Trade Exp.: 3 yrs. as wage earner in trade or ind. occupation.</p> <p>Teaching Exp.: 2 yrs., with a minimum of 144 clock hrs. a yr. as teacher of approved trade prep. or trade ext. classes, or 2 yrs. as instructor of apprentices in an industrial plant.</p> <p>Supervisory Experience: 3 yrs. in adm. or supervisory capacity in field of T. &amp; I. Educ., or 3 yrs.</p>	<p>Practical Exp.: 3 yrs. as wage earner in T. or I. occupation.</p> <p>Technical training: Graduation from first-class technical H. S. or its equivalent.</p> <p>Prof. Educ.: The equivalent of 540 clock hrs. of prof. training.</p> <p>General Educ.: Graduation from 4 yr. college or its equivalent.</p>	<p>Practical working Exp.: 3 yrs. as wage earner in T. or I. occupation.</p> <p>Technical training: Graduation from first-class technical H. S. or its equivalent.</p> <p>Prof. Educ.: Pursue teacher training courses as outlined in State Plan for Voc. Education. 540 clock hrs. of</p>

TABLE XVI (Continued)

## TRENDS IN MINIMUM QUALIFICATIONS FOR TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
3. Teacher Trainers		<p>as director or supervisor of a planned educ. program.</p> <p>Prof. Educ.: 540 clock hrs. of prof. training.</p> <p>General Educ.: Must be satisfactory to employers.</p>	<p>Teaching Exp. in approved Voc. Schools: 2 yrs. as teacher of approved trade prep. or trade ext. classes, or 2 yrs. as instructor or apprentices in an industrial plant.</p> <p>Supervisor or Adm. Exp.: 3 yrs. in a responsible adm. or supervisory capacity in the field of T. &amp; I. Educ. of voc. grade</p> <p>Note--The</p>	<p>prof. training.</p> <p>General Educ.: Graduate from 4 yr. college or its equivalent.</p> <p>Teaching Exp. in approved Voc. Schools. 2 yrs. as teacher of approved trade prep. or trade ext. classes which meet the standards of the State Plans, or 2 yrs. as an instructor of apprentices in an ind. plant.</p> <p>Supervisor or Adm. Exp.: 3 yrs. in responsible adm. or supervisory</p>

TABLE XVI (Concluded)

## TRENDS IN MINIMUM QUALIFICATION FOR TRADE AND INDUSTRIAL TEACHERS

Type Teacher and Type of Program	1923-27	1927-32	1932-37	1937-39
3. Teacher Trainers			above qualifications shall not apply to those teacher-trainers in service in Oklahoma prior to July 1, 1932.	capacity in field of T & I Educ. of voc. grade. Note: The above qualifications shall not apply to those teacher-trainers in service in Oklahoma prior to July 1, 1938.

Qualifications for teacher-trainers in Trade and Industrial subjects have remained the same in Trade Experience since it was added in 1927. Teaching experience has remained the same throughout the period studied. Other requirements have been added during the period, such as professional training, technical training, supervisory experience, and graduation from a college or university.

E. Financial Trends.

TABLE XVII

TABLE SHOWING FINANCIAL TRENDS IN FEDERAL, STATE, AND LOCAL FUNDS FOR TRADE AND INDUSTRIAL EDUCATION IN OKLAHOMA FROM 1917 TO 1937, NOT INCLUDING PART-TIME GENERAL CONTINUATION SCHOOLS.<sup>10</sup>

Year	Total	Federal Money	State and local money		
			Total	State	Local
*1938	\$145,237.77	\$77,558.59	\$67,679.18	\$6,224.91	\$61,454.27
1937	78,158.98	36,049.82	42,109.16	5,129.67	36,979.49
1934	39,924.82	19,848.41	20,076.41	114.00	19,962.41
1930	45,717.46	14,246.84	31,470.62	8,611.89	22,858.73
1926	11,741.64	5,870.82	5,870.82		5,870.82
1923	7,630.58	3,320.29	4,310.29	990.00	3,320.29
1917	No data found				

\*The year 1938 includes Part-time General Continuation funds.

<sup>10</sup>Op. cit.

The trade and industrial program, not including Part-time General Continuation Schools, is carried on mostly by Federal and local money. The Federal money shows a gradual increase over the period studied. With the exception of 1934 the local money shows an increase, and with the exception of 1934 the total amount of Federal, State and Local funds show a steady upward trend.

