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THIRD ANNUAL REPORT OF THE

FEDERAL BOARD

FOR

VOCATIONAL EDUCATION

1919



VOLUME I

VOCATIONAL EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

FEDERAL BOARD FOR VOCATIONAL EDUCATION.

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Labor.

All communications should be addressed to

The Federal Board for Vocational Education, Washington, D. C.

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LETTER OF TRANSMITTAL.

FEDERAL BOARD FOR VOCATIONAL EDUCATION,
Washington, D. C., December 1, 1919.

To the President of the Senate and the Speaker of the House of Representatives of the Sixty-sixth Congress:

By direction of the Federal Board for Vocational Education, and in accordance with section 18 of the act of Congress approved February 23, 1917, I have the honor to submit the following report.

Respectfully,

JAMES P. MUNROE,
Vice Chairman.

PART I.

PROGRESS AND NEEDS OF VOCATIONAL EDUCATION.

REPORT OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

INTRODUCTORY STATEMENT.

This is the Third Annual Report of the Federal Board for Vocational Education on the administration of the vocational education act. It covers the activities of the Board and the progress made by the States in the promotion of vocational education for the fiscal year ended June 30, 1919. Although this is the Third Annual Report, it covers only the work of the second fiscal year since the organization of the Board. The act was signed by the President on February 23, 1917. The nominations of the appointive members of the Board made by the President were confirmed on July 17, 1917. The organization of the Board took place on July 21. On December 1, 1917, the Board made a brief report to Congress covering its activities up to that date. This was called the First Annual Report. The Second Annual Report covered in detail the progress of vocational education for the fiscal year ended June 30, 1918, and included therefore the period covered by the first annual or preliminary report to Congress. The Second Annual Report goes into considerable detail as to the meaning of the vocational education act, the development of the idea of Federal aid for education, and discusses the new relationship with the States set up by the Federal act. It contains also a statement of the principles and policies adopted by the Federal Board for the administration of the act and interprets certain sections of the law.

SUMMARY OF PROGRESS.

The progress of vocational education under the Federal act must of necessity be set forth largely in terms of the progress made by the States. The act itself provides that all schools and classes reimbursed under the act shall be carried on under the direct supervision or control of State boards for vocational education. It also provides that plans for carrying on work in vocational education which is to be reimbursed from Federal funds shall be prepared by the State boards and submitted to the Federal Board for approval. In this way direct responsibility is put upon each State for the promotion of vocational education in that State. The extent to which the State meets this responsibility determines in large measure what opportunities are given for the progress of vocational education in

that State. When the Federal act was passed very few of the States had any administrative organization for carrying on vocational work. Only a small number had available State funds with which to match Federal funds. It is also to be remembered that the Federal act was passed just prior to the entry of the United States into the great World War. This war was in progress during the entire period of the first year and for a portion of the second year during which this act has been in operation. This further handicapped the States in the promotion of vocational education, as is set forth in more detail in another portion of this report.

FEDERAL FUNDS EXPENDED BY STATES.

The extent to which the States have responded to the opportunity held out by the Federal Government through the act is shown by the increased expenditures made by them under the act as between the first and second year of its operation. It is to be remembered that for each dollar of Federal funds expended at least a dollar of State or local money, or both, has been expended. Some States have expended all of one or more of the funds allotted while others have expended only a small portion.

In agriculture, the total fund allotted to the States for the year 1917–18 was $547,027.79; of this, approximately 50 per cent was expended. In the year 1918–19 there was allotted for agriculture $782,575.76, of which approximately 75 per cent was expended.

The total fund available for trade, home economics, and industrial education for 1917–18 was $564,444.89, of which the States expended approximately 65 per cent. The total available for 1918–19 was $794,463.33, of which the States expended approximately 80 per cent.

There was allotted to the States for teacher training for the year 1917–18, $544,114.05, of which 36 per cent was expended. The allotment for 1918–19 was $730,421.35, of which approximately 70 per cent was expended.

For the year 1917–18 there was available for all forms of vocational education, Federal funds to the amount of $1,655,586.73, of which approximately 50 per cent was expended. For the year 1918–19 there was available from Federal funds for all forms of vocational education, $2,307,460.44. Of this amount approximately 75 per cent was expended.

The act specifically provides that the Federal Board shall annually ascertain whether the several States are using or are prepared to use the money received by them in accordance with the provisions of this act. The estimates for the current fiscal year, as shown by the annual reports of the States for the fiscal year ended June 30, 1919, show that the present allotment will be almost entirely used by the States.

STATE LEGISLATIVE PROVISIONS FOR VOCATIONAL EDUCATION.

The Federal act provides for cooperation between the Federal Government and the several States individually only through the acceptance of the Federal act by the State legislature.

The Federal law was enacted at a time when most of the State legislatures were in session. Thirty-nine of the States passed formal acts of acceptance in 1917; the remaining nine States accepted through their governors, the governors' acceptance being valid until 60 days after the beginning of the next session of the legislature. Through legislative enactment or the governor's action every State in the Union was qualified to participate in the benefits of the Federal funds for the fiscal year ended June 30, 1918. Of the nine States where the act was accepted by the governor, four had sessions of the State legislature in 1918, and in that session formally accepted the act. The remaining five passed enabling legislation at the 1919 session. At the close of the fiscal year 1918–19 every State of the Union had, through a formal act of the legislature, accepted all of the provisions of the Federal vocational education act.

The Federal law provides that State legislation shall specifically cover three points:

(1) The acceptance of the provisions of the Federal act.

(2) The creation or designation of a State board to administer the act.

(3) The appointment of the State treasurer as custodian of Federal funds.

These three points are now covered by the legislation in each of the States.

It is evident that State legislation covering only these three points would not place the State in the position of being able actively to cooperate with the Federal Board in the promotion of vocational education within the State except in so far as the funds available from the Federal Government could be matched dollar for dollar by funds raised in local communities or by funds otherwise appropriated by the State. Since the Federal Board for Vocational Education deals with the board created or designated by a State law, State provision for administration is absolutely necessary. Usually State funds did not exist which could be legally expended for the promotion of vocational education by the State board or its officials. Again, if vocational education is to be promoted within a State, State subsidies supplementing Federal moneys make it possible for the State to meet the vocational education needs of a State more completely than they can be met by requiring the Federal money to be matched by local money.

In many of the States the act of acceptance became what may be called the basic State vocational education act. The early experience of the State in the administration of vocational education made evident the necessity for State legislation which would provide adequate State funds and define the duties and powers of the State board for vocational education. Since the vocational work provided for in the Federal act is not always authorized by State legislation, some States have provided in the vocational act to give express power to local boards of education to organize vocational schools. The question of the certification of teachers also needed attention in many of the States in order that the State board for vocational education might have express legal authority to fix the qualifications of teachers of vocational subjects. Teacher training for teachers of agriculture, trades, and industries, and home economics must be conducted by the States subsequent to the fiscal year 1919–20, if the States are to continue to receive the benefits of the Federal act, and such teacher training must be under the direction and supervision of the State board for vocational education. In order that there might be no misunderstanding concerning this authority, many of the State legislatures passed acts specifically designating the State board for vocational education to have control of all vocational teacher-training work. For these and other reasons many of the States, at the 1919 session of the legislature, passed acts revising, supplementing, or amending the original act of acceptance, and in most instances providing additional State funds for vocational education.

The table on page 15 shows the date of legislative acceptance of the Federal act, the allotment from Federal funds for 1919–20, and the amount of State appropriation for vocational education for the year 1919–20. An examination of this table will show that 35 of the States have, for the fiscal year 1919–20, State funds equal to or greater than the maximum allotment from Federal funds.

The legislatures of 43 of the 48 States met in regular session in 1919. Of these 31 passed vocational legislation of importance other than such appropriation acts as would provide increased funds; 25 of these States passed legislation amending, reenacting, or extending a previous act of acceptance, or accepting the act for the first time. The new acts of acceptance and the revisions of the old acts generally provide for a complete definition of the powers of the State board for vocational education, provide for the establishment and maintenance of vocational schools by districts, and usually include provisions for increased appropriations.

INCREASED STATE APPROPRIATIONS.

In 40 of the 43 States meeting in 1919 provisions were made for appropriations for the promotion of vocational education in excess of those provided by previous sessions of the legislature. These

State funds in some cases are raised specifically to match the Federal funds; in other cases funds are available from previous State laws for the promotion of vocational education, and in three cases a mill tax is provided giving a permanent State fund for vocational education.

In order that the Federal act may accomplish its maximum purpose, each State should have upon its statute books laws which make the State a responsible partner with the Federal Government. This would include financial provision for the administration of vocational education and for reimbursement to schools. Federal aid is extended to the States as a stimulation to a program of vocational education in each State. The conditions on which the allotments are made recognize vocational education as a function of the State. In order then that each community within the State may have equal opportunity with every other community the State funds appropriated for vocational education should be sufficient to provide reimbursement to any and all communities meeting the standard set up by the State and desiring to receive such reimbursement. While few of the States have yet passed legislation covering all desirable points, progress made thus far indicates that additional constructive legislation will be passed at succeeding sessions of the State legislatures.

State acts of acceptance and funds provided by States.

State.	Date of legislative acceptance of Federal act.	Allotment from Federal funds, 1919-20.	State funds for vocational education, 1919-20.	Sessions of State legislature.
North Atlantic region:				
Maine	1917	$26,333.00	$95,000.00	Biennial.
New Hampshire	1917	21,031.80	21,031.80	Do.
Vermont	1917	20,000.00	20,000.00	Do.
Massachusetts	1917	111,960.45	[1] 111,960.45+	Annual.
Rhode Island [2]	1918	27,405.42	[1] 27,405.42+	Do.
Connecticut	1917	39,589.08	245,000.00	Biennial.
New York	1917	298,475.89	[1] 298,475.89+	Annual.
New Jersey	1917	82,778.57	[1] 82,778.57+	Do.
Pennsylvania	1917	246,259.94	[1] 246,259.94+	Biennial.
Delaware	1917	20,000.00	38,000.00	Do.
Maryland [2]	1918	41,195.62	5,000.00	Do.
Southern region:				
Virginia	1917	63,634.34	64,460.00	Do.
North Carolina	1917	67,452.47	67,452.49	Do.
South Carolina	1917	46,350.68	50,000.00	Annual.
Georgia	1917	80,316.08	40,158.00	Do.
Florida	1917	25,991.72	30,000.00	Biennial.
Tennessee	1917	67,220.13	[3] 67,220.13	Do.
Alabama [2]	1919	65,576.55	66,000.00	Quadrennial.
Mississippi	1917	54,864.87	5,500.00	Biennial.
Arkansas	1917	48,259.86	[3] 25,000.00	Do.
Louisiana [2]	1918	51,510.85	[1] 51,510.85+	Do.
Texas	1917	120,398.45	120,198.45	Do.
East Central region:				
West Virginia	1917	37,508.82	[4] 6,000.00	Do.
Ohio	1917	152,428.90	152,428.90	Do.
Kentucky [2]	1918	70,769.31	25,388.00	Do.
Michigan	1917	89,030.32	57,241.00	Do.
Indiana	1917	85,122.71	[3] 85,122.71+	Do.
Wisconsin	1917	73,609.36	230,000.00	Do.
Illinois [2]	1919	181,391.60	181,391.60	Do.
Minnesota	1917	65,322.14	65,322.00	Do.
Iowa	1917	69,231.08	40,000.00	Do.
Missouri	1917	103,808.81	103,808.81	Do.

[1] State funds in excess of Federal funds.
[2] Federal act accepted by governor in 1917, acceptance effective until next regular session of legislature.
[3] Special mill tax creates vocational fund.
[4] State appropriations for special schools.

State acts of acceptance and funds provided by States—Continued.

State.	Date of legislative acceptance of Federal act.	Allotment from Federal funds, 1919–20.	State funds for vocational education, 1919–20.	Sessions of State legislature.
West Central region:				
North Dakota [1]	1919	25,411.98	12,000.00	Biennial
South Dakota	1917	25,278.14	20,600.00	Do.
Nebraska	1917	36,918.52	50,000.00	Do.
Kansas	1917	52,541.38	52,541.00	Do.
Oklahoma	1917	50,937.65	[2] 5,000.00	Do.
Montana	1917	20,054.00	21,500.00	Do.
Wyoming	1917	20,000.00	3,800.00	Do.
Colorado	1917	27,560.12	37,560.00	Do.
New Mexico	1917	20,688.68	20,688.68	Do.
Pacific region:				
Idaho [1]	1919	20,181.40	20,181.40	Do.
Utah	1917	20,000.00	56,250.00	Do.
Arizona	1917	20,000.00	[3] 347,740.00	Do.
Nevada	1917	20,000.00	20,000.00	Do.
Washington	1917	36,403.89	12,000.00	Do.
Oregon [1]	1919	24,671.02	24,671.02	Do.
California	1917	76,497.37	76,497.37	Do.

[1] Federal act accepted by governor in 1917, acceptance effective until next regular session of legislature.
[2] State appropriations for special schools.
[3] Biennial appropriation.

ADMINISTRATION OF VOCATIONAL EDUCATION BY THE STATES.

As State funds have become available for administration of vocational education, there has been an increase in the number of trained supervisors and directors employed by the State boards.

During the year 1917–18 the State directors and supervisors numbered 139, for the services of 54 of whom reimbursement was made in part from Federal funds. During the year 1918–19 the State directors and supervisors numbered 182, for the services of 105 of whom reimbursement was made in part from Federal funds. Whether it conducts schools and classes directly or in cooperation with local communities, the State board for vocational education is responsible for seeing that the conditions for instruction are adequate and that the instruction given is satisfactory. The minimum provision that a State board can make for discharging this responsibility is some means of inspection. This includes visitation of the schools or classes by a duly qualified inspector and the examination by him of reports from such schools and classes.

This bare provision, however, is not sufficient if in those schools which are already established the State board is to further discharge the responsibility for the promotion of vocational education. Such promotion includes the improvement of the instruction. This improvement consists very largely in working with the instructors already in service. The schools and classes are widely scattered throughout the State. They are in operation the greater part of the year. There are two ways in which this improvement work is done. First, by calling the teachers together at some central point and there giving

them instruction; second, by sending assistance to the teachers while they are at work. If this sending of assistance takes the form of sending an individual usually called a supervisor who works with the individual teacher, assisting that teacher to improve, the term usually applied to such work is improvement of teachers in service. In the sense that a person who is doing this improvement work travels from one teacher to another or from one school to another, this is termed a phase of itinerant teacher-training.

The supervision of schools includes, then, inspection and improvement of teachers in service. These are responsibilities which under the provisions of the act belong to the State board for vocational education and can not be delegated by it to any other organization or institution.

During the first year of the operation of the vocational education act many of the State boards were of necessity compelled either to use persons already in the employ of the State board and engaged in other work than vocational activities for bare inspection of the work or to borrow supervisors from State institutions. With the provision of funds by the States for administration of vocational education, however, State boards for vocational education have equipped themselves with trained supervisors. This has put the State board in a position not only to adequately supervise work already underway but to promote vocational education in the State by making a study of the opportunities for vocational education in that State and working with local communities to meet the vocational needs.

EFFECT OF THE WAR ON VOCATIONAL EDUCATION.

In common with all the institutions of society, vocational education has been affected by the war. A sufficient period has elapsed since its close to warrant some conclusions with reference to the changes brought to pass in vocational education. These naturally group themselves under two heads; first, the effect upon the promotion and organization of the work during the war itself and, second, the permanent changes made in the philosophy and practices.

In common with all governmental agencies the Federal Board from the time of its organization three months after the declaration of war, turned its attention to direct help. The activities of the board in assisting in the organization of vocational schools and classes to train conscripted men for Army occupations was fully discussed in the second annual report. Practically every vocational school in the country, both public and private, made every endeavor to cooperate with the Government in changing its courses of study to meet the the immediate need. Statistics showing the number of men who received training will be found in another part of this report.

The war brought an almost immediate shortage of teachers in vocational schools. In trade and industrial schools and in agricultural schools the teachers are for the most part men, and a large number of them were of military age and subject to conscription. There were also many calls in other governmental service and in business for men and women of the experience and education possessed by the teachers in the vocational schools. This shortage of teachers, due to the war, resulted in a distinct slowing up of the vocational program, and in some instances resulted in the abandonment temporarily of vocational projects. State boards of education and local communities found it difficult to provide satisfactory substitute teachers for those who were called to service in the Army or other war activities. To meet this situation the Federal Board stood ready at all times to make modifications in the requirements set up in the State plans as to the qualifications of teachers.

The enrollment in vocational schools and classes, especially in the day schools, was considerably reduced, since labor of all kinds was in such demand that the training was of necessity given in the occupation itself without a long preparatory period. The only exception to this was in the case of evening schools organized to train for Army employment. In these schools there was a large increase in enrollment and attendance. Many communities which had never previously seriously considered the organization of any form of vocational schools cooperated with the State board for vocational education and the Federal Board in the organization of these classes.

The building program was of necessity held up. Many cities had under way plans for the building of vocational schools. These plans of necessity could not be carried into effect.

Equipment of all kinds was very difficult to secure. As a result cities and communities having vocational schools found it difficult to add to the number of classes established.

Boards of education had great difficulty in securing directors and supervisors who possessed the training and experience necessary to insure the success of the work.

During the war the emphasis in vocational schools was placed upon assisting in every way possible the national program for victory. In trade and industrial schools, as above stated, emphasis was put upon short intensive courses of training for Army occupations; in agricultural education emphasis was put upon securing an increased production; in home economics education emphasis was placed upon the conservation of foods, household economy, and satisfactory substitutions for foods, as well as savings in expenditures for clothing.

The war slowed up materially the inauguration of a teacher-training program in most of the States. The organization of the Student Army Training Corps took practically all of the enrollment

in the institutions designated by State boards to train teachers for trade and industrial work and for agricultural work. The war did not, however, defer the training of home economics teachers to the same extent. In practically every State institutions were designated and did actually train a considerable number of teachers of home economics.

The above direct results of the war were felt for several months after the signing of the armistice. In fact, it may be said that the whole program for the year 1918–19 was materially affected. Many of the activities of the State boards of education for the year covered by this report have of necessity been given to making plans for the promotion of work when normal conditions should prevail.

Above has been stated the direct effects of the war. Some indirect results are plainly being felt. Many institutions, both public and private, which had done little or no work in vocational education undertook this work during the war. Nearly every college in the country was changed into a camp in which the Student Army Training Corps received short, intensive, practical courses. Instructors were hired who had experience in vocations. The administrative officers of these institutions saw a value in industrial training which they had never seen before. In consequence many of the colleges and secondary schools of the country are retaining short practical intensive courses in preparation for special vocations or are enlarging their extension activities to meet the vocational needs of the country. Industrial life has taken on a new significance. Everyone clearly realizes that unless the country is in position to be mobilized industrially it can not be said to be ready for self-defense. This belief has led to the promotion of industrial vocational schools. The increased interest in agriculture brought about by the war also has led to what will probably be an expansion of vocational agricultural schools, while the lessons of thrift have made their impression upon changes in the courses of study given in practically every home economics class in the land.

The vast expenditures of money for the prosecution of the war have led many people to see that the country can afford education and can not afford to be without a rapid extension of vocational work.

COMPULSORY PART-TIME EDUCATION LAWS.

The Federal Board for Vocational Education has from the beginning of its administration advocated some form of part-time education which would meet some of the educational needs of minors who have left the regular public schools and have entered upon employment. Section 11 of the Federal act provides that at least one-third

of the money apportioned to a State for the salaries of teachers of trade, home economics, and industrial subjects must be expended, if at all, for part-time schools and classes, and the act further provides that the subjects in a part-time school or class may be subjects given to enlarge the civic or vocational intelligence of persons over 14 years of age who have entered upon employment. This includes general continuation school work as well as trade extension and trade preparatory work.

Prior to the enactment of the Federal vocational education act two of the States had provided for compulsory school attendance of minors over 14 years of age. The law in Wisconsin was enacted in 1911 and originally provided for the attendance of children 14 to 16 years of age for four hours a week. In the sessions of the legislature subsequent to 1911 changes had been made so that, with the final amendments in 1917, employed children were required to attend part-time schools between the ages of 14 and 17 for not less than eight hours a week.

The Pennsylvania law, enacted in 1913, provides for the attendance of minors 14 to 16 years of age for not less than eight hours a week. Sixteen other States, at the 1919 sessions of the legislature, passed compulsory part-time laws providing for the attendance upon part-time schools or classes of employed minors. Eighteen States now have some form of compulsory part-time school legislation, 16 of them having passed such laws during the 1919 session of the legislatures.

The laws vary greatly in the different States. In a few of the States many of the conditions are stated specifically in the law; in others much of the legislative power, so far as the actual administration of part-time schools is concerned, will be left to the State board for vocational education. In every State the State board of education or the State board for vocational education is charged with the duty of formulating rules and regulations concerning the establishment of the compulsory part-time schools and is charged with their approval. The table on page 21 shows the conditions in the 18 States which now have compulsory part-time school laws with reference to the minimum number of minors required to establish classes, ages of required attendance, hours a week required attendance, the length of the school year and the time the law goes into effect. In addition to the 18 States given in the table on page 21 other States have some form of part-time education. Ohio and Massachusetts have permissive mandatory laws, that is to say, the board of education of a local district may establish part-time schools and classes and compel the attendance of minors at such schools. West Virginia requires attendance of minors at a part-time or evening school or

class when such part-time school or class is established within 2 miles of the minor's residence.

The passage of these part-time acts has been one of the most important developments in the entire educational field for the past year. Needless to say that the States enacting such laws are facing very difficult administrative problems, and the future of part-time compulsory education will depend in a large measure upon the way in which the legislation passed at the recent sessions of the legislature is put into effect. Many other States are considering similar measures to present at the next annual or biennial session, and the passage of laws in other States will depend in a large measure upon the success of the work in the States already having such laws.

Provisions of part-time compulsory education laws.

States.	Minimum number of minors required to establish classes.	Ages of required attendance.	Hours per week required attendance.	Length of school year.	Law in effect.
Arizona	15	14–16	5	150 hours	1919
California	[4] 12	14–18	4	Same as public schools	1920
Illinois	20	14–18	8	do	1921
Iowa	15	14–16	8	do	1919
Michigan	50	14–18	8	do	1920
Missouri	25	14–16	4	do	1919
Montana	15	14–18	4	do	1919
Nebraska	15	14–16	8	144 hours	1919
Nevada	15	14–18	4	Same as public schools	1919
New Jersey	20	14–16	6	36 weeks	1920
New Mexico	15	14–16	5	150 hours	1919
New York	[2] 20	14–18	4–8	Same as public schools	1919
Oklahoma	20	16–18	.....	144 hours	1919
Oregon	[2] 15	14–18	5	Same as public schools	1919
Pennsylvania	50	14–16	8	do	1913
Utah	15	14–18	4	144 hours	1919
Washington	[3] 15	14–18	4	Same as public schools	1920
Wisconsin	(1)	14–17	8	8 months	1911

[1] Establishment required only in cities of over 5,000 population.
[2] Attendance upon evening school may be substituted.
[3] Districts may organize schools upon written request of 25 residents.
[4] High-school districts having 50 or more pupils must establish part-time classes.

STATE PLANS.

The Federal act requires that in order to secure the benefits of the appropriation the State board shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used. Such plans are submitted by the State board to the Federal Board for Vocational Education, and if the Federal Board finds the same to be in conformity with the provisions and purposes of the act and the policies established by the Federal Board the plan is approved. During the first year the plans in many of the States merely gave a starting point from which progress might be made in building up a plan which would be adequate to meet the

needs of the State. During the second year these plans were frequently revised and amended as occasion demanded. At the present time each of the States has a basic plan which seems to afford a satisfactory working agreement for some years to come. The policy adopted by the Federal Board is to advocate the readoption of this plan from year to year. Amendments and changes may be made at any time during the year that there seems to be a need to make such changes to improve the opportunities for vocational education in a State. State boards are urged to study the needs of the State with a view to incorporating in the State plan such provisions as will enable the State to put into effective operation a satisfactory program for vocational education.

COOPERATION OF THE STATES.

The Federal Board has from the beginning recognized the fact that the promotion of vocational education within a State is primarily the task of the State board for vocational education of that State. It further recognizes, however, that the Federal Government in appropriating large sums to the States for vocational education has a responsibility not only for seeing that the money is expended for the purposes for which it was appropriated, but also a responsibility for assisting the States in the development of the State program. In order that the agents of the Federal Board might be closely in touch with the work of the States and in order that the States might have a close contact with the work of the Board, offices were established in five regions. Agents are stationed at each of these offices. The work of these Federal agents while in the field is to assist the administrative staff of the State board for vocational education in the promotion of the work in the State. These agents are also responsible for taking to the States the accumulated experience of the country in order that it may be at the disposal of the State. The agents, upon request of the State officials, attend State and local conferences of vocational teachers, give assistance to the supervisors in outlining programs of work, and respond to calls for assistance from the States in the solution of special problems.

It is to be remembered that very few of the States previous to the passage of the vocational education act had any experience in setting up and carrying out a State-wide program for vocational education. There had been good work of a real vocational character done in many parts of the country. There was also much excellent work which was effective from the standpoint of its contribution to the field of general education and which had been called vocational. One of the difficulties which State and Federal agents have encountered is the tendency on the part of people in general to think that

unless work is eligible for Federal aid it is of no value. As a matter of fact there is a vast amount of excellent work being done in the country for which reimbursement could not be made from Federal funds.

Funds were made available through the vocational education act for specific forms of vocational education. One of the greatest tasks which has confronted the agents of both State and Federal boards has been to bring school men and business men to a realization of the opportunities for vocational education in fields which are now almost entirely neglected and in providing vocational education for groups of people who are now practically ignored so far as educational opportunity is concerned.

As the State programs develop there appears to be more and more need for specific assistance to the States in the development of suitable subject matter and adequate courses of instruction in these neglected areas and for these neglected groups. Thus far the time and energy of the staff and agents of the Federal Board, as well as the staff and agents of the State boards have been devoted to planning and putting into effective operation a program which would meet the evident needs of a State as expressed through schools and classes already organized or contemplated. During the next few years the Federal Board and the States must necessarily give attention to the development of more effective methods of instruction for schools and classes already in operation and to the working out of programs of instruction and the organization of schools and classes for those who have not yet been reached by the program of vocational education.

CONFERENCES.

During the past year the representatives of the Federal Board have met the representatives of the State boards in conference in one national meeting, held at St. Louis in February, and in regional meetings, one of which was held in each of the five regions. The national meeting was held the day previous to the meeting of the National Society for Vocational Education. Many of the persons connected with the administration of the vocational education act in the States are members of this association and attend the annual meetings. In order to save time and travel, the Federal Board arranged its conference with the States on the day preceding the National Society meeting.

At the national conference questions of general interest in vocational education and affecting national policies were discussed. At the regional conference a portion of the program was given over to the discussion of general questions affecting vocational education in that region and the remainder of the time given over to group conferences on agriculture, trades and industries, and home economics.

During this formative period the Board has felt the necessity for frequent group conferences as well as individual conferences in order that it might have for its guidance the opinion and experience of those engaged in State administration. As the provisions of the law become better known and as the details of administration become more thoroughly worked out, these conferences come more and more to partake of the nature of experience meetings, in which each State may have an opportunity to hear and profit from the experiences of the other States, and where representatives of the Federal Board may formulate in conference with the States the problems which should receive attention both from the States and the Federal Board in order that the national program for vocational education may be best advanced.

COOPERATION WITH OTHER AGENCIES.

Acting under the authority granted in section 6 of the act, the Federal Board has cooperated with other Government departments and with national organizations in studies which have resulted in the preparation and publication of bulletins and other material prepared with particular reference to giving aid to the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics. Among the governmental agencies with which such cooperation has been set up are the United States Department of Agriculture, the Bureau of Education, the Bureau of Mines, the Railroad Administration, the Food Administration, the Department of Labor, and the Department of Commerce.

As a result of a study carried on by the Federal Board in cooperation with the committee of the American Cotton Manufacturers' Association, Bulletin No. 30, Evening and Part-Time Schools in the Textile Industry of the Southern States has been published.

Representatives of the Federal Board have also cooperated with the joint committee representing the American Technical Association of Pulp and Paper Industries and the Canadian Pulp and Paper Association in the preparation of a series of books and pamphlets which is to be published by that association, and which contain subject matter relating to the occupations in the pulp and paper industry.

NATIONAL NEEDS.

The great changes in the conditions of American industry and commerce consequent upon the war have developed unforeseen needs in the field of vocational education.

Reconstruction involves a far-reaching readjustment of the trade and commerce of the world. The United States has an opportunity to develop leadership in foreign trade; but to do this she must train men in the field of foreign trade and commerce; must train men for places connected with transportation on land and sea; must develop a distinctive American design; must prepare large numbers of men for more efficient production in our great industries.

The Federal Board for Vocational Education would indeed be remiss in its duties if it did not point out to Congress and to the States the necessity for working out a program which will meet the needs of this reconstruction period and will enable the United States, through men trained for the positions involved, to take her rightful place in the industrial and commercial world of the future. There is immediate need for the study and development of adequate methods of education and of suitable courses of study which will prepare workers by the thousands to fill adequately the positions which exist and will continue to offer themselves in the development of our commercial and industrial field during the next few years.

There is need of more active and direct cooperation by the Federal Government with the States in developing their programs, in getting the right kind of classes established, and in setting up an effective cooperation between the State boards and local communities.

The following projects deserve special consideration and attention at this time. This does not mean that there are not other desirable and almost equally necessary projects, but those which are set forth are of most immediate and pressing importance.

FOREIGN TRADE AND COMMERCE.

The period of reconstruction finds us in possession of an enormous tonnage of merchant ships and the greatest yards in the history of shipping. Men must be trained to manage and operate these ships. The ships must be filled with cargo or else they will become a liability rather than an asset. The development of a new American merchant marine is undoubtedly coming. Men must be trained for this work since there is not at the present time in this country a fractional part of the trained service that will be needed. Furthermore, there is a rapidly growing demand for persons who know the procedure connected with foreign trade and shipping and for persons who are able to discharge the duties of the various positions connected with foreign trade and commerce. The Federal Board for

Vocational Education has set up in a printed bulletin a general summary of the situation in regard to vocational education for foreign trade and shipping. The courses which need to be developed have been enumerated in that bulletin. It is of immediate and pressing necessity that these courses be prepared, and that after they have been prepared trained men be secured to give assistance in organizing the courses and carrying them through. The groups which may be reached through these courses are as follows:

(1) Clerks, department heads, and junior officers who must learn to do the routine and technic of the daily duties of exporting.

(2) Export managers and candidates for promotion to this position, who lack knowledge of technical detail, which must be supplied even if it be not a part of the daily work.

(3) Executives or owners of firms doing or intending to do a foreign business, who wish to be well informed on all phases of the general subject as well as on specific routine.

(4) Men who are to be sent overseas by the firm and must prepare for actual foreign field service within a few months.

(5) College students who wish to enter foreign trade.

(6) High-school pupils who may enter an exporting house but may not be sent abroad for several years.

(7) Engineers and technical men. These men to be trained from the standpoint of salesmen of technical products, in such lines as railroad construction contracts, railroad equipment, power plants, telephone plants, electric street car systems, bridge and harbor works, elevators, radiators, heating systems, etc. These men will be all trained in their technical lines but will need courses of instruction which will fit them for service in connection with foreign sales.

The groups of people referred to above as the most likely candidates for instruction will for the most part need to have short intensive specific courses of instruction, each suited to specific needs. The whole field of foreign trade and commerce needs to be surveyed from the standpoint of the various occupations involved and the training and knowledge needed for individuals to fill these positions. This information, then, needs to be organized in short units. Each individual should then be given an opportunity to receive instruction in those units which he with his previous training needs to take in order to prepare him for the particular job toward which he is headed.

INDUSTRIAL DESIGN.

We have had a wonderful industrial development in this country during the past quarter of a century. That development has been very largely based upon the wholesale exploitation of our natural resources. We have thrown upon the world's market a mass of raw material and a mass of manufactured articles which have found a ready sale.

In all this development, however, we have depended largely upon the bulk of our manufactured products rather than upon the development of a typical and distinctive American product. Our designs have been adaptations or imitations. We have, as a Nation, neglected the development of an American design. Our emphasis has been placed upon the development of art for art's sake rather than of art as applied to our industrial life. At the same time there have been more or less sporadic attempts made to develop an industrial art. No one at the present time seems to know what the situation is in this country with regard to the development of industrial art.

There should be made immediately a general survey of the situation in this country looking forward to recommendations for the development of industrial art schools and classes. There is a crying need of a more artistic product from our shops, mills, and factories. There is also need of training in industrial art for those who are to be the consumers. This question is very pertinently discussed in "The Place of Art in Industry," an address given by Dr. C. A. Prosser before the Eastern Art and Manual Training Association, April, 1914, and also in "Industrial Art as a Factor in World Leadership," an address by Dr. J. P. Munroe, vice chairman of the Federal Board for Vocational Education, at the commencement exercises of the Pennsylvania Museum and School of Industrial Art, on May 23, 1918.

There are demands now from the industries themselves, and from the more progressive of the public-school leaders, for authentic information and direction in the development of rational courses in industrial art for the schools of this country. After a survey has been made of the condition and the needs, there should be carried on an active campaign of cooperation with the States in getting courses of instruction organized and in operation.

EMPLOYMENT MANAGEMENT.

During the war the following Government agencies combined to carry on service for the training of employment managers: The War Department through the Ordnance Department, Quartermaster General, General Staff, committee on education, Adjutant General's Office, and committee on classification and personnel; the Labor Department; the War Industries Board; the United States Shipping Board, and the Chamber of Commerce of the United States.

The work was concentrated and carried on under the immediate direction of the War Industries Board. This board was discontinued on December 31, 1918. Mr. Baruch, chairman of that board, joined with Secretary Redfield in a request to the President that money be made available to continue this work under the auspices of the Federal Board for Vocational Education. The President authorized the use of $25,000 from the appropriation for national security and defense to carry on this work until July 1, 1919.

During the war it was necessary to organize the employment management work on an intensive basis; therefore the War Industries Board directed its efforts toward short intensive courses of training requiring the whole time of the persons who were being trained, the length of the course usually being six weeks.

After the signing of the armistice it seemed unnecessary to crowd the instruction into so short a period of time and to remove the persons receiving the instruction from industrial employment. The Federal Board for Vocational Education, therefore, advocated and fostered part-time courses in employment management. By this means persons who were engaged in personnel work and charged with employment responsibilities were organized in groups to receive instruction from two to four times a week for an afternoon or an evening at each period. These part-time courses have been very well received by both the employment managers and by the industrial concerns for whom they are working.

In addition to cooperating with organizations which are carrying on courses of instruction for employment managers, the office of the Federal Board has maintained a correspondence service for employment managers and others responsible for personnel relations in industrial and commercial concerns. This was done with the belief that the employment managers and others responsible for personnel relationships should be kept posted concerning the best and latest developments of thought dealing with the relationships between employers and employees.

Through the efforts of the Employment Management Section courses of instruction have been set up inside industrial plants, which courses of instruction look toward the bringing together of employers and employees for a mutual understanding of their problems.

It is generally agreed that education is the one means by which the misunderstandings between employers and employees can be done away with. The employment manager is in essence a liaison officer between employers and employees. He is interested not only in securing the services of certain persons for an industrial concern, but he is also interested in seeing that the conditions in the plants are such that these persons will not have to leave the service of the firm in order to advance either in position or in rate of wage. The employment management work is also directly related to the whole problem of vocational education in that certain phases of employment management make possible the effectiveness of courses of vocational instruction.

Part-time trade-extension work particularly needs for its success the organization of an industry on such a basis that the instruction given to a particular individual or group of individuals may look

toward a better position in that industry. This means that the industry itself ought to have fairly well-defined paths of promotion. One of the jobs of the employment manager is to get these paths worked out and the demands of the workers in various jobs set up in terms of the job. The success of a program of vocational education in any community depends upon the hearty cooperation of the people in charge of the industry itself. The employment manager having as a part of his duties the compilation of a list of possible candidates for the various jobs in the establishment would be in a position to recognize the importance of a plan of education which would prepare men for these jobs, and would at the same time be in a position to cooperate understandingly with local school boards in the organization and conduct of such courses.