TABLE XVIII

TABLE SHOWING FINANCIAL TRENDS IN FEDERAL, STATE AND LOCAL FUNDS FOR TRADE  
AND INDUSTRIAL PART-TIME GENERAL CONTINUATION SCHOOLS IN  
OKLAHOMA FROM 1917 TO 1937.<sup>11</sup>

Year	Total	Federal Money	State and Local Money		
			Total	State	Local
*1938	\$12,887.97	\$ 7,684.64	\$ 5,203.33	\$2,284.89	\$ 2,918.44
1937	21,652.24	10,826.12	10,826.12		10,826.12
1934	7,267.14	3,633.57	3,633.57		3,633.57
1930	26,859.70	12,760.98	14,098.72	668.87	13,429.85
1926	30,970.47	15,485.22	15,485.25		15,485.25
1923	4,654.98	2,327.49	2,327.49		2,327.49
1917	No data found				

\*The year 1938 is only for Distributive Education.

<sup>11</sup>Ibid.

The Trade and Industrial Part-time General Continuation program has been carried on mostly by Federal and Local funds. The highest point for Federal, State, and Local funds was 1926. A distinct drop is noticed in 1934, with an upward trend again in 1937.



TABLE XIX

EXPENDITURE OF FEDERAL, STATE, AND LOCAL MONEY FOR VOCATIONAL TRADE AND  
 INDUSTRIAL EDUCATION, NOT INCLUDING PART-TIME GENERAL  
 CONTINUATION SCHOOLS, IN UNITED STATES  
 BY YEARS 1918 to 1937.<sup>12</sup>

Year	Total	Federal Money	State and Local Money		
			Total	State	Local
*1938	\$18,115,847.31	\$6,046,141.86	\$12,069,705.45	\$4,175,218.97	\$7,894,486.48
1937	14,156,953.47	2,929,688.16	11,217,265.31	3,656,131.40	7,561,133.91
1936	12,423,235.47	2,772,097.92	9,651,137.55	3,700,849.65	5,950,287.91
1935	10,904,892.10	2,648,651.09	8,256,241.01	2,686,871.08	5,569,369.93
1934	10,491,667.76	1,606,095.73	8,885,572.03	2,966,403.32	5,519,168.71
1932	10,058,107.24	1,870,904.78	8,187,202.46	2,914,280.27	5,272,922.19
1930	8,814,566.37	1,718,732.72	7,095,833.65	2,538,656.88	4,557,176.77
1928	7,193,997.62	1,599,063.32	5,594,934.30	2,009,177.95	3,585,756.35
1926	6,194,108.39	1,512,544.70	4,681,563.69	1,580,116.95	3,101,446.74
1924	5,059,789.28	1,039,764.22	4,020,025.26	1,359,943.80	2,660,081.26
1922	3,843,561.45	782,500.47	3,061,060.98	1,124,808.14	1,936,252.84
1920	2,408,919.48	509,385.27	1,899,534.21	786,567.92	1,112,966.29
1918	1,536,438.95	307,374.57	1,229,064.38	497,988.39	731,075.99

\*The year 1938 includes Part-time General Continuation funds.

<sup>12</sup>Ibid.

Federal and Local funds for trade and industrial education, not including General Continuation schools, show a steady upward trend from 1918 to 1938. State funds had a steady increase with the exception of 1935 and 1937. More local money is being spent for this program than either State or Federal.

TABLE XX

EXPENDITURES OF FEDERAL, STATE, AND LOCAL MONEY FOR TRADE AND INDUSTRIAL  
PART-TIME GENERAL CONTINUATION SCHOOLS, BY YEARS 1918 TO 1937.<sup>13</sup>

Year	Total	Federal Money	State and Local Money		
			Total	State	Local
1937	\$3,155,608.75	\$614,124.52	\$2,541,484.23	\$ 521,951.43	\$2,019,532.80
1936	2,582,892.33	657,674.89	1,925,217.44	531,785.62	1,393,431.82
1935	2,272,550.96	643,250.39	1,629,300.57	524,899.60	1,104,400.97
1934	2,855,024.15	492,145.44	2,362,878.71	656,420.68	1,706,458.03
1932	5,367,616.55	675,995.17	4,691,621.38	1,456,207.30	3,235,414.08
1930	5,465,513.22	790,797.96	4,674,715.26	1,554,376.95	3,120,338.31
1928	4,826,658.19	855,381.73	3,971,276.46	1,369,396.24	2,601,880.22
1926	4,456,729.40	891,229.01	3,565,500.39	1,211,592.02	2,353,908.37
1924	3,495,695.27	549,760.22	2,945,935.05	921,762.84	2,024,172.21
1922	2,574,215.87	388,406.58	2,185,809.29	763,365.50	1,422,443.79
1920	987,807.17	190,259.48	797,547.69	213,279.56	584,268.13
*1918					

\*In 1918 all types of part-time schools were included under part-time trade extension schools.

<sup>13</sup>Ibid.

Federal, State and Local funds for Part-time General Continuation schools have an irregular trend, reaching their peak about 1930. Local money is far ahead of Federal and State funds for this particular type of school.

F. Federal Administrative Organization.

Under the provisions of the Smith-Hughes Act the Federal Advisory Board for Vocational Education is composed of four members ex-officio--the Secretary of Agriculture, the Secretary of Labor, the Secretary of Commerce, and the Commissioner of Education--and three citizens appointed by the President, one representing manufacturing and commercial interests, one representing the interest of labor, and a third representing the interests of agriculture.

Until the functions of the Board as well as its personnel were transferred to the Office of Education under executive order, in 1933, the three appointive members served on a full time, compensatory basis. Under the present setup the Board members are on a noncompensatory basis and the Board as a whole acts only in an advisory capacity.

In compliance with a request made by the American Federation of Labor at its annual convention in November, 1935, the Commissioner of Education appointed early in 1936 what is known as the Technical Advisory Committee on Trade and Industrial Education

for the purpose of advising him in connection with all questions surrounding plant training.

This committee consists of nine members, three representing organized labor, three representing employers, and three representing vocational education.<sup>14</sup>

Effective July 1, 1939, the Office of Education was transferred from the department of the Interior to the Federal Security Agency. The organization, in addition to the Office of Education, which will compose the New Federal Security Agency are: The Social Security Board, The United States Employment Service, The Public Health Service, The National Youth Administration, The Civilian Conservation Corps, and The Radio and Motion Picture Divisions of the National Emergency Council. In the message from the President, transmitting the Re-organization plan to Congress, he stated:<sup>15</sup>

Because of the relationship of the educational opportunities of the country to the security of its individual citizens, the Office of Education with all its functions, including, of course, its administration of Federal-State programs of Vocational Education, is transferred from the Department of the Interior to the Federal Security Agency. This transfer does not increase or extend the activities of the Federal Government in respect to education, but does move the existing activities into a grouping where the work may be carried on more effectively and expeditiously, and where coordination and the elimination of overlapping may be better accomplished. The Office of Education has no relationship to the other functions of the Department of the Interior.

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<sup>14</sup>Ibid.

<sup>15</sup>Office of Education News Letter. United States Department of the Interior. Office of Education, Washington, D. C. (June, 1939).

#### G. Research and New Developments.

There is an increasing tendency on the part of State and Local Boards for Vocational Education to conduct research studies for the purposes of evaluating the present status of vocational education school programs and of determining the trend which should be taken into consideration in an attempt to keep these programs up to date in every way possible.<sup>16</sup>

Studies have been conducted by the Trade and Industrial Education Service for the purpose of securing vocational instruction material in the fields of painting and decorating, plastering, metal lathing, brick-laying, plumbing, metal construction for airplanes, railway and shipyard machine shop practice, and fire and police protection and other public service occupations.

Stimulated by the authorization of Federal grants for vocational education contained in the George-Deen Act and particularly the provisions for Federal aid for training in public service occupations, the Trade and Industrial Education Service has given considerable attention to the progress and development of training programs in such public occupations as police work, fire fighting, public sanitation, weights and measures inspection, water works operation, municipal lighting, milk and meat inspection,

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<sup>16</sup>Op. cit.

and other non-clerical occupations involved in the work of State and Local governmental agencies.

There is a distinct trend toward what may be termed general training for entrance into definite fields of employment in industry. In spite of this trend, however, there has been no tendency to discount in any way training covering specific trades, as specified in the unit trade school.