There has been a great deal of experimentation looking toward the establishment of plans of training carried on by the industries themselves, but frequently the development of such a plan of training disregards the interests of the men in training and magnifies the interests of the concern carrying on the training. It is very important, therefore, that every opportunity be given for the organization and conduct of these courses under public supervision and control with the cooperation of the industries as represented by some person connected with them who understands the needs and possibilities in vocational education.

Through the development of an intelligent Employment Management Service the labor turn-over which is so costly both to the workers and to the employers will be greatly reduced. Opportunities for promotion will be pointed out and an intelligent direction of the energies of the workers toward such promotion will be insured.

SHIPBUILDING.

In connection with the work of the production of ships as carried on by the Emergency Fleet Corporation, there was established by that organization a section of education and training. The program of this section provided—

(*a*) A staff and organization for giving instructor training to shipyard mechanics.

(*b*) Training departments for training green help or men from allied trades for shipyard occupations.

(*c*) An advisory staff cooperating with shipyards operating their own training departments or interested in securing instruction.

(*d*) An inspection service for training departments carried on by the yards.

(*e*) Evening and part-time courses, particularly in drawing and mathematics, to supplement the training given in the yards.

This education service was of course carried on by the same organization, namely, the Emergency Fleet Corporation, that supervised or directed the actual work of shipbuilding in the yards. With the ending of the war the Emergency Fleet Corporation discontinued its training work. This was not because the fleet was disappointed in the results of the training, but rather because it looked forward to a discontinuance of ship construction directed by the Government. Some of the shipyards are now carrying on the training for green help but there is practically nothing being done except through State boards for vocational education in the way of giving supplementary instruction for those who are employed in the shipyards. At the same time, there is a very great need for men in foreman positions and in the skilled occupations of the shipyard. It is admitted that the best way to get the trained men needed is to take workers in the shipyards and provide for them opportunities for instruction in related drawing, blueprint reading, mathematics, and science, which will qualify them for these higher and better paid positions. Many of these classes have been started through the efforts of the State boards for vocational education and up to the present time it has been impossible to get organized the subject matter for all of the courses which ought to be offered in connection with the shipyard work.

SAFETY AND HYGIENE.

Realizing the need for some handbooks of instruction dealing with safety and hygiene, the Federal Board has prepared a comprehensive plan which provides for a series of bulletins dealing with safety and hygiene. These embrace such vocational hazards as fire, accident, occupational disease, and personal hygiene. The work of making these studies and preparing the bulletins for use of schools, manufacturing plants, and study groups of workmen can not be done until money is made available for the purpose. There is a demand on all sides for pertinent and usable information along these lines. The information would be set up in such form that it would be of value to school directors, trade societies, associations of workers, employers, and others interested in the problems of safety and hygiene for the workers.

The work should develop along two lines: (1) Instructional; (2) advisory. The instructional work should be carried out by the formulation of outlines for simple practical courses of instruction in fire and accident prevention, personal hygiene, and prevention of occupational diseases, for use by vocational teachers and students in vocational classes. These would be valuable both for class room instruction and as guides for conduct to be practiced within the confines of the school, during their social and civil life outside, and while they are pursuing their industrial or business careers.

The courses would meet the needs of three well-defined groups—day school pupils, part-time pupils, and evening school pupils. The broad subject of safety and hygiene needs to be presented and fundamental principles of prevention and protection pointed out. Special courses to cover the vocational hazards of the leading trade groups given in the census classification, and others, in so far as they have been made the subject of training in any of the above three types of schools, should be prepared. These include such industrial groups as the following: Building trades, mining trades, woodworking trades, metal trades, shipbuilding trades, electrical trades, textile trades, clothing trades, printing trades, food production trades, and transportation.

Many more specific trades should be presented. Safety and hygiene for the building trades is completed.

The preservation of the life and health of the students and teaching staff, the protection of the property in which such instruction is carried on, and a partial guaranty, at least, of the uninterrupted work for which the schools are created, and to which the students have been intrusted are paramount duties, which must be met by specially prepared bulletins covering these subjects and applicable to the needs of school directors and teachers, and by means of consultations and correspondence concerning the specific problems presented, if our studies in safety and hygiene are to be given practical application.

A practical interest centers in the consideration of the legal aspect governing the responsibility of the vocational school authorities and instructing staff, for accidents occurring to the student while using machinery during the course of instruction, and their moral obligation to do all in their power to reduce these hazards by every means within their command.

The workmen's compensation laws have forced employers, as a matter of economy, to give heed to accident prevention. The results produced have been so striking that a work, actuated primarily by pecuniary motives, has been carried much further by reason of humanitarian motives.

IMPORTANT INDUSTRIES.

There are a number of extensive industries which thus far have received some attention both by the Federal Board and State boards for vocational education as offering opportunities for special vocational classes. Among these are the textile industry, mining, railroad shops, pulp and paper industry, and lumbering. These are all important industries and offer fertile fields for the development of vocational education. The duty of promoting this work is placed by Congress upon the Federal Board for Vocational Education in cooperation with the various State boards for vocational education.

If adequate programs are to be developed it is imperative that funds be made available for the employment of specialists in these various lines who can help the States and local communities work out problems of vocational education in so far as they relate to these industries. There should be local surveys to determine the kinds of vocational education for which there is need, the sources of supply of teachers and the nature of the equipment needed. Unit courses of instruction need to be planned.

The whole question of unit trade day schools needs to be thoroughly studied in order that proper recommendations may be made to the States and communities relative to the organization of such a type of instruction. This would include the determination of the supply of pupils and opportunities for advantageous employment, cost of plant and equipment and operation, and conditions under which such schools might be organized.

AGRICULTURE.

The vocational education act, so far as it relates to agriculture, is a link in the chain of a national movement for agricultural education in the United States. With the experiment stations, the colleges of agriculture, and the United States Department of Agriculture to furnish authentic information concerning agriculture, with the colleges to disseminate such information through leaders prepared within their walls and through the system of extension, with a system of secondary vocational instruction established in each State, and with elementary instruction in agriculture well established in the rural schools, we have the possibilities for a national system of vocational education.

As this work develops there is an increasing need for a coordination of the activities in this field. As the various agencies concerned become better acquainted with the problems confronting them there will undoubtedly be changes both in the relationships of the institutions and in the character of the work done by each. There is at the present time a lack of clearness in the definition of the field which each is to serve, but the hearty cooperation existing between the various agencies has prevented serious duplicating and overlapping. The colleges are preparing teachers for secondary schools. The experiment stations are closely connected with the colleges. The extension work is being carried on through the colleges, which in turn are cooperating with many of the secondary schools.

The United States Department of Agriculture, the experiment stations, and the colleges of agriculture have made available a great deal of authentic information concerning productive agriculture. Some of this material has been adapted to secondary school use. With the development of vocational instruction of less than college

grade, as it is being stimulated under the vocational education act, there is an increasing need for more of this material in such form that it may be used for instructional purposes in the vocational schools.

While there is undoubtedly need for instruction in agriculture for those boys who are already enrolled in rural schools, another big problem in vocational agricultural instruction of less than college grade is to reach with systematic instruction in agriculture the great group of boys who are engaged in the business of farming, but who have not received instruction in technical agriculture. The character and content of the instruction given to this group will necessarily differ from that given in two and four year high-school courses organized to meet the needs of boys who are regularly attending high school. The colleges of agriculture and some of the secondary schools of agriculture have given short intensive courses designed to meet the needs of this group of pupils. Departments of agriculture in high schools have made some attempt to organize instruction for this group. Up to the present, however, with all of the efforts which have been made a comparatively small number from this group have been reached. State boards for vocational education should make a special effort to get local communities to offer vocational agricultural instruction for this group. With increasing amounts of Federal and State aid available for vocational agricultural instruction the number of districts establishing such schools should rapidly increase.

HOME ECONOMICS.

The Federal Government assumed responsibility for cooperating with the States in offering home-making training of less than college grade to the women of this country when home economics was incorporated in the vocational education act.

The great importance of this task becomes evident when we study the numbers who are engaged in the occupation of home making and the need for training for the vocation. There are more persons engaged in home making than in any other single occupation. The report of the census shows that there were about 25,000,000 women of 20 or more years of age in the United States in 1910, of whom 80 per cent are married, and it is fair to say that as large a proportion of the girls under 20 years of age will eventually marry. The majority of these girls and women will be home makers.

The necessity for reaching these women is evident. The importance of the bearing and rearing of children, the expenditure of the family income in the wisest and most economical way, and the maintenance of good living standards in the home can not be overestimated. It is only through these activities that the individual members of the

family are provided with opportunities for complete physical, mental, and moral development. The child is the product of the home and is the greatest asset of the Nation. Statistics show that ignorance on the part of the mothers of proper prenatal and natal care is the chief cause of infant deaths, and ignorance of correct foods and feeding babies on the part of the mother is the second greatest cause for the high rate of infant mortality. These two factors that threaten the future of our Nation can be combated with education for motherhood.

Each year thousands of millions of dollars are expended in the United States for food, clothing, and shelter, and women spend the greater part of this money. The necessity for thrift has been forced upon us by the high cost of living; the value of thrift is obvious; but how to practice thrift is a difficult problem for the home maker with her many avenues for expenditure. With our national life threatened by enormously increased living costs, we can not afford to neglect any opportunity to give the women the kind of instruction which will enable them to buy wisely and sanely the necessities for the welfare and happiness of their families.

In the homes of America her future citizens receive most of their training for life. Their physical well-being depends directly upon the food, clothing, and shelter provided for them, their mental development depends partly upon their physical vigor, and their moral fiber is formed principally by the influences of the family life. The home maker can not adjust the complicated and multiplied tasks of home making to produce a home up to the American standard unless she is trained for her job.

A study of these three functions of the home shows their close relationship to the national life. The lowering of the death rate by the elimination of unnecessary infant deaths is vitally important if the native-born population of the United States is to maintain a normal increase. The Nation can not afford to let children die because of the ignorance of their mothers. The question of wages and incomes will be partially answered if the women who spend the wages are trained to buy wisely. Efficient and contented citizens are the product of homes run on American standards. We see, then, that how to reach this vast number of girls and women with the needed instruction should be one of our chief national concerns. Only a small number are reached through the ordinary channels of the day schools, as the majority of these girls and women are not in school, but are either at work in homes or in some occupation outside of the home. The great need in home-economics education is to offer the right kind of instruction and to reach every girl and woman with the kind of help which is needed to solve the home-making problems.

A great mass of valuable material relating to child care, care of family health, and food and clothing for the family has been published. This needs to be organized in a form in which it can be used in home-making classes. The Board has, through cooperation with other Government agencies, prepared some material for use in this field, but there is need for more. The best method to be used in presenting this material in short courses should be worked out and teachers trained who are qualified by home-making experience and broad sympathies to give instruction to home makers.

The States are earnestly pushing a program of vocational home-economics education, but much more needs to be done if we are to begin to reach the large mass of our girls and women with the kind of training which so important a vocation as home making demands.

AGRICULTURAL EDUCATION.

Decided progress has been made in the promotion of vocational agricultural instruction. The reports from the States indicate that there is a better understanding of the meaning and purpose of vocational education. There has been great improvement in the extent and character of the supervised practical work. The summary of progress by States (Part II) and the statistical tables (Part III) show the number of schools and pupils. During the second semester many teacher-training institutions put into operation plans which had been interrupted by the war. An increased number of States have made adequate provision for supervision.

The past year, however, has been a very trying one in all lines of school endeavor. When the age limit in the selective draft was lowered to 18 years thousands of boys of high-school age were sent to military camps or into the Student Army Training Corps in colleges. Hundreds of other boys who were not included in these groups became so restless in their school life that their patriotic zeal led them to enlist in the National Army. Perhaps the most serious handicap with which the educational world has had to contend with during the past year has been the wave of influenza which swept over the United States. Agricultural instruction probably suffered less than other phases of vocational education as a result of this. In schools that were fortunate enough to have well-trained teachers the boys began their directed or supervised practice in agriculture, and carried on their supplementary subjects almost as well as if they had been in school.

SUPERVISION.

In 1918–19 thirty States employed full time State supervisors. Eighteen States employed supervisors for part time. In some States the part-time supervisors were lent by the teacher-training institutions to the State board for vocational education. Nearly every State provided some form of systematic improvement of teachers in service.

Because of the demands made by the war there were few students enrolled in the teacher-training institutions. The staff for the training of teachers had been engaged. Arrangements were therefore made by which the teacher-trainers assisted the State supervisors in giving instruction to those teachers who were already in service. This was fortunate since so many of the teachers were new to the work. Owing to the scarcity of trained teachers those who had been removed for war service had to be replaced by others who were not so well

trained. In some of the States the program of vocational agricultural instruction would have suffered much more severely if arrangements had not been made for giving an unusual amount of assistance to the teachers in service. This assistance included the preparation of lesson plans and outlines, various kinds of mimeographed and printed material which served as aids to teachers, regional and State conferences, and personal visits by the supervisors and teacher-trainers.

It is now recognized that one of the largest problems involved in supervision is that of giving assistance to the teachers in the solution of specific problems connected with their work. In order to do this satisfactorily the States have found it necessary to provide supervisors who not only possess the qualifications of a teacher of agriculture but also have had successful experience in teaching agriculture. In several of the States two or more supervisors of agriculture have been provided in order that all of the schools giving vocational instruction in agriculture might receive the needed assistance.

SCHOOLS.

Development in the field of vocational agricultural instruction of less than college grade has been in the direction of the establishment of departments of agriculture in high schools or in the establishment of rural vocational schools. Few of these schools or departments employ more than one teacher of agriculture. The pupils for the most part live at home on farms. The supervised practical work is usually in the form of home projects. The States are rapidly setting up State and local systems of supervision of this project work which look toward a better coordination of the schoolroom instruction with the project work. There is a decided trend now toward giving instruction in agriculture to the pupils while still living on the home farms rather than taking these pupils from the farms and transporting them to special schools where large numbers may be gathered together. These departments are in the nature of part-time schools of the occupational extension type, the instruction being designed to supplement the employment of the pupil on the home farm. In order that these schools may really carry out this type of instruction it has been found necessary to limit the attendance upon vocational agricultural classes to pupils who are actually engaged in some form of farm work. In most cases these schools or departments offer two, three, or four year courses for 36 weeks in the year with half of the pupils' time given to nonvocational high-school subjects. The work in vocational agriculture is usually accepted as a part of the high-school course, thus enabling the pupils completing the vocational agricultural work to secure not only the agricultural certificate but also the diploma granted by the school. The group reached by this instruction is usually composed of pupils who would ordinarily be enrolled in other high-school courses.

A few of the States have made provision through short winter courses and evening courses to reach another group which consists of those who have definitely dropped out of school and would not otherwise be receiving school instruction of any kind. There is an increasing number of States making special effort to reach this group.

Some States have what is usually called the special or separate school with extensive equipment in the way of buildings, farm lands, animals, machinery, etc. While these schools have the equipment designed to prepare those who have not yet entered upon the occupation of farming for advantageous entrance upon such an occupation reports show that they are, for the most part, attended by pupils already engaged in farming. These schools have therefore found it difficult to provide any very great amount of practical work to be carried on at the school farm by these pupils. It is evident that there is very great need for a careful study of the method by which best use can be made of the land and equipment of these separate schools.

Certain sections of the country are so sparsely settled that it is impossible to establish schools which will provide instruction to the pupils while they are still living at home. These pupils should be offered opportunities for vocational instruction. There needs to be a careful study made of the best means of providing opportunities for supervised practical work in schools organized for these pupils.

Many of the colleges of agricultural have already made provision for the recognition of high-school agriculture for entrance credit. There is also a tendency on the part of the agricultural colleges to so organize the instruction of the first and second years of the regular college course as to permit the graduate of a vocational department of agriculture in the high school to elect advanced courses rather than to take the elementary courses which repeat much of the instruction which he has received in high school.

The secondary schools of agriculture now recognize the fact that it is impossible for them to cover the whole field of agricultural instruction even in a four-year course. Vocational schools generally now emphasize the phases of agriculture dominant in the community and give less attention to other phases of agriculture which are not so important in that community. As a result there is a tendency to formulate the instruction in a given school on the basis of the agricultural needs of the community.

The secondary school of agriculture is rapidly ceasing to adopt a dilute form of the college of agriculture curriculum. The instruction is being limited to the well-established practices which are based upon experience as well as upon the results of college and experiment station work. Experimentation is more and more being left, as it properly should be, to other institutions.

The vocational agricultural school is also having a marked effect upon the character and content of the instruction given in such sciences as botany, zoology, chemistry, physics, and physical geography. Science teachers in the rural high schools are relating their instruction to the fields of agriculture and home economics.

State systems of project accounting are being worked out by the State supervisors, the teachers, and the instructors from the agricultural college with a view to standardizing certain charges and prices. The project has as its underlying motive the carrying on of a piece of productive work with profit. It is therefore highly essential that the records and the accounts of the project set forth accurately the conditions and show the real financial return on the project. As a method of instruction the project aims to make the classroom teaching assist and develop the pupil as a producer.

With few exceptions the State plans provide as the qualifications of teachers of vocational agriculture graduation from a four-year college course planned for the training of teachers of vocational agriculture and at least two years of practical farm experience. This has generally been recognized as the standard for the country, but during the past two years many of the States have been compelled either to close temporarily the vocational schools or certify teachers who did not possess these qualifications. The indications are, however, that in the future there will be an adequate supply of teachers who possess these qualifications.

TEACHER TRAINING.

It is evident that the teacher-training fund was made available for the purpose of preparing persons for the vocation of teaching who already possessed or were acquiring a training which prepared them for the vocation of farming. The success of the training of teachers of agriculture is largely dependent upon the meeting of the following conditions in so far as the character of the institution which is to do the training is concerned: (1) The teacher-training institution should be in touch with the latest developments in the field of scientific and practical agriculture in so far as these developments relate directly to the agriculture of the State. This means that the institution should have the facilities for and be engaged in agricultural research and experimentation; (2) the teacher-training institution should give the instruction in classes in technical agriculture from the standpoint of the use of the results of this instruction in the field of practical agriculture. This means that the institution should have the facilities for and be engaged in the teaching of agriculture as a vocation; (3) the equipment in the teacher-training institution should be the equal of any in the State in so far as instruc-

tors, laboratories, farm machinery, farm buildings, farm animals, and other equipment, material, and supplies needed for instruction in subject matter of agriculture are concerned; (4) the teacher-training institution should be in constant touch with the farmers of the State in order that there may be direct contact with the condition and development of agriculture in the State. This means that the institution should be the center of agricultural activities in the State in so far as they relate to service to farmers and to the best scientific principles and practice of agriculture.

The training of teachers of vocational agriculture is in reality the preparation of persons for two vocations, (1) the vocation of agriculture, and (2) the vocation of teaching. At the time of the passage of the vocational education act there was in every State at least one federally aided institution of college grade charged with the responsibility of preparing persons for the vocation of agriculture. State boards generally have taken advantage of this situation and designated these institutions as the ones to prepare teachers of agriculture. This was in keeping with the purpose of the act which provides that such training shall be given only to persons who have had adequate vocational experience or contact in the line of work for which they are preparing themselves as teachers or who are acquiring such experience or contact as a part of their training. Some of these institutions were already preparing teachers. In others it was necessary merely to provide the professional instruction.

Conditions attendant upon the war seriously interfered not only with the program of training teachers but with all of the college activities. Very few teachers were prepared through the regular courses during the war. Many of the States, however, put into operation short intensive emergency courses. Through these courses men experienced in farming, trained in science, and with experience in teaching were given instruction in technical agriculture. These courses have now been discontinued except in some cases where those who have already had one summer of instruction are being given an opportunity to complete a course of instruction already begun.

INSTRUCTION IN AGRICULTURE IN VOCATIONAL SCHOOLS AND EXTENSION WORK IN AGRICULTURE.

In order that those who are concerned with the administration of agriculture extension work and those who are concerned with the administration of vocational agricultural instruction may cooperate for the purpose of assisting in securing for this country an effective system of agriculture, the following statements have been made by the United States Department of Agriculture and the Federal Board for Vocational Education.

EXTENSION WORK IN AGRICULTURE.

The United States Department of Agriculture, in cooperation with the land-grant colleges, has organized an agricultural extension system which extends throughout the United States. This has been done in accordance with a series of acts of Congress authorizing the establishment of such work and making appropriations therefor. This extension work consists of practical demonstrations, and the dissemination of information among men, women, and children through the personal work of county agents, home demonstration agents, boys' and girls' club workers, and others. This work covers the various branches of agriculture and home economics, including marketing and rural organization. It is supplemented by the widespread distribution of publications of the United States Department of Agriculture, the experiment stations, the agricultural colleges, and State departments of agriculture. The instruction and information used in this system of popular education is based chiefly on the work of the United States Department of Agriculture, the State agricultural colleges, and the experiment stations.

This extension work is not a systematic course of instruction but deals with problems of practice and business on the farm, in the home, or in the rural community. This is expressed in the following quotation from the Smith-Lever Act:

> To aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same.

As the extension system becomes general and settles down in any community, it deals more and more with special problems of the farm and rural community rather than with the details of practice with which the farming people are generally familiar. Backed by the research system of agricultural colleges and the United States Department of Agriculture, it brings to the people the new things which have been found worthy of broad trial in actual practice.

VOCATIONAL AGRICULTURAL INSTRUCTION.

The creation of the Federal Board for Vocational Education and a State board for vocational education in each State, under the provisions of an act of the Sixty-fourth Congress, approved February 23, 1917, makes possible a Nation-wide organization for the administration of vocational education. The act carries an appropriation for salaries of teachers, supervisors, and directors of agricultural subjects. The money so appropriated is to reimburse schools for expenditures for salaries of teachers to carry on instruction in vocational agriculture or for the salaries of supervisors of such instruction.

Certain standards must be set up by the State board and approved by the Federal Board for schools in which these Federal funds are to be used. These standards include qualifications of teachers, minimum amount for maintenance, the minimum plant and equipment, and courses of study. In case any of the fund is to be used for salaries of supervisors or directors, a plan of supervision for the State must be set up by the State board with the approval of the Federal Board.

This act makes provision then for a course of systematic instruction in agriculture carried on in schools and classes under a definite plan of cooperation between a State board and the Federal Board. This systematic instruction in agriculture, however, under the terms of the act must in every case include at least six months of supervised practical work.

RELATIONSHIP.

In many counties of the various States there will be the cooperative agricultural extension system conducted by the State agricultural college in cooperation with the United States Department of Agriculture and the county under the provisions of the Smith-Lever Extension Act and under other Federal and State legislation. There will also be vocational agricultural instruction carried on by the State board for vocational education in cooperation with the Federal Board for Vocational Education and the county or the local school district under the provisions of the Smith-Hughes Act. Both the extension service and the vocational instruction will deal with both adults and children.

In each State there is a State director of agricultural extension service and an executive officer of the State board for vocational education. It is suggested that these two officials determine upon a plan of cooperation for the State based upon the following general policies or principles:

(1) It is to be understood that all agricultural extension work should be administered by those in charge of extension activities in the State and that all vocational education in agriculture should be administered by those in charge of the vocational schools of the State.

(2) That all extension work with adults done by teachers in vocational schools be in accordance with the plans of the extension system for the State, and in cooperation with the agent who is in charge of the administration of the extension work in the county.

(3) That in counties having vocational schools of agriculture the extension service will conduct its extension work in agriculture with children chiefly through the organization of clubs for the carrying on of definite pieces of work for the improvement of agricultural practice. The practical agricultural work of the schools will chiefly consist of

home project work by the students as a part of the systematic practical instruction provided for in the Smith-Hughes Act. It is advised that in such counties a cooperative agreement be made between the extension authorities and the school authorities whereby it will be arranged for the teachers of agriculture to take part in the extension activities with the children within the territory of the school and that such territory be set forth in the agreement.

(4) That in every case care be taken to see that work which is supported by Federal funds under any of the aforementioned acts will not in any way duplicate or overlap work being carried on in that same community when that work is supported in any part from another Federal fund.

During the year several States have set up agreements between the State boards for vocational education and the State director of agricultural extension.

HOME ECONOMICS EDUCATION.

GENERAL SURVEY OF PROGRESS.

During the year 1918–19 marked progress has been made in the development of vocational home-economics education in the States. This is measured both by the increase in the number of schools offering home economics and the number of girls and women reached by such classes. The very decided increase in interest in home-economics education and the better understanding of its problems which has been shown in the setting up of State programs for vocational home economics are also evidences of progress. The results of the study of the problems of home making and the relation of the school work to home needs are evidenced by the increased numbers of girls and women outside of high schools who have been reached by separate vocational schools and short unit courses. Real progress can not be measured in statistics alone, but is better shown by a changed attitude on the part of school people toward the work and by the growing appreciation of its value to the communities aside from the small reimbursement received from Federal funds.

The aim underlying the development of vocational home-economics education is to reach all groups of girls and women with a type of home-making training which will function immediately in the solution of the daily problems of home making. Most of the home-economics work offered by the public schools has been given as a part of the grade or high school program mainly to those girls who are in school. Much of this instruction is good and has an important place as a part of the general education of a girl. The aim of a vocational home-economics education differs from this in that it is not planned so much to impart general useful information as to train a girl for the specific occupation of home making.

The first and governing motive underlying all vocational home-economics education is to train women to make a home and to practice therein all the activities of the home maker in the most economical, practical, and efficient manner. Its scope is broader than that of general home-economics education in that it proposes to reach all groups of girls and women, whether they be attending high schools, engaged in industry, following the vocation of home making in their own or other homes, or preparing to enter that vocation. Because of this difference of aim and scope, certain demands are made upon any system of vocational home-economics education which are not made upon general home-economics courses. Vocational courses must be of varying lengths to meet the varying needs of all the differ-

ent groups of girls and women. Equipment, method, and subject matter must be worked out to cover all the essential phases of the home maker's job.

An increased interest in vocational home-economics education is evidenced by the number of applications for approval of schools and classes, the desire on the part of school authorities to have more funds for home-economics work in the States, the increased attention being given to supervision and administration, the steps taken by the States to set up qualifications for home-economies teachers, the increasing number of State and local conferences, the larger attendance of State representatives at regional and national conferences and the demands made upon the Federal Board for Vocational Education for assistance to the States in the development of their programs of vocational education.

The use of Federal funds for home-economics classes has increased. In 1917–18 there were 10 States that used no Federal funds for home-economics classes and 9 States that used none of the money available for the training of home-economics teachers. This year there were only 3 States that did not use Federal funds for home-economics classes and every State used some portion of the fund available for training teachers of home economics.

In 1917–18 $112,888.98 of Federal funds was available in the United States for home-economics education in the schools and $60,460.46 was spent. In 1918–19 the amount available was $158,913.66, and $118,496.28 was spent. This shows an increase in expenditures of $58,035.82, or 96 per cent.

There has been more vocational home-economics education in the States than is represented by the number of schools and classes reported as receiving Federal aid. The small amount of money that could be used in the States for vocational home economics made it impossible to do more than to establish a few type schools, if the amount of Federal aid was to be of material assistance. The money available for home-economics education is limited to 20 per cent of the funds appropriated for trade and industrial education. This amount in 1918–19 was $794,468.33. This sum is divided among the States in the proportion which their urban population bears to the total urban population of the country. Many States have an urban population which is small in proportion to their total population, and such States have generally received the minimum sum of $5,000 for trade and industrial education. Twenty per cent of this, or $1,000, could be used for day, part-time, and evening classes in home economics. In such a State during the year there would be at least five times this sum—as a minimum, the amount might be much larger—available for agricultural education, and four times as much money which could be used for trade and industrial educa-

tion. This limitation as to the amount of money available should be remembered when a study is made of the statistical reports of the accomplishments in vocational education in each of the three lines of work.

There has been increased provision for the supervision of home-economics work in the States. In 1917–18 a total of 31 States made provision for the supervision of home-economics education. This year every one of the 48 States has provided some supervision.

In 1917–18, of the total of 31 States home-economic supervisors, 6 were engaged for full-time and 25 for part-time supervisory work. In 1918–19, 10 States employed supervisors for full-time and 34 States had supervisors for part-time. In the remaining 4 States, the supervision was in the hands of the State director for vocational education.

Two of the States have employed more than one supervisor, and in one of these where the vocational program has been in operation for a number of years there is a supervisor of day schools, a supervisor of evening schools, and a supervisor with an assistant for the teacher-training work.

Standards for the qualifications of teachers have been set up. Every State now provides certification for its home-economics teachers, where previously many of the States had no such requirement. There has likewise been an improvement in the type of teaching and in the courses offered for the preparation of the teachers for the home-economics schools. The educators of the country are beginning to see that unless the work is planned to meet the real and immediate needs of girls and women, and unless special teachers are trained to develop this work as it should be developed, the vocational program will not fulfill its purpose.

SUPERVISION.

There are two plans in operation for supervision of the vocational home-economics work in the States. By the first plan the supervisor of home-economics is a member of the staff of the State board for vocational education and devotes her entire time to supervisory work. By the second plan the supervisor is a member of the staff of the teacher-training institution, and is either borrowed or employed by the State board for a part of her time. Last year four States were without supervisors, and in those States the State director for vocational education was responsible for the development of the home-economics work in the State.

Experience has shown that the most satisfactory supervision is secured when there is a supervisor employed for full time as a member of the staff of the State board for vocational education. Where the State has had a supervisor who could spend her entire time in

supervision and studying the needs of the State, the results have been most satisfactory. There is in such States better equipment, better instruction, and a very much better adaptation of the course of study to meet the needs of the groups reached. In many cases the borrowing of a supervisor from a teacher-training institution has proved of value because it has brought the work of the State board and the work of the teacher-training departments into very close touch with each other, and it has enabled the State board to have the advantage of the services of a well-trained woman which could not have been otherwise secured with the limited amount of funds available. The institutions have lent a member of their teacher-training staff for supervision for varying lengths of time. In some cases she has only made a few visits to those schools that were aided from Federal funds; in others she has devoted half of her time to supervisory work, which has included not only visiting schools but also dealing with the larger problems of vocational home economics in the State.

In the main, where the States have failed to employ supervisors it has been for one of two reasons: First, in a number of the States there were no administrative funds available and so supervisors could not be appointed; second, adequate supervision has not been provided because of a failure to recognize supervision as anything other than inspection, and in many of the States there were so few schools reimbursed from Federal funds that it seemed quite unnecessary to provide a supervisor to take charge of this work.

The success or failure of vocational home-economics education in this country depends very largely upon the administrative staffs which are appointed by the State boards for vocational education in carrying out the provisions of the vocational education act in their respective States, and no State program for home economics can develop far without supervision. Some of the important results of supervision are:

(1) A standard for the home-economics work within the State is set up.
(2) A State plan and program is provided for the development of home-economics education.
(3) The teaching is improved by giving help to the teachers in service.
(4) Courses of study planned to meet the needs of the student are established.
(5) Sound advice on all phases of home-making education is offered to the smaller and poorer as well as to the larger and more influential schools.
(6) A general plan of promotional work is provided whereby the people of the State may be interested in vocational education.
(7) The use of Federal and State funds within the State is safeguarded.

The minimum qualifications of supervisors which have been set up by the States in their plans are the qualifications of the home-economics teachers in the schools, plus the requirement of successful teaching experience. In a very few cases successful supervisory

experience has been accepted in lieu of a part of the required technical training. It was early recognized that it is essential for successful supervision that the supervisor have at least the training equivalent to that required of the teachers in the day schools, and preferably, training equivalent to that possessed by the members of the teacher-training staff, as it is necessary in most cases that the supervisor deal not only with the schools of the State, but also with the teacher-training institutions.

In general the qualifications have been graduation from a four-year college course planned for the training of teachers of home economics, two or more years of vocational experience, including a period of home management, and successful teaching experience of from two to five years.

The method of supervision of the home-economics work in the States has varied, depending largely upon the amount of time devoted to supervision and the problems which have needed most immediate attention. In general, supervision has been conducted by personal conferences of the supervisors with the teachers, special preparation of material in the way of outlines for courses, bulletins covering the main points in the administration of vocational home-economics education in the State, blanks for reports from the schools to the State board; through surveys of the State situation to determine how best to adapt the vocational home-economics work to the needs of the homes in the State, and through State-wide conferences. Such conferences were held in most of the States, and did much to bring the problem of vocational home-economics education before the school people of the State and thereby secure their interest.

SCHOOLS.

The three types of vocational home-economics schools developed in the States have grown out of the needs of the following groups of girls and women:

(1) Older women who have left school but who can be reached by evening classes.
(2) Girls who have left school but who come back for part-time classes.
(3) Girls who are in school.

To meet the needs of these groups three kinds of schools have been established: Evening, part-time, and all-day schools. In the past, most of the home-economics training has been offered to the group of girls who are in school but the number of part-time and evening schools which were aided from Federal funds in 1918–19 indicates the recognition of the needs of those groups which are not reached through high-school courses.

The type of classes established in a State has depended largely upon whether that State is urban or rural. In the urban States, having large industrial centers, it is comparatively easy to gather

women together, and so part-time and evening courses have been readily established. In rural communities, where the population is scattered, the day school has been the type of vocational work first developed. The need for the type of home-making training given in part-time and evening classes is as great in the rural as in the urban States, but it will require more effort to reach the women.

Wherever numbers of girls have to leave school and enter industry before they have had training enough to equip them for their duties as home makers, the part-time and evening classes offer the best opportunities for vocational training in home making. For this reason it is hoped that every State will give additional consideration to the establishment of part-time and evening classes.

In 1917–18 there were reported to the Board 123 vocational home-economics evening schools with an enrollment of 22,360 and a staff of 688 teachers, for which reimbursement was made from Federal funds in 18 States. In 1918–19 there were 127 such schools, with an enrollment of 22,691 pupils and a staff of 758 teachers in 21 States. The type of instruction which has been found to be most effective in the evening schools is the short unit course, varying in length from 8 to 36 lessons. The States have offered classes in dressmaking, cooking, millinery, and home nursing. These classes usually meet twice a week for a period of about two hours.

The qualifications of teachers of evening schools have been in a number of cases the same as those for teachers in the day schools; however, the majority of the States realize that the teacher who is needed for work in the night school must be of greater maturity than the average high-school teacher. She must have had years of vocational experience which have fitted her to do well the particular thing which she is to teach, and must in addition know how to present her knowledge to a class in such a way that she can secure results. The States have set up qualifications in terms of practical experience, varying from two to five years' professional training which includes methods and practice teaching, and home-economics training which is stated as graduation from a two or four-year approved college course in home economics. For the present, however, in many cases, marked ability, long experience, and maturity have been accepted in lieu of these qualifications. This seems wise, as the success of the evening school courses will depend almost entirely upon the skill with which teachers are selected for this work.

The part-time classes in home economics which were reimbursed from Federal funds in 1918–19 reached a total of 27 with a total enrollment of 4,278 pupils and a teaching staff of 71 teachers. The whole movement of part-time education is in its infancy, and only six States reported part-time work. The part-time schools have been

established to meet the needs of two large groups of girls: Those who are employed in some wage-earning capacity who will be released by their employers for a certain number of hours a week, usually from 4 to 8; and those girls who for one reason or another have dropped out of school and are at home. Some excellent work has been reported, but for the States as a whole this problem is yet to be worked out. Eighteen States have now passed compulsory part-time education laws. The enactment of this legislation should tend to stimulate the establishment of part-time home-economics classes.

The day school in home economics has been forwarded by the vocational education act to a greater extent than either the part-time or or the evening school. States reported day schools reimbursed from Federal funds for the year 1918–19, with a total of 309 schools with an enrollment of 12,445 pupils and a staff of 604 teachers. In 1917–18 there were 200 schools with an enrollment of 8,333 pupils and a staff of 398 teachers.