For the first year since the Smith-Hughes Act became effective in 1917, the enrollment of girls and women in day trade classes exceeded the enrollment of the employed girls in part-time general continuation classes.<sup>17</sup>

There appears to be an increasing tendency among many of those engaged in Vocational Education to consider themselves a separate educational group and to do everything possible to restrict positions of administrative authority to those who have come up through the profession. There has been an attempt to draw a distinct line between Federally aided Vocational Education and education for the same purpose carried on without Federal aid. The attitude of separateness has been reflected strongly in the specifications for administrative positions in the State programs. Although it might be generally recognized that some previous experience with certain aspects of Vocational

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<sup>17</sup>Ibid.

Education would be valuable for an administrator, it might be possible at times to find one without such requirements.

There is an urgent need for the introduction of some staff members of a somewhat different type from the majority of the present personnel. The staff lacks a sufficient number of well qualified persons at the higher levels.<sup>18</sup> The program of trades and industries has been well administered in some states and localities, but has been developed and carried on in many instances without sufficient regard to the best interests of the future group of workers.<sup>19</sup>

The raising of regulations covering school attendance and employment of youth, laws covering minimum wages for men as well as for women and children, and the various provisions of the Social Security Act, have implications which bear on training programs and must, therefore, receive serious consideration in connection with the expansion of the various programs of Trade and Industrial training in the States. The experience of the various states in the past few years indicates that constant vigilance, adjustment to conditions, and development of public

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<sup>18</sup>John Dale Russell, and Others. The Advisory Committee on Education, Vocational Education. Staff Study Number 8. United States Government Printing Office, Washington. (1938).

<sup>19</sup>The Advisory Committee on Education, Feb., 1938. United States Government Printing Office, Washington. (1938).



approval, are absolutely essential in setting up and operating Trade and Industrial education programs for girls and women.<sup>20</sup>

Outside of strictly publicly supported Vocational schools may be cited the National Youth Administration and Civilian Conservation Corps activities in Oklahoma. One of the larger centers is located at Tulsa and is being built by boys from needy families. A youth center and field house, costing \$50,000 in labor and material, is now being completed. Near Shawnee is being located one of ten work experience projects proposed in the nation. This project is not to be a vocational training school, but instead, it will give youth an opportunity to do several kinds of work, so that they may find their places without the necessity of finding various jobs, trying them and possibly being discharged.

Are the present trends in vocational education best for our country as a whole, and for the best interests of our youth? This question cannot be answered by any one person or by any one study. Future results will answer it more correctly than will any other agency.

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<sup>20</sup>Op. cit.

## CHAPTER IV

## PRESENT STATUS OF THE TRADE AND INDUSTRIAL PROGRAM

A. Number of Centers.

TABLE XXI

NUMBER OF CENTERS IN TRADE AND INDUSTRIAL EDUCATION  
BY TYPE OF PROGRAM IN OKLAHOMA SCHOOLS.<sup>1</sup>

Type School	Year	Centers
Day Trade	1936-37	13
	1937-38	17
Part-time General Continuation	1936-37	9
	1937-38	15
Part-time Cooperative	1936-37	( 5)
	1937-38	(11)
Part-time Trade Extension and Trade Preparatory	1936-37	7
	1937-38	20
Evening Trade Extension	1936-37	19
	1937-38	20
DISTRIBUTIVE EDUCATION		
Part-time Cooperative	1937-38	6
Evening Schools	1937-38	5
Totals	1936-37	48
	1937-38	83

Note: Figures in parentheses are not counted in the totals since they have already been counted in the Part-time General continuation.

<sup>1</sup>Oklahoma, Superintendent of Public Instruction, Seventeenth Biennial Report; and State Board of Education, Fourteenth Biennial Reports. July 1, 1936-June 30, 1938. Oklahoma State Board of Education. (1938).

The highest number of centers is in the Evening Trade extension school. The lowest number is found in the distributive education school, due to its more recent introduction into our educational program. The table shows the different types of programs being offered in Oklahoma at the present time.

B. Number of Pupils Enrolled.

TABLE XXII

NUMBER OF PUPILS ENROLLED IN TRADE AND INDUSTRIAL  
EDUCATION BY TYPE OF PROGRAM IN OKLAHOMA SCHOOLS<sup>2</sup>

Type School	Year	Enrollment	
		Male	Female
Day Trade	1936-37	832	94
	1937-38	990	155
Part-time General Continuation	1936-37	339	232
	1937-38	571	197
Part-time Cooperative	1936-37	(151)	(31)
	1937-38	(265)	(44)
Part-time Trade Extension and Trade Preparatory	1936-37	1,589	222
	1937-38	3,951	407
Evening Trade Extension	1936-37	1,050	47
	1937-38	966	27
DISTRIBUTIVE EDUCATION			
Part-time Cooperative	1937-38	53	92
Evening Schools	1937-38	135	62
Totals	1936-37	3,810	595
	1937-38	6,666	940

Note: Figures in parentheses are not counted in the totals since they have already been counted in the Part-time General Continuation.

<sup>2</sup>Ibid.

In enrollment the boys outnumbered the girls in every case except one, that of the Distributive Education Part-time Cooperative school.

1937-38 shows an increase over 1936-37 in every case except two, that of the Part-time General Continuation school for girls, and that of the Evening Trade Extension school for girls.

The highest enrollment is in the Part-time Trade Extension and Part-time Trade Preparatory school, showing emphasis given to these programs through the State Department of Vocational Education.

G. The Types of Programs Offered and the Number of Teachers.

TABLE XXIII

THE TYPES OF PROGRAMS OFFERED AND THE NUMBER OF TEACHERS  
EMPLOYED IN EACH PROGRAM<sup>3</sup>

Classification, 1937-38	Number of Teachers Employed
Part-time Trade Extension and Trade Preparatory	125
Evening Trade and In- dustrial Schools	50
Part-time General Con- tinuation Schools	44
All-day Trade and Industrial	62
Evening and Part-time Distributive Occupational	7
Cooperative Part-time Distributive Occupational	8
Part-time Cooperative	(15)
Total	296

Note: Figures in parentheses are not counted in the totals since they have already been counted in the part-time General Continuation.

<sup>3</sup>Oklahoma, Annual Report of State Supervisor of Trade and Industrial Education. (1927-28, 1931-32, 1937-38).

The Part-time Trade Extension and Trade Preparatory school shows the greater number of students, table XXIII, enrolled and the greatest number of teachers. It has the same number of centers, table XXIII, as the Evening Trade Extension School, both ranking at the top. The number of teachers include shop teachers, related subjects teachers, coordinators, and supervisors.

D. Relation of Oklahoma to Other States.

TABLE XXIV

RELATION OF OKLAHOMA TO OTHER STATES IN TRADE AND INDUSTRIAL EDUCATION,  
RELATIVE TO ENROLLMENT AND BY TYPE OF PROGRAM<sup>4</sup>

States	Evening		Part-time Schools				All Day	
	Male	Female	Trade Extension		General Continuation		Male	Female
			Male	Female	Male	Female		
Alabama	4,814	729	1,604	271	331	339	547	73
Arizona	129	9	657	940	6	278	200	
Arkansas	319	46	102	5	2,353	991	455	51
California			21,986	4,600	11,032	12,380	7,419	1,626
Colorado	4,361	222	1,810	472	431	926	384	
Connecticut	5,530	144	838				4,162	263
Delaware	571	79	195		312	527	121	52
Florida	1,466	156	426	701	1,808	3,829	745	87
Georgia	4,798	598	108	654	1,599	3,677	850	178
Idaho	208	102	84	96	2	18	49	
Illinois	3,412	140	2,863	28	2,834	1,776	13,169	2,122
Indiana	4,745	42	916		1,169	1,048	2,397	
Iowa	1,733	133	137		472	539	725	

<sup>4</sup>Digest of Annual Reports of State Boards for Vocational Education to the Office of Education, Division of Vocational Education. United States Department of Interior, Office of Education, Vocational Division. (June 30, 1937).