In most of the States the vocational home-economics day school has been organized as a part of the regular high-school course and the work has been offered in much the same way that is employed by schools giving general home economics. The main difference has been in the amount of time given to the subject. The schools receiving Federal aid have given a half day to vocational work. This half day of vocational work has been devoted either to home economics instruction, including such subjects as garment making, foods and cookery, sanitation and home nursing, house planning and house furnishing, textiles and dressmaking, millinery and home management; or to the home-economics subjects as named above and related art and science, which includes such subjects as drawing and design, applied to clothing and the home, and general science as applied to the household, household chemistry and household physics. In only a few States have separate schools been organized where the vocational home economics is planned for all girls over 14 irrespective of their academic standing and where the entire school program is planned in relation to the vocational needs of the girls.

The length of the course offered in the day school is usually four years, although it is so arranged that a girl may take one, two, three, or four years of the work. A number of States have offered a two-year vocational course. This is most often given as an intensive course in the first two years of a general high school or as a course in a separate vocational school.

The qualifications of the teachers in the day school as set up by most of the States have been graduation from a four-year college course planned for the training of teachers of home economics. Most of the States have also required two years' vocational experience as a part of the preparation for vocational home-economics

teaching. This experience may have been obtained as a house daughter prior to entrance to the teacher-training institution or it may be obtained during the period in which the student is in training. Some of the States demand a probationary teaching period of from two to five years subsequent to graduation before permanent certification. In a number of the States these requirements have for the first year or two been modified so as to permit the acceptance of teachers who are graduates of a two or three year home economics course, provided they have had sufficient professional courses and have had adequate vocational experience. The standards set by the States for the qualifications of teachers in the vocational schools will do much to raise the standard of the teaching of home economics in all the schools throughout the country.

A number of the States have established vocational classes for foreign and Negro girls and women. Separate schools have been organized for Negro girls and women in most of the Southern States. In 1918–19 eight States have special provision for them and 22 day and evening classes were reimbursed from Federal funds. In some States vocational classes have been opened for foreign and Negro girls in the elementary schools.

The home-project work has been a very interesting and important development of the vocational work in connection with the day schools. Five States have required home work to supplement the classroom instruction, and two States have outlined very satisfactory projects which are required of all students taking the vocational courses and have provided for a system of supervision and reports on such subjects. The home project has done much to bring together the home, the girl, and the school, and it has had a helpful influence in developing home economics in the school which will really function in the homes of the pupils. It further stimulates a healthy interest on the part of the mother in the work of the school and frequently valuable assistance is rendered by her in the organization of work in the school best fitted to meet the needs of the home.

The home-economics teacher is being employed for 12 months in several of the States. This has in it many possibilities for good. The 12-months' teacher is able to study more closely the needs of her community and will therefore be of more help in organizing classes to reach the home makers. During the summer she can also assist the girls who are carrying on home projects, as in all cases where the 12-months' teacher is employed, the States have required of each student a definite piece of home work to be done under the supervision of the home-economics teacher during the summer months.

The adaptation of equipment to meet the needs of vocational home-economics education is being studied and some progress has been made. There has been a real effort on the part of the teachers

to offer instruction under as nearly normal home conditions as the limitations of the school permit. In some of the schools this has led to the elimination of the individual unit equipment so commonly found in the average home-economics laboratory, and the substitution in its place of a school kitchen, in which the student works in quantities and with utensils of average family size. Various modifications of the unit kitchen plan have been used in the schools. A number of school buildings have been equipped with housekeeping apartments where most of the phases of home management can be taught under average home conditions. In one of the States a practice cottage is required and no vocational home-economics school may be reimbursed from Federal funds that does not provide a cottage fitted up as an average home and in which the vocational students carry on all of their work.

The methods of teaching have improved, for the individual girl and her needs has to an increasing extent set the standard of the classroom instruction, and methods are being worked out which will make more independent thinkers and workers of the girls. This entails a careful analysis of the minimum essentials which must be taught and the application of the project to the classroom work. Good results have come from the insistence upon the use of the combination of lecture and laboratory period. Formerly when the practical work was offered at one time and the lecture work at another, there was little or no relationship between the two. With the method now in use the results show a very much better correlation between the actual manipulative work and the related instruction which is necessary to make an intelligent worker. The demand in a number of schools for the production of a product which can be sold has raised the standard of work required of the students. The preparation of the school lunch has been used to excellent educational advantage in some vocational schools, for the student's work is here made to come up to a commercial standard. There is, however, always the danger of the sale dominating the work required. When the product can be sold, without sacrificing the educational value of the work required of the students, they gain much from estimating the value of their time and from the necessity for accurate and careful work.

TEACHER TRAINING.

In the majority of the States, one or two institutions which have good home-economics departments have been designated by the State boards for vocational education for the training of teachers of home economics. In three States the teacher training is conducted directly by the State board for vocational education at established centers within the States. In 1918–19 forty-eight States used Federal funds

to train teachers of vocational home economics. Sixty-seven institutions were designated, with an enrollment of 3,098 and a teacher-training staff of 366.

In practically all of the States the courses have been designed to train teachers of day schools rather than teachers of part-time and evening schools. There is a need for special teacher-training courses for teachers in these two types of schools. The requirements for a successful teacher of part-time or evening classes differ materially from the requirements for the teacher in the all-day school.

The teacher-training work has been conducted in four types of schools—land-grant colleges, State universities, women's colleges, and, in a few cases, normal schools. These institutions have varied as to the aim of the home-economics work which they offer, but in their relation to vocational home economics they are unified by their teacher-training courses. In the main, the courses offered for training of teachers have been much the same, in that each course has included:

(1) Professional courses in education, including supervised student teaching.
(2) Home-economics training.
(3) Prerequisite or parallel courses in science and art.
(4) General academic subjects.

The training of the teachers of home economics has been under the direction of either the State supervisor of home economics, the director of vocational education, or, as in two of the States where the work of training teachers is carried on by the State board, under a director of teacher training. In the teacher-training institutions the department which has been responsible for the training of teachers in home economics has depended upon the general organization of the work within the college. The home-economics department, the education department, or the home-economics department in cooperation with the education department, directs the teacher-training work.

The training of Negro teachers is being carried on in most of the Southern States. One institution in each of nine States is being reimbursed from Federal funds for the training of teachers of home economics. The institutions designated for teacher training are, in the main, normal and industrial institutes which offer training in agriculture and trades to the men and home economics and trades to the women.

The length of the teacher-training course as now outlined is four years in all but four States. In two of these it is now being developed from a two to a four year course. In the other two, where the State boards have trained their teachers direct, they have not provided a four-year course, but have, in lieu of some of the technical training, accepted for entrance only women of maturity who have had adequate vocational experience in home-making. Too little em-

phasis has been laid in teacher-training work upon prerequisite vocational experience and experience obtained supplementary to training in schools, and this is a wise move to encourage women with more home-making experience to go into training for teaching.

The development of teacher-training work during the past year has been along the lines of increased and better professional teacher-training courses and improved means of providing vocational experience for the students. The professional courses which have received the most emphasis have been the special methods courses and practice teaching. More time is being devoted to the study of methods and an attempt is being made to determine the most successful methods for presenting vocational work. There has been a decided increase in the amount of practice teaching required. It now varies from 25 to 54 lessons, with a minimum requirement of a course of three credit hours or about 36 lessons actually taught by each student. The provision for practice teaching is usually either the high school in the community in which the college is located, or a special practice school established in connection with the education department. In a few institutions the practice teaching is conducted through a system of apprentice teaching, the seniors spending the greater part of the last half year in teaching in one of the schools of the State under the direction of a member of the teacher-training staff of the college. In only a few cases is the practice teaching needed provided in evening and part-time schools.

Vocational experience as a part of the teacher-training course has been furnished in a variety of ways: Through actual practice during the summer vacation, by various projects performed during the regular school term, and through supervised work in the practice cottage. All of the States now include vocational experience either as a requirement for entrance to or graduation from their teacher-training course. To determine whether the vocational experience requirement for entrance has actually been of a satisfactory type it is being checked in a variety of ways—through blanks, conferences, and examinations. There are 36 States which include work in the practice cottage as an essential part of the teacher-training course because of the opportunities it offers for vocational experience. Two of the States require some trade experience of their teachers of home economics, and if the teacher has not had such experience as a part of her training, some provision must be made for a piece of work to be done in the summer under normal commercial conditions.

The improvement of teachers in service has been definitely provided for in only a few States. One State makes such provision and requires such improvement of every teacher. Some help has been given to the teachers by the State supervisors in those States whose facilities for supervision permit such itinerant teaching.

SUGGESTIONS FOR FURTHER PROGRESS.

A review of the work as accomplished under the vocational act for the year 1918–19 points clearly to certain fields for future development of home-economics education. The reports show that as yet the large groups of girls and women in this country are not being reached by home-making training—that so far the group that is more generally reached is the group of girls in school, while the home-makers and the girls who are employed have little opportunity for this much-needed training.

Adequate provision for vocational education in the day schools is not being made for the groups of foreign girls and those girls who are slow and over aged. A large number of this group will eventually marry, and yet too frequently they are held in the grades without being given the type of instruction which they will need to equip them for their work as home-makers. Therefore our future program should be more definitely directed toward meeting the needs of these groups of girls and women.

Supervision is not yet adequately provided for in many of the States, for in only a few of the States are full-time supervisors employed. Every State needs the assistance of at least one full-time supervisor, for the problem of reaching the girls and women with the right kind of home-making training demands the full time and assistance of at least one woman well trained in home economics. A minimum of half-time supervision is essential to the efficient development of a State-wide program of home-economics education, and next year every State should provide at least that minimum.

Training home-economics teachers of part-time and evening schools has not received the attention which has been given the training of teachers for day school. This is a matter which in the future the States must develop if the girls and women out of school are to have the opportunity which is their right for training in home-making.

The need of experience in home-making as a qualification for vocational teachers must be given more recognition and more ways should be sought for providing such experience for prospective teachers.

There are a number of studies relating to home-making education which should be made. In 1917–18 the Federal Board began a series of bulletins dealing with the following home-making problems: Food, clothing, child welfare, the care of the health of the family, and home management. These bulletins were outlined in lessons in a form available for use in part-time and evening classes. The first of these, clothing for the family, was issued in 1917–18. During the past year the use and preparation of food has been prepared and two bulletins, the care of the health of the family, and the care of

the child, have been undertaken. These bulletins fill a very genuine need as is evidenced by the large demand made for them by the schools and home makers of the country. The whole series should be completed as soon as possible.

There are a number of other studies which should be made so as to throw more light on the type of training needed for the vocation of home-making. The problem of home-project work and how it can best be developed is only just beginning to be studied. The methods of instruction which can best be used in vocational courses have not yet been completely worked out. The vocation of home-making has never been carefully analyzed so as to determine the minimum essentials which a woman should know of cooking, sewing, home management, child care, and the care of the health of the family, so as to enable her to successfully manage a home and to do her part in rearing a happy, useful family.

The type of equipment which is best adapted to teaching vocational home economics has not yet been satisfactorily determined. The methods of instruction which will secure the most rapid, practicable, and valuable results in home-making courses have not been set up.

The question of the amount of related science and related art necessary to make of our home maker an intelligent worker has never been determined, nor do we know the best type of related science and art to offer. The needs in this field are not identical in every State, and it is important that in pushing its program for vocational education each State study its own situation and promote the work in home-economics education so as to best serve the needs of the girls and women in the State.

TRADE AND INDUSTRIAL EDUCATION.

Any statement of the development of trade and industrial education for the past year must take into account two factors, each of which exerted a considerable influence upon the number of schools organized, and upon the attendance of the students. The first of these factors was the great war. Under the impetus of "preparation for service" many classes in radio and buzzer work and classes giving training for mechanics were organized. These classes were all organized as evening school instruction, and in some States represented the only kind of trade-extension instruction being given. With the sudden ending of the war there was a rapid falling off in the number of classes, and in the attendance. The second factor affecting the attendance was the epidemic of influenza which prevailed throughout the country. In spite of these adverse conditions the progress made during the year has beeen beyond expectations. Interest has increased in all of the States, and the total amount of work accomplished as shown by the reports from the various States is very satisfactory when compared to the reports for the previous year.

SUPERVISION.

Much advance has been made in supervision. Supervisors are now employed in most of the States. With more adequate supervision more instructors are being trained, more schools are being organized, and the quality of the work is improving. Twenty States now employ trade and industrial supervisors for full time; 6 States employ supervisors giving their full time to supervision and instructor training, with approximately 50 per cent of their total time to each; 6 States employ part-time supervisors, this employment including 50 per cent or more of the individual's time; 7 States employ part-time supervisors for less than 50 per cent of the individual's time; 9 States have only incidental supervision.

SCHOOLS AND CLASSES.

A study of the schools and classes organized during the year shows that there has been a general improvement in all kinds of industrial education, and that the encouraging conditions which are to be noted at the present time will continue throughout the coming year with very decided improvement in some States and a further general improvement over the entire country. There is a much better understanding of the principles of vocational education, and a better

understanding of the conditions and the requirements of the vocational education act and policies of the Federal board. School officials in local communities where vocational classes are maintained now usually have a fairly clear conception of the meaning of vocational training and of the various types of schools which may be set up under the Federal act for such training.

The greatest increase has been and will probably continue to be in the number of part-time and evening schools. Those responsible for the administration of vocational education are beginning to look upon the evening and part-time trade-extension schools as the types which will most satisfactorily meet the need for trade and industrial training. Instead of focusing the vocational program upon an all-day school which is intended to prepare young workers for entrance into a given occupation the States are now beginning to direct the program toward the trade-extension type of class in which the aim is to improve the manipulative skill and technical education of those already employed in a given occupation.

Hitherto trade-extension evening classes have for the most part been organized in the larger industrial centers. Increasing numbers of such classes are being organized in smaller communities having a dominant industry, such as textile work, paper and pulp manufacturing, and mining.

The part-time school is being rapidly developed as a result of the enactment of compulsory part-time school laws. These schools are designed to enable the young worker to secure preparation for entrance into a more desirable occupation, training for promotion in the occupation in which he is employed, or advancement in general education, particularly in civic or vocational intelligence. Eighteen States now have part-time compulsory attendance laws, and many of the other States have under consideration the enactment of similar laws.

A study of the degree to which the all-day trade or industrial school functions in a vocational program can only be followed by the conclusion that such a school meets only a small part of the needs of that community in the field of trade and industrial education. There are many problems to be met in making the all-day school effective. The courses selected must provide for some advantageous entrance into the occupation for which they are designed to fit. Pupils should have made their choice of occupations only after being informed concerning the opportunities in the various occupations of the community. If the instruction is to be effective only those skilled in the occupation and in the profession of teaching can give adequate instruction. To secure the services of such an instructor it is necessary to pay a salary in excess of that usually paid to other

teachers in the school system. In training for some occupations the cost of equipment is very great. There are many other problems equally difficult, which indicate that a number of years of experience will be required before the problems of the all-day school will be solved. This applies both to the unit trade school and to the general industrial school. The needs of the community should be met both in respect to the improvement of those already in service and the preparation of new workers to meet the demands of industry. A study of the numbers engaged in the industry and the numbers needed to be inducted into the industry each year will give the relative ratio of the needs of the community for trade extension and all-day instruction. Experience also goes to show that many communities in which there is no justification for the establishment of a day school may successfully maintain evening or part-time schools, and on the other hand that there is no community in which there may be justified the existence of a day school without the existence of provision for trade-extension instruction.

TEACHER TRAINING.

The importance of the inauguration of adequate plans for training instructors for both shop and related subjects can not be over estimated. During the past two years the program has been most seroiusly handicapped by the war. The Army and essential industries in their attempt to secure a sufficient number of mechanics and technicians took practically all of the men who otherwise would have been available for teacher-training classes. With the rapid increase in wages being paid to men employed in industrial pursuits it is becoming increasingly difficult to secure and retain the services of highly skilled men and women for the teaching profession. This is especially true since it has been found that the instruction given in instructor-training courses often enables trained workers to secure a more advantageous position in industry itself. This situation makes all the more necessary an extended program for instructor training. Notwithstanding the interruptions and the difficulties which stand in the way, progress has been made. Many of the States have recognized that it is impossible to induce any great number of trained mechanics to give up a job which is already paying as much or more in the way of wages than is being paid to the teachers in the public school system, and go to an institution for two, three, or four years of training, with a prospect at the end of that time of securing a teaching position which will pay him the same or even a little less wage than he was receiving before coming to the institution. Realizing this, the States have taken the teacher-training work to the men rather than attempting to bring the men to the teacher-training institution.

As a consequence, State boards and institutions designated by State boards to carry on teacher-training work have established training centers in populous centers where men may receive training for teaching in evening school while they are holding their day-time jobs. The institutions charged with the responsibility of maintaining instructor-training for trade and industrial subjects, the kind of teachers being trained, and the kinds of classes in which the training is given are indicated in the following tabulation:

States.	Conducted by.	Kinds of teachers being trained.		
		Residence courses.	Extension courses.	Itinerant teacher.
Alabama	University of Alabama; State board, through Tuskegee Institute (Negro).	Related subjects; shop teachers.	Shop teachers	Related and shop.
Arizona	University of Arizona	Summer courses		
Arkansas	University of Arkansas;		Shop	Do.
	Branch normal (Negro)			None.
California	University of California		Shop and related subjects.	
Colorado	State board for vocational education.		do	Shop and related subjects.
Connecticut	State board and State trade schools.	Shop teachers		
Delaware	Institutions; State board	do	Shop teachers	
Florida	University of Florida		Shop	Do.
	Negro Agricultural and Mechanical College.	Shop and related subjects.		
Georgia	Georgia School of Technology		Shop	Do.
	Georgia State Industrial College (Negro).	Shop and related subjects.		
Idaho	State board at Idaho Technical Institute.		Shop and related subjects.	
Illinois	University of Illinois and State board.	Shop and related subjects.	Shop chiefly	
Indiana	Indiana University		Shop	
	Purdue University	Shop and related subjects.		
	State normal	do		
Iowa	State board; Iowa State College; University of Iowa.		Shop and related subjects.	
Kansas	Pittsburg State Mechanical Training Normal School.			
Kentucky	University of Kentucky			
Louisiana	City of New Orleans	Related subjects		
	Southern University (Negro)	None	None	None.
Maine				
Maryland	State board	Shipyard instructors.		
Massachusetts	State board and local institutions.	Shop teachers; related subjects; foreman teachers in industrial plants.	Shop teachers	Teachers in service.
Michigan	University of Michigan	Shop and related subjects.	Shop and related subjects.	
Minnesota	University of Minnesota	do	do	
Mississippi	Agricultural and Mechanical College.	None	None	None.
	Alcorn Agricultural and Mechanical College (Negro)	do	do	Do.
Missouri	University of Missouri	do	Shop and related subjects.	Do.
Montana	State board of education			
Nebraska	State board for vocational education.			
Nevada	University of Nevada	Summer course		
New Hampshire	State board			Teachers in service.
	State college	Related subjects		
New Jersey	State board	Foremen and men in industrial plants.	Foremen and men in industrial plants.	
	Rutgers College	Teachers in service.	Teachers in service.	

States.	Conducted by.	Kinds of teachers being trained.		
		Residence courses.	Extension courses.	Itinerant teacher.
New Mexico	State board for vocational education.			Shop and related subjects.
New York	By institutions controlled by State board.	Shop teachers; related subjects.	Shop teachers; related subjects.	
North Carolina	North Carolina State College of Agriculture and Engineering.	None	None	None.
North Dakota	Agricultural and Mechanical College, Fargo.			
Ohio	Ohio State University	Shop and related subjects.	Shop and related subjects.	
	University of Cincinnati	do	do	
	Cleveland School of Education.			
Oklahoma	State University			
	Agricultural and Mechanical College.			
Oregon	Oregon Agriculture College	Shop and related subjects.		
Pennsylvania	By institutions	Shop teachers; related subjects; teachers in service.	Shop teachers; related subjects; teachers in service.	
Rhode Island				
South Carolina	The Clemson Agricultural College.			Shop and related subjects.
	Agricultural and Mechanical College (Negro).	None	None	None.
South Dakota	State University, Agricultural and Mechanical College.			
Tennessee	University of Tennessee	None	None	Do.
	Agricultural and Industrial State Normal School (Negro).	do	do	Do.
Texas	Agricultural and Mechanical College of Texas.		Shop	
	Prairie View State Normal (Negro).	None	None	Do.
Utah	University of Utah		Shop only	
Vermont	By State board			Teachers in service.
Virginia	City of Richmond	Shop		
	Virginia Polytechnic Institute.	None	None	None.
Washington	University of Washington	Summer course	Shop and related subjects.	
West Virginia	University of West Virginia.	Shop and related subjects.		
Wisconsin	Stout Institute	do		
	State board		Shop and related subjects.	
Wyoming	Agricultural and Mechanical College; State board.		Shop teachers	

The most important thing to be considered in the administration of an instructor-training program is the qualifications of the instructor-trainer responsible for the selection of candidates to receive training and responsible for the instructional content of the training courses. These qualifications require not only a good working knowledge of practical professional education, but also an intimate knowledge of some one industrial occupation. It is not necessary for the instructor trainer to be skilled in all of the occupations for which men and women are being trained as instructors, but it is important that he or she should have gained, through experience in industry, an appreciation of industrial conditions. In the past the country has largely depended upon training by absorption rather

than training by intention for its supply of teachers. Decided progress has been made by the States in this respect. During the past year there has been an increasing number of State boards and institutions designated for training trade and industrial teachers securing or seeking to secure men adequately to carry on an instructor-training program.

UNDEVELOPED FIELDS.

In the development of a program for vocational education to meet the needs of those who are already employed as well as those who are preparing for employment, it is necessary to take into consideration instruction in other occupations than the 12 or 15 trades which have hitherto been most frequently included in the day school program. During the year a preliminary study has been made of certain occupations which seem to afford opportunities for vocational education both from the standpoint of the numbers employed and the instructional content of the occupation. Further studies should be made with a view to outlining courses of instruction for these fields. The undeveloped areas and fields mentioned below do not by any means include all of the possibilities for vocational training. They do include, however, the principal fields from the standpoint of numbers employed and need for training.

MINING.

More than 1,000,000 men in the United States are employed in mines and quarries. The capital invested in this industry is nearly $4,000,000,000 while the value of the yearly product reaches $2,000,000,000. There is at the present time an increased demand for assistance in the organization of classes for vocational instruction and in the collection of material which may be used as a basis of instruction in these classes. The conditions under which coal and the metals are to-day brought out of the ground and made ready for the market demands systematic, practical training for those engaged in such large and increasing numbers in this important industry. All men employed in and about the mines should be given a practical training which will enable them to safeguard their own lives and those of their fellow workmen. Many men need also a technical training which will enable them to qualify for positions of greater responsibility. State boards and the Federal Board should continue to give close attention to this important industry.

TEXTILES.

In the textile mills, located largely in the Southern and Eastern States, are employed more than 400,000 people. Like mining communities, these mills are often located in communities having no other principal industry, and in which large numbers of boys and men,

girls, and women are employed. While the amount of training required for a given occupation may not be so large in content as is required for some other occupations, the workers should be given an opportunity to acquire the manipulative and technical skill which will enable them to become eligible for promotion to positions of greater responsibility and greater remuneration.

PULP AND PAPER INDUSTRY.

The pulp and paper industry is peculiar to regions which possess the natural woods used in the manufacture of paper pulp. Like mining and textile mills the industry is usually located in small cities near the source of power and raw supplies. A survey of a typical pulp and paper industrial establishment located in an average community should be made with a view to determine the field for training, and the training agencies which can be most efficiently utilized. More than 100,000 persons are engaged in this important industry in the United States.

FOUNDRY.

It is estimated that there are employed in the United States as molders, founders, and casters about 200,000 persons. Of these approximately 50 per cent are usually classified as skilled labor, with 50 per cent as apprentices. It is generally agreed that the apprenticeship system has failed in this industry. The instructional content of courses for molders, casters, makers, cupola chargers, cupola attenders, chippers, helpers, and foremen, together with the period of training which is required for this instruction is yet to be determined.

LUMBERING.

Many States of the South and West are extensively engaged in lumber production. This involves not only the manufacture of rough lumber, but also the operation of lumber mills in which the rough lumber is made into many different shapes and finished sizes. The industry employs a large number of men in occupations for which certain special manipulative and technical training is required. Certain demands have already been made for the organization of classes to give trade extension instruction for those employed in this industry. It would seem as though some study ought to be made of the field and the training agencies as well as the instructional content to be given the workers before any considerable amount of work is attempted.

RAILROAD SHOP APPRENTICESHIP.

During the year the Federal Board took up with the Railroad Administration the question of a cooperative arrangement whereby part-time education for railroad shop apprentices might be best

promoted. It was particularly desired that the different railroads under control of the United States Railroad Administration be brought into cooperation with the State boards for vocational education and the local community in the establishment of part-time schools for railroad shop apprentices and mechanics. A report covering a period of eleven years made by those in charge of apprentice schools on one of the largest railroad systems indicates that the total number of apprentices were distributed as follows:

Machinists	721
Boilermakers	99
Coach carpenters and patternmakers	53
Freight carpenters	49
Tinners, coppersmiths, pipefitters	39
Painters	25
Blacksmiths	21
Electricians	5
Specials	30
Total	1,046

A study should be made to determine the organization best adapted for giving instruction to apprentices in cooperation with railroad shops and to select the instruction content which should be included in the course for these apprentices. Arrangements are now being made for these studies in cooperation with the Railroad Administration.

SHIPBUILDING.

While shipbuilding was largely developed under the stress of the war program, it is reasonably certain that a considerable number of men will be employed in this industry in the future. Some study should be made of the field for training and the types of schools or classes best suited to meet its needs, as well as of the subject matter to be taught.

PRESENT STATUS OF TRADE AND INDUSTRIAL EDUCATION FOR GIRLS AND WOMEN.

Granted that the problem of vocational education must concern itself with the preparation of the worker for the work, the training of women must necessarily consider the occupations in which they are engaged and the probable demands upon their labor.

A broad classification of these occupations indicates in the main their historical development and presents two separate types—household occupations and nonhousehold occupations.

HOUSEHOLD OCCUPATIONS.

Primarily, woman always has been of right and necessity a factor in industrial life. A conserver by tradition she has been employed in the diversified occupations which center around the care and rear-

ing of children and pertain to food and shelter, necessarily carrying on this work within the limits of her household. When the home was the center of industry her training for home making was an industrial training gained by an apprenticeship method in which the mere processes of life contributed to her education. The congestion of population in urban centers and the demand for increased production have alike wrought changes in the home and industry. The activities which were formerly household occupations are rapidly becoming specialized trades. Some have been forced into mills and factories and whole industries organized about them. Throngs of women still find livelihood in these occupations and a market for their labor. Examples of these industries may be found in the needle trades (dress making and millinery), the preparation and serving of food, canning and preserving, care of the sick, teaching of children, etc. Woman is not a new factor but a changed factor in industry.

The productive occupations exist in various stages of industrial specialization to-day according to the degree to which mechanical appliances have supplanted hand labor.

The service occupations by preemployment training and State standardization have a tendency to rise to the rank of professions, as in the case of teaching and nursing.

NONHOUSEHOLD OCCUPATIONS.

The second type includes those occupations which never have been carried on as home processes but which are a development of modern industrial organization with its array of specialized machines, appliances and devices for increasing production, facilitating records, and multiplying the agencies of distribution. The use of power-driven machines in printing, watchmaking, jewelry and metal trades, together with the use of the telephone, telegraph, typewriter, comptometer, adding machines, etc., has created a type of occupation which was originally carried on by men, but shared with women operatives as the specialized machine made possible the use of women's labor. These have been recognized as women's occupations as the man competitive factor has been diverted in a large measure to other fields. The social stigma attached to their pursuit consequently has diminished.

Out of this type of employment has arisen a tendency to legislate and regulate certain conditions for the protection of the woman worker and society. These measures necessarily antedate any consideration of vocational training for women. Women have not figured in wage-earning occupations in sufficient numbers until recent decades to demand consideration. The public attitude which has

long prevailed has been prejudicial to training women for industrial occupations, as their stay in industry was considered too brief to warrant it, and the occupations open to them, other than sewing and millinery, demanded little specialized training or skill.

A general conviction that girls should have some vocational training has led to the introduction of dressmaking and millinery, with little knowledge of the local conditions of work, wage, hours, chances of employment or opportunities in industry. Enlarging the scope of women's work is a matter of breaking down prejudices and seeking an outlook toward better opportunities for them and a broader vision of what technical education may accomplish.

NEED FOR INDUSTRIAL AND TRADE TRAINING.

These facts are commonly recognized and accepted. There are now 11,000,000 wage-earning women in the United States and their number is rapidly increasing. The opportunities for employment are expanding, the period of service is lengthening, and the need for training more insistent. Economic pressure or personal desire has resulted in overcrowding commercial courses in the public-school system as the shortest route to the pay envelope.

The economic loss both to the worker and employer which results from permitting great numbers of girls and women to enter the industrial world without skill, training, or other preparation—there to shift for themselves as best they may—is focusing the attention of the public on the need for trade and industrial training for girls and women.

Nationally, we are facing a period of industrial expansion and development in which the interests of the woman worker are destined to become an increasingly important factor. The educational program must secure for her better pay for better work and fuller participation in civic affairs.

PROVISIONS FOR MEETING THE NEED.

Privately managed schools, factory schools, and public schools have developed training for certain types of women's work where the needs were obvious and the knowledge and technical skill readily organized.

The Federal vocational act aims to extend the scope and service of public educational agencies in multiplying the opportunities to reach greater numbers of people engaged in wider ranges of employment. In order to do this, provision is made for supervision, training of teachers, and the establishment of schools or classes in accordance with the terms of the act.

STATE SUPERVISION.

State boards for vocational education should arrange for an investigation of the need for supervision of this work, the growth of which demands more than incidental and casual attention. The persons to whom this responsibility is delegated should study the conditions and opportunities for employment of girls and women; the possibilities of preparation and advancement; stimulate and promote experiments in training with the cooperation of employers, employees, and school representatives, and assist local school authorities in the organization of evening, part-time, and day vocational classes suited to the needs of workers or prospective workers, and, likewise, to the needs of production and instructional forewomen or supervisors.

Provision to meet this responsibility should be made according to the relative opportunities of women engaged in gainful occupations, which varies from the State of Massachusetts, where 60 per cent of the women between the ages of 16 and 20 are wage earners, to the State of New Mexico, where the percentage is reduced to a minimum. The State plans of two States have made provision for the appointment of a woman assistant to the trade and industrial supervisor. One State has a woman supervisor of continuation schools and two States have a woman in charge of vocational education for girls and women.

TEACHER TRAINING.

A supply of adequately trained teachers in trade and industrial work is a necessary prerequisite to the development of this program. The opportunities offered for the training of desirable tradeswomen for teaching service in evening, part-time, and day schools is limited. Two States have made provision during the past year for special classes for training women trade and industrial teachers in connection with their teacher-training institutions.

The war accelerated the establishment of training departments within the industrial plants and has created a demand for instructors in vestibule schools and as instructional forewomen and supervisors in women-employing industries. There is an increasing demand for women who can work out a training program from the production schedule. This is essentially a teacher-training problem. This need can not be met with the present inadequate opportunities for training.

The responsibility for recruiting desirable people for teacher-training classes should be considered a definite assignment in order that States will be supplying their own demands instead of bidding against one another for desirable instructors.

The immediate problem facing the large group of States affected by part-time legislation is also one of training teachers of trade subjects, related subjects, and subjects to enlarge the civic and voca-

tional intelligence of the pupils. The number of girls and boys to be reached by these schools is about equal. In this work provision must be made for some initial training and for opportunity to make personal contact with many kinds of industrial employment for girls and women. All factors bearing on the problems of young workers, such as guidance, placement, and follow-up must be analyzed and scrutinized from every angle in order to evolve a program of the greatest possible service to the group. Practically one-fifth of the teachers of continuation schools in one State were in training during the past summer. Several other States have had conferences of teachers prior to the inauguration of the program called for by State legislation.

EVENING CLASSES.

Evening trade extension classes for girls and women are socially justifiable when the hours of labor are limited to a reasonable working day. Considerable breadth of interpretation should be given to the term "trade extension," since short intensive courses apparently unrelated to present work may enable the girl or woman to advance from the position which she is holding. For example—

Waitresses able to manipulate the cash register or the typewriter receive an added wage and chance for progression.

Trade extension classes are also possible for women with household experience who wish to commercialize this experience on a trade basis; for instance, women engaged in keeping boarders, or pay guests, enrolled for evening instruction in institutional management. Another group were trained for pantry service in hotels and restaurants through evening classes. Four hotels in a given locality have cooperated with public-school agencies in the establishment of courses for waitresses, maids, bath room attendants, department heads, and elevator girls.

A group of dressmakers enrolled in a class in garment designing or in trade millinery in order to increase their service to the customer in costume planning is considered a trade-extension class.

Helpers in hairdressing and manicuring establishments enrolled in evening classes accelerate their entrance into the trade by supplementing their daily work with evening training.

A group of girls employed in the layout work in the manufacture of jewelry, silverware, locks, and electrical apparatus and fixtures were given blue-print reading and mathematics related to their occupation as trade extension.

PART-TIME SCHOOLS.

When instruction is carried on within the regular hours of the working-day it becomes part-time instruction. Much leeway is provided for the organization of classes of this kind. The instruction

may be trade extension, trade preparatory, or contribute to the general intelligence of the worker. It enables public educational agencies to cooperate with the neglected field of factory occupations in various ways.

A certain garment factory assigns those workers who are employed or who are under agreement to be employed to a training department with a plant. The learner works on a commercial product for which she receives compensation although she is under the direction of a teacher who is an employee of the public-school system. When she reaches a certain degree of proficiency the learner is transferred from the instruction to the production department. The details of this arrangement are under the direction of an advisory board composed of representatives of the school, the employers, and the employees.

This period of instruction according to the terms of the act must be 144 hours in length. Usually the school is in continuous operation and workers are reassigned to it in case of transfer from one department to another.

Cooperative part-time classes have been arranged for girls employed in textile mills, cutlery works, and the dressmaking trade, in which the worker spends part of the day, week, or month at work and part in school.

The problem of the general continuation school varies in different parts of the country according to the school-leaving age. When the age is low the boys may outnumber the girls and a large percentage of the pupils are of elementary grade attainment and retarded in progress for one or another reason. This indicates that the work should not parallel the already existing curriculum of the grade schools. When the school-leaving age is high the general improvement classes become virtually a secondary school problem. Girls who are employed in those occupations in which the local vocational school already provides instruction may be assigned to trade extension work during their continuation school hours. One of these schools had a continuation class of 25 girls from the dressmaking and millinery establishments. Similarly, opportunities for prevocational experience should widen the vision of the girl in enabling her to make an intelligent choice of work as she emerges from juvenile employment.

The recent legislation enacted for compulsory part-time attendance should be interpreted when not specially designated to include girls at home and at work irrespectively. The desire of the girl, her immediate need, and her working expectancy must determine the service which the continuation school can render her.

A woman thoroughly posted on the economic, social, and educational problems of wage-earning girls should be charged with this responsibility and authority.

ALL-DAY SCHOOLS.

The large number of young workers, low wages, and undesirable employment, and the fact that certain skilled trades were closed to entrants led to the establishment of day vocational or trade schools for girls. Private enterprise was responsible for the initial experiment. That these schools have persisted and at the present time form an integral part of about 20 public-school systems in various localities throughout the United States indicates that they have met a need. The courses of instruction are based on the age of advantageous entry into an occupation in that locality, a minimum of training requisite for the lowest level of employment, and the school expectancy of the girl. The work is intensive and aims to give as broad an outlook as possible to the young worker and preserve a balance of technical and relatable knowledge. The conservation of the health of the young worker, and the betterment of home conditions, and an appreciation of her labor in the industrial world are considered fundamental parts of the program. The occupations for which training is offered are distinctively women's occupations and raise no debatable issues. A partial list of occupations taught in such schools includes—

Dressmaking.
Millinery.
Lamp-shade making.
Electric power machine operating on clothing, embroidery, and straw.
Pasting and leather trades.
French edge making.
Embroidery designing.
Perforating.
Commercial art and design.
Laundry work.
Cafeteria service.
Manicuring and shampooing.
Artificial flower and featherwork.
Beading.
Telegraphy.
Printing.
Bookbinding.
Glove making.

The aim of these schools is to lift the young worker over the unprogressive steps of an industry and insure for her an advantageous entrance into employment.

Initial wage, possibility of advancement, and the technical work require that a trade course should be short and intensive and open up the possibilities for future advancement.

PROMOTIONAL WORK NEEDED TO DEVELOP TRADE AND INDUSTRIAL EDUCATION.

(1) State boards should continue to inform school boards, teachers, employers, employees, and the public in general concerning the purposes and provisions of the vocational education act, the State plan, and the State program for the promotion of vocational education. It is only through a cooperation of these agencies, based on a thorough understanding of the principles of vocational education, that schools may be organized which will meet the needs of a community beyond bare conformity to the requirements of the law and the State plan.

(2) Instructor-training programs for trade and industrial subjects should be stimulated through short intensive courses given to the instructor-trainers. Arrangements are now being made to offer short intensive courses at the regional offices. These courses will be open to State supervisors of trade and industrial subjects and to persons training teachers of trade and industrial subjects.

(3) Increased attention should be given to the professional improvement of teachers in service.

(4) Industrial surveys should be made to determine the occupations within a particular industry for which training can practically be given.

(5) Community surveys should be made which would determine the field for training in that community, the training agencies to be charged with the responsibility of training and the instructional content.

(6) A study should be made of the status of girls and women as industrial workers to determine the field for training agencies which should be used and the subject matter to be included in such training.

(7) A study should be made to determine the types of vocational training needed for racial groups such as the Negroes, the Spanish Americans, and the Indians of the West and Southwest.

(8) A study should be made of the problems of the city of less than 25,000 inhabitants to ascertain how the vocational needs may be met, especially in cases where there is not a dominant industry.

(9) There should be made available for the use of the States bulletins dealing with the subject matter of trade and industrial education of less than college grade. For example, a series of bulletins dealing with the mining industries such as mine timbering, mine safety, mine gases, mine ventilation, the content of a training course for foremen, and a series dealing with related subject matter of trades for which and in which training is being given. There is very little printed material available in the field of trade and industrial education such as has been made available in the field of agriculture and home economics education by the agricultural colleges

and experiment stations, and the United States Department of Agriculture, which can be used in schools of less than college grade. In addition to publications of this character it will also be necessary to prepare bulletins dealing with the organization of vocational schools for girls and training of teachers of trade and industrial subjects.

(10) Encouragement and stimulation should be given to annual State conferences of those responsible within the State for the administration of and instruction in vocational schools.

CONTRIBUTIONS MADE TO THE WAR TRAINING PROGRAM.

Soon after its organization the Federal Board undertook the task of working out a plan of training mechanics and technicians for Army occupations and war industries which could be carried out in cooperation with the State boards for vocational education.

In this work the development of the evening classes was considered highly important because—

(*a*) By proper admission requirements to classes men could be secured who had the proper civilian experience and knowledge on which to build.

(*b*) Productive industry would be disturbed less than any other method of training, because men could take training fitting them for Army service in selected occupations prior to leaving home at the same time they were working at their regular occupations in civilian life and contribute to productive industry.

(*c*) Federal funds were available for aiding and assisting in this work and an adequate scheme for proper supervision was already developed. Properly organized classes would not duplicate existing training methods.

In cooperation with the Adjutant General's Office the Board proceeded to develop the work rapidly. Arrangements were made to employ special agents to prepare courses of study and carry out the necessary administrative arrangements.

Radio and buzzer classes were immediately formed, and before January, 1918, 5,000 men had received instruction.

Contact was set up with the various branches of the Army for securing the data necessary for preparing courses of study and teaching outlines in those occupations for which adequate training could be given in evening classes.

Cooperating with the Office of the Provost Marshal General seven questions covering the occupation and experience of drafted men were inserted in the selective service questionnaire.

In December, 1918, the Board called a conference of State directors to explain the situation with regard to the Army needs and for the purpose of securing cooperation.

The Federal Board authorized the appointment of executive officers of State boards as agents of the Federal Board and agents were appointed in each of the States, at a salary of a dollar a year.

During the war, as a result of these activities 61,151 men were trained in 125 different centers. These men were trained for occupations as follows:

Radio and buzzer operators	31,194
Auto mechanics	10,998
Auto drivers	2,392
Machinists	3,712
Electricians	2,012
Woodworkers	951
Airplane	662
Welders	1,009
Sheet metal	291
Blacksmiths	467
Mechanical draftsmen	1,296
Other courses	6,167
Total	61,151

It is to be noted that about 30,000 men were trained in evening schools along lines supplementary to their daily employment. Practically all of these courses were supplemental to work done in essential war industries. The Board from time to time urged upon the various State boards the necessity of pushing the instruction in evening classes along essential war industries lines. The response to this was most gratifying.

It is further to be noted that the Federal Board proposed the plan and assisted in the organization of the administrative scheme through which the men were trained for corps service in mechanical day classes throughout the country.

The effect of this whole program upon trade and industrial education in the vocational schools of the country is marked. It is estimated that fully 50 per cent of the evening classes have used during the year the bulletins prepared in connection with the war emergency courses, particularly those relating to motor-truck driving, machine-shop occupations, sheet-metal work, pipe fitting, blacksmithing, electrical work, gas-engine, motor-car, and motorcycle repair work and oxyacetylene welding.

Eleven States, namely, California, Illinois, Indiana, Iowa, Massachusetts, Michigan, Missouri, New York, Ohio, Pennsylvania, and Wisconsin made a special drive on this war work and organized approximately 50 per cent of the classes which were in operation. Although the war training classes were discontinued early in the year, it can be fairly said that the impetus given to vocational education is significant in the number of classes in operation and in the character of the instruction being given.

COMMERCIAL EDUCATION.

In the First Annual Report of the Federal Board for Vocational Education certain pressing problems in the field of business training were briefly set forth. In the past year progress has been made toward the solution of some of these problems. The following statement will indicate the more important commercial education movements that are going forward with the cooperation of the Federal Board for Vocational Education.

STATE SPECIALISTS IN COMMERCIAL EDUCATION.

There is a rapidly increasing interest in part-time courses in commercial subjects throughout the country and the need for expert advice in the organization of such courses is being felt. A number of State boards for vocational education have taken steps to add a commercial education specialist to the vocational education staff. In some cases the full time of such a man is being used, while in other States such a specialist is being employed on a part-time basis. It is apparent that all the States should provide for this need.

COMMERCIAL TEACHER TRAINING.

In no phase of commercial education is there greater interest than in that of commercial teacher training. Better and more broadly trained commercial teachers are required to meet an ever-increasing demand for such teachers and to meet the keen competition of business for their services. The following States have made progress with this problem during the past year:

Indiana.—A commercial teacher-training course has been organized in the State normal schools at Terre Haute and Muncie. Special summer courses were offered in July and August.

New Jersey.—The commercial teacher-training course at the Trenton State Normal School was entirely revised for the coming year. It is now organized on a cooperative basis to provide both business and teaching experience to its pupils.

Minnesota.—A special summer course for commercial teachers was offered this summer at the University of Minnesota. It seems likely that a four-year course will be added to the regular curriculum of the Department of Education in September, 1920.

Iowa.—A complete commercial teacher-training course has been organized at the University of Iowa. During the past summer a special retail selling teacher-training course was offered.

Maine.—Special summer institutes for commercial teachers were held during the past summer at Bates College.

Pennsylvania.—A retail selling teacher-training course was added at Carnegie Institute of Technology, Pittsburgh. This course is conducted on a cooperative basis. The local merchants have given $160,000 to aid in carrying on this work.

New York.—A similar course has been organized at New York University, New York; merchants having promised $100,000 to support this training.

Washington.—Another course for the training of retail selling teachers under the general direction of local merchants, has been organized in the University of Washington at Seattle.

Definite progress also has been made along this line in the following States: Ohio, Virginia, Missouri, Michigan, and California.

PART-TIME COMMERCIAL CLASSES.

It is apparent that in the conduct of continuation schools provision will need to be made for giving vocational training in commercial subjects as a considerable proportion of pupils enrolled in such schools come from commercial employments. The following States have already made special provision for this kind of work in their State plans emphasizing the importance of this type of vocational training: Iowa, Indiana, Minnesota, Washington, and New York.

Definite courses of study have been prepared by the Federal Board and made available to those who are interested.

RETAIL SELLING TRAINING.

In keeping with the intent of the vocational education act the neglected group of store sales people has received much attention during the past year. There are nearly a million such workers in the United States for whom very little had been done in the way of training until the Federal Board took up this work a year ago. Almost every large city in the United States has manifested interest in this field of training. Courses have been established in stores, schools, Y. W. C. A.'s and colleges. Some of these courses are under public control, some are under private control, and others are being conducted under a cooperative arrangement between employers and public-school authorities. So great is the demand from States for aid in this field that it has been found necessary to add to the staff a special agent for this department of vocational training.

A bulletin on retail selling education was issued early in the year. Ten thousand copies were printed. A continuing demand for it has made it necessary to print a new edition of this document.

More than 40 conferences on the subject of retail selling education have been held during the past year.

FOREIGN TRADE EDUCATION.

During the past year the following things have been done to stimulate an interest in this field of vocational training.

A survey of the larger cities of the United States revealed the fact that few young men were in training for foreign-trade service and that short unit courses for men employed by foreign-trade concerns would aid in the training of a foreign personnel. Accordingly, it was decided to prepare a bulletin in which basic courses in foreign trade would be outlined. Bulletin No. 24, Education for Foreign Trade and Shipping, contained courses in foreign sales practice, document technique of foreign trade, staple commodities of commerce (commercial geography), foreign exchange, principles of ocean transportation, ports and terminal facilities, tariffs and treaties, export combinations and the Webb law, and history of commerce.

That this bulletin served to stimulate interest in this field of education is evidenced by the fact that many courses were organized in accordance with its suggestions. The following institutions either have given or have organized to give such courses for the benefit of employed men and others who desire to prepare for foreign-trade positions, both at home and abroad: Carnegie Institute of Technology, Pittsburgh, Pa.; University of Pittsburgh; University of Michigan; University of Washington; Harvard University; the College of Business Administration of Boston University, Boston; Northwestern University School of Commerce, Chicago; Duquesne University, Pittsburgh; Columbia University, New York; University of California; University of Chicago; Georgetown University, Washington, D. C.; New York University; University of Oregon (at Portland); College of the City of New York; Northwestern University, Boston; and the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.

Bulletin No. 24, Education for Foreign Trade, has been revised and enlarged to include special outlines of courses dealing with definite foreign-trade areas. These courses are designed for men who know the field for which they desire preparation. They include courses on the—

Far East.—China, Japan, Dutch East Indies, Philippines.

Near East.—Balkan States, Roumania, Bulgaria, Serbia, Croatia-Slavonia, Bosnia and Herzegovinia, Dalmatia, Montenegro, Albania, Greece, European Turkey, Egypt.

Russia.

Latin America.—Mexico, West Indies, Central America, Colombia, Venezuela, Guianas, Ecuador, Peru, Bolivia, Chile, Uruguay, Argentina, Paraguay, Brazil.

A new bulletin dealing with vocational training for the steamship business also has been prepared. This bulletin gives definite information concerning occupations peculiar to this highly specialized

business and outlines courses to meet the requirements of those who desire to prepare for such employment. The United States Shipping Board and the Bureau of Foreign and Domestic Commerce cooperated in the preparation of this bulletin. Steps have been taken to provide text material for use in giving these courses. Six texts are in preparation, each intended for use in one of the following courses as outlined in this new shipping-education bulletin:

(I). Steamship traffic management.
(II). Merchant vessels.
(III). Steamship operation.
(IV). Wharf management.
(V). Marine insurance.
(VI). Laws of the sea.

The United States Bureau of Foreign and Domestic Commerce is reprinting Bulletin No. 24, Education for Foreign Trade, Revised, Parts I and II, and the Steamship Bulletin under a cooperative arrangement made with this board.

Text manuals on Foreign Sales Practice and Foreign Trade Documents were prepared by the Federal Board and printed by the Bureau of Foreign and Domestic Commerce. They are now available through the superintendent of public documents.

COMMERCIAL EDUCATION BULLETIN.

The bulletin dealing with the organization and administration of commercial education has been prepared and published. It is known as Bulletin No. 34, Commercial Education Series, No. 3. This bulletin points the way for the development of better business training. The unit year vocational basis for commercial courses advocated therein has been indorsed by numerous associations of commercial educators. Many high-school courses have been reorganized in accordance with its suggestions.

SUMMARY.

Among the important developments in the field of commercial training these stand out as needing our immediate attention: Commercial teacher training, more expert supervision of this kind of training by the States, development of the best kind of business training for the continuation-school commercial classes, the establishment of training courses for retail-store workers and others who desire to prepare for store positions, and the further stimulation of foreign-trade unit courses of an extension character.

EMPLOYMENT MANAGEMENT.

On January 1, 1919, the Federal Board, by Executive order, took over the work of the employment management section of the War Industries Board.

The plan previous to the transfer provided for short intensive courses in employment management of six weeks each at various universities and educational institutions. These courses were operated directly by the employment management section.

At the time of the transfer a preliminary course at Northwestern University was only partially completed. In order to keep faith with the men and women enrolled this course was completed by the Federal Board.

In the meantime, as reports of this work spread, requests for part-time courses began to come from firms who could not spare their employment managers for the six consecutive weeks demanded by the regular courses. In order to meet this demand and to extend the benefits of Government instruction to employment representatives of such companies the Federal Board for Vocational Education developed a system of accrediting courses in employment management, the actual conduct of which rested with various educational institutions throughout the country. This development took place soon after the transfer of the employment management section from the War Industries Board. The full-time intensive courses previously scheduled were offered at the Bureau of Municipal Research, New York City, and at Reed College, Portland, Oreg. Part-time courses were conducted also at Reed College and by Harvard University, Northwestern University, Washington University, St. Louis, and the University of Denver. The following tabulation indicates the periods during which those courses were in progress, the enrollment, and the number of graduates sponsored by firms compared with the number of reserves:

Courses supervised by employment management section, Federal Board for Vocational Education, January–June, 1919.

Institution and period.	Men.	Women.	Sponsored students.	Reserve students.
Northwestern University, Chicago; preliminary course; Dec. 2, 1918, to Jan. 30, 1919	3	10	.....	13
Northwestern University, Chicago; full-time course; Feb. 3 to Mar. 15	[1] 20	[1] 11	17	[1] 14
Harvard University, Cambridge; part-time course; Jan. 14 to June 7	20	6	22	4
Cincinnati Public Schools, Cincinnati; part-time lecture course; Jan. 28 to Apr. 11	27	5	32	.....
Bureau of Industrial Research, New York; full-time course; Mar. 31 to May 24	9	7	7	9
Washington University, St. Louis; part-time course; Mar. 23 to June 16	75	4	78	1
Reed College, Portland; full-time course	4	7	1	10
Reed College, Portland; part-time course, Apr. 28 to June 27	8	1	9	.....
Northwestern University, Chicago; part-time course; Apr. 8 to June 27	23	2	25	.....
University of Denver, Denver; part-time course; May 12 to July 15	12	3	15	.....
Total	198	46	[2] 206	38

[1] Includes students in preliminary course above. [2] Sent by employer or prospective employer.

NATURE OF GOVERNMENT AID.

The employment management section aided the universities and other educational agencies by means of—

(*a*) Carefully planned outlines of study.
(*b*) A system of interchange of material by which the best data of each course was furnished to all the other courses.
(*c*) Outside material gathered from original sources and furnished in forms suitable for student use.
(*d*) Copies of booklets, reports, forms, reprints, maps, diagrams, etc., gathered and distributed to the extent of many thousands of copies.
(*e*) Bibliographies and lists of special references.
(*f*) Special lectures furnished to handle topics not adequately covered by the local teaching staffs.
(*g*) Certificates granted to those successfully completing the courses. These certificates were not only means of holding instruction to proper standards, but they symbolized a certain range of information as standard for the competent man in the employment management field.
(*h*) Placement activities, to assist graduates in securing employment with companies desiring qualified employment managers.

CURRICULUM.

The curriculum prepared by the employment management section naturally emphasized the standard practice underlying the profession of employment management. It covered such subjects as:

(*a*) Organization and equipment of an employment department.
(*b*) Employment of the worker.
(*c*) Training of the worker.
(*d*) Payment of the worker.
(*e*) Control of the working conditions.
(*f*) Efforts to keep the worker up to standard.
(*g*) Government of the shop.
(*h*) Brief consideration to statistics, labor economics, and business organization and management.

For the adequate presentation of this material and for the guidance of course directors, a course outline was prepared by the section, which embodied 40 periods of two hours each, local conditions being allowed to determine the number of meetings per week. Also, there was devised a plan for accrediting courses, setting forth recommendations concerning the equipment necessary, the qualifications desirable in the admission of students, and the issuance of appropriate certificates to graduates.

DISTRIBUTION OF MATERIALS.

As no instruction in employment management had ever been attempted prior to the inauguration of the employment management section of the War Industries Board, it was necessary for the section to prepare, collect, and distribute such information as would be helpful to the course directors and the students. Much valuable material

was distributed in this manner and the work was continued without interruption under the supervision of the Federal Board for Vocational Education. Approximately 100 different articles in all were reproduced in mimeographed form and distributed; also much printed matter provided by outside sources was distributed through the office of the section.

CERTIFICATION OF STUDENTS.

Certificates were granted by the Federal Board for Vocational Education to all students sponsored by industrial companies who fulfilled satisfactorily the requirements of the courses. A distinction was made, however, between such duly sponsored students, whose experience in definite employment work had been considerable, and the relatively small number of unattached reserves, who had been admitted because of unusual fitness of talent or training. Every member of the latter group entered the courses subject to a series of specific restrictions, one of which was that the reserve student should agree to the withholding of his certificate of graduation for a given term following the close of the course, during which time he would be expected to qualify through practical experience in employment work. The purpose of this restriction was to prevent unsponsored graduates of so short an intensive course from soliciting employment as approved workers in the field without the sanction of the section or without a reasonable amount of actual employment department experience. The restriction thus imposed should not be regarded as showing a lack of confidence in the reserve student so much as his admission to the course implied confidence in his training and ability.

The number of diplomas subject to this restriction and now remaining to be distributed is 36. The number of certificate awards made thus far during 1919 is 208.

The certification of students served not only as a means of holding instruction to proper standards, but also symbolized a certain range of information as standard for the competent man in the employment management field. This elevating and standardizing influence is very important in a field where professional ideals are just being formed.

PLACEMENT SERVICE.

Though the section was primarily occupied in conducting the various courses, it served, incidentally, as a clearing house through which unsponsored students might be put in touch with manufacturers looking for employment managers or for persons competent to serve as assistants in employment departments. The section continuously maintained a reserve list of candidates for positions in employment departments, asked graduates on the job to cooperate by informing the Washington office of any openings that came to their attention, and recommended competent men or women for every

such position of which it was apprised. Of such openings duly followed up by the section there were in all 175.

SERVICE TO GRADUATES.

Many graduates of the various courses who returned to face anew the specific conditions of their own plants asked help from the employment management section in solving the problems that confronted them. For example, one man sent in copies of all the employment forms he had worked out for his office and asked severe and detailed criticism. Another asked an opinion in regard to the substitution of a sliding scale in place of a fixed rate on a day-work basis for truckers in one of the departments of his factory. A third proposed to develop a system of legal aid for company employees, and inquired how other firms who had established such a service had worked out the practical details.

Such requests were referred to that member of the staff best fitted by experience and comprehensive grasp of the field to give advice. This service has entailed minute examination of whole groups of factors unsatisfactorily presented by letter and the careful briefing of proposed solutions.

In addition to the very important service which was thus rendered gratis to any taking the trouble to state their problems, certain form letters to all graduates were sent out from time to time, asking for reports of progress and for copies of employment forms, shop papers, recommendations addressed to higher company executives, and so on. As a result, there is in the files of the section a large collection of interesting and exceedingly valuable employment department data.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS.

The following indicates the distribution of all the course graduates by States:

Connecticut	9	West Virginia	2
Delaware	2	Illinois	56
District of Columbia	2	Indiana	13
Maine	8	Iowa	2
Massachusetts	72	Ohio	63
New Hampshire	5	Kansas	1
New Jersey	18	Michigan	23
New York	77	Missouri	75
Pennsylvania	48	Oklahoma	3
Rhode Island	1	Arizona	1
Alabama	1	California	27
Georgia	1	Colorado	15
Kentucky	2	Idaho	1
Louisiana	1	Oregon	21
North Carolina	5	Washington	22
South Carolina	1	Canada	3
Tennessee	5		
Texas	6	Total	592

PUBLICATIONS SINCE JUNE 30, 1918.

AGRICULTURAL EDUCATION.

The Home Project as a Phase of Vocational Agricultural Education. Bulletin No. 21, Agricultural Series No. 3.

Discusses forms of project agreement and parent's vouchers; the relation of instruction in school to home project work; outlines for various types of projects; project records and reports; and supervision of project work. Prepared under direction of the Federal board, cooperating with the Department of Agriculture, by F. E. Heald, specialist in agricultural education, States Relations Service.

Agricultural Education: Some Problems in State Supervision. Bulletin No. 26, Agricultural Series No. 4.

Part I outlines the directional and supervisory duties which a complete system of agricultural education involves. Part II discusses the relationship between teacher training departments and State supervisors. Part III considers sectional conferences and periods of professional improvement work for teachers of agriculture in high schools.

The Training of Teachers of Vocational Agriculture. Bulletin No. 27, Agricultural Series No. 5.

Discusses the kind and extent of training needed by the teacher of vocational agriculture, the special facilities and conditions needed in order to carry on such training successfully, and the place of an effective teacher-training system in the scheme of vocational agricultural education contemplated and intended to be promoted by the vocational education act.

TRADE AND INDUSTRIAL EDUCATION.

Trade and Industrial Education; Organization and Administration. Bulletin No. 17, Trade and Industrial Series No. 1.

Published by the board to supply information and suggestion concerning the organization and administration of trade and industrial schools and classes under the Federal law. It may be considered as an official answer to the many inquiries received by the board concerning matters of policy in trade and industrial education. It is the second bulletin issued on organization and administration, the first dealing with agricultural education.

Evening Industrial Schools. Bulletin No. 18, Trade and Industrial Series No. 2.

First circulated in manuscript form among State executive officers for vocational education and State directors of industrial and trade education in order to procure the benefit of their experience and assistance, as well as to furnish them advanced information to aid them in planning their evening-school work for the year 1918–19. The bulletin presents the consensus of opinion of those experienced in the establishment and maintenance of evening-school classes.

Part-time Trade and Industrial Education. Bulletin No. 19, Trade and Industrial Series No. 3.

Prepared for use by State authorities and by employers and employees, as well as educators, in the promotion and development of systematic instruction for workers. An account is given of part-time systems established in the States having such systems and of types of part-time schools developed in foreign countries. Principles which should underlie compulsory legislation are considered.

Buildings and Equipment for Schools and Classes in Trade and Industrial Subjects. Bulletin No. 20, Trade and Industrial Series No. 4.

Summarizes the experience of insustrial trade schools in the United States, so far as it relates to buildings, their location, arrangement, and mechanical or instructional equipment. In addition to general specifications, typical equipments for several of the more important trades are given in detail. The whole field of trade and industrial education is surveyed from the point of view of buildings and equipment for type schools and classes.

Evening and Part-time Schools in the Textile Industry of the Southern States. Bulletin No. 30, Trade and Industrial Series No. 5.

The field survey work done in preparation of this bulletin covers the following Southern States: Virginia, North Carolina, South Carolina, Tennessee, Georgia, Alabama, Mississippi, Louisiana, Arkansas, Texas, Kentucky, Oklahoma, and Missouri. Directed to mill and school officials to aid them in providing general and vocational training for textile workers in the South. Considers possible types of instruction for textile workers under the Federal vocational law, and includes outlines of short unit courses.

Training Courses in Safety and Hygiene in the Building Trades. Bulletin No. 31, Trade and Industrial Series No. 6.

Prepared to provide a basis of definite instruction in safety and hygiene as applied to the building trades. Intended primarily for use in vocational schools, but also for use by employers who wish to promote safety methods and practices among their employees. Contains suggestions to teachers for dividing the work into short unit courses, and adapting it to the various types of vocational classes. Chapters are devoted to the following subjects: Demolition, excavations, blasting, hoisting, storing material, scaffolding, accidents in allied trades, miscellaneous hazards, and emergency provisions.

HOME ECONOMICS EDUCATION.

Clothing for the Family. Bulletin 23, Home Economics Series No. 1.

Outlines courses to develop a proper understanding of the economic and artistic standards to be observed in providing clothing for the family, and to develop judgment in the expenditure of money for clothing. It is prepared with the purpose of helping to solve the clothing problems which confront the girl in school, in college, in business, and in home-making, as regards the purchase of materials, and the making and selection of sanitary, attractive, and economic garments.

Home-economics Education. Organization and Administration. Bulletin No. 28, Home Economics Series No. 2.

Prepared to supply information and suggestions concerning the organization and administration of home-economics schools and classes under the Federal vocational education law, as an official answer to the many inquiries concerning matters of policy in home economics education received by the office of the Federal board since its organization, in 1917.

COMMERCIAL EDUCATION.

Retail Selling. Bulletin No. 22, Commercial Series No. 1.

Deals with that type of commercial education which has to do with training young people for the vocation of retail selling. Describes the necessity for this kind of training, sets forth a plan for its development in retail centers, and for the special training of teachers. Information regarding the organization and conduct of cooperative courses in high schools for training young people for service in retail business, as a part of the work of a well-organized commercial department, is made available for school authorities who wish to meet the great demand for such training that has developed during the past few years.

Use and Preparation of Food. Bulletin No. 35, Home Economics Series No. 3.

Outlines a series of short-unit courses in the use and preparation of food, as a basis for instruction in day, part-time, and evening classes in home economics. Prepared by the Federal Board in cooperation with the United States Food Administration. The Department of Agriculture, also, assisted with contributions and suggestions from members of the staff, and through its publications.

Vocational Education for Foreign Trade and Shipping. Bulletin No. 24, Commercial Series No. 2.

Outlines courses to provide technical education in the field of foreign commerce, covering such topics as selling methods, document technique, foreign exchange, ports and terminal facilities, and tariffs. In the aim and scope of this bulletin the needs of the United States Shipping Board have been anticipated, as well as the requirements of the Bureau of Foreign and Domestic Commerce. These Government agencies have associated themselves with the Federal Board in outlining the general fundamental courses given in the bulletin.

Commercial Education, Organization and Administration. Bulletin No. 34, Commercial Series No. 3.

Prepared to aid educational administrators, State and local, in their efforts to develop vocational education along commercial lines. Discusses the organization of commercial education in full-time, part-time, evening, and continuation school courses. One purpose of the bulletin is to make plain just what the Federal Board is authorized to do in this field of vocational training and to define the functions of the Federal, the State, and the local governments in the administration of commercial education.

REEDUCATION.

Ward Occupations in Hospitals. Bulletin No. 25, Reeducation Series No. 4.

Gives an analysis of recent experience in military and other hospitals, and indicates possible lines of future development. The extent to which hospital ward occupations can be given a vocational value, methods of training teachers, standardization of teacher-training requirements, equipment for ward occupations, forms for keeping records, remuneration of patients for work, are among the topics covered. Ward occupations are considered under four headings: Entertainment and recreation; self-improvement study; craft work; and practical work.

Treatment and Training for the Tuberculous, with Standards by Which to Determine Proper Training and Occupations for the Tuberculous Soldier, Sailor, or Marine. Bulletin No. 29, Reeducation Series No. 5.

The Agricultural and Industrial Community for Arrested Cases of Tuberculosis and Their Families. Bulletin No. 32, Reeducation Series No. 6.

Productive Vocational Workshops for the Rehabilitation of Tuberculous and Otherwise Disabled Soldiers, Sailors, and Marines. Bulletin No. 33, Reeducation Series No. 7.

For the preparation of these bulletins the National Tuberculosis Association detailed to the office of the Federal Board its field secretary, Dr. H. A. Pattison and apoointed an advisory committee of persons of long experience and national reputation.

The bulletin on treatment and training for the tuberculous contains a statement of principles, policies, safeguards, and information which has been approved by the Federal Board and which is used as the basis of the work of the Board in dealing with every phase of the problem of he discharged tuberculous soldier, sailor, or marine.

EMERGENCY WAR TRAINING.

Emergency War Training for Oxyacetylene Welders. Bulletin No. 11.

Emergency War Training for Radio Mechanics and Radio Operators, Bulletin No. 16.

The need for thousands of mechanics and technicians for Army occupations carried on in and behind the lines of the Army necessitated intensive training for these occupations. The War Department took definite steps to provide this training systematically through Army schools, in some instances at cantonments, but largely at the industrial, trade, and engineering schools of the country. The Federal Board, after investigating the occupational demand of the Army, prepared a series of emergency war training bulletins, including Bulletin 11 for training oxyacetylene welders, and Bulletin 16 for training radio mechanics and operators.

PART II.

SUMMARY OF PROGRESS BY STATES.

SUMMARY OF PROGRESS BY STATES.

The following pages deal with the progress of vocational education in the individual States. The personnel of the State board of education and its staff is given for the year 1918–19. Statements are made of the principal legislation enacted concerning vocational education and the three phases of vocational education—agriculture, home economics, and trade and industries. It is to be understood that the limits of this report do not permit an extended statement in the case of each State. The statements made are a mere summary of the activities, and this summary is not exhaustive.

REGION NO. 1.

MAINE.

Membership of State board: Augustus O. Thomas, State superintendent of public instruction; C. S. Stetson, farmer; George E. Macomber, insurance.

Executive officer: Augustus O. Thomas, State superintendent of public instruction, Augusta.

State director for vocational education: Paul H. Smiley.

State supervisor for agricultural education: Herbert S. Hill.

State supervisor for home economics education: Bernardine Cooney.

State supervisor for trade and industrial education: I. C. Perkins.

PROVISIONS FOR COOPERATION.

The 1917 session of the legislature accepted the Federal act. The act of acceptance creates a State board for vocational education, which consists of the State superintendent of public schools and two members appointed by the governor. A special appropriation of $15,000 is made for the year 1919–20, and $20,000 for the year 1920–21. This State appropriation may be used by the State board for instruction, equipment, supervision, and for the payment of the actual necessary expenses of the board. In addition to this special appropriation the State makes an appropriation of $80,000 for the year 1919–20 and $100,000 for the year 1920–21.

AGRICULTURAL EDUCATION.

The man in charge of teacher-training work for the State board at the State university devoted 50 per cent of his time to promoting and supervising vocational agriculture in the schools for the board.

During the year nine schools, with an enrollment of 178 boys and 24 girls received aid, as against four schools, with an enrollment of 246

pupils for the previous year. The vocational pupils in 1917–18 made from directed or supervised practice in agriculture approximately $3,450.

The State university was designated by the board to do teacher-training work.

With the appointment by the board of a full-time State supervisor of agriculture, and the establishment of schools and classes in areas which have not as yet been reached, vocational work in the State will move forward with assured results.

HOME ECONOMICS EDUCATION.

The supervisor of home economics was loaned for part time from the Farmington Normal School. Three departments in day schools, with an enrollment of 299 students and 9 teachers were approved. Five centers were opened for evening school work in millinery, sewing, home nursing, and cooking, with an enrollment of 208 students and 13 teachers.

Departments for the training of teachers for the day schools have been established at the Farmington State Normal and the State university. Both of these offer a four-year course. Some itinerant teacher-training has been conducted by the State supervisor, who has worked with women of trade experience in fitting them for teaching in the home economics evening schools.

TRADE AND INDUSTRIAL EDUCATION.

During the past year certain experimental courses were developed in Portland. These courses are now on a permanent basis. Difficulty was found in securing competent instructors, both for shop and related instruction. The State employed a supervisor for trade and industrial education. Among the principal industries are lumbering, cotton and woolen manufacturing, pulp and paper plants, and shipbuilding. Most of these industries are located in cities under 25,000. During the present year the number of evening centers approved for Federal aid increased from three to five, while the number of unit trade schools increased from one the previous year to two the present year. One evening school center has been established for every 185,000 population. The State has no part-time classes. No teacher training in trades and industries has been given. Plans are now under way for a course at the Gorham Normal. Studies and investigations in the field of industrial education have included preliminary surveys of Biddeford, Bangor, and Waterville. The studies in all three of these places developed fields for both part-time and evening classes. Biddeford also showed possibilities for a day vocational school for girls.

NEW HAMPSHIRE.

Membership of State board: John H. Bartlett, governor; E. W. Butterfield, State superintendent of public instruction; R. D. Hetzel, president State college; O. B. Brown, manufacturer; S. H. Abbot, farmer.

Executive officer: E. W. Butterfield, State superintendent of public instruction, Concord.

State director for vocational education: G. H. Whitcher.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved April 19, 1917. This act created a State board for vocational education consisting of five members. The 1919 session of the legislature provided for the establishment of a State board of education of six members, with the governor of the State an ex-officio member. A provision is made that neither technical educators nor persons professionally engaged in school work shall be members of the State board. This State board becomes, by the 1919 statute, the successor of the State board for vocational education created in the act of acceptance. The State, in its act of acceptance, pledges itself to make available for the promotion of vocational education funds at least equal to those allotted to the State from the Federal Treasury.

AGRICULTURAL EDUCATION.

The State board has had in its employ a full-time director, who has devoted a part of his time to promoting and supervising vocational agriculture in high schools. During the year 12 schools, with an enrollment of 132 vocational pupils, received aid. Pupils in vocational work during the year 1917–18 made from directed or supervised practice in agriculture approximately $10,647.45.

The State agricultural college continued as the institution designated by the Board to train teachers. With the appointment of an additional man to devote his entire time to special methods in vocational agriculture and to the direction of supervised teaching, there will be a rapid advance in the work.

HOME ECONOMICS EDUCATION.

There was no State supervisor for home economics in New Hampshire last year, and no Federal funds were spent for work in the schools. Teachers of home economics are being trained at the New Hampshire College of Agriculture and Mechanical Arts under the direction of the educational department.

TRADE AND INDUSTRIAL EDUCATION.

The State employed a supervisor for trade and industrial education, and had six all-day and three part-time schools approved for Federal

aid. There has been no instructor training except the improvement of teachers in service through itinerant training courses, and a few students in special courses in education at the State college, where they were preparing to enter the industrial field. Plans are proposed for training related subjects instructors in connection with engineering courses at the State college during the coming year. Outside of agriculture the industries of the State include paper making, boot and shoe manufacturing, and cotton and woolen goods manufacturing plants. Most of these industries are located in cities under 25,000 population. A survey of the railroad shops at Laconia looking toward a cooperative agreement for the establishment of part-time classes is under way, but not completed.

VERMONT.

Membership of State board: James Hartness, manufacturer; Frank H. Brooks, manufacturer; A. W. Hewitt, clergyman; L. B. Johnson, editor; M. C. Webber, lawyer.

Executive officer: Milo B. Hillegas, State commissioner of education, Montpelier.

State director for vocational education: None.

State supervisor for agricultural education: H. H. Gibson.

State supervisor for trade and industrial education: Leon Beach.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute in 1917. The State board of education is designated as the State board for vocational education. The 1919 State legislature appropriated the sum of $5,000 for vocational instruction in agriculture and $5,000 for vocational instruction in home economics and trades and industries. There is also a State fund for the training of teachers which can be used to match Federal funds available for the same purpose.

AGRICULTURAL EDUCATION.

The State board employed a full-time State superivisor of agriculture. Federal aid was given to two special schools of agriculture enrolling 90 pupils. Instruction on a vocational basis was also carried on in 12 of the 26 departments of agriculture in public high schools. The prospects for the future are encouraging, since there are 86 high schools in the State where vocational work would be beneficial to the needs of the rural people. Pupils in vocational work for the year 1917–18 made from directed or supervised practice in agriculture approximately $2,200.

Teacher training is carried on at the State college of agriculture.