TABLE XXIV (Continued)

RELATION OF OKLAHOMA TO OTHER STATES IN TRADE AND INDUSTRIAL EDUCATION,  
RELATIVE TO ENROLLMENT AND BY TYPE OF PROGRAM

States	Part-time Schools							
	Evening		Trade Extension		General Continuation		All Day	
	Male	Female	Male	Female	Male	Female	Male	Female
Kansas	3,621	196		22			1,054	10
Kentucky	344		1,713		32	116	1,343	222
Louisiana	235		2,731	648			1,051	785
Maine	147		101				49	
Maryland	822	17	599			208	2,330	457
Massachusetts	5,898		1,687	28	1,127	5,290	9,494	5,391
Michigan	13,114	24	3,879	745	1,080	1,867	4,531	860
Minnesota	746	6	365	52	251	1,278	1,419	890
Mississippi	50	98		32	264	724	392	77
Missouri			1,977	508	579	339	1,993	792
Montana	393	35			269	224	141	
Nebraska	790	202	570	833	97	172	272	
Nevada	566	3	653	51			77	
New Hampshire					18	208	230	
New Jersey	4,736	396	8,446	1,684	841	1,543	5,974	1,178
New Mexico			166	51			174	54
New York			23,585	8,155	24,233	21,168	48,409	29,195
North Carolina	5,622	1,971	92	299	368	1,029	768	41
North Dakota	449		456			24	437	
Ohio	20,789	421	3,933	1,063	767	1,741	2,985	1,270
Oklahoma	1,252	47	1,840	248	339	232	971	94

TABLE XXIV (Concluded)

RELATION OF OKLAHOMA TO OTHER STATES IN TRADE AND INDUSTRIAL EDUCATION,  
RELATIVE TO ENROLLMENT AND BY TYPE OF PROGRAM

States	Part-time Schools							
	Evening		Trade Extension		General Continuation		All Day	
	Male	Female	Male	Female	Male	Female	Male	Female
Oregon	588	118	432	359	723	1,037	2,796	1,114
Pennsylvania			21,046	2,337	34		13,211	2,613
Rhode Island	524		635				989	
South Carolina	3,401		740		171	249	509	
South Dakota	282		71		63	27	101	
Tennessee	252	1	2,551	114	764	1,035	720	18
Texas	4,793	1,861	1,629	6,089	1,703	5,473	1,549	323
Utah	1,167	36	20	64	337	130	49	
Vermont	121	12	46					
Virginia	1,282	325	2,337	1,244	300	710	768	110
Washington	2,888	279	93		991	1,549	584	180
West Virginia	1,515		1,562				371	
Wisconsin	6,899	449	2,308	261	9,054	5,520	1,772	47
Wyoming	1,572	63	129	14	221	45	106	
Alaska	30		141	11			33	
Hawaii	739	425		158	332	52	411	86
Puerto Rico	978	394	29	410	73		587	151

Many of the States have tried only a part of the different types of programs, while Oklahoma has tried them all to some extent for both boys and girls. In every type of Trade and Industrial School in Oklahoma, the boys outnumber the girls. In some of the states the girls outnumber the boys, as in the case of the Trade Extension and Part-time General Continuation schools in Texas. Eastern states in general have a much larger enrollment in Trade and Industrial schools than does Oklahoma. Western states in general have a smaller enrollment than Oklahoma. Mid-western states appear to rank about the same as Oklahoma in enrollment. No doubt these results are due to the population distribution in the United States, as well as to the distribution of industries.

Trade and Industrial Education is the Department of Vocational Education that includes training in all trades and occupations which may not be classified as professional, agricultural, home economics, or commercial. Since the enactment of the George Deen Act, July 8, 1936, distributive education has been included in the Trade and Industrial program in this State.

During the past biennium the Trade and Industrial Department has progressed, not only in numbers and types of programs established, but also in efficiency of

instruction and in the addition of equipment to provide training for youth and adults in the numerous occupations that exist in Oklahoma.<sup>5</sup>

The Part-time schools seem to be stronger at the present time judging from enrollment figures. The Day Trade schools have shown a strong upward trend and rank among the stronger programs at the present time.

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<sup>5</sup>Ibid.

## CHAPTER V

## CONCLUSIONS AND RECOMMENDATIONS

The Trade and Industrial Education program in Oklahoma shows rather extensive gains in all phases of the department from 1917 to about 1928. In the ten year period from 1928 to 1938 the number of teachers and enrollment remained approximately the same, while the number of centers increased. The amount of money spent on the program has also materially increased. The question now is, with the enrollment and the number of teachers hired remaining about the same, can we justify the increased amount of money being spent on the program? It is the writer's belief that in order to justify these increased expenditures either the teachers should be better qualified and the program improved, or the program should be serving more students.