HOME ECONOMICS EDUCATION.

The supervision of the home economics work has been done by a member of the faculty of the teacher-training institution loaned to

the State board for half time. Two departments in day schools, with an enrollment of 64 pupils and 3 teachers, with part-time assistants of 3 other teachers, has been established. Some very good evenings classes in millinery, home nursing, and cooking were opened in one center, but this was not reimbursed from Federal funds.

The training of teachers in Vermont is under the direction of the home-economics department of the State university.

TRADE AND INDUSTRIAL EDUCATION.

The State employed a full-time supervisor during the year 1918–19. Two new part-time industrial schools were established, one in Rutland, the other in St. Johnsbury. Both have been successful, and present indications point to an increased attendance for the coming year, with the above classes approved for Federal aid increased to three evening and three part-time centers. The principal industries of Vermont include machine shops, scale works, granite and marble quarries, railroad shops and cotton mills. These are located in cities under 25,000 population. Instructor-training work is under the direction of the State board, and during the year consisted of training given to instructors in service through the itinerant training plan. Studies of conditions in three important cities as a basis to determine the need for evening industrial classes is being made by the State supervisor.

MASSACHUSETTS.

Membership of State board: Frederick P. Fish, lawyer; Mrs. Ella L. Cabot, author; Frederick W. Hamilton, minister; Sarah L. Arnold, college dean; Michael J. Downey, director of evening schools; Paul H. Hanus, college professor; A. Lincoln Filene, merchant; Walter V. MacDuffee, teacher; George H. Wrenn, arbitrator.

Executive officer: Payson Smith, State commissioner of education, Boston.

State director for vocational education: Robert O. Small.

Agent for agricultural education: Rufus W. Stimson.

State supervisors for trade and industrial education: Arthur S. Allen and Louise I. Pryor.

State supervisor for home-economics education: Louise I. Pryor.

State supervisors for teacher training: William D. Parkinson, M. Norcross Stratton, Franklin E. Heald, Anna A. Kloss, and Anna P. Hanrahan.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved May 2, 1917. The State board of education is designated as the State board for vocational education. Massachusetts provides by statute for the reimbursement from State funds of all approved vocational schools. The amounts so expended are greatly in excess of the amount of Federal funds available.

AGRICULTURAL EDUCATION.

Massachusetts has had several years' experience in vocational agricultural education previous to the passage of the Federal vocational education act.

The State board continued to employ a full-time State supervisor of agriculture. The State board issued during the year what is known as "Agricultural teaching staff letters." These letters formed a part of the work of improvement of teachers in service.

The World War hampered the progress of vocational agricultural education in the State during the past fiscal year. Municipalities have been reluctant to launch any educational enterprises involving increased expenditure of public funds. Needed additions to equipment and buildings have been withheld. Instructors have been lost by enlistment and draft. Pupils have withdrawn to enter the Army and Navy or to engage wholly in farming or other industries essential to the winning of the war. On the whole, however, not much momentum had been lost at the date of the signing of the armistice, and since that date both instructors and pupils have been offering themselves in gradually growing numbers.

Though the day-class pupils numbered only 322 in 1918, as compared with 518 in 1917, the earnings for farm work were $108,895.59 in 1918 as compared with $111,500.87 in 1917; and the returns from supervised war emergency gardens increased from $68,004.07 in 1917 to $244,894.62 in 1918. As an index of the patriotic efforts of the day-class pupils, it may be worth noting that the total earnings from all sources of the smaller number in 1918 exceeded those of the greater number in 1917, the totals being $124,669.44 in 1918 as against $120,309.03 in 1917.

Seventeen schools, with an enrollment of 452 boys and 6 girls, carried on work this year as against 14 schools, with an enrollment of 505 pupils for the previous year.

The State board employed the full time of one man to act as agent for teacher training and professional improvement work for teachers in service. Under the direction of the State supervisor a small group of prospective teachers has been enrolled in the classes of the Department of Agriculture in the State agricultural college.

HOME ECONOMICS EDUCATION.

The supervision of day and evening schools for girls and women is under the direction of an agent and an assistant agent who are employed for full time by the State board. Valuable assistance has been given to the schools through conferences and through home economics material sent out by the State office. There have been 21 municipalities where classes in cooking, dressmaking, millinery, and home nursing have been opened, with a total enrollment of 6,918

students and 267 teachers. Nine independent day schools with a total enrollment of 450 students and 53 teachers, have been reimbursed from Federal funds.

The training of teachers is under the direction of a special agent and an assistant for teacher training in household-arts schools. No one institution has been designated for the training of teachers. The State board has established 10 classes in six centers where both day and evening teachers have been trained. The course is 80 hours in length, and a minimum of 20 hours of practice teaching and observation is required of each member of the teacher-training classes. The training given may be professional, technical, or an opportunity for vocational experience, or a combination of these, depending upon the qualifications of the applicants. The State board provides for professional improvement of employed teachers and 10 classes were organized for the teachers in the day and evening schools. Each teacher is required to undertake a definite project as a piece of professional improvement under the supervision of the agent in charge of teacher training.

TRADE AND INDUSTRIAL EDUCATION.

The State of Massachusetts, including among its industries many highly specialized manufacturing plants, is one of the foremost, if not the foremost, in vocational experience. With adequate administrative and supervisory facilities involving specialists in the several lines, evening classes are conducted in 19 municipalities, part-time classes in the city of Boston, and day unit trade classes in 15 different districts. Many instructors are employed in the large number of classes operated in these districts. This has made necessary an extended instructor-training program. The principal industries of the State are included in the manufacture of foundry and machine-shop products, boots, shoes, and other leather products, textiles, pulp and paper, and rubber goods. A large number of these plants are located in cities over 25,000. The State has approximately 160,000 population for every evening center. Part-time instructor training includes both shop and related subjects instructors, and the preparation of instructor foremen in industrial plants. In addition to the above courses, improvement in service is carried on through an itinerant training plan. A large number of special studies and investigations have been made by employees of the State office in replying to the requests from local boards of education. These studies were made with a view to determine certain special forms of industrial education which should be established. Among the places in which the studies and investigations were carried on are Lynn, Gloucester, Chicopee, Brockton, and Southbridge.

RHODE ISLAND.

Membership of State board: R. Livingston Beeckman, broker, governor; Emery J. San Souci, lieutenant governor; George T. Baker, banker; Jos. R. Bourgeois, priest; E. Charles Francis, banker; Frank Hill, banker; Frederick Rueckert, lawyer; Frank E. Thompson, educator.

Executive officer: Walter E. Ranger, State commissioner of public schools, Providence.

State director for vocational education: Charles Carroll.

State supervisor for agricultural education: William T. Spanton.

State supervisor for home economics education: Ethel A. Wright.

PROVISIONS FOR COOPERATION.

The legislature of 1917 did not accept the act. The governor of the State, on December 31, 1917, accepted the Federal act in so far as it related to trade and industrial education. A formal act of acceptance was passed by the general assembly at a session of 1918, and this act was approved by the governor on April 17, 1918. The State board of education is designated by the general assembly as the State board for vocational education. The 1919 session of the legislature appropriated $12,000 for the promotion of vocational education. Through State law providing State aid in support of industrial education, districts maintaining vocational instruction in agriculture and industrial arts may receive State support to an amount not exceeding one-half of the entire expenditures for maintenance. This State aid may be in addition to the aid apportioned under the provisions of the Federal vocational act.

AGRICULTURAL EDUCATION.

The man in charge of teacher training at Rhode Island State College devoted 50 per cent of his time for three months to the organization and promotion of vocational agriculture in the State for the State board. Teacher-training work for the State board was organized at Rhode Island State College during the last semester.

HOME ECONOMICS EDUCATION.

The supervision of home economics work in Rhode Island was under the direction of a teacher lent from Rhode Island State College for half time. There were no schools or classes aided from Federal funds this year, but the training of teachers of home economics was carried on at Rhode Island State College.

TRADE AND INDUSTRIAL EDUCATION.

The principal industries of the State of Rhode Island are textiles, jewelry, silversmithing, rubber goods, textile machinery, mill machinery, the manufacture of fine tools and delicate machinery. These plants are usually located in cities of over 25,000 population.

To meet the needs of these industries the State increased the number of evening vocational industrial classes from 4 to 10, besides war-emergency classes, and the number of part-time classes from 15 to 20. No all-day schools were given Federal aid. No instructor-training classes have been organized in this State. A brief survey of the town of Westerly was made by a Federal agent to determine the advisability of establishing a day unit trade school in connection with metal and wood-working trades.

CONNECTICUT.

Membership of State board: M. H. Holcomb, governor; C. B. Wilson, lieutenant governor; Frederick S. Jones, dean of university, William A. Shanklin, college president; Charles L. Ames, teacher; Walter D. Hood, teacher; Charles G. Talcott, manufacturer; Charles L. Torrey, lawyer; Julian W. Curtiss, merchant; Henry A. Tirrell, teacher; Frederick M. Adlet, manufacturer.

Executive officer: Charles D. Hine, Hartford.

State director for vocational education: Frederick J. Trinder.

State supervisor for agricultural education: Worthington C. Kennedy.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved May 17; 1917. This act was amended by the 1919 legislature so that additional funds would be available. The State board of education is designated as the State board for vocational education. There is a State appropriation for 1919–1921 for trade schools of $400,000, and to match Federal funds for the same period, $90,000. State funds in addition to those mentioned above are used for the administration of the act.

AGRICULTURAL EDUCATION.

The State board borrowed from the teacher-training institution, for supervisory purposes in agriculture, the man in charge of teacher-training work at the Agricultural and Mechanical College.

Among other materials prepared was: "Some Suggestions in Regard to the Teaching of the Subject of Poultry Husbandry in Approved Courses in Agriculture."

Prior to the passage of the Federal vocational education act no vocational agriculture was offered in the State. Since then three departments have been organized, with an enrollment this year of 44 pupils in directed or supervised practical work in agriculture.

The Connecticut Agricultural College is designated to train teachers.

The proposed employment of a State supervisor of agriculture to devote his entire time to the organization and administration of vocational work in the schools is in line with the usual plan of organization in all the States. The vocational work in the schools shows a

healthy normal growth. On the whole, the vocational work seems well organized and is being effectually administered to meet the needs of the State.

HOME ECONOMICS EDUCATION.

The supervision of the home economics work in Connecticut is divided on the basis of the urban and rural schools. The supervision of the work in the cities was under the general direction of the supervisor of trade and industrial work, and the work in the towns was under the direction of a member of the staff of the teacher-training department in the State college.

The training of teachers of home economies is done at the State college. Opportunity for practice teaching is provided in the practice school of the institution, and there is a well-equipped cottage for supervised home management.

TRADE AND INDUSTRIAL EDUCATION.

Adequate supervision is provided by the State. Nine day unit trade schools, five part-time trade extension centers, two general continuation school classes, and seven centers for evening classes have been approved for Federal aid. The State of Connecticut operates State trade schools under the direction of the State board for vocational education. These schools have been largely responsible for the preparation of the young workers to enter a wage-earning occupation. It is desirable to widen the scope of the work given in evening industrial classes so as to provide additional work for trades not now represented. The principal industries of Connecticut include ship-building, silk industry, munition manufacturing plants, silversmith machine manufacture, and the manufacture of builders' hardware. Most of these plants are located in cities of over 25,000 population. The number of classes approved for Federal aid increased during the year to seven evening, four part time, and two unit trade schools. Instructor training is carried on by the State board in its State trade schools, and includes training given to shop instructors. Preliminary surveys of Meriden and Stamford as possible centers for State trade schools were made. These surveys resulted in the establishment of schools in each city.

NEW YORK.

Membership of State board: Pliny T. Sexton, lawyer; Albert Vander, surgeon; Chester S. Lord, editor; William Nottingham, lawyer; Abram I. Elkus, lawyer; Adelbert Moot, lawyer; Charles B. Alexander, lawyer; Walter Guest Kellog, lawyer; James Byrne, lawyer; Herbert L. Bridgman, editor; Thomas J. Mangan, lawyer.

Executive officer: John H. Finley, State commissioner of education, Albany.

State director for vocational education: L. A. Wilson.

State supervisors for agricultural education: A. K. Getman, C. E. Ladd, and A. P. Williams.

State supervisor for home economics education: Eleanor D. Toaz.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved May 21, 1917. The board of regents of the University of the State of New York is designated as the State board for vocational education. By previous legislation State funds are available for the support of vocational schools and classes. The 1919 session of the legislature made several important amendments to the vocational school law. The legislature enacted a compulsory continuation school law which calls for attendance upon continuation school of all children between the ages of 14 and 18 who are not in attendance upon full-time instruction. This law goes into effect in September, 1920, with provisions for its gradual enforcement in that all minors subject to its provisions will be provided for by September, 1925, for not less than four hours a week and not more than eight hours. This act applies to all school districts having a population of 5,000 or more, and provides that the schools and classes shall be maintained each year during the full period of time in which the public schools of the district are in session.

AGRICULTURAL EDUCATION.

In addition to the State director three men were engaged in promoting and supervising vocational agriculture in the schools.

For several years previous to the passage of the Federal vocational education act, the State gave aid for agricultural instruction in the high schools in addition to five special agricultural schools. Under the provisions of the amended act providing for State aid, the State pays two-thirds of the salary of the first teacher, and one-half of the salary of each additional teacher, with a maximum quota of $1,000 on account of the salary of any one teacher.

During the year 52 schools, with an enrollment of 971 pupils, received aid. The pupils in the vocational classes made last year from directed or supervised practice in agriculture approximately $264,403. The work was handicapped very materially on account of the lack of qualified vocational teachers.

The New York State College of Agriculture continued to train teachers for the board, and enrolled in the special classes intended for the preparation of vocational teachers of agriculture 69 students, which includes 20 summer students and 21 emergency course students. The apprenticeship system of giving experience in practice-teaching for prospective teachers is followed.

HOME ECONOMICS EDUCATION.

The home economics in the schools of the State was under the direction of a full-time State supervisor and one specialist lent for part time from the Albany State Normal School. Valuable assistance was given the teachers through conference and through material prepared at the State office. Good home economics work has been established in the day schools and in the evening schools, but no Federal funds have been used for their subsidy.

The training of teachers is done at the State college of agriculture and at the State college for teachers. In the former the apprenticeship method is used for providing practice teaching, the student teachers are sent out to the schools of the State as apprentices under the supervision of the department of rural education. In the State college the practice teaching is provided for in the high schools of the city.

TRADE AND INDUSTRIAL EDUCATION.

With a well-organized administrative staff the State approved for Federal aid 15 all-day schools, to which it is expected several additional schools will be added during the coming year. Approximately 200,000 pupils were enrolled in evening vocational classes during the year. Federal aid is not given for this work, the districts being reimbursed from State funds available for this purpose. Thirty-five part-time centers opened during the previous year were increased to 54. While no Federal aid is given to evening schools, 53 evening-school centers were in operation during the year. Four centers for instructor-training are maintained. In these centers shop and related subjects instructors were trained in both day and evening classes. The principal industries include the manufacture of clothing, woodworking, manufacture of tools, printing, and publishing, foundry and machine-shop plants, and hosiery and knit-goods manufacturing establishments. Most of these industries are located in cities of over 25,000 population. A survey of the city of Auburn was made as the basis of establishing an industrial school. Evening part-time and day-unit trade classes will begin with the fall term. Trade agreements have been signed, and a complete program established. A similar survey of the city of Elmira was made. This included a study of industrial, commercial, and mercantile occupations as the basis of vocational training. In addition to the above-mentioned investigations, a survey of the city of Niagara Falls was carried on by a local survey committee. This study is not yet complete.

NEW JERSEY.

Membership of State board: Melvin A. Rice, importer; John C. Van Dyke, professor; Percy H. Stewart, lawyer; Robert Lynn Cox, lawyer; D. Stewart Craven, manufacturer and farmer; Oscar W. Jeffery, lawyer; John P. Murray, lawyer; Thomas W. Synnott, manufacturer.

Executive officer: Calvin N. Kendall, State commissioner of education, Trenton.

State director for vocational education: Wesley A. O'Leary.

State supervisor for agricultural education: Harry O. Sampson.

State supervisor for trade and industrial education: John A. McCarthy.

State supervisor for home economics education: Mrs. Iris Prouty O'Leary.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 24, 1917. The State Board of Education is designated as the State board for vocational education. The act of acceptance appropriates funds for teacher-training at least equal to the funds which may be allotted to the State from the Federal Treasury. For the year 1919–20 this fund is $24,917. Appropriations are made by the State for one-half of the maintenance of vocational schools, and the annual appropriation greatly exceeds the amount due the State from Federal funds. The 1919 session of the legislature enacted a compulsory part-time law requiring the establishment of part-time schools where there are 20 or more children between the ages of 14 and 16 who have been granted age and school certificates. Attendance is required for not less than 6 hours a week for 36 weeks a year. The State appropriates $10,000 annually to be expended in the administration of compulsory part-time schools.

AGRICULTURAL EDUCATION.

The State has had several years' experience in conducting successfully county vocational schools of agriculture, which were organized to conduct vocational agricultural courses of the all-day, part-time, and evening character.

During six months, 50 per cent of the time of the man in charge of teacher-training work at the State agricultural college was devoted to supervision and improvement of teachers in service.

During the year seven schools, including two county vocational schools, with a total enrollment of 420 boys and 30 girls, received aid, as against three schools, with an enrollment of 314 boys and 13 girls, for the previous year. The pupils enrolled in vocational agriculture for last year made from directed or supervised practical work in agriculture approximately $35,000.

Twenty-three students were enrolled as prospective teachers of vocational agriculture in special classes at the State agricultural college designated by the State board to do teacher-training work.

HOME ECONOMICS EDUCATION.

The supervisor for the home economics is employed for part time by the State board. The State makes special provision for professional improvement courses for the teachers in service, and valuable help was given through conferences and through printed material sent out by the State department. Six day schools, with an enrollment of 390 students, were reimbursed from Federal funds. These day schools are either independent vocational schools or separate departments within high schools or elementary schools. Completion of the fifth grade is the requirement for entrance to such courses for all girls over 14 years of age. Eight centers were opened for evening classes in dietetics, home nursing, millinery, dressmaking, cooking, and sewing, with an enrollment of 2,595 students, and one part-time center, with an enrollment of 385 students. The teachers of these schools must have had a general education equivalent to the eighth grade, must have had three years' successful experience in the occupation they are to teach, and must have command of sufficient technical knowledge to enable them to teach the practical processes of their subject effectively.

Last year a teacher-training course was opened at the State college, where a four-year course under the direction of the education department has been developed.

TRADE AND INDUSTRIAL EDUCATION.

With adequate administration and supervision, the State has made considerable progress in the field of vocational training. Under the State plan the number of evening schools qualifying for Federal aid increased from 5 during the previous year to 10, and the number of unit trade day schools from 4 to 8. The industries of the State are highly specialized, involving machinery manufacturing plants, textiles, chemical products, explosives, scientific instruments, rubber goods, and food products. Most of these industries are located in cities over 25,000 population. The State has one evening center for every 169,000 people. There are three evening schools for every part-time center, and two-thirds as many day schools as evening centers. Instructor training is carried on by the State board and at the State college. Courses in residence and extension work are given for instructing foremen and teachers in service. A survey, inaugurated by the State board and the superintendent of schools, was made of the city of Elizabeth to determine the need for a vocational school and to ascertain the attitude of manufacturers and labor organizations toward vocational education. As a result of this sur-

vey Elizabeth has established a vocational school. In addition to the above a survey of Monmouth County was made by a committee of the county association of school boards and the county superintendent, assisted by a representative of the State board. The problems to be solved through this study were similar to those given above. No conclusions have been reached at this time.

PENNSYLVANIA.

Membership of State board: N. C. Schaeffer, State superintendent of public instruction (deceased); Thomas E. Finnegan, State superintendent of public instruction, appointed 1919; William Lauder, secretary of industrial board; J. P. Garber, superintendent of schools; Marcus Aaron, manufacturer; E. S. Templeton, lawyer; Robert C. Shaw, superintendent of schools.

Executive officer: N. C. Schaeffer, State superintendent of public instruction, Harrisburg (deceased); Thomas E. Finnegan, State superintendent of public instruction, Harrisburg.

State director for agricultural education: L. H. Dennis.

State director for trade and industrial education: Millard B. King.

State supervisors for agricultural education: H. C. Fetterolf, J. K. Bowman.

State supervisors for trade and industrial education: W. P. Loomis, W. E. Hackett.

State supervisors for home economics education: Mrs. Anna G. Green, Lu M. Hartman.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved July 11, 1917. The State board of education is designated as the State board for vocational education. By previous legislation State funds are available for the promotion of vocational schools in Pennsylvania. The State has had a compulsory part-time school system since 1913. This act provides for the compulsory attendance of employed minors, 14 to 16 years of age, for not less than eight hours a week for the same length of school term as that of other public schools.

AGRICULTURAL EDUCATION.

The organization for administration and supervision consisted of three supervisors.

Pennsylvania has had several years' experience with State-aided agricultural instruction in high schools and in rural community vocational schools. Thirty-six schools received aid during the year. The vocational pupils during the year 1917–18 made from directed or supervised practice in agriculture approximately $85,695.25.

Pennsylvania has a plan for vocational agricultural instruction in the rural schools which is unique. A county vocational supervisor

of agriculture organizes groups of classes for instruction in agriculture in at least four high schools of his county. These classes received this year not less than 20 or 24 lessons of 90 minutes each. These lessons are in vocational agriculture and bear directly on agricultural projects. A part of the time of the county vocational supervisor of agriculture is devoted to carrying on promotional work in the county under the direction of the State director of agricultural education.

The State agricultural college continued to train teachers for the State board and gave four courses on which reimbursement from Federal funds is based.

HOME-ECONOMICS EDUCATION.

The home-economics work in Pennsylvania is under the direction of two full-time supervisors; one is in the office of the supervisor of agricultural education, who has charge of the work in cities of under 5,000; the other, who is under the general direction of the director of trades and industry, has charge of the work in cities of over 5,000.

The teachers for the schools of Pennsylvania are being trained at the State college of agriculture.

TRADE AND INDUSTRIAL EDUCATION.

Few States possess greater industrial-training possibilities than the State of Pennsylvania. With large industries, involving coal mining, steel-manufacturing plants, cement and slate industries, shipbuilding, and textile plants, the State offers great possibilities for the development of vocational training in the field of trade and industrial education. The occupations in which men and women are employed vary from those for which but very little skill is required to highly specialized jobs requiring well-trained employees. Schools approved for Federal aid include 13 evening centers, 115 part-time, 4 all-day unit trade schools, and 4 general industrial schools. For each of the 13 evening centers there are 590,000 people in the State. Teacher-training instruction is carried on at 6 centers and includes the preparation of shop and related subjects instructors for trade and industrial subjects. They have all been established during the present year and are located at Philadelphia, Williamsport, Johnstown, Erie, Homestead, and Pittsburgh. At the present time plans are under way for the establishing of a unified course of study for the above centers. Studies of the local conditions in 13 cities were made by representatives of the State department. Reports indicate that these studies resulted in the establishment of schools in three centers. An investigation to determine child-labor conditions in the anthracite coal region is under way.

DELAWARE.

Membership of State board: George B. Miller, business man; Pierre S. Du Pont, business man; Harvey P. Hall, business man; A. Brainard Peet, farmer; Harvey F. Marvil, manufacturer.

Executive officer: A. R. Spaid, State commissioner of education, Dover.

State director of vocational education: None.

State supervisor for agricultural education: L. C. Armstrong.

State supervisor for home-economics education: S. Helen Bridge.

State supervisor for trade and industrial education: J. T. Ryan.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved April 2, 1917. This act of acceptance was amended by the legislature of 1919 and the conditions of acceptance were incorporated as a part of the general school code. The State board of education is designated as the State board for vocational education. The amount of State funds is $20,000 annually for the biennial period 1919–1921. This amount matches the amount to be received from Federal funds. There is also an annual appropriation of $2,000 for the administration and supervision of vocational education. In addition to these specific appropriations $32,000 have been made by the State to supplement the State and Federal funds for vocational education for the biennial period 1919–1921.

AGRICULTURAL EDUCATION.

The State board employed a full-time supervisor of vocational agriculture. During the year 5 schools with an enrollment of 70 pupils received aid, as against 3 schools with an enrollment of 59 pupils for the previous year. Vocational pupils in last year's schools made from directed or supervised practical work in agriculture approximately $1,693.88.

The State agricultural college was designated by the board to do teacher-training work.

The prospects for the coming year are good, as the new school code makes the teaching of vocational agriculture obligatory in all of the high schools of the State. Twenty-two new departments will be added as a result of this new legislation.

HOME ECONOMICS EDUCATION.

The State supervisor was lent from the women's college to the State department for half time. Valuable service was rendered by frequent visits to the schools and monthly conferences held with the vocational teachers. Excellent suggestions for the development of the work were also sent out from the State office. There were 5

departments in day schools with an enrollment of 151 pupils. In most of these classes the teachers were either graduates from a four-year college course in home economics or had practical home experience and successful teaching experience. Some home-project work was required of every school receiving Federal aid.

The training required of teachers of home economics is done at the women's college. Opportunity for practice teaching is provided for these girls in the high schools of the neighboring town. A special conference was called at the end of the school year of all the home-economics teachers to discuss the new vocational program for Delaware. There is a fine outlook for the future development of the work.

TRADE AND INDUSTRIAL EDUCATION.

A supervisor is employed on a half-time basis. There are no all-day unit trade schools established in this State. Four evening classes are conducted in the city of Wilmington, and three part-time centers are approved for Federal aid. These classes have been largely concerned with those occupations connected with the shipbuilding industry. The principal industries of the State of Delaware include steel ship construction, malleable and manganese iron products, machine tools, paper machinery, power machinery, leather and leather goods, and chemicals and explosives. Most of these industries are located in cities under 25,000. Wilmington presents unusual opportunities for industrial education. One instructor-training class was begun during the year. Meetings were held in Delaware college and in the city of Wilmington and involved training given to those in service. Investigations were carried on by the State supervisor and the regional agent in plants in Wilmington, Newark, and Newcastle, with a view to recommendations concerning the establishment of part-time and evening classes.

MARYLAND.

Membership of State board: T. H. Lewis, college president; W. T. Warburton, lawyer; T. H. Bock, manufacturer; Clayton Purnell, lawyer; Sterling Galt, publisher; J. M. T. Finney, surgeon; one vacancy.

Executive officer: M. Bates Stephens, State superintendent of schools, Baltimore.

State director for vocational education: G. H. Reavis.

State supervisor for agricultural education: H. F. Cotterman.

State supervisor for trade and industrial education: L. A. Emerson.

State supervisor for home-economics education: Agnes Saunders.

PROVISIONS FOR COOPERATION.

The Federal act was first accepted by the governor. The 1918 session of the legislature formally accepted it. The State board of education was designated by the legislature as the State board for vocational education. An annual appropriation of $5,000 is made for the promotion of vocational education. Expenses for administration may be paid from State funds.

AGRICULTURAL EDUCATION.

For the better part of the year the man in charge of teacher-training work was under the supervision of the State board for 50 per cent of his time, which was devoted to supervision and improvement of teachers in service. Two new schools were added to last year's list of schools aided, and two schools were dropped. The pupils enrolled in vocational classes last year made from directed or supervised practice in agriculture approximately $3,388.70.

The Maryland State College of Agriculture continued to train teachers for the board.

The State board is planning for additional supervision, larger salaries to be paid to teachers of vocational agriculture, teachers' conferences, and the thorough coordination of their work with that of technical instruction available at the State agricultural college and experiment station. Such plans carried out will greatly add to the effectiveness and extension of the vocational work.

HOME-ECONOMICS EDUCATION.

The supervision of home economics was conducted by a member of the staff of the State college who worked under the direction of the State board for 50 per cent of her time. In 1917–18 one department in a high school was of approved standard; this year five departments of high schools with an enrollment of 205 students were approved. The teachers of these schools have the equivalent of at least a two-year course in home economics and most of them have had two years of practical experience. The State agricultural college was approved for the training of teachers of home economics. As this institution has only recently been made coeducational, no teachers have yet been trained, although it has a well-equipped department, and provision for practice teaching and for supervised home management have been made.

TRADE AND INDUSTRIAL EDUCATION.

With evening schools established in 7 centers, including 45 classes and 1 all-day unit trade school, the State is beginning to make satisfactory progress in her trade and industrial program. No part-time classes have been organized. The success of the above program has been largely dependent upon adequate supervision within the State. No regular instructor-training classes were organ-

ized during the year. Shipyard instructors met for 8 or 10 lectures and a discussion of problems of a teacher-training character. The State is largely engaged in the manufacture of clothing, iron and steel products, shipbuilding, and chemical products.

Most of these plants are located in cities of over 25,000 population. A study of the relative number of evening, part-time, and all-day classes indicates that more attention could well be given to part-time instruction. A preliminary investigation of the shipbuilding industry and fertilizer manufacturing was carried on by the State supervisor. The purpose of these investigations was to determine whether a field for training existed and the kind of training to be given. The survey has not yet been completed to a degree which will warrant final recommendations being made.

REGION NO. 2.

VIRGINIA.

Membership of State board: Harris Hart, State superintendent of public instruction; Westmoreland Davis, governor; John R. Saunders, attorney general; James M. Page, professor of mathematics; Henry C. Ford, professor of Latin; J. E. Williams, professor of mathematics; B. E. Copenhaver, county superintendent of schools; F. M. Martin, city superintendent of schools; William R. Smithey, secretary State board.

Executive officer: Harris Hart, State superintendent of public instruction, Richmond.

State director for vocational education: None.

State supervisor for agricultural education: Thomas D. Eason.

State supervisor for home-economics education: Edith Baer.

State supervisor for trade and industrial education: Raymond V. Long.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by proclamation of the governor dated March 28, 1917. The 1918 session of the State legislature in an act approved on April 9 formally accepted the provisions of the Federal act. The State board of education is designated as the State board for vocational education. The 1918 session of the State legislature provided the sum of $64,460 for the promotion of vocational education for the year 1919–20. State funds are available for the State board for the expenses of supervision and administration.

AGRICULTURAL EDUCATION.

A full-time State supervisor of agriculture is employed. During the year 33 schools were organized, an increase of 65 per cent over the previous year. There were 313 boys and 7 girls enrolled for vocational agricultural instruction. The enrolled pupils in 1917–18 made from directed or supervised practice in agriculture $9,295.89.

Teacher-training work was organized at the Virginia Polytechnic Institute. Only one course was offered during the year for which reimbursement from Federal funds was expected. A part of the time of the man responsible for teacher training at the institution was devoted to the improvement of teachers in service.

During the period of the war there was grave danger that the vocational movement would not develop as rapidly as the State had expected, due to the fact that many of the teachers of agriculture left their schools to enlist in the Army, and the further fact that no other men were available for this work. Prospects are now bright, however, for securing teachers for vocational agriculture, and the State will probably be able to establish as many schools as her funds will permit. It is the policy of the State board to establish at least one vocational department of agriculture in every county of the State. All forces work together for better farm conditions. The progress made during the past year toward meeting the needs of rural life in the State encourages the belief that much greater progress will be made in the future.

HOME-ECONOMICS EDUCATION.

In 1918–19 a member of the faculty of William and Mary College, Williamsburg, was lent to supervise home-economics education in the State of Virginia. She spent approximately two-sevenths of her time in the field, and in her work as State supervisor of home-economics education, reported regularly to the office of the State superintendent of public instruction, at Richmond, to confer on the work in the State. Conferences of county school superintendents were attended by the supervisor in order to explain the work and to show how a program for home-economics education could best be organized. Advice on courses of study and programs of work were sent out by her to the superintendents in the State and a very good foundation laid for the organization of the work in another year.

Two home-economics departments in high schools, one part time and eight evening centers, have been organized in Virginia. At the evening centers 19 classes were conducted in such subjects as millinery, dressmaking, sewing, dietetics, and cookery.

Three institutions have been designated to train teachers, the State normal school at Harrisonburg and William and Mary College for white teachers, and the Virginia Normal and Industrial Institute at Petersburg for negro teachers. William and Mary College, recently organized on the coeducational basis, gave the first-year work of a four-year course. The other two institutions have been giving home-economics instruction for several years. The Harrisonburg State Normal School maintains a four-year course, and has a well-equipped practice house, and good practice teaching is offered in the Harrisonburg city schools and in the near-by rural schools.

TRADE AND INDUSTRIAL EDUCATION.

The State employs a full-time supervisor for trade and industrial education, appointed February 1, 1919. With the exception of an evening class in Portsmouth, the city of Richmond so far is the only center in Virginia which has taken advantage of Federal funds. In Richmond nine evening school classes and one unit trade course for machinists have been conducted. The city employs a full-time supervisor. The prospects for the coming fiscal year indicate that at least 10 centers will be established in the State, representing all the different types of classes aidable under the trade and industrial fund. In order to extend the limited fund for trade and industrial education, the State board for vocational education has required for the coming year that the local communities supplement the Federal and State money by at least one-third of the total amount expended in salaries. During the next fiscal year there will be three centers organized in which teacher-training instruction will be given. The board of education of the city of Richmond has been made responsible for training white shop instructors. While some difficulty was experienced in securing attendance during the present year, the prospects are favorable for the next fiscal year. The State Normal and Industrial Institute has been designated by the State board for training colored teachers in shop and related subjects. The Virginia Polytechnic Institute is officially charged with the responsibility of training white instructors in related subjects. Up to the present time no courses have been inaugurated.

NORTH CAROLINA.

Membership of State board: E. C. Brooks, chairman, State superintendent of public instruction; Mary Arrington, teacher; T. B. Fuller, cotton manufacturer; B. W. Kilgore, director of agricultural extension.

Executive officer: E. C. Brooks, State superintendent of public instruction, Raleigh.

State director for vocational education and supervisor for agricultural education: T. E. Browne.

State supervisor for vocational agricultural education: Roy H. Thomas.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute in 1917. This act was amended and extended by the 1919 session of the legislature. The revised act of acceptance creates a State board for vocational education, to consist of four members, as follows: The State superintendent of public instruction and three other members to be appointed by the governor, one to represent agriculture, one to represent home economics, and one to represent trades and industries. The 1919 session of the legislature appropriates out of the State public-

school fund a sum of money for each fiscal year equal to the maximum sum which may be allotted to the State from the Federal Treasury for vocational education. This appropriation carries for the year 1919–20, $67,452.49, and for the year 1920–21, $81,306.18. The State board for vocational education is authorized to expend as much of the State funds as may be necessary for administration and supervision.

AGRICULTURAL EDUCATION.

A State supervisor of agriculture was employed to devote his full time to the promotion of vocational agricultural instruction. Twenty-two schools, an increase of approximately 57 per cent, were approved for Federal aid. There were 328 boys enrolled for vocational work in these schools, and each engaged in some form of directed or supervised practice in agriculture. The total income from the supervised practical work was $7,453.19. A bulletin on "The Teaching of Vocational Agriculture in Secondary Schools" was printed.

The State College of Agriculture and Engineering was designated by the State board to train agricultural teachers. Only one teacher at the college was reimbursed from Federal funds for teacher training. He gave three different courses and enrolled 19 students. There was distinct progress along all lines of vocational agricultural work in North Carolina during the year. The organization for permanent work, consisting of the director and supervisor of agriculture, was accomplished, the financial support was liberal, and a helpful cooperative spirit was shown by all educational, business, and social organizations. The coordination of the related agricultural work throughout the State has advanced beyond expectations.

The force of vocational workers in agriculture is being constantly strengthened by the addition of better qualified teachers, and better salaries are being paid. It is planned to place good teachers of vocational agriculture in those counties not yet served just as fast as funds become available. Everything indicates that the vocational agricultural instruction in public schools of the State will exert a helpful influence in the development of the agriculture of the State along safe and profitable lines.

HOME-ECONOMICS EDUCATION.

State supervision was conducted from a teacher-training institution by a member of the faculty. In 1918–19 three vocational schools for home economics were approved. Two of these schools represent a type of farm-life school which North Carolina, a distinctly rural State, is developing and for which State aid is afforded. A more rapid development of the work may be expected with the employment of a full-time supervisor, made possible by the State appropriation now available. Two institutions for the training of teachers were approved; one, the North Carolina College for Women,

in Greensboro, for the training of white teachers of home economics, and the other, the Slater Normal and Industrial Institute, at Winston-Salem, for the training of colored teachers of home economics.

At Greensboro a practice house was opened last year in order to give the young women in training the opportunity of applying their instruction to conditions as closely approximating those of the home as possible. From this institution 10 girls graduated in June, 1919, 7 of whom are employed as home-economics teachers for 1919-20. A special course was maintained at the State college in the summer of 1919 for the improvement of the teachers of home economics in the State. Twelve young women took this course.

At the Slater Normal and Industrial Institute a new building was erected during the year in which the home-economics department is to be located under far more favorable conditions than heretofore. However, the epidemic of influenza was so severe and the war demands so great as to make it necessary to discontinue the training of teachers of home economics in this institution at the beginning of the spring term of 1919.

TRADE AND INDUSTRIAL EDUCATION.

In the field of trade and industrial education the only classes organized have been in connection with textile subjects. These schools were conducted in five mill centers during periods of 12 weeks each, with an enrollment of 128 men. The State experienced great difficulty in retaining the service of full-time instructors, since they are absorbed into the commercial life of the mills at salaries in excess of what the board could offer. Plans for the coming year involved the employment of local instructors under the direction of a supervisor and itinerant teacher trainer. The North Carolina State College of Agriculture and Engineering at Raleigh is designated to train instructors for trade and industrial subjects. No work has been inaugurated up to the present time.

SOUTH CAROLINA.

Membership of State board: R. A. Cooper, governor; J. E. Swearingen, State superintendent of education; J. N. Nathans, lawyer; W. J. McGarity, superintendent of schools; S. J. Derrick, college president; H. N. Snyder, college president; E. A. Montgomery, farmer; W. L. Brooker, superintendent of schools; S. H. Edmunds, superintendent of schools.

Executive officer: J. E. Swearingen, State superintendent of education, Columbia.

State director for vocational education: None.

State supervisor for agricultural education: Verd Peterson.

State supervisor for home-economics education: Edna F. Coith.

State supervisor for trade and industrial education: Charles S. Doggett.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved February 27, 1917. The 1919 session of the legislature passed an act which materially strengthens the act of acceptance in providing State funds for the promotion of vocational education. The State board of education is designated as the State board for vocational education. Funds for the fiscal year 1919-20 are $50,000. The State board for vocational education may use as much of this as is necessary for administration and supervision.

AGRICULTURAL EDUCATION.

Through the cooperation of the teacher-training institution, the State board had the services of a full-time State supervisor of agriculture. Twenty-four schools were organized, an increase of approximately 85 per cent over last year. At the close of the fiscal year the State supervisor will be transferred from the college to the office of the State board for vocational education. There were 242 boys and 34 girls enrolled for vocational agricultural instruction in the 24 schools. The total value of the directed or supervised practice in agriculture carried on by each pupil was $35,436.98.

South Carolina has a plan of vocational work which provides that the teacher of vocational agriculture organizes and gives instruction in agriculture to pupils in schools adjacent to the central school which receives Federal aid. Through this plan of instruction in associated schools, the teachers have been able to reach weekly, through junior project work with 48 associated or outlying rural elementary schools, 504 boys and girls.

Clemson College continued to train teachers of vocational agriculture. Two men were reimbursed from Federal funds for this work, and enrolled 10 students. A portion of the time of one of the teacher-training men was devoted to the improvement of teachers in service.

The outlook for vocational agricultural education in South Carolina is distinctly encouraging. The cooperative arrangements with other State agricultural agencies seem to be satisfactory. The growing demand for teachers of vocational agriculture, and the increasing calls for help of the itinerant teacher trainers denote the appreciation of the services of the State board for vocational education.

HOME-ECONOMICS EDUCATION.

A member of the teacher-training department of Winthrop College was lent on part time to the State board for the purpose of supervising the work in home-economics education. She spent about one-fourth of her time in the work of supervision, visiting schools, sending out information on the organization of Smith-Hughes work, and conferring with the State superintendent on the problems of home-

economics education in South Carolina. One good type of home-economics department in a high school was approved for 1918–19. Two institutions for the training of teachers of home economics were also approved. One of these, Winthrop Normal and Industrial College for Women, at Rock Hill, is designated for white teachers, and the Normal and Industrial Institute at Orangeburg for Negroes. The institution at Rock Hill has a practice house for supervised household management. Provision for practice teaching is made in the training school at this institution, where each girl teaches sewing and cooking each day for a period of from 6 to 12 weeks. The institution at Orangeburg is fairly well equipped, and the spirit for doing good work was excellent.

A special State conference of home-economics teachers, called by the State supervisor, was held early in May. Fifteen home-economics teachers attended this conference. Many questions of interest and important to home-economics education were raised and discussed.

South Carolina presents many interesting vocational problems. Two of these are the problem of vocational home economics for Negro girls and for the girls residing in textile mill towns.

TRADE AND INDUSTRIAL EDUCATION.

The State of South Carolina has made a most satisfactory showing during the current year. The number of evening classes increased from 1 to 30, this increase including classes in 8 different centers, all being organized in connection with the textile industry. The State employs a supervisor of trade and industrial education and had an itinerant instructor-training plan in operation during the last half of the year. The instructor in charge dealt especially with instructors in the textile classes of the State. Meetings were oftentimes called under the mill roof. No residence courses have been attempted.

GEORGIA.

Membership of State board: D. C. Barrow, chancellor University of Georgia; M. L. Brittain, State superintendent of schools; Dudley M. Hughes, planter; B. H. Hardy, editor; Sam Tate, manufacturer and planter; J. Randolph Anderson, lawyer; Ross Copeland, plumber and lawyer.

Executive officer: M. L. Brittain, State superintendent of schools, Atlanta.

State director for vocational education: None.

State supervisors for agricultural education: Robert D. Maltby and L. M. Sheffer.

State supervisors for trade and industrial education: J. F. Cannon and Katherine Dozier.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute enacted during the 1917 session of the State legislature. The 1918 and 1919 sessions of the legislature amended the act of acceptance by providing additional State funds. The State act creates a State board to be known as the State board for vocational education, consisting of seven members made up as follows: The chancellor of the university, the State school superintendent, three members from the State at large, one of whom shall be representative of the commercial and manufacturing interests, one representative of agricultural interests, and one representative of labor; two members from the trustees of the district agricultural and mechanical schools. The 1919 session of the legislature appropriated funds to the amount of one-half of those available to the State from the Federal act, the amount of State appropriation for 1919–20 being $40,158. The State board for vocational education may use a portion of the State funds for administration and supervision. In addition the legislature authorized the vocational board to grant certificates, and legal provision was made for part-time and evening schools.

AGRICULTURAL EDUCATION.

The State provides for two full-time State supervisors of agriculture. Two bulletins, one on "Methods in Supervised Practice for Vocational Agricultural Classes and Schools," and one on "The Administration of the Smith-Hughes Vocational Act in Georgia," were prepared and published. Vocational instruction was given in public high schools and in congressional district agricultural schools. Inspection of the work in the schools was made at least once each quarter by some member of the supervisory or teacher-training staff. No change was made in the type of work of the all-day school from that of the first year. There were enrolled during the year 917 white pupils and 95 colored, or 1,012 in all. This was an increase over the enrollment of the previous year, though but a slight increase in number of schools was made. Considerable difficulty was experienced in the establishment of schools during the year on account of the shortage in thoroughly qualified teachers and the influenza epidemic. A marked improvement of the work of the all-day school was made in supervised practice in agriculture. Projects were materially increased in size and conformed more closely to the type of instruction in the classroom. Preparation for part-time and evening classes was made by having the teachers make a preliminary survey of their section. The information gained from these surveys, and those to be made subsequently, will be used as a basis for the establishment of part-time and evening instruction in as many of the all-day schools as is possible.

Because of the development of the Students' Army Training Corps at the State university where the department of teacher training for white teachers was established, no regular students were enrolled. The work of the teacher-training staff was, therefore, diverted to itinerant teacher training and short courses. At the Albany Normal and Agricultural School for colored teachers work was begun in the fall of 1918. This work consisted entirely of the first year of a three-year course. A five-weeks' short course was also given for men already in service, at the regular summer school session of the university.

The vocational work in Georgia is now well organized, and is meeting with the hearty approval and indorsement of the school people of the State. The district agricultural schools, with the exception of one, have become a part of the State system of vocational education. The cooperation of all the agencies for agricultural education in the State is assured. The number of teachers of agriculture will be rapidly increased as funds become available.

HOME-ECONOMICS EDUCATION.

Supervision has been under the general direction of the high-school inspector and the head of the home-economics department of the State college of agriculture. The latter visited the schools and helped the teachers with their problems. The present teachers are largely graduates from two-year normal schools with two years' teaching experience and some practical home-making experience. Special emphasis is being laid on the importance of four years of training for vocational teachers, and special summer courses are offered this year to graduates from the home-economics departments of the normal schools. Two of the courses carried a provision for the student to complete the work by planning and teaching certain home-economics work under supervision during the coming year. This provided, at at the same time, a strong incentive to gain college credit, and gave the supervisor an excellent opportunity to improve the quality of the teaching in the State. There were nine home-economics departments in the white day schools of Georgia and two departments in the colored schools. In these schools a two-year vocational course in the first and second years of the high school has been offered. Three evening schools for colored women were opened, and observation, by the supervisor, of the work done in the evening schools indicates that this is a type of training which will give the greatest amount of good for the funds expended and should be developed more fully.

The training of teachers for the white schools has been carried on at the State college of agriculture. Two years ago women were admitted to this institution for the first time, and it now offers two

years of senior college work based on a two-year course given by the State normal schools. The work is given at the college of agriculture in cooperation with the education department. The training of teachers for the Negro schools has been carried on at the Albany Normal and Agricultural College. General supervision and help will be given to this institution by a member of the teaching-training staff of the State college of agriculture.

TRADE AND INDUSTRIAL EDUCATION.

Both the quantity and quality of trade and industrial schools or classes show progress over those of the preceding year. A supervisor of trade and industrial education is employed for half time by the State. A part-time assistant supervisor in the field of textile education is employed for work among girls and women. The city of Atlanta, as a result of the employment of a supervisor, shows an increase of 100 per cent over the previous year. Most of this increase is in evening classes. The State approved evening classes for Federal aid in seven centers. A number of these classes were organized for the textile industry. Two part-time schools were approved. Four cities conducted all-day schools, which met the requirements of the State plan. Instructor training courses through an itinerant teacher were conducted for shop instructors at Atlanta. A class was organized at New Holland for the benefit of the instructors in service in the evening textile classes. This class was conducted by the State supervisor and assistant State supervisor. The Georgia State Industrial College for Negroes at Savannah carried on residence courses for both shop and related instructors.

FLORIDA.

Membership of State board: S. J. Catts, governor; W. N. Sheats, State superintendent of public instruction; J. C. Luning, State treasurer; H. Clay Crawford, secretary of state; Van C. Swearingen, attorney general.

Executive officer: W. N. Sheats, State superintendent of public instruction, Tallahassee.

State director for vocational education: W. N. Sheats.

State supervisor for agricultural education: R. L. Turner.

State supervisor for trade and industrial education: S. Philips.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved June 5, 1917. This act was amended by the 1919 session of the State legislature. The State board of education is created the State board for vocational education. The State of Florida pledges itself to make available funds sufficient at least to equal the sums allotted to the

State by the Federal Government. The State fund appropriated for the year 1919–20 is $30,000, and for the year 1920–21 $35,000. Of the above amount of State funds $5,000 annually may be expended for administration, research, investigation, etc.

AGRICULTURAL EDUCATION.

No changes were made in the administrative forces of the State board of vocational education during the fiscal year ending June 30, 1919, except that the vocational teacher-training work at the university and the colored agricultural and mechanical college was definitely organized. A State director for vocational education was also provided for, as well as a full-time State supervisor of agriculture, to begin with the new fiscal year. Two State rural-school supervisors provided all the supervision of vocational agriculture in the State during the year. Florida is pioneering with agricultural instruction in high schools. Ten schools, as against eight schools last year, were approved for Federal aid, with an enrollment of 138 boys and 9 girls. The 147 boys and girls in vocational work carried out a piece of practical farm work on the home farms under the direction of the vocational teacher of agriculture for at least six months. The provision for satisfactory records, reports, and office equipment for vocational agricultural work was handicapped on account of the lack of State funds.

Three special courses for prospective teachers of vocational agriculture were offered at the university. A part of the time of the professor of special methods in vocational agriculture at the university was devoted to the improvement of teachers in service. Vocational agricultural education is meeting with the hearty approval of the school men and farmer patrons of the State. It has been an easy matter to secure county aid to match State and Federal aid for employing agricultural teachers at advanced salaries. The appointment of a director and that of a full-time State supervisor of agriculture with the beginning of the new fiscal year, together with sufficient State and county funds to match Federal funds, gives every reason to believe that the development of the work will be rapid.

HOME-ECONOMICS EDUCATION.

Supervision of home economics in Florida has been carried on by a member of the teacher training staff of the Florida State College for Women, who has given half of her time to the work under the pay and direction of the State board. She not only has frequently visited the five schools which have qualified for Federal aid, but she has been in touch with a great number of schools offering home economics and has done much to help the teachers in these schools. A complete set of blanks has been outlined for monthly reports to the State office by the schools giving vocational courses. The State

supervisor has made a special study of equipment for the small-town school, and marked improvement has been made in the equipment of some of these schools. In 1917–18 there were four home economics departments in day schools receiving Federal aid. For the year 1918–19 there are five such departments with a total enrollment of 91 students with 5 teachers.

The training of home-economics teachers for the white schools has been carried on at the Florida State College for Women. There were 67 students in the course, and 2 seniors who have graduated this year. The training of Negro teachers is carried on at the Agricultural and Mechanical College for Negroes. This is a four-year course, and very satisfactory work in home economics has been given.

TRADE AND INDUSTRIAL EDUCATION.

With but very little work under way the previous year 13 separate classes were organized in connection with the shipbuilding industry and building trades in Jacksonville. The work was organized on the basis of short unit courses and the attendance was satisfactory throughout the year. The unit courses included blueprint reading, mold loft, ship carpentry, ship fitting, machine drawing, saw filing, ship drawing, and plumbing. Some of the courses were organized for house carpenters and included plan reading, estimating, saw filing, roof framing, and drawing. The University of Florida carried on itinerant instructor training for shop instructors at the city of Jacksonville, and the Agricultural and Mechanical College for Negroes conducted a residence course for shop instructors.

TENNESSEE.

Membership of State board: P. L. Harned, chairman, postmaster; A. H. Roberts, governor; Albert Williams, State superintendent of public instruction; L. A. Ligon, lawyer; J. F. Fowlkes, farmer; F. R. Ogilvie, editor and county superintendent of schools; W. D. Cooper, druggist; C. B. Ijams, superintendent of schools; W. L. Gentry, college president; T. W. Peace, lawyer; J. S. Zeigler, high-school principal.

Executive officer: Albert Williams, State superintendent of public instruction, Nashville.

State director for vocational education: None.

State supervisors for agricultural education: Harry Ogden, R. B. Lowery, N. E. Fitzgerald.

State supervisor for home-economics education: Louise G. Turner.

State supervisor for trade and industrial education: Edward S. Maclin.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 31, 1917. A supplement to this act was passed by the 1919 session of the legislature, appropriating State funds to enable the State board to promote vocational education in cooperation with the Federal Government. The State board of education is designated by the act of acceptance as the State board for vocational education. An amount equal to the Federal vocational fund is deducted from the general school fund before distribution. This amount for the year 1919–20 is not to exceed $67,220.13. A portion of this fund is available for supervision and administration.

AGRICULTURAL EDUCATION.

The Tennessee plan is to place vocational agricultural instruction in each of the 96 county high schools.

Although the promotion of vocational agricultural education in the State has been seriously handicapped during the year for lack of State funds to match Federal funds, the last legislature provided ample funds to match Federal funds for the promotion of the work. The State board has employed a full-time State supervisor of agriculture, and the teacher-training work has been fully organized at the State university. There is every reason to feel that the vocational work next year will go forward with reasonable progress.

One hundred and eighty-nine boys and 34 girls were enrolled in the 12 county high schools approved for Federal aid. This is an increase over last year of 53 per cent. The 223 pupils did at least six months' directed or supervised practice in agriculture.

Ten colored schools, including mostly county training schools, received aid for vocational agricultural instruction, and enrolled 558 pupils as against 305 in the nine schools approved for the previous year. The State university was designated to do vocational teacher-training work, but owing to the Students' Army Training Corps little was done along this line. However, the work was organized at the close of the year, and for a couple of months the man employed for special work in teacher training devoted his time to assisting the State board in supervising and improving vocational teachers in service.

The agricultural and industrial normal school at Nashville continued the preparation of colored teachers of vocational agriculture.

HOME ECONOMICS EDUCATION.

Last year, and up to March of this year, the supervision of home economics was under the direction of the high-school inspector. Since March a member of the staff of the University of Tennessee has visited the schools, as it has seemed necessary. No work in home economics was federally aided last year in Tennessee. This year

successful classes in cooking, millinery, dressmaking, and sewing have been organized in evening schools. One department in a day school, with 24 students, has been Federal aided.

The training of teachers of white schools has been conducted at the University of Tennessee. The Negro teachers for the State are trained at the normal and industrial institute.

TRADE AND INDUSTRIAL EDUCATION.

The State employs a supervisor of industrial education, and shows a satisfactory increase in the number of schools and classes over the preceding year. Evening trade and industrial schools have been approved in six centers. No part-time classes are organized. The Memphis Vocational High School is organized as an all-day unit trade school, and was approved for Federal aid. The University of Tennessee was designated as an institution to train teachers for related and shop subjects. The Tennessee Agricultural and Industrial State Normal School of Nashville was likewise designated to train instructors for Negro industrial schools.

ALABAMA.

Membership of State board: T. W. Palmer, chairman, president Alabama Girls' Technical School; Spright Dowell, State superintendent of education; J. J. Doster, professor secondary education; Zebulon Judd, professor of secondary education; E. M. Wright, normal school; Charles A. Brown, principal high school; J. Alex. Moore, principal high school.

Executive officer: Spright Dowell, State superintendent of education, Montgomery.

State director for vocational education and supervisor for agricultural education: J. B. Hobdy.

State supervisor for home economics: Mrs. W. E. Wofford.

State supervisor for trade and industrial education: V. P. McKinley.

PROVISIONS FOR COOPERATION.

As the State legislature did not meet in 1917 the Federal act was accepted by the governor. The 1919 session of the legislature enacted a basic vocational education act and included the formal acceptance of the Federal act. In the governor's acceptance he designates a State board to consist of seven members to serve as the State board for vocational education. The 1919 session of the legislature created a State board for vocational education to consist of five members appointed by the governor from the State at large. An annual appropriation of not less than the maximum sum allotted to the board from the Federal Government was made. This for the State fiscal year ended September 30, 1920, is $66,000. A portion of these funds may be used for administration.

AGRICULTURAL EDUCATION.

A State director of vocational education was appointed who, having qualified in the agricultural field, devoted two-thirds of his time to the supervising of vocational agriculture. During the year vocational agriculture was taught at 18 white schools, with an enrollment of 291 pupils, and in 9 Negro schools with an enrollment of 115 pupils, making a total enrollment of 406. This is an increase of 35 per cent over last year in approved schools. The 406 pupils made from directed supervised projects in agriculture, $11,905.01. The teacher-training work in agriculture was inaugurated at the Alabama Polytechnic Institute. Four different subjects were given, with an enrollment of 20 students. The Tuskegee Institute, located at Tuskegee, is doing all the teacher-training work in vocational agriculture for colored teachers.

The second year's operation of vocational agricultural education in Alabama, as organized under the provisions of the Federal vocational education act, gives reasons for encouragement. Public opinion has given cordial approval to each line of activity. A State supervisor of agriculture will be engaged at the beginning of the next fiscal year. Teacher-training work has been organized on a sound basis. The future for vocational work looks very encouraging.

HOME ECONOMICS EDUCATION.

A member of the teacher-training staff from the Alabama Girls' Technical Institute was loaned to the State board to visit the schools receiving Federal aid in the State, as in the judgment of the State director she was needed.

In 1918 there was but one school that came up to the standard required for Federal aid. This was a Negro school with 14 pupils and 1 teacher. This year there have been two white schools approved and one colored school, with a total of 49 pupils and 3 teachers. In one of these white schools the students are required to do home practice work as a part of their course and the other, a county agricultural high school, has a dormitory and a practice cottage which are being used in connection with the home economics work.

The training of white teachers has been carried on at the Alabama Girls' Technical Institute, where a three-year course is now in operation. This institute has been pushing forward its standard since it has been designated as a teacher-training institution, and next year will offer a four-year college course. Practice teaching is carried on with the elementary classes in the institute and in the town school. The State supervisor has worked out blanks which are used for the checking up of the home-making experience of the students in the teacher-training course. These are used as a basis for judgment to determine whether or not the type of experience which each student

had made is adequate. In addition each girl is required to do six weeks of supervised home management in a cottage furnished by the institute.

The Negro teachers of the State are being trained at Tuskegee Normal and Industrial Institute. A cottage, well adapted to the needs of these students, is provided by the institute. Students live in groups of four for four weeks at a time in this cottage where, under the direction of the teacher, the work of the home is carried on.

TRADE AND INDUSTRIAL EDUCATION.

Naturally the greatest response to the provisions of the vocational education act in Alabama has been in its industrial city, Birmingham. The city is expending $220,000 in buildings and equipment for a trade school. The State has arranged to appoint a supervisor of trade and industrial education for the coming year. An indication of the kind of vocational training being promoted may be noted from the fact that 11 evening, 2 part-time, and 1 all-day school were given Federal aid during the year. Six centers have evening schools in the textile industry. The University of Alabama has been officially designated as the institution to train instructors for trade and industrial subjects. Courses have been given both in residence and as extension work.

MISSISSIPPI.

Membership of State board: W. F. Bond, State superintendent of education; J. T. Calhoun, supervisor of rural schools; Bura Hilbun, supervisor of Negro schools; J. W. Brown, assistant superintendent of education; D. C. Hull, superintendent city schools.

Executive officer: W. F. Bond, State superintendent of education, Jackson.

State director for vocational education: F. J. Hubbard.

State supervisors for agricultural education: S. J. Greer and F. J. Hubbard.

State supervisor for home-economics education: Guyton Teague.

State supervisor for trade and industrial education: M. D. Broadfoot.

PROVISIONS FOR COOPERATION.

The Federal act was accepted at a special session by a State statute approved October 11, 1917. The State legislature, in its act of acceptance, created a State board for vocational education, to consist of the State superintendent of education, the assistant State superintendent of education, the supervisor of white rural schools, and the supervisor of Negro rural schools, and one citizen of the State. The special session accepting the act provided funds only until January 1, 1918. The 1918 session appropriated $5,500 for the year 1919, and $5,500 for the year 1920. At the same session districts were authorized to expend funds matched by local tax levy for the maintenance of evening and part-time schools.

AGRICULTURAL EDUCATION.

The same general plans of work were carried on during this fiscal year as were in operation last year. The State board has provided the full time of two State supervisors of agriculture. The State board published a "Suggested Outline Course of Study in Plant Production for Consolidated Schools," a "Suggested Outline Course of Study in Plant Production for Agricultural High Schools," a "Suggested Outline Course of Study in Southern Field Crops for Agricultural High Schools," and a bulletin entitled "Vocational Education in Mississippi."

Mississippi has had several years' experience with county agricultural schools. Not until last year did the State make any special effort to introduce agriculture into rural consolidated schools. During the year 21 county agricultural schools and 12 rural consolidated high schools received Federal aid for vocational instruction in agriculture, and enrolled 830 pupils. Each pupil did at least six months of supervised practice in agriculture on a school or home farm, and made a total of $13,564.13.

There were three colored schools, enrolling 61 pupils, receiving Federal aid for vocational agricultural instruction.

A department of agricultural education, coordinate with other departments, was organized at the State agriculture and mechanical college. Four different courses of study, for which reimbursement from Federal funds is expected, were given. The preparation of colored teachers was continued at the State agriculture and mechanical college at Alcorn.

Vocational agricultural education is meeting with the enthusiastic support of the school men and the farmers of the State. It has been easy to secure local support for the establishment of county agricultural schools, and the work is growing and developing as fast as trained teachers can be found.

HOME ECONOMICS EDUCATION.

The supervision of home economics in Mississippi has been under the direction of a member of the teacher-training staff of the industrial institute and college. She has been lent for half time to the State department. A special study has been made of the needs of the schools. This study will be the basis of a bulletin offering suggestions for teaching home economics.

One department in a white high school has qualified for Federal aid, and three Negro schools.

Mississippi requires a home-economics course in all of its county high schools, and a number of these schools are already up to the vocational standard.

The training of teachers of home economics in the white schools has been conducted at the industrial institute and college. There are 86 students in the vocational course, and 16 seniors were graduated this year. The course is four years in length and is carefully worked out with the needs of the homes of Mississippi in view. Special day and evening classes in the city schools have been provided for practice teaching, and a special practice house, which provides 12 weeks of supervised housekeeping for every senior, has been in successful operation for several years.

The Negro teachers are trained at the agricultural and mechanical college. This year there were eight seniors in this course.

TRADE AND INDUSTRIAL EDUCATION.

During the past year one additional center was added to the Mississippi list of schools. Meridian organized an evening class in connection with the local railroad shops. The city of McComb has alternate week part-time classes in general continuation school work cooperating with the Illinois Central Railway shops of that city. Both of these schools are approved for Federal aid. It is expected that several cities will organize classes in cotton mill centers during the ensuing year. The Mississippi Agricultural and Mechanical College and the Alcorn Agricultural and Mechanical College for Negroes have been officially designated for instructor training in Mississippi. The plan calls for both resident and itinerant courses. Neither institution attempted work during the present year.

ARKANSAS.

Membership of State board: J. L. Bond, State superintendent of public instruction; L. P. Anderson, teacher; Sidney Pickens, teacher; J. C. Futrall, president University of Arkansas; J. W. Kuykendall, business man; B. W. Torreyson, president State Normal School; Jack Bernhardt, lawyer; D. A. Bradham, lawyer.

Executive officer: J. L. Bond, State superintendent of public instruction, Little Rock.

State director for vocational education: A. B. Hill.

State supervisors for agricultural education: E. B. Matthew and N. M. Whaley.

State supervisor for home economics education: Stella Palmer.

State supervisor for trade and industrial education: H. C. Givens.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 6, 1917. This act of acceptance was reaffirmed and extended by an act passed at the 1919 session of the legislature. The State board of education is designated as the State board for vocational education,

with powers and duties defined in the 1919 act. The amount of State funds for the year ending June 30, 1920, is $25,000; for the year ending June 30, 1921, $100,000. The 1919 act further provides for a fifth of a mill on the dollar tax to create a fund for the support of vocational education, as provided in the Federal act and the State act, and for the encouragement and aid in teaching elementary agriculture, home economics and manual training, and in the training of teachers for rural elementary schools. These taxes are set aside as a separate vocational educational fund. As noted above, the legislature will appropriate funds from the separate vocational education fund for the purpose of promoting vocational education. The State funds may be used for administration.

AGRICULTURAL EDUCATION.

A director for vocational education and a State supervisor of agriculture were appointed on full time.

Arkansas has organized two types of vocational work:

(1) The vocational department in high schools.

(2) The special agricultural school.

Thirteen schools, including three special agricultural schools, an increase of approximately 18 per cent over last year, were approved for Federal aid, and enrolled 359 boys and 74 girls in vocational work. The 433 vocational pupils made from directed or supervised practice in agriculture, $27,792.64. The State board for vocational education designated the University of Arkansas to train agricultural teachers for white schools, and the branch normal at Pine Bluff, to train agricultural teachers for colored schools. War conditions made it impossible for any work to be done at either institution. The State board, therefore, engaged in itinerant instruction.

The reports on the vocational agricultural education work in Arkansas showed decided progress. This is notably true regarding both the vocational teachers of agriculture and the organization of the work. The continued increasing financial support of the local people and the State legislation is sufficient proof that the agricultural teachers' services are appreciated by the people. Well thought out plans of work are being adopted. New centers are asking for the work, and vocational centers will be established just as rapidly as funds become available.

HOME ECONOMICS EDUCATION.

A member of the home economics teacher training staff of the University of Arkansas has been lent to the State department, as she was needed for the work of supervision. State funds are now available for supervision, and rapid development of vocational home economics work is expected. One good department of home economics in

a day school is in operation; one evening school was started in Little Rock, but had to be discontinued in the middle of the winter on account of shortage of gas and also the influenza epidemic. The training of white teachers in Arkansas is carried on at the University of Arkansas in the college of education. Practice teaching is provided for these teachers in the observation school of the university. An opportunity to do supervised home management is given each student, and 12 weeks in housekeeping is provided.

TRADE AND INDUSTRIAL EDUCATION.

Late in the year a supervisor for trade and industrial education was employed by the State. While this delayed the opening of schools and classes during the current year, plans have been made for a much larger program for the following year. Schools and classes approved for Federal aid included an evening class in the Little Rock High School and an all-day class in the Hot Springs High School. The University of Arkansas established an extension instructor training course at Little Rock.

LOUISIANA.

Memoership of State board: E. L. Kidd, insurance; T. H. Harris, State superintendent of public instruction; Dr. John A. Hoas, physician; John Legier, jr., banker; Robert Martin, merchant and planter; Ralph S. Thornton, lawyer.

Executive officer: T. H. Harris, State superintendent of public instruction, Baton Rouge.

State director for vocational education: None.

State supervisor of agriculture: P. L. Guilbeau.

State supervisor of home economics education: Cleora C. Helbing.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by the governor on November 20, 1917. The 1918 session of the State legislature formally accepted the Federal act on June 27. The State board of education, with representatives of the State federation of labor, to be named by the governor, is designated as the State board for vocational education. The State board is authorized to make expenditures from State funds for the actual expenses of the board and salaries of assistants and other administrative expenses. A special State appropriation of $50,000 is made to promote industrial education in the city of New Orleans. State funds are also available to supplement Federal funds in the promotion of vocational education.

AGRICULTURAL EDUCATION.

The supervision consisted of a full-time State supervisor of agriculture and a part-time State supervisor of colored schools. Louisiana has had several years' experience with State aided agricultural instruction in high schools. The home project

method of instruction prevails, although many of the high schools own and operate a tract of land, usually about 25 acres, for demonstration purposes. This year there are 16 approved vocational departments of agriculture in public high schools. The lack of available teachers largely accounts for no increase in schools receiving Federal aid over last year. Two hundred and thirty-four boys were enrolled in vocational classes in the 16 high schools, and made from directed or supervised practice in agriculture on the home farms $3,723.59. There was also made in profits from the school farms $8,470.78.

There were five colored schools that received Federal aid for vocational agricultural instruction, and enrolled 98 pupils as against 72 pupils enrolled in three colored schools the previous year.

Teacher training for vocational agricultural instruction was organized at the State university during the year in three different subjects.

Vocational agricultural instruction in Louisiana on the whole seems to be meeting the needs of the school men and farmers of the State. The growing demand for the assistance of the teacher of vocational agriculture and the itinerant teacher trainer, indicates confidence and appreciation of their services. There are still problems of administrative coordination of the work which will be solved as the members of the vocational staff, including the teacher trainers, gain experience and knowledge of their work. Altogether the prospects are good for the proper development of vocational agricultural education in the State.

HOME ECONOMICS EDUCATION.

Louisiana has had a full-time supervisor of home economics for a number of years, and the high schools have very good home economics departments. Unusually good work has been done for the improvement of teachers in service, and excellent outlines of courses of study have been prepared for the home economics teachers. Six home economics departments in day schools have qualified for Federal aid, two white schools and four colored schools.

The work in the colored schools is organized so as to spend a full half day in home economics instruction, and in most cases this is of less than high-school grade. The work is well planned to meet the needs of the Negro girls of the State.

The training of teachers in home economics for the past two years has been conducted at the Louisiana State Normal and the Southwestern Louisiana Industrial Institute. These institutions have had very good two-year departments of home economics, and have trained a number of teachers for the Louisiana schools. The State plan of

Louisiana now calls for a four-year teacher-training course, and the work will be given in the Louisiana State University.

The teachers for the Negro schools of the State are trained at Southern University.

TRADE AND INDUSTRIAL EDUCATION.

The State board has arranged to cooperate with the proposed Delgado Trade School in the city of New Orleans as a means of promoting trade and industrial education for boys. The Francis T. Nicholls Trade School for Girls has been in operation for several years. Four unit trade courses in this school were approved for Federal aid. Instructor training has been carried on by the New Orleans City Normal and the Nicholls School. These were residence courses for related instructors. Southern University has been designated to train instructors for Negro schools. No courses have been put into operation at this time.

TEXAS.

Membership of State board: W. P. Hobby, governor; H. B. Terrell, comptroller; George F. Howard, secretary of State.

Executive officer: Annie Webb Blanton, Austin.

State director for vocational education: None.

State supervisors for agricultural education: J. D. Blackwell, R. D. Bressler, and C. L. Davis.

State supervisors for home economics education: Nina B. Grigler, Allie George, and Agnes Ellen Harris.

State supervisor for industrial education: N. S. Hunsdon.

PROVISIONS FOR COOPERATION.

The Federal Act was accepted by State statute approved by the State legislature in 1917. This act of acceptance was reenacted with amendments at the 1919 session of the legislature. The State board of education is designated as the State board for vocational education. For the year 1919–20 there is appropriated $57,591.26, for the salaries of teachers, supervisors, or directors of agricultural subjects; $21,671.72 for the salaries of teachers of trade and industrial and home economics subjects, and $40,935.47 for the training of teachers of vocational subjects. This makes a total of $120,198.45 available for the promotion of vocational education in the year 1919–20. Provision is made in the state act that such amounts as may be necessary for the direction and supervision of the work may be used by the State board for vocational education. Provision is also made in the act that state appropriations made to institutions shall be allowed to compensate for the appropriations made in the Texas act, with the exception of $25,000, which may be used as State aid for

rural schools and schools of small towns. It is evidently the intention of the Texas Legislature to have the State board use as little of the State appropriation as possible, depending upon appropriations made to institutions and amounts raised in local communities to meet the Federal requirements of the matching of Federal funds by an equal amount from State and local communities.

AGRICULTURAL EDUCATION.

An additional full-time State supervisor for agriculture was provided. The State legislature had provided aid for agricultural instruction in high schools, but discontinued the aid with the coming of Federal aid. This was only temporary as the last session of the legislature provided sufficient funds to match Federal funds in aiding the organization of vocational departments of agriculture in small rural high schools. Two bulletins were published, one on "Plant production" and the other on "Animal production."

Twenty-nine high schools for white pupils were approved and enrolled 380 boys and 58 girls. They made from directed or supervised practice in agriculture on the home farms approximately $6,296.36. There were also three colored schools approved for Federal aid, enrolling 89 pupils. Lack of available teachers largely accounts for practically no increase in colored schools receiving Federal aid.

The State board designated the Texas Agricultural and Mechanical College to train teachers of vocational agriculture. Two residents and two itinerant teachers were reimbursed from Federal funds, and gave to the institution four different courses and enrolled eight students. There was also held a six weeks' summer course for emergency teachers and a three days' conference for teachers in service. So far no work has been done in the preparation of colored teachers of vocational agriculture, although the Prairie View Normal and Industrial School has been designated by the State board for this purpose. The appreciation of the work of the teachers of vocational agriculture is apparently growing among school men and farmer patrons of the State. The outlook is particularly bright in that the vocational staff will be able to render still greater service during the coming year than they have been able to render heretofore.

HOME ECONOMICS EDUCATION.

Until January 1 Texas has had a full-time supervisor of home economics. At that time the supervisor resigned, and the State was unable to secure another supervisor until June 1, 1919. The good work of supervision begun in 1917–18 was not carried forward, although the result of the previous supervision was shown in the increased number of schools. In 1917–18 there were three departments in day schools and two in evening schools. This year there

are eight departments in day schools and one evening school, with eight classes registering 150 pupils.