Trade and Industrial Education teachers in general, as shown in State Plans, must meet higher entrance requirements to secure positions at present than formerly. This is true not only in academic education, but also in industrial experience and professional and technical training.

Some improvement can be seen in a better classification of occupations which makes possible the establishment of more effective objectives, and improved teaching of

occupations. The program has been expanded so as to include a wider range of occupations in the State, as in the case of the Diversified Occupation and the Distributive Education programs.

The age of students entering the program has remained the same throughout the period studied until 1937 when the minimum entrance age for all types of Trade and Industrial Education programs was placed at sixteen years. In a comparison of these entrance ages with the age requirements of boys and girls entering industry and with the age limit set by the Child Labor amendment now pending, it appears that the advancement in minimum age requirements was justifiable.

So far the Trade and Industrial Education program has been carried on in Oklahoma mostly by Federal and Local funds. This can probably be explained by the fact that either State or Local funds used for Vocational Education will qualify for Federal reimbursement and that the State provides more funds for general education. The total State and Local expenditures for Trade and Industrial Education in Oklahoma fluctuates more than is common practice for the entire nation. Oklahoma compares favorably with other states in enrollment and in types of programs organized.

The administrative organization for vocational education has undergone some changes since the passage of the Smith-Hughes Act in 1917. At that time the Federal Advisory Board for Vocational Education was composed of

four members: The Secretary of Agriculture, the Secretary of Labor, the Secretary of Commerce, and the Commissioner of Education--and three citizens appointed by the President, one representing manufacturing and commercial interests, one representing the interests of labor, and a third representing the interests of agriculture. The three appointive members served on a full-time, compensatory basis. In 1933 the Board was transferred under executive order to the Office of Education. Under this setup the appointive members were put on a noncompensatory basis and acted only in an advisory capacity. On July 1, 1939, the Office of Education was transferred from the Department of the Interior to the Federal Security Agency, which puts Vocational Education under still a different setup. What effect this last change will have on Trade and Industrial Education remains to be seen.

The participation of the Federal Government in our educational program has been applauded by some and condemned by others. Sometimes the local communities do not like to give up what they consider their individual rights. Still, in many instances they are unable to furnish the proper amount or the right type of education for their children. If the educational programs of local communities could and would accomplish all the purposes that are fundamental to the nation as a whole, the Federal Government

would not need to participate in education. The exact extent to which the Federal Government should take part in the financing of schools is difficult to determine. One thing that should be guarded against is the industrial and commercial exploitation of children and youth in connection with vocational education.

The observations and studies of the writer lead him to make the following suggestions toward carrying on future Trade and Industrial Education programs:

In the first place good cooperation must be had between the Trade and Industrial Education department and the other departments of a high school if the best results are to be achieved. Teachers of all departments must cooperate and work toward the common good of the students involved, otherwise one teacher might be tearing down what another is building up.

Trade and Industrial Education has been interpreted by many in both theory and practice as purely trade education, with craft efficiency subordinating all the other phases of the students education. We must not allow ourselves to be so blinded by the technical aspects of a trade that we deny or ignore the other needs of our industrial students.

According to a general agreement among those in the educational field, a well-rounded education should prepare an individual for participation in social-civic, economic-



vocational, and individualistic-vocational activities. Our vocational education program seems at times to stress the economic-vocational activities to the neglect of the rest. If vocational education is to be presented in its fullest and broadest sense, it should, in order to cover these three divisions, include a study of economics, civics, and politics. History should be taught not as a conglomeration of dates and facts, but as it affects present-day conditions. Related science should give intelligence and initiative in dealing with the materials and agents of production, not neglecting the knowledge which will give our students an intelligent consumers' choice of the materials that are in every-day use. They need also a knowledge of health and sane living and an understanding of how the individual may happily and properly spend his leisure time. In this ever changing world of industry, where a trade may be here today and gone tomorrow, stress should be placed on adaptability. In preparing for one trade it is better to look ahead and, if possible, foresee the changes which are likely to occur, and be prepared for them.

The blacksmith who, during the shoeing of horses saw in the automobile his future rival and studied the internal-combustion engine, was the one who stayed in business when the man with little foresight, who did not anticipate the passing of Dobbin shut up his shop.<sup>1</sup>

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<sup>1</sup>Harry R. Wilson. "Related Science" Industrial Arts and Vocational Education. Vol. XXIII, (March, 1939). P. 136.

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