Teachers of the white schools are trained at the College of Industrial Arts and the University of Texas. Both of these institutions offer a four-year college course. Very satisfactory practice teaching is provided at each institution, and an opportunity for 12 weeks of supervised home management is offered to each senior.

Prairie View Normal has been designated as the institution to train the teachers for Negro schools of the State. This institution is fairly well equipped and the course has been worked out with the needs of the Negroes well in mind.

TRADE AND INDUSTRIAL EDUCATION.

The State employs a full-time supervisor of trade and industrial education and arrangements have been made to employ a woman assistant supervisor for girls and women. The State, as a whole, has made a steady gain during the present year, and much of the work inaugurated is being placed upon a satisfactory foundation. Twenty-two evening classes were approved in six different centers. A general continuation part-time school was given approval in Victoria. Five all-day trade schools in three different cities were approved for Federal aid. The Agricultural and Mechanical College of Texas carried on through two itinerant instructors an extension course for shop instructors. These centers were organized in Fort Worth, Dallas, Port Arthur, and Houston. No instructor training has yet been inaugurated for negro instructors.

REGION No. 3.

WEST VIRGINIA.

Membership of State board: M. P. Shawkey, chairman, State superintendent of schools; George S. Laidley, city superintendent of schools; F. N. Sycafoose, lawyer; N. G. Keim, real estate, insurance; E. W. Oglebay, manufacturer, farmer.

Executive officer: J. F. Marsh, secretary State board of regents, Charleston.

State director for vocational education: J. F. Marsh, secretary State board of regents.

State supervisor for agricultural education: P. C. Rouzer.

State supervisors for home-economics education: Rachel H. Colwell and Gladys G. Gill.

State supervisors for trade and industrial education: B. F. Leland and A. C. Callen.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute in 1917 and was reaccepted by the 1919 session of the legislature. The State board of

regents (acts 1917) was designated as the State board for vocational education. In the revision of the school law in the legislature of 1919, however, all of the powers and duties of the State board of regents are taken over by the State board of education, which was created by that legislature. Consequently, the State Board of Education of West Virginia is the State board for vocational education by State statute. Six thousand dollars was appropriated for the biennial period 1919–1921 for the promotion of vocational education to be used as determined by the State board; for the West Virginia Trade School at Montgomery, $6,000 for 1919–1921; for the Keyser Preparatory Branch, which is to be called the State vocational school after 1921, $12,000 for buildings and $10,000 for buildings and land (a farm of 125 acres purchased for Smith-Hughes purposes); for Marshall College, $10,000, to be used to purchase and equip a farm; for Glenville Normal School, $10,000 to purchase and equip a farm; Bluefield Colored Institute, $15,000 to purchase a new site including a school farm; appropriations were also included in other State institutions which may be used for vocational work. In addition to the above appropriations State funds are available for use by the State board of education for supervision and administration. Local boards of education by law of 1919 were given full power to raise and expend money for all forms of vocational education including evening schools and summer supervision. Pupils between 14 and 16 years of age who are not employed under certain conditions must attend part-time or evening classes at least five hours a week for 20 weeks a year, if such schools are organized within 2 miles of the pupil's home.

AGRICULTURAL EDUCATION.

The two departments of supervision and teacher training were organized under one head located at the university for the present. This provides two men for supervision, resident teacher training, and improvement of teachers in service.

General interest has been developed in vocational agriculture in high schools through discussion by some member of the staff at meetings of teachers and county agents, and publishing of a monthly news letter sent all the high schools in the State. The State board of education has in press a manual of Courses of Study for Junior and Senior High Schools, in which agriculture is organized in accordance with the State plan for vocational agricultural instruction.

A special appropriation for vocational education was granted by the State legislature. This will be used to offset Federal money in payment of salaries of special teachers in short courses or part-time agricultural schools. Four group conferences of teachers of vocational agriculture were held during the year. According to State

officials, this type of conference is better adpated to West Virginia than a single State conference, and similar conferences will be held next year.

Twenty high schools, with an enrollment of 241 boys and 115 girls, received Federal aid, as against 11 schools, with an enrollment of 106 boys and 76 girls, for the previous year. Pupils in the vocational work made from directed or supervised practice in agriculture on their home farms in 1917–18, $6,837.55. The good progress made during the past year toward meeting the needs of rural life in the State encourages the belief that much greater progress will be made in the future.

The University of West Virginia continued to train teachers of vocational agriculture.

HOME ECONOMICS EDUCATION.

Through the cooperation of the University of West Virginia, the work in the State has been supervised by a member of the faculty of that institution, loaned on part time. She has visited the schools, developed courses of study, and conferred with school superintendents on the plans for the work and the adjustment of their present programs to meet the time limits of vocational programs.

The work is just starting in West Virginia, but the outlook for 1919–20 under the new legislation which has just been enacted is very good. Appropriations have been made for all the work, and special appropriations for certain negro institutions, which will probably lead to the approval of vocational schools and some development of teacher training for Negroes.

One all-day school and three evening centers (eight classes) in cooking, sewing, millinery, and dietetics were reimbursed from Federal funds. The State preparatory school at Keyser has been designated as a vocational school. The new building being completed is equipped for all-day home economics work.

The University of West Virginia at Morgantown has been approved for the training of teachers in home economics. A new building has just been completed, one wing of which will be well equipped for the home economics department of the institution. This wing includes an apartment for supervised household management.

TRADE AND INDUSTRIAL EDUCATION.

It is expected that the immediate development of industrial education in the State will be in the field of mining. The principal industries of West Virginia are centered in coal mining, iron and steel manufacture, and leather work. Reports of schools approved for Federal aid during the present year include evening mining classes carried on in 19 centers and evening trade extension classes in 9 centers and 2 part-time centers. Evening trade extension classes

for miners were operated as trade extension work under the direction of the State university at Morgantown. The State plan provides for instructor training to be under the direction of the University of West Virginia. The State is largely concerned with the results of the study made of the coal and metal mining fields, since the impetus already given to vocational education for those employed in the mines is expected to create an immediate demand for the publications of the Federal Board as they relate to mining.

OHIO.

Membership of State board: Alfred Vivian, dean, college of agriculture; R. J. Condon, superintendent of schools; Mrs. Kent W. Hughes, at home; S. J. McCune, merchant; W. S. Edmund, superintendent of schools; A. C. Eldridge, assistant superintendent of schools; F. B. Pearson, State superintendent of public instruction.

Executive officer: F. B. Pearson, State superintendent of public instruction, Columbus.

State director for vocational education: None.

State supervisor for agricultural education: Alfred Vivian.

State supervisor for trade and industrial education: E. L. Heusch.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 30, 1917. This act was amended by the 1919 session providing in the amendment a complete definition of the powers and duties of the State board. The act of acceptance created a State board of education to be the State board for vocational education. This State board consists of the superintendent of public schools, with six members to be appointed by the governor. Approved vocational schools are entitled to receive from the State treasury an amount equal to the amounts of Federal money to which they may be entitled. Expenses for administration and supervision are borne from State funds.

AGRICULTURAL EDUCATION.

The supervision and teacher training were organized in one department employing three men. The personnel of this force will be increased the coming year by the addition of four men; one whose duty will be largely to assist in supervision; one the utility man, who will assist in training of teachers in service, and supervisory work; and two who will take charge of additional teacher training or critic schools, the number of which will be increased from three to five beginning with the next fiscal year.

The State board for vocational education published their plans for vocational education.

Forty departments of vocational agriculture in high schools were approved with an enrollment of 726 boys and 19 girls, as against 18 high schools with an enrollment of 301 boys and 62 girls for the previous year.

The Ohio State University has continued to do teacher-training work and has had a comparatively large enrollment of prospective teachers of vocational agriculture.

Eighty per cent of the salaries of the vocational teachers in the State are paid from State and Federal funds. Teachers provide their own transportation while supervising the practical work of their pupils at home and in community work. All of the vocational teachers are on full time.

The work in Ohio has been continued along well-established lines. Those features of the work found valuable have been maintained and strengthened.

HOME-ECONOMICS EDUCATION.

A member of the faculty of Ohio State University was lent for purposes of State supervision of home-economics education in Ohio for 1917–18. In 1918–19 two members of the faculty of the same institution were lent, one for the supervision of teacher training and the other for the supervision of departments and classes of home economics. Each school was visited three times during the year, the first visit being made to assist with the organization of the department, the second to assist the teacher in directing her work and presenting the subject matter of the course, and the third and last visit to sum up the year's work and plan for the succeeding year. Some excellent literature on courses of study, home projects, and organization of vocational home-economics departments and classes was distributed by the State supervisor.

In 1918–19 25 all-day departments in high schools were organized in Ohio. This shows an increase of 17 over the number of the preceding year. Four of the departments were used by the teacher-training institutions for purposes of practice teaching. In one of the four all-day departments a practice house was opened in which all home-economics classes are taught, and work on home management can be conducted under conditions far more normal than those afforded by the ordinary classroom or laboratory. Eighty-three pupils were enrolled in the four departments. Twenty-one of the all-day departments will be reimbursed by Federal aid. In those departments 624 pupils were enrolled and 21 teachers employed. All the teachers have completed a four-year college course in home economics.

Seventy-four centers for evening work, with an enrollment of 2,619 girls and women, were opened in 11 cities. At these centers classes in sewing, cooking, and food conservation were taught.

Twenty-seven home-economics teachers were employed for 12 months of the year, 25 of these being under the provisions of the Smith-Hughes law. In 25 schools excellent home projects were developed and in several other schools work similar to home projects was conducted. Ohio has made splendid progress in the development of home projects in home-economics education.

The following institutions have been approved for the training of teachers in home-economics education:

(1) Ohio State University, Columbus.
(2) Miami University, Oxford.
(3) University of Cincinnati, Cincinnati.

In both Ohio State University and the University of Cincinnati buildings have been erected and equipped for home-economics education. In Ohio State University two years of vocation experience is required for graduation from the teacher-training course in home economics.

In October, 1918, a three days' conference was held in Ohio for home-economics teachers and those in home economics teacher-training work. The time was devoted to an explanation of vocational home economics, as to organization of courses of study for day schools, subject content of courses, reports from the different schools, and home projects.

TRADE AND INDUSTRIAL EDUCATION.

The State employs a full-time supervisor who is also charged with responsibilities as a director. Ohio probably has greater possibilities for development of industrial education than any other State in the third region, with the possible exception of Illinois. It is noted for one field in which little has been done in education, namely, the clay-products industry. Practically the entire field of ceramics is covered in the State, including brick, tile, and pottery of all kinds. The State also is largely engaged in mining. Easy transportation of iron ore and abundant supplies of coal have developed in Ohio huge iron and steel industries, with the accompanying industries of machine shop and foundry. These plants are widely scattered over the entire State and employ large numbers of skilled mechanics. The fact that highly trained mechanics are needed everywhere in Ohio is one of the striking characteristics of the State and accounts in a measure for the successful development of part-time and technical cooperative courses. Large rubber-manufacturing plants also present a field for a study and investigation of the vocational training needed. Some of the plants already have established their own schools. Automobile manufacturing, shipbuilding, jewelry manufacturing, and garment making, employing large numbers of women, are among the many industries of the State. These industries are located chiefly in cities of 25,000 and over. The size of the city seems to make

but little difference to the development of industrial education. Something can be done in almost every town of any importance. The plans of the State for the coming year contemplate spreading industrial education over a large area. Ohio has a well-balanced development showing 29 evening centers with 158 classes, 14 part-time centers with 22 classes, 4 all-day schools, and 6 instructor-training centers. Instructor-training is under the direction of the State university, University of Cincinnati, and Cleveland School of Education. Both shop and related-subjects instructors are trained through residence and extension courses.

KENTUCKY.

Membership of State board: V. O. Gilbert, State superintendent of public instruction; J. P. Lewis, secretary of state; C. H. Morris, attorney general; F. L. McVey, president State university; E. H. Ellis, banker; O. L. Reed, superintendent of schools.

Executive officer: V. O. Gilbert, State superintendent of public instruction, Frankfort.

State director for vocational education: McHenry Rhoads.

State supervisor for agricultural education: McNeal James.

State supervisor for home-economics education: Jan G. MacKimon.

PROVISIONS FOR COOPERATION.

The governor accepted the provisions of the Federal act in a letter dated August 31, 1917. The 1918 session of the State legislature passed an acceptance act which was approved on March 6. The legislature created a State board for vocational education, which consists of the Superintendent of public instruction, the president of the University of Kentucky, the attorney general, the secretary of state, and two other men appointed by the governor, one of whom must be a superintendent of schools, and the other engaged in farming or other business. For the year 1919–20, $22,988 was appropriated for the purpose of carrying on teacher training and $24,987 for the year 1920–21, and annually thereafter, for the same purpose. An annual appropriation of $2,500 is made for the inspection and supervision of courses in vocational education. No State appropriation was made to match Federal funds allotted to the States for the purpose of giving instruction in agriculture, trades, and industries and home economics.

AGRICULTURAL EDUCATION.

The University of Kentucky loaned to the State board for vocational education the services of the professor of agricultural education, who devoted approximately one-half of his time to the work of supervision and improvement of teachers in service. A revised edition of "Statement of Plans and Policies" was published by the State board.

Vocational agricultural instruction began in the high schools of the State during February, 1918, and only eight schools, with an enrollment of 131 boys, were approved for aid, while during this year 25 schools were approved, with an enrollment of 464 boys and 321 girls. Since the work was entirely new to the State, the directed or supervised practice in agriculture in the eight schools was confined to simple activities in poultrying, dairying, corn growing, and tomato canning, while during this year much more extensive activities were engaged in by the vocational pupils for a period of not less than six months.

The teacher-training work for the whites was conducted at the University of Kentucky, and for Negroes at the Kentucky Normal and Industrial Institute.

Although there was no change in the general plan of work, there was distinct progress and development along all the lines already started. A full-time State supervisor of agriculture will be employed with the beginning of the next fiscal year.

HOME ECONOMICS EDUCATION.

Supervision for home-economics education in the State of Kentucky has been under the general direction of the director of vocational education. He has been assisted by a member of the faculty of the University of Kentucky loaned on part time to the State to supervise the work.

Eleven all-day departments in white high schools and five all-day departments in colored high schools have been organized. Two evening classes have been approved for white people and one for colored people. In these classes the subjects of sewing and cooking were taught. In one of these a vocational class has been made up of groups of girls from all grades and a very interesting program of related subjects has been developed in connection with the home economics work.

Two teacher-training institutions have been approved, one for the whites in the University of Kentucky at Lexington, and the other for the Negroes in the Kentucky Normal and Industrial Institute at Frankfort. Last year the home-economics department of the University of Kentucky was transferred from the building containing the department of education to the agricultural building. This building was remodeled and very well equipped for the work. The University of Kentucky has a practice house in which each girl resides from six to twelve weeks. In the Kentucky Normal and Industrial Institute the dormitory is used for purposes of supervised household management, and the practice teaching in this institution is carried on in the elementary schools of the institute.

TRADE AND INDUSTRIAL EDUCATION.

The possibilities for the development of trade and industrial education in this State are not to be compared in volume to the possibilities in some of the States where large industrial plants are located. With the employment of a supervisor of industrial education there would undoubtedly be found sufficient opportunities in the larger cities for the expenditure of all allotted funds. An increased interest on the part of manufacturers is being noted. The public schools have been requested for information as to how their needs for training can be met. A supervisor for trade and industrial education is to be employed on a half-time basis during the coming year. The principal industries of the State have centered in distilleries and tobacco plants, with large interests in flour and lumber products. The building trades employ a large number of people. About 26,000 men are employed in mining. Most of the industries are located in cities over 25,000. During the year no increase in the number of schools approved for Federal aid over those approved the previous year is to be noted. The number of schools approved include two evening centers, one part time, and two all-day schools. Instructor training is under the direction of the University of Kentucky.

MICHIGAN.

Membership of State board: Thomas E. Johnson, State superintendent of public instruction; Harry B. Hutchins, president State university; Frank S. Kedzie, president State agricultural college; Frank Cody, president State board of education.

Executive officer: Thomas E. Johnson, State superintendent of public instruction, Lansing.

State director for vocational education: W. H. French.

State supervisor for agricultural education E. E. Gallup.

State supervisor for industrial education: George E. Myers.

State supervisor for home-economics education: Mrs. Martha H. French.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by the State statute approved February 5, 1917, such acceptance being until the meeting of the 1919 session of the legislature. This condition on approval was met by the 1919 session of the legislature in an act approved May 2, 1919. The superintendent of public instruction, the president of the State board of education, the president of the University of Michigan, and the president of the Michigan Agricultural College are constituted as a State board for vocational education in the act of acceptance. The State board is authorized to distribute to the several schools maintaining vocational education a sum equal to one-half of the

Federal allotment, and for the support of teacher training a sum equal to the allotment of Federal moneys. For the year 1919–20 the amount of State funds is $57,241. The 1919 session of the legislature enacted a compulsory part-time continuation school law, to go into effect on the 1st day of September, 1920. Districts having a population of 5,000 or more and having 50 or more children subject to the provisions of the act or minors under 18 years of age, except high-school graduates who are regularly employed, are compelled to attend a part-time school not less than eight hours a week.

AGRICULTURAL EDUCATION.

Michigan has a State supervisor of agriculture on full time, paid equally from State and Federal funds.

Agricultural instruction in the high schools in Michigan began in a systematic way in 1908. When the Federal vocational act was passed the State had 67 high schools teaching agriculture without State aid. This year there were vocational departments in 49 high schools, with an enrollment of 1,253 boys and girls.

Teacher training in vocational agriculture was continued at the Michigan Agricultural and Mechanical College. The vocational agricultural program is working satisfactorily.

HOME-ECONOMICS EDUCATION.

The State supervision of home economics in Michigan has been in charge of a member of the faculty of the State normal college at Ypsilanti, who visited at least twice during the year all schools applying for approval for vocational work in home economics, and some of these schools three times. Supervision has meant not only school inspection, but conferences with teachers and school officials, the preparation of courses of study, and the distribution of information on the best methods for organizing the work.

Six all-day vocational home-economics departments in the high schools have been organized and four evening school centers in which home nursing, cooking, dressmaking, and millinery were taught. In one of the all-day schools there is a practice cottage which the students manage under the teacher's direction, each girl having four weeks of this experience. A one-day State conference was called by the home-economics supervisor for home-economics teachers, which was well attended. The problems of how best to develop the work in the State were discussed.

The State agricultural college at Lansing and the State normal college at Ypsilanti have both been approved for the training of teachers in home economics. Each institution maintains a practice cottage for supervised household management.

An excellent opportunity is afforded for the organization of part-time schools for girls and women under the operation of the compulsory part-time education law which was enacted. It is proposed the coming year to work out, through the cooperation of this member of the faculty at the University of Michigan and the State supervisor of home-economics, a program for the education of girls and women both in home-making and wage earning.

TRADE AND INDUSTRIAL EDUCATION.

Industrial education would be developed more rapidly if a full-time supervisor were employed. The University of Michigan employs two persons on its instructor-training staff, one for men and one for girls and women. During the year a foreman-training program was undertaken in connection with industries in Detroit. The chief industries of the State of Michigan are lumbering, furniture making, auto manufacturing, building trades, mining, blast-furnace and rolling-mill work, and shipbuilding. About 15,000 women are employed in dressmaking. A brief study of the State indicates that the most promising field for the development of industrial education lies in the field of mining, machine-shop work, auto manufacturing and repair, cabinetmaking, and dressmaking. Most of the industries are located in the extreme northern and southern parts of the State, with practically none in the center. The industries are located almost wholly in towns of 25,000 or over population. This is true except for the mining regions of the north, a great portion of the manufacturing being centered in Detroit.

Two rather unique corporation schools are located in Michigan: One, the Henry Ford Trade School in Detroit, and the other the chemical plant school at Midland. The former is one of the largest private trade schools in America, enrolling 200 boys. The school of the Midland Chemical Co. is almost wholly of college grade. During the year the number of evening centers increased from four to five; number of part-time centers from three to five, number of all-day schools from one to three. The instructor training is carried on under the direction of the University of Michigan and includes training given to shop and related subject instructors.

INDIANA.

Membership of State board: L. N. Hines, State superintendent of public instruction; W. L. Bryan, president Indiana State University; W. E. Stone, president Purdue University; W. W. Parsons, president State normal; E. U. Graff, city superintendent of schools; L. P. Benezet, city superintendent of schools; R. W. Himelick, city superintendent of schools; George R. Grose, president DePauw University;

A. M. Hall, manufacturer; C. O. Williams, county superintendent of schools; Mrs. E. E. Olcott, professor primary education; Harry L. Fidler, Railroad engineer; Clifford Funderburg, county superintendent of schools.

Executive officer: L. N. Hines, State superintendent of public instruction, Indianapolis.

State director for vocational education: J. G. Collicott.

State supervisor for agricultural education: Z. M. Smith.

State supervisor for home-economics education: Bertha Latta.

State supervisor for trade and industrial education: H. M. Appleman.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 7, 1917. The 1919 session of the legislature makes adjustments in the State vocational law, in order to harmonize the State act with the Federal vocational education act. The State board of education is designated as the State board for vocational education. A State tax of one-half cent on each $100 of taxable property is levied to provide a fund for the promotion of vocational education.

AGRICULTURAL EDUCATION.

Indiana has a vocational education act since 1913, and, therefore, had four years' experience with vocational agricultural instruction in the high schools before the passage of the Federal vocational education act. A full-time supervisor of agricultural education is provided. Forty-two schools received aid this year as against 35 last year. The 1917–18 pupils enrolled in vocational classes made from directed or supervised practice in agriculture on their home farms $38,604.

Teacher training is being done at Purdue University. While the classes have not been large, the equipment and faculty have been good, and with the restoration of normal conditions, larger classes may be expected this coming year.

On the whole, the vocational work for the year 1918–19 has been quite satisfactory in spite of the long epidemic of influenza, which closed for practically two months nearly all the vocational schools.

HOME-ECONOMICS EDUCATION.

Vocational education in Indiana has operated under a State vocational education law since 1913, so that vocational home economics education was well started in the State when the provision of the Smith-Hughes law were accepted in 1917. A State supervisor for home economics has been employed on full time since October 15, 1916, under whose direction State and district conferences have been

held, courses of study outlined, circular letters drafted and distributed, schools visited, and much propaganda undertaken to interest and inform the public on the plans and purposes of vocational work.

As some modifications of the State vocational standards were necessary to make adjustments to federally aided programs there were only three all-day federally aided departments in high schools organized in home economics classes in 1917–18 and no part-time classes, but in 1918–19, 17 all-day home economics departments and 4 part-time home economics classes met the requirements. Only 8 of these day schools and no part-time schools were reimbursed from Federal funds. Evening classes reimbursed from Federal funds were conducted in 15 cities, in which such subjects as dressmaking, millinery, cooking, and home nursing were taught. The State plan sets up high qualifications for teachers in vocational schools, which are easily complied with because they are in accord with the standards of the State vocational law under whose operation four-year courses for teacher training in home economics were organized in 1915 in the three teacher-training institutions. Good equipment is required in the schools and the school boards have cooperated very heartily in procuring this for the work.

Three teacher-training institutions were approved for teacher-training work, i. e., Indiana University, Purdue University, and Indiana State Normal School. At Indiana University a practice house was opened in 1918–19 for purposes of supervised household management. Provision for practice teaching in public schools was made in each institution, and the students have from 6 to 12 weeks' experience, with double laboratory periods daily.

A special State vocational conference was held in Indianapolis February 5 and 6, 1919, at which such topics as vocational home economics in high schools, part-time work, and a State program for home economics education were discussed. This conference was largely attended.

With its present legislation and adequate State funds for vocational education the outlook is unusually good. School boards in a number of cities are taking advantage of the 1919 legislation for continuation schools, and have already taken official action establishing part-time vocational schools for boys and girls 14 to 16 years of age who have working permits.

TRADE AND INDUSTRIAL EDUCATION.

A full-time supervisor for trade and industrial education is employed for the coming year. This will give an added impetus to the promotion of vocational education within the State. There are large possibilities for development in many cities of the State. The chief

industries of the State include slaughterhouse products, iron and steel products, flour milling, automobile-manufacturing plants, carriage and wagon manufacturing, coal mining, and stone quarrying. These industries are widely scattered throughout the cities of the State. Women's trades are of considerable importance, embracing the manufacture of men's shirts, overalls, and gloves. Many knitting mills are also found within the State. On the whole, Indiana may be considered as one of the most important manufacturing States and one in which the industries are not located in a central industrial region. The number of schools approved for Federal aid include 13 evening centers, with 50 classes; 10 part-time centers, with 36 classes; and all-day schools in 9 cities. Instructor-training courses are carried on by Indiana University, Purdue University, and the Indiana State Normal through residence and extension courses for shop and related subjects instructors.

WISCONSIN.

Membership of State board: E. W. Schultz, manufacturer; R. S. Cooper, manufacturer; E. J. Kearney, manufacturer; George F. Comings, farmer; Miles L. Hineman, farmer; C. E. Hanson, farmer; J. H. McQuaid, employee; Oliver Ellsworth, employee; A. W. McTaggart, employee; C. P. Cary, State superintendent of public instruction; Thomas F. Konop, member of industrial committee.

Executive officer: John Callahan, Madison.

State director for vocational education: John Callahan.

State supervisor for agricultural education: W. S. Welles.

State supervisors for trade and industrial education: W. F. Faulkes, E. E. Gunn, jr., A. R. Graham.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute in 1917. The State board of vocational education was designated by the act of acceptance as the "State board for vocational education." By legislation enacted prior to the Federal act State funds are available for the support of schools and classes entitled to receive Federal moneys. This appropriation, as fixed by the last session of the legislature, is $230,000 per year; of this amount, $30,000 is for office administration and supervision, $185,000 is for State aid to vocational schools, and $15,000 for university and other scholarships, as the State board may direct. Wisconsin has had a compulsory part-time school law since 1911. This act has been amended at various times by the State legislature. At present there is a required attendance of all employed children, with some few exceptions, between the ages of 14 and 17, upon part-time schools for not less than eight hours per week for at least eight months a year. A Wisconsin statute also

provides for the compulsory attendance of indentured apprentices between the ages of 14 and 18 years. Twenty-five thousand dollars is annually appropriated for part-time instruction in agriculture.

AGRICULTURAL EDUCATION.

The supervision of agriculture has been taken care of by the head of the department of teacher-training work at the River Falls Normal School. Since January he has been giving his entire time to the work, under the direction of the State board. Wisconsin was the first State to establish a county system of agricultural schools. During the year 5 of these schools were approved for Federal aid in addition to 15 public high schools. Notable work was done in part-time instruction with boys from farms who were not in attendance at any school. A census of Wood County by school districts showed approximately 900 boys in the county between the ages of 14 and 20 from farm homes, 800 of whom were not enrolled in any public school.

HOME-ECONOMICS EDUCATION.

In 1911 by legal enactment vocational education was organized in Wisconsin. A system of part-time schools of the general continuation type has been organized in the State for both boys and girls. A State supervisor on full time has been employed for 1919–20.

Up to the present time five part-time schools are on the federally aided list—one all-day school and four evening centers. Wisconsin is really reaching the wage-earning girl and benefiting her by part-time and evening work. A compulsory part-time law has been in operation since 1911. Many of the teachers employed in the part-time schools have a practical trade experience and have introduced home-making work that arouses interest and develops speed. In Appleton, Wis., where the part-time work is federally aided, a fine new building has just been built for the continuation school. This is finely equipped and affords splendid opportunities for part-time education. A large building is also being constructed in Milwaukee to house all vocational classes.

The University of Wisconsin has been approved for the training of teachers in home economics. In their practice teaching the girls have experience not only in the university high school, but also in the vocational schools of the city and the Y. W. C. A. classes.

District classes for the improvement of teachers in service were organized last year, in which instruction was given by members of the faculty from the university, who remained a week at a time to instruct the teachers of the district. In the summer of 1919 a course was conducted at the university for vocational home economics teachers.

TRADE AND INDUSTRIAL EDUCATION.

The State of Wisconsin has had a system of industrial education in operation for a number of years, and employs three supervisors for trade and industrial work. The industries of the State are exceedingly varied. They include iron and steel, foundry and machine shop, leather work products, sheet metal work, paper manufacturing, woodworking and furniture, automobile, motorcycle, and gas-engine manufacture, and shipbuilding. Women's and girls' trades are largely represented in Milwaukee, especially in the knitting and hosiery mills. The industries of the State are chiefly located in cities of over 25,000 to 50,000, although many towns of less than 25,000 are important manufacturing centers. In this respect southern Wisconsin resembles Ohio. Since the State has already a well-defined system of vocational training, the problem is not one so much concerned with promotion as with adequate supervision. During the present year 4 evening centers, 5 part-time centers, and 2 all-day schools were approved for Federal aid. It is to be noted that in 32 cities of the State supervisors for industrial education are employed. Stout Institute at Menomonie is designated to train instructors for trade and industrial subjects. In addition some extension courses have been carried on. This training included both shop and related subject instructors.

ILLINOIS.

Membership of State board: Francis W. Shepardson, director of legislation and education; Francis G. Blair, State superintendent of public instruction; Charles Adkins, director of agriculture; Barney Cohen, director of labor; William H. Bays, director of trade and commerce.

Executive officer: Francis G. Blair, State superintendent of public instruction, Springfield.

State director for vocational education: None.

State supervisor for trade and industrial education: E. A. Wreidt.

State supervisor for agricultural education: A. W. Nolan.

State supervisor for home economics education: Cora I. Davis.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by the governor of Illinois, on November 14, 1917. The legislature in its 1919 session, in an act approved on March 6, accepted the provisions of the Federal act. The Illinois act establishes a State board for vocational education, which consists of the director of registration and education, the superintendent of public schools, the director of agriculture, the director of labor, and the director of trade and commerce. The director of registration and education is designated by the State law as the chairman of the State board, and the superintendent of public instruction as its

executive officer, who nominates all appointees of the board and directs their activities. The State legislature of 1919 appropriated for the use of the State board for vocational education for the two years beginning July 1, 1919, the sum of $400,439.97, distributed as follows: For salaries and wages, $20,000; for office expenses, $3,500; for travel, $4,800; for equipment, $1,750; for contingencies, $1,000; for distribution to local school authorities for approved courses in vocational subjects and to teacher-training institutions for approved teacher-training courses, $369,389.97. A permissive mandatory law requires the attendance of employed children between the ages of 14 and 16 years for at least eight hours a week during the regular sessions of public schools, in districts in which part-time continuation schools are established. A compulsory part-time law provides for the gradual establishment of continuation schools in all places where there are 20 working minors between 14 and 18 years of age, and a compulsory attendance for eight hours a week of employed minors within those years, who are not in regular attendance in all-day schools. In 1921 its provisions will apply to minors between 14 and 16; in 1922, to minors between 14 and 17, and in 1923 to minors between 14 and 18 years.

AGRICULTURAL EDUCATION.

The organization consisted of a full-time State supervisor of agriculture, located at the State university. His work was supplemented by a traveling instructor from the university. A series of brief notes on the reports and work of the teachers of agriculture was issued regularly from the office of the supervisor of agricultural education of the State board and the agricultural education department of the university.

One thousand and thirteen boys and 123 girls were enrolled in vocational classes in the 42 high schools approved for Federal aid. All the pupils were required to carry on at least six months' directed or supervised practice in agriculture on the home farms. There were 15 schools the year previous, with 323 students carrying on practical work at home under the supervision of the agricultural teacher. The local boards paid 50 per cent of the salary of the teacher of vocational agriculture when the teacher gave full time to the work.

The teacher-training work was done at the University of Illinois. One man was employed for resident instruction and gave one course in special methods of teaching vocational agriculture, and another man was employed as traveling instructor. The 1919 legislature provided funds to match Federal funds, and the State supervisor of agriculture located at the university was transferred to the office of the State board for the year 1919–20.

HOME ECONOMICS EDUCATION.

The full time of a member of the faculty loaned by the State normal university for supervision was used in field work. In the work of supervision from two to three visits were made to schools qualifying for reimbursement. Excellent materials to interest schools in the work and acquaint them with the provisions of the law were distributed, and conferences held with groups of school people to answer questions and give opportunity for full discussion of the work.

Twenty all-day home economics departments in high schools and nine home economics evening-school centers (44 classes) were organized in 1918–19. In the all-day departments 700 girls were enrolled and in the evening-school classes 1,383 girls and women. The evening classes were conducted in such work as dressmaking, millinery, cooking, tailoring, remodeling, and handicraft. This is an increase in all-day schools of 17 and in the evening centers of 6 over the preceding year.

Two institutions have been approved for the training of teachers in home economics—the University of Illinois and the State normal university. The Urbana High School furnishes classes for practice teaching for students in the teacher-training course at the University of Illinois. Each pupil teaches 90 minutes daily for a period of 12 weeks. The students in the teacher-training course in home economics in the State normal university have practice teaching in the training school of the institutuon and in the normal high school. Each student has a period of 12 weeks, 90 minutes daily.

In the University of Illinois a special course for vocational teachers in home economics was conducted during the summer of 1919. Steps were taken late in the year to start evening centers for giving professional training to the teachers furnished by the trades for the evening schools.

TRADE AND INDUSTRIAL EDUCATION.

The chief industries of the State of Illinois are mining, slaughtering and packing, foundry machine-shop products, clothing, printing, clock and watch making, and the manufacture of agricultural implements. Most of the manufacturing is carried on in cities of over 25,000. In these cities are almost unlimited possibilities for the development of trade and industrial education in evening, part-time, and all-day schools. The watchmaking industry in this State is of great importance. Large numbers of both men and women are employed. Beginning with September, 1919, there will be a State supervisor and an assistant State supervisor of industrial education, both on full time. During the present year the number of evening centers increased from one to four, with 10 schools and 37 classes; the

number of part-time centers from one to six, and the number of all-day schools from one to four. Instructor-training is carried on by the University of Illinois and the State board and includes the training of teachers of shop subjects, related subjects, and general continuation subjects, through both residence and extension courses. An informal investigation of the possibilities of foremanship training was conducted in Chicago. No foreman-training classes have yet been organized.

MINNESOTA.

Membership of State board: Ell Torrance, attorney; J. M. McConnell, State superintendent of education; Marion L. Burton, president University of Minnesota; John Monroe, superintendent of schools; George B. Aiton, bank president.

Executive officer: James M. McConnell, State superintendent of education, St. Paul.

State director for vocational education: E. M. Phillips.

State supervisor for agricultural education: B. M. Gile.

State supervisor for home-economics education: Mildred Weigley.

State supervisor for trade and industrial education: G. A. McGarvey.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved April 21, 1917. This act was supplemented by the 1919 legislature's providing State funds to match Federal funds and a further definition of the duties of the State board for vocational education. The high-school board was designated in the original act of acceptance, in 1917. The 1919 session of the State legislature provided for a State board of education, which takes over all the work of the high school. The State board of education is, therefore, now by law designated as the State board for vocational education. The 1919 vocational legislation provides for an appropriation biennially of a sum not less than the amount to which the State is entitled from Federal funds. For the year 1919-20 Minnesota has State funds to the amount of $65,322 for the promotion of vocational education. The State of Minnesota enacted a bill providing for the reeducation and placement of persons crippled in industry in the State, with an appropriation of $15,000.

AGRICULTURAL EDUCATION.

A full-time State supervisor of agriculture was provided. Minnesota has had several years' experience with agricultural instruction in high schools with State aid previous to the passage of the Federal vocational education act. This year 23 schools, with an enrollment of 592 boys and 34 girls, received Federal aid as against 12 schools, with an enrollment of 325 boys and 61 girls, for the previous year.

Three of the schools receiving aid this year, in addition to public high schools, were special agricultural schools. The total value of the directed or supervised practice in agriculture carried on by the pupils enrolled in vocational classes in 1917–18 was $60,402.

Teacher-training work was continued at the State university, with four full-time men and two part-time men giving the professional work. Fifty-two men were enrolled as prospective teachers of vocational agriculture. With the well-organized teacher-training work and competent State supervision, the future success of the work in Minnesota is assured.

HOME-ECONOMICS EDUCATION.

A member of the faculty of the University of Minnesota has been loaned for part-time supervision. The plan of supervision included approximately two visits to each school, conferences with teachers and school administrators on the work, the outlining of courses of study and the preparation of blank forms for school reports.

Nine all-day departments in high schools were organized, in which the programs were closely correlated with the home work.

The University of Minnesota has been approved for the training of teachers of home economics. For several years this institution has maintained a four-year course in home economics. Two practice houses have been in operation, in each of which during the past year some very interesting work in child care was developed. Two children were taken from the orphans' home in Minneapolis and placed in the practice houses, one in each house. Under the supervision of well-trained teachers in charge of the practice houses, the young women taking the teacher-training course had experience in feeding, clothing, and caring for real children.

Courses for the training of teachers in related art subjects were conducted during the winter and continued in the summer. An excellent course for the improvement of teachers in service and for school administrators undertaking vocational work was held at the University of Minnesota during the summer.

TRADE AND INDUSTRIAL EDUCATION.

The State employs a full-time supervisor of industrial education. The chief industries of Minnesota are flour and grist mill products, foundry and machine-shop work, mining, lumbering, and shipbuilding. Perhaps the best opportunities for the development of industrial education lies in the mining centers of the north, in shipbuilding in Duluth, in the metal-working trades in St. Paul and Minneapolis. There is also a reasonable field for training in trades for girls and women in the cities of Minneapolis and St. Paul. The industries of the State are concentrated in about four centers—two

large cities and the mining range of the northern region. During the war-training period a large number of evening classes were organized. For the present year 38 evening classes in 4 centers, 7 part-time classes in 2 centers, and 4 all-day schools were approved for Federal aid. Instructor-training has been carried on by the State board of education and the University of Minnesota, and includes residence and extension courses for both shop and related instructors. An investigation of the need for vocational education in the plant of the Marshall-Wells Hardware Co. at Duluth was made by a representative of the Federal board and the State supervisor. The purpose of this investigation was to determine whether a system of instruction for the employees of that plant on an evening or part-time basis would be desirable. Their findings are being used at the present time in formulating a system of instruction for the employees of the plant. The employees are mostly girls. The plans will be followed out in cooperation with the public schools when fully developed. It is expected that schools organized as a result of this investigation will serve as a type for other plants in the same city. During the same period and by the same representatives an informal investigation of the possibilities of instruction for department-store girls was conducted. Some very successful evening courses were carried on in connection with the McDougall-Duluth Shipbuilding Plant as a result of informal study of the possibilities of apprenticeship in evening classes for workers in the shipyards. This investigation was made by the State and Federal agents.

IOWA.

Membership of State board: A. M. Deyoe, State superintendent of public instruction; D. D. Murphy, president board of education; A. L. Erick, State labor commissioner.

Executive officer: A. M. Deyoe, State superintendent of public instruction, Des Moines.

State director for vocational education and supervisor for agricultural education: Wilbur H. Bender.

State supervisor for home-economics education: Genevieve Fisher.

State supervisor for trade and industrial education: J. V. Lynn.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved April 23, 1917. This act of acceptance was amended by the 1919 session of the legislature in order to provide educational funds for the promotion of vocational education. The Iowa act, approved April 21, 1917, created a State board for vocational education, to consist of the State superintendent of public instruction (chairman), the president of the State board of education, and the commissioner of the bureau

of labor statistics. This board is designated by the legislature as the State board to cooperate with the Federal Board. In addition to the State board for vocational education, the Iowa vocational act provides for a State advisory committee for vocational education consisting of nine members. The members of this advisory committee consist of one member experienced in agriculture, one employer, one representative of labor, one woman experienced in women's work, one person experienced in business and commerce, one person of experience in social work, and three educators. This advisory committee is charged with the duty and responsibility of giving advice and suggestions to the State board concerning prevocational and vocational education, and the training of teachers. The committee must be called together twice a year and may be called oftener. The State legislature appropriated for the promotion of vocational education for the year 1919–20, $40,000, and for the year 1920–21, $50,000. The sum of $9,000 annually is provided for administration. Compulsory part-time schools are established in any district where 15 minors between the ages of 14 and 16 are regularly employed. Attendance is required upon part-time schools by such minors for not less than 8 hours a week for the entire time the public schools are in session in the district.

AGRICULTURAL EDUCATION.

Nine-tenths of the time of the State director for vocational education was devoted to supervising and promoting vocational agricultural education. The coming year four-fifths of the time of the State director will be devoted to agricultural work. One-half of the time of another man is also provided for supervision, while the balance of his time is devoted to problems of training teachers in service in connection with the teacher-training work.

The general State plans, with Federal and State laws, were published in bulletin form.

Ten departments, with an enrollment of 160 pupils in day classes in agriculture, were in operation during the year for which reimbursement was made. This is an increase of 66⅔ per cent in schools, and approximately 105 per cent in enrollment of pupils over last year. Shortage of teachers is still a retarding influence. Short-term work in winter dull-season classes is much in demand, and will be undertaken as rapidly as properly qualified organizers, teachers, and supervisors of applied work can be found.

The State agricultural college did teacher-training work, and gave five courses on which reimbursement from Federal funds was based.

Sentiment in favor of vocational agricultural education, both in the minds of vocational administrators and of the general public, has gone forward during the year at a most encouraging pace.

HOME-ECONOMICS EDUCATION.

The legislature of 1919 enacted laws and made appropriations very favorable to the development of vocational home-economics education. Prior to this legislation no State money was available to match Federal funds, and each school qualifying for Federal aid had to furnish from its own treasury a sum sufficient to match the Federal funds. The home-economics work has been supervised by the director of vocational education.

In 1918–19, four all-day departments in high schools were approved for home-economics education.

The State agricultural college at Ames is the institution in the State approved for teacher training in home economics. Eighty-eight girls and women graduated from the teacher-training course in home economics at the close of the year. A practice cottage for supervised household management is maintained in this institution, and practice teaching is conducted in the Ames public schools.

TRADE AND INDUSTRIAL EDUCATION.

The possibilities for the development of industrial education in the State of Iowa are not as large as are found in many other States of this region. It is expected that part-time trade extension and continuation schools will be a large factor in the State system of industrial education. The last session of the legislature passed a part-time continuation law for minors between 14 and 16, requiring eight hours of school per week. The State employs a full-time supervisor of industrial education.

Most of the cities have populations of less than 25,000 people and are not considered as important manufacturing centers. However, practically 50 per cent of the people live in conditions known as urban, and trade and industrial education is thus one of the outstanding needs along with the industrial development that is bound to come in the near future.

The number of evening schools increased during the year from two to four. No part-time schools were approved for Federal aid, and but two all-day schools have thus far been organized. Instructor training is provided in cooperation with the State board by the State college and the University of Iowa for related-subjects instructors. Shop instructors are to be trained locally under the State board in cooperation with the engineering extension department of the State college.

MISSOURI.

Membership of State board: Sam A. Baker, State superintendent of public instruction; F. D. Gardner, governor; F. W. McAllister, attorney general; John L. Sullivan, secretary of state.

Executive officer: Sam A. Baker, State superintendent of public instruction, Jefferson City.

State director for vocational education: W. T. Carrington.
State supervisor for agricultural education: Paul W. Chapman.
State supervisor for home-economics education: Regina J. Friant.
State supervisor for trade and industrial education: A. G. Norris.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 15, 1917. The 1919 session of the legislature passed an act supplementing the act of acceptance and providing for the biennial period of December 31, 1921, funds for the promotion and support of administration of vocational education. The State board of education was designated as the State board for vocational education. The 1919 session of the legislature appropriated funds for the biennial period 1919–21, $205,820.75. Of this amount the sum of $103,808.81 is available for the year 1919–20. The 1919 session of the legislature enacted a compulsory part-time school law providing for the establishment of part-time schools or classes in any district where 25 employment certificates for minors under 16 years of age have been issued. The act provides that such schools shall be in session for not less than four hours a week for the number of weeks in which schools are regularly in session in the district where the schools are established.

AGRICULTURAL EDUCATION.

During the year the State director gave part of his time to supervision of agriculture. Lack of State funds to match Federal funds prevented the State from engaging a State supervisor of agriculture. The board, however, issued a bulletin, prepared by the director, on "Courses of study in vocational agriculture."

Vocational agriculture is comparatively a new subject in the high schools of Missouri. Seven schools, with an enrollment of 109 pupils, were approved, as against three high schools, with an enrollment of 40 pupils for the previous year.

The University of Missouri was designated to train teachers of vocational agriculture.

Development of vocational agricultural work has been retarded during the year owing to the lack of State funds for the administration and promotion of the work. However, the last legislature provided ample funds for this purpose, and one man has been engaged to head up the teacher-training organization at the State university, and a full-time State supervisor of agriculture will be employed with the beginning of the fiscal year 1919–20. The prospect for the more rapid extension of the program of vocational agriculture is promising.

HOME ECONOMICS EDUCATION.

During the past year supervision of home economics was carried on by a member of the faculty of the University of Missouri, loaned on part time. This supervision consisted of inspecting schools, conferring with school officials and teachers, and outlining programs of work.

In 1917 no Federal funds were used for home economics in the schools. This year 10 all-day departments of home economics have been organized in high schools and 7 evening centers. In these evening centers the subjects of sewing, cooking, and millinery were taught.

The University of Missouri was approved for teacher training in home economics. This institution has had a well-developed four years' course in home economics, including a practice house for supervised household management, in which a carefully worked-out practical program has been followed. Eight girls at a time are in residence at this practice house. Plans have been effected for constructing a fine new home economics building the coming year, which will be well equipped for the work of teacher training.

TRADE AND INDUSTRIAL EDUCATION.

During the present year the State was entirely without supervision in trades and industries, all the work being carried on under the direction of a State director. Adequate legislation has been enacted which will provide for a full-time supervisory staff during the coming year. With the impetus given to trade and industrial education through an adequate supervisory staff, we may expect to see much progress made during the coming year. The legislation enacted provides an excellent compulsory attendance law. The chief industries of the State are meat packing, boot and shoe manufacturing, mining, building, metal and electrical trades. A number of women are employed in shoe factories and in dressmaking and millinery work. The industries are located mainly in cities over 25,000, except for the mining communities. Schools approved during the year include 25 evening classes in two centers, 15 part-time classes in two centers, and 4 all-day schools in two centers. An instructor-training class was organized by the university as trade-extension work in the city of St. Louis, and included both shop and related subject instructors. There are few States which offer a better field for an informal study and investigation of the possibilities than the State of Missouri. With a large percentage of its manufacturing industries located in three large cities the work is reasonably well concentrated.

REGION No. 4.

NORTH DAKOTA.

Membership of State board: Minnie J. Nielson, State superintendent of public instruction; E. F. Ladd, president of State agricultural college; Thomas F. Kane, president of State university; E. R. Edwards, high-school inspector; Edward Erickson, rural school inspector; C. E. Cavett, director United States School Garden Association; L. M. Rockne, county superintendent of schools; S. T. May, president State normal school; Fred E. Smith, president science school.

Executive officer: Minnie J. Nielson, State superintendent of public instruction.

State director of vocational education: None.

State supervisor for agricultural education: Charles G. Carlson.

State supervisor for home-economics education: Kate S. North.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by the governor on December 8, 1917. The 1919 session of the legislature formally accepted all the provisions of this act. The State board of administration is designated as the State board for vocational education. The 1919 session of the legislature appropriated $12,000 annually for the promotion of vocational education. The State board is authorized to use as much of the State fund as is necessary for administration and supervision. Provision has been made for the employment of a State director for the year 1919–20.

AGRICULTURAL EDUCATION.

Late this year the State board provided for a State supervisor of agriculture, loaned from the agricultural and mechanical college. He divided his time between agricultural and industrial supervision.

The State has had several years' experience with State-aided county agricultural schools. To the seven schools receiving aid in agriculture last year three new ones have been added. Two of the schools, however, which received aid last year did not qualify this year. These schools are still in the work, and enrolled 197 pupils.

The State board designated the agricultural and mechanical college to train teachers of vocational agriculture.

The opportunities for development of vocational work in agriculture are good. There are 30 or 40 high schools in the State where vocational instruction could be given to advantage.

HOME ECONOMICS EDUCATION.

In 1918–19 a State supervisor for home economics was loaned on part time by the State agricultural college at Fargo. In her work of supervision each school was visited once and some schools were

visited twice. In addition to this, conferences were held with school superintendents and teachers.

Nine vocational home-economics departments were organized in high schools. Considerable interest was shown in home-project work in connection with these departments and some excellent outlines for the development of home projects prepared for use in the schools.

Two institutions were approved for training teachers of home-economics education. One of these is the State agricultural college at Fargo, and the other the State university at Grand Forks.

A State conference was planned for the spring of 1919 and a splendid program outlined, but because of the influenza epidemic it was indefinitely postponed. Recent legislation enacted in North Dakota has made provisions for the administration and supervision of the work and affords State aid for schools that are to be reimbursed.

TRADE AND INDUSTRIAL EDUCATION.

But little has been accomplished in this State this year in trade and industrial education. It is expected that the State will show an increased interest resulting in progress and the establishment of evening schools in mining communities, and in the industrial centers of the State.

During the present year evening classes were approved for Federal aid in the city of Fargo. The agricultural and mechanical college is designated as the institution for instructor training. Up to the present time no classes have been organized.

SOUTH DAKOTA.

Membership of State board: Fred L. Shaw, State superintendent of public instruction; Robert L. Slagle, president University of South Dakota; E. C. Perisho, president of State agricultural and mechanical college; J. W. Heston, president of State normal school; Adella S. Beach, county superintendent; Grace Reed-Porter, high-school principal.

Executive officer: Fred L. Shaw, State superintendent of public instruction, Pierre.

State director for vocational education: None.

State supervisor for agricultural education: Charles H. Brady.

State supervisor for home-economics education: Eva Robinson-Dawes.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 10, 1917, to be effective July 1, 1917. This act of acceptance was amended by the 1919 session of the legislature in defining the powers and duties of a State board and for the apportionment of funds as reimbursement to the schools. It creates a State board of education

which acts as the State board for vocational education. This State board consists of the superintendent of public instruction, the president of the University of South Dakota, the president of the State Agricultural College and Mechanic Arts, and four persons appointed by the governor, two of whom shall be members of the faculty of the State normal school, one a superintendent or principal of a city or town school, and one a county superintendent. The 1919 act appropriates $20,600 annually for the promotion of vocational education. These funds are apportioned by the act as follows: For expenses of members of the State board of education, not to exceed $600; for administration and supervision, not to exceed $3,400; for aid in teaching vocational agriculture, $8,600; for aid in teaching vocational home economics, $8,000.

AGRICULTURAL EDUCATION.

The State board for vocational education secured the loan of the head of the teacher-training department of the agricultural and mechanical college to organize vocational departments of agriculture in public high schools and to act as State supervisor of vocational education until the end of the fiscal year, at which time State funds become available for the administration and supervision of vocational education in this State for the first time.

This year, for the first time, nine schools, with an enrollment of 150 boys and 55 girls, received Federal aid.

The State agricultural and mechanical college was designated by the State board to train teachers, and enrolled during the year 78 prospective teachers of vocational agriculture.

HOME-ECONOMICS EDUCATION.

Lack of effective legislation and funds for the development of vocational education have made progress in South Dakota very slow. A member of the faculty of the State university has been loaned on part time for the past two years to supervise work in the State.

Only one vocational home-economics school was approved during the past year, and that was a department of one of the high schools.

Two institutions for the training of teachers in home economics have been approved by the State board. One of these is the State university at Vermilion, and the other the State agricultural college at Brookings. At the last-named institution a new building has just been erected. Part of it will be used for home-economics education. With the removal of the home-economics department to these more ample quarters and the provision of new and better equipment, the work of teacher training in this institution will be very much improved.

TRADE AND INDUSTRIAL EDUCATION.

While State legislation has provided funds for agriculture and home economics, no State money is available for use in trade and industrial classes. Even though the State is usually regarded as primarily concerned with agriculture, it should be noted that the famous "Homestead" gold mine at Lead employs several thousand men. Other surrounding mines increase the number of men engaged in mining occupations, so that a considerable field for extension instruction is presented. Mining employees and employers have been found to be in sympathy with the development of an evening-school program. Possibilities for development of trade and industrial schools in connection with other industries are offered in connection with lumbering, in cooperation with railroad shops, and in auto and mechanical trades in the larger cities of the State. No schools were approved for Federal aid for trade and industrial subjects during the fiscal year. The State university and agricultural and mechanical college are designated as institutions for instructor training.

NEBRASKA.

Membership of State board: R. S. McKelvie, governor; D. B. Cropsey, State treasurer; W. H. Clemmons, superintendent of public instruction.

Executive officer: W. H. Clemmons, State director of public instruction, Lincoln.

State director for vocational education: C. A. Fulmer.

State supervisor for agricultural education: C. W. Watson.

State supervisor for home-economics education: Alice M. Loomis.

PROVISIONS FOR COOPERATION.

A State statute passed by the 1917 legislature accepted the Federal act. The 1919 session passed an act for the promotion of vocational education which supplements the original act of acceptance. The State board of vocational education was created by the act of acceptance to consist of the governor, the State treasurer, and the State superintendent. Under the law Nebraska appropriates $100,000 for the biennial period 1919–21. The 1919 session of the legislature enacted a compulsory part-time school plan as a part of its vocational program. Compulsory part-time schools must be established by any public school district in which there are at least 15 children between the ages of 14 and 16 who hold employment certificates. Attendance at these classes is required for not less than 8 hours a week.

AGRICULTURAL EDUCATION.

The State board has employed a full-time State supervisor of agriculture, who has received the hearty cooperation of school men, business men, and farmers of the State. Through a system of effective propaganda the director has carried on a State-wide campaign through bulletins, editorials, and write-ups in the daily and county presses of the State. A series of letters on vocational education has been sent regularly to the agricultural teachers.

During the year 8 schools, with an enrollment of 137 boys and 17 girls, received aid, as against 2 schools, with an enrollment of 76 boys, for the previous year.

Recent legislation provides a guaranty that three-fourths of the salary of the teacher of vocational agriculture shall be paid from State and Federal funds, and that any school qualifying shall receive aid.

Teacher-training work was continued at the University of Nebraska. A complete reorganization of the teacher-training work has taken place for the next fiscal year. The chief change has been to have all special methods and technical subjects handled by the associate professor of agricultural education rather than by instructors in technical departments.

HOME-ECONOMICS EDUCATION.

State supervision of home-economics education in Nebraska has been provided for the past two years by the University of Nebraska, from whose faculty a member was loaned for field work. Splendid legislation was enacted in 1919, making liberal provisions for administration and supervision, and for State aid to approved schools. A State supervisor of home-economics education has been employed on full time for 1919–20. Although few vocational home economics schools were organized in the past year, the time was profitably spent in educating the people to the value of vocational education. Excellent literature was sent out from the State department, setting up the requirements for Federal aid by way of qualifications of teachers, standards for plants and equipment and school progress.

Thus far, two departments in high schools have been approved for home-economics education. These are departments in rural consolidated schools.

The University of Nebraska has been designated as the institution for teacher training in home economics. In this institution a practice house was opened last year, in which part of the program consisted in having the girls in the household management course supervise the equipping and furnishing of the home.

The summer session for the training of teachers in home economics was held in the University of Nebraska in 1919. Such courses as garment making, dressmaking, home management, elementary food

study and textiles were offered. During the early part of June a one-week conference of home economics and agricultural teachers was held at the university, in which round tables on special home economics topics formed an important part of the program.

TRADE AND INDUSTRIAL EDUCATION.

While there is but one school in the State of Nebraska which was approved for Federal aid during the past year, a considerable development in trade and industrial education is expected as a direct result of the part-time compulsory attendance law recently enacted. The State has employed a supervisor of industrial education on a full-time basis, and with ample funds for administration and supervision, as well as for matching the Federal dollar, it is expected that the State will show a great improvement during the coming year. One of the largest fields for promoting industrial education is in connection with the large railroad shops at Havelock. The western part of the State has a large number of beet-sugar plants. This industry, as in other States of this region, offers an opportunity for evening extension courses. It is expected that the prospects for the development of trade-extension classes at the sugar-beet factories will be investigated during the coming year. In addition to an all-day unit trade school, Federal aid was given for evening instruction in war-training classes, carried on during the year. The State plans provide that instructor training for trade and industrial subjects shall be carried on by the State board. Up to the present time no classes have been organized.

KANSAS.

Membership of State board: Lorraine E. Wooster, State superintendent of public instruction; Frank Strong, chancellor of State university; W. M. Jardine, president State agricultural college; T. W. Butcher, president of State normal school, Emporia; W. A. Brandenburg, president of State normal school, Pittsburg; W. A. Lewis, president of State normal school, Hays; J. F. Barnhill, superintendent city schools, Parsons; C. O. Smith superintendent city schools; S. P. Rowland, county superintendent.

Executive officer: Lorraine E. Wooster, State superintendent of public instruction, Topeka.

State director for vocational education and supervisor for agricultural education: Harry L. Kent.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 12, 1917. The State board of education was designated as the State board for vocational education. The 1919 session of the legislature

provided for the year 1919–20, $52,541; for the year 1920–21, the sum of $63,370. A portion of the fund may be used to defray the expenses of administration and supervision.

AGRICULTURAL EDUCATION.

The State board has had one quarter of the time of the State director for vocational education in the promoting and supervising of vocational agriculture in the schools.

Sixteen schools, with an enrollment of 263 pupils, were approved for Federal aid, as against 6 schools, with an enrollment of 82 pupils, for the previous year.

The Kansas Agricultural and Mechanical College was designated by the State board to train teachers and offered such courses as agricultural education, special methods of teaching agriculture, and educational psychology.

The opportunity for development of vocational work in Kansas is especially encouraging in the rural sections, particularly is this true in the central and eastern portions. A rapid and thorough-going development of the work will take place among the high schools and consolidated schools with the appointment of a full-time State supervisor at the beginning of the next fiscal year.

HOME ECONOMICS EDUCATION.

Under the State vocational director and supervisor of agriculture loaned on part time from the State agricultural college for 1918–19, eight evening centers were established for home economics education. In these centers the subjects of millinery, dressmaking, and cooking were taught. One all-day department was organized in Topeka at the Topeka Educational and Industrial Institute, for which reimbursement was made, and one in a colored school which was State aided but not reimbursed from Federal funds.

The State Agricultural College at Manhattan and the State university at Lawrence were both approved for the training of teachers in home economics. A practice house was opened in 1918–19 at the State agricultural college.

TRADE AND INDUSTRIAL EDUCATION.

While the State of Kansas is generally regarded as largely concerned with agriculture, the developments in mining and in oil and gas fields have opened up numerous possibilities for trade and industrial training. The State has not yet employed a supervisor for trades and industries. The industrial district of Kansas City, Kans., involving large packing plants, steel plants, etc., should present a field for the development of part-time and evening school instruction. Other industries in the State of a distinctive character include numerous Portland cement plants, and beet-sugar factories in the western

portion of the State. It has been found in other States that the beet-sugar industry offers a field for related mathematics and sugar technology.

During the fiscal year trade and industrial classes approved for Federal aid increased from one evening and one part-time to eight evening and three unit trade schools.

The State plan provides that the Pittsburg State Normal School shall be the institution for training instructors for trade and industrial subjects. No classes were organized during the fiscal year.

OKLAHOMA.

Membership of State board: J. W. Cantwell, president Agricultural and Mechanical College; J. A. Whitehurst, president board of agriculture; R. H. Wilson, State superintendent; Stratton D. Brooks, president of university; Cora F. Smith, secretary of board; Charles W. Briles, secretary of board; Charles W. Barrett, secretary of board.

Executive officer: Cora F. Smith, secretary, State board for vocational education, Oklahoma City.

State director for vocational education: Charles W. Briles.

State supervisor for agriculture: William R. Curry.

State supervisors for home economics education: Avis Guinn, Mable Potter.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 24, 1917. The act of acceptance creates a State board for vocational education to consist of five members as follows: Chairman of the State board of education, the president of the board of agriculture, the president of the State university, the president of the agricultural and mechanical college, and one member to be appointed by the governor. For the biennial period 1919–21 the sum of $5,000 was appropriated. The 1919 session of the legislature provided for three State vocational schools, a school of mines at Wilburton, with a branch of the same school at Miami, a vocational school at Claremore, also one at Tonkawa. The 1919 session provided for compulsory part-time schools in districts having 20 or more employed minors over 16 and under 18 years for at least 4 hours a week for a minimum of 144 hours a year.

AGRICULTURAL EDUCATION.

The State board provided a full-time State supervisor of agriculture.

Oklahoma has had several years' experience in experimenting with agricultural instruction in judicial district agricultural schools

During the year 9 schools, including some of the special agricultural schools, with an enrollment of 198 boys and 5 girls, were approved for Federal aid.

Although the State agricultural and mechanical college was designated by the State board to train teachers, the work was not organized during the year. The institution, however, plans to set up a definite teacher-training organization, with one man to direct the work, with the beginning of the next fiscal year.

More and more the legislature and other State officials are recognizing the vocational work in public schools as an effective agency for the upbuilding of the agricultural interests of the State well worthy of their encouragement and support. With the definite organization of the teacher-training work, together with the full-time State supervisor of agriculture, the outlook for the work the coming year promises to justify this confidence and support.

HOME ECONOMICS EDUCATION.

A State supervisor of home economics on full time has been employed by the State board of Oklahoma for the past year. The schools were visited regularly and programs of work outlined for their use. Conferences were held with teachers and superintendents to enlighten them on the plans and purposes of vocational home economics education and stimulate its advancement in the State.

Thirteen all-day home economics departments in high schools have been established, one of which is in a colored school.

Three institutions have been approved for the training of teachers in home economics: Oklahoma State University, Norman; State agricultural and mechanical college, Stillwater; and State college for women, Chickasha.

Two years of vocational experience is required, according to the State plan, for teachers of vocational home economics.

During the past summer a home management course was conducted at the University of Oklahoma. The program for home management included the care and use of a home vegetable garden. The length of residence was eight weeks.

Some special investigations have been made in Oklahoma that the State supervisor reports will be of value in promoting the work in home economics education. One of these investigations relates to standards reached in other subjects by students who are good in home economics work. Another study has been made of the homes of different localities in the State in order to discover the character of the home, number in the family at home, size of the house, and occupations of children. The results of this investigation thus far disclose the fact that many enrolled in the home economics classes are from rural districts, and are compelled to furnish considerable

financial aid in supporting their families. The results of this survey are being used in working out a course of study for the schools which will fit the needs of the rural homes.

TRADE AND INDUSTRIAL EDUCATION.

In some respects the State of Oklahoma offers exceptional opportunities for the development of a permanent industrial program. The State has large developments in both coal and metal mining, and in the oil industry. These fields offer exceptional opportunities for trade extension instruction. It is expected that as a result of the study made in the field of mining, and the assistance to be given by the bulletins being published, evening classes in mining communities will increase in number. A part-time compulsory attendance law recently enacted will also insure the organization of part-time classes. In the oil industry a study should be made of the kind of training required by those employed as commercial chemists, as mechanics or assistants in surveying, and other engineering occupations. The number of classes increased from zero the preceding year to seven evening and one unit trade school. Under the provisions of the State plan instructor-training is to be carried on by the State university or agricultural and mechanical college.

MONTANA.

Membership of State board: S. V. Stewart, governor; S. C. Ford, attorney general; May Trumper, State superintendent of public instruction; C. H. Hall, attorney; J. Bruce Kremer, attorney; W. S. Hartman, attorney; A. L. Stone, banker; W. S. Bale, editor; Leo H. Faust, editor; Jno. Dietrich, superintendent of schools; Ward H. Nye, superintendent of schools.

Executive officer: May Trumper, State superintendent of public instruction, Helena.

State director for vocational education: Leon R. Foote.

State supervisor for agricultural education: M. J. Abbey.

State supervisor for trade and industrial education: Leon R. Foote.

State supervisor for home economics education: Lucile Reynolds.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 5, 1917. This act of acceptance was revised and extended by an act of the 1919 session of the legislature approved on the 10th of March. The State board of education is designated as the State board for vocational education. The Montana act also provides the appointment of an advisory committee to consist of five citizens, who are to present recommendations concerning vocational education to the State board. The Montana appropriation for the biennial period

1919–1921 for the promotion of vocational education is $43,000. One-half of this, or $21,500, is available for the year 1919–20. The State board is authorized to expend this money for the promotion of vocational education, and a portion of it may be used for the expenses of administration and supervision. The 1919 session of the Montana legislature enacted a compulsory part-time educational law which compels the establishment of a part-time school in any district of the first class in which there are 15 children over 14 years of age and less than 18 years of age who have entered upon employment. Attendance upon such part-time schools is required by the act, and the attendance shall be not less than four hours a week. The 1919 legislature passed an act making it lawful for the board of education of local school districts to establish night schools for persons over 21 years of age. Previous to the passage of this act it was unlawful to admit persons over 21 years of age to evening school classes.

AGRICULTURAL EDUCATION.

The two departments of supervision and teacher training were organized under one head, with one man devoting one-fourth of his time to supervision of vocational schools and one-fourth to teacher-training work at the agricultural and mechanical college, and one-half time to boys' and girls' club work. The State supervisor has sent each month, in mimeograph form, to teachers of agriculture "Suggestions for teachers of vocational agriculture."

In 1917–18 nine schools organized vocational agricultural courses; these same schools continued through the year 1918–19 with an enrollment of 168. All the schools recognized for aid in Montana have been county high schools except two. Each of these schools covers a very wide territory, and consequently the directed or supervised practical work in agriculture carried on by the vocational pupils may be 100 miles from school. These schools have become centers for the educational needs of wide territories, reaching their patrons not only by the all-day agricultural school but during the winter season by short courses of six weeks to four months besides special farmers' week sessions. Because of the work of these 9 schools and the especial activity of the supervisor, who has lent his time and effort freely, 14 other high schools have organized departments in vocational agriculture and 16 more have been assisted in various ways.

The training of vocational teachers in agriculture is conducted by the State college of agriculture and mechanic arts, in both resident instruction and itinerant teacher training as well as by correspondence.

The conduct of vocational agricultural work in Montana presents problems of administration and organization not usually encoun-

tered. With the sparsely settled counties, with the agricultural practices in the formative stage, with the division of the State by mountain ranges, and with the widely varying climatic conditions, the problem of reaching the rural people and of making the instruction effective is a very difficult one.

HOME-ECONOMICS EDUCATION.

Home economics was supervised last year by the home demonstration agent of Lewis & Clark Co., who was lent to the State board of education by the State college for part time.

The total expense for the supervision in home economics was borne by the department of public instruction. Although giving but a very limited time to the supervision, yet the supervisor was able to make two trips to each school applying for State and Federal aid, even though the schools at the extreme ends are situated 750 miles apart. Four departments with an enrollment of 173 students and 6 teachers qualified for State and Federal aid.

Classes in home-economics subject in evening schools were organized in various places, but because of the small amount of funds, both State and Federal, no reimbursement in salaries could be made to such schools.

The training of home-economics teachers was carried on at the State college, Bozeman, with a comparatively very good enrollment. Each student is required to teach 24 lessons in the city schools of Bozeman or county high school, and to spend six weeks of supervised home work in the practice cottage maintained by the college for this particular course in teacher training.

TRADE AND INDUSTRIAL EDUCATION.

The State of Montana offers exceptional opportunities for industrial education. The copper mines in Butte with large smelters at Anaconda and Great Falls, employing thousands of men, and the coal mines of southern and central Montana employing hundreds more offer opportunities for evening schools in many lines. The 20 railroad shops of the three transcontinental lines which traverse the State its entire length offer fields for both evening and part-time schools.

The lumbering industry of western and northwestern Montana, which employs thousands of men, offers during the dull and slack season an opportunity for part-time schools in that industry for the ambitious young men who wish to learn the business.

On account of no regularly employed supervisor for trades and industry, the supervision of trades and industry for two years has been delegated to a member of the staff of the department of public instruction, whose entire expenses for supervision were borne by that department. During the year 1918–19 the classes in trades and

industry have grown from one all-day department to two all-day departments in auto and tractor mechanics, and from no evening classes to four. The legislature in its 1919 session passed a part-time law compulsory in first-class school districts only and for the ages 14 to 17, inclusive.

The training of teachers in trades and industry has been assigned by the State board of education to the State college of agriculture and mechanic arts. No classes for trade and industrial teachers were maintained the year 1918–19, but plans have been formulated for the training of teachers of trade and industrial education, both resident at the State college, and itinerant at centers. A special course of eight lectures in the organization and administration of vocational education in trades and industry will also be conducted at centers by the vocational educational staff.

WYOMING.

Membership of State board: Morgan James, manager of publishing house; Mrs. Katherine Morton, State superintendent of public instruction; J. J. Early, city school superintendent; Mrs. Charles Stone, housewife; Earl E. Hanway, publisher; P. J. Quealy, mine owner; S. C. Parks, banker.

Executive officer: James R. Coxen, Cheyenne.

State director for vocational education and supervisor for trade and industrial education: James R. Coxen.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute in 1917. An act amending the original act was passed by the State legislature, but was vetoed by the governor. The State board of education is designated as the State board for vocational education. The annual appropriation is $3,800.

AGRICULTURAL EDUCATION.

For 1917–18 no State aid, except $3,000 for administration and supervision, was available. No further State aid will be available for development of the work for the biennium beginning January, 1919; yet during the year 5 schools, with an enrollment of 73 boys and 3 girls, received aid for instruction in vocational agriculture.

In this State, high school districts cover large areas and adapt themselves to the vocational problem through short courses and extension work. There are at least 30 high schools located in irrigated or dry land farming regions where vocational agriculture could well be organized and developed.

The University of Wyoming was designated by the State board to train teachers.

The State board has arranged, in cooperation with the University of Wyoming, for a State supervisor of agriculture for 1919–20. One-third of his time will be devoted to supervision and two-thirds to the university for training teachers of vocational agriculture in residence as well as in service.

HOME-ECONOMICS EDUCATION.

The program for home-economics education in Wyoming was very much hampered through lack of funds. There was no supervisor for home-economics education and the work was conducted entirely by the State director of vocational education. Two departments in the day schools and one part-time class with an enrollment of 12 students were approved. The teachers of home economics are trained in the college of education at the University of Wyoming.

TRADE AND INDUSTRIAL EDUCATION.

The legislature of last winter passed without a dissenting vote legislation providing State funds equal to the annual Federal allotment for the promotion of vocational education. The act was vetoed by the governor upon the basis of its constitutionality. The failure of this legislation to provide funds for administrative purposes and with which to match the Federal dollar leaves the State in a difficult situation with respect to the promotion of industrial education. Wyoming is usually regarded as a State concerned with agricultural pursuits, but there are, however, several opportunities for the development of industrial education. These opportunities are found in the fields of coal and metal mining, and in connection with railroad shops, the lumber and oil industries. In many respects the above fields are relatively undeveloped. It is safe to assume that the State will continue to grow in its industrial activities in the future. Classes previously organized include evening instruction and a general industrial school. Teacher-training work is to be carried on by the University of Wyoming and by the State board. During the year shop instructors were trained through extension courses. A supervisor, giving one-third of his time to the work of the State board and two-thirds to the University of Wyoming, was employed throughout the year.

COLORADO.

Membership of State board: A. A. Edwards, business, J. S. Calkins, farmer; H. D. Parker, farmer; Mrs. Agnes L. Riddle, farmer; J. C. Bell, lawyer; E. M. Ammons, business; W. I. Gifford, miner; J. B. Ryan, farmer; O. H. Shoup, governor; Charles A. Lory, president Colorado Agricultural College.

Executive officer: A. A. Edwards, president State board of agriculture, Fort Collins.

State director for vocational education and supervisor for agricultural education: C. G. Sargent.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved April 10, 1917. This act was amended at the 1919 session of the legislature. The State board of agriculture was designated by the legislature as the State board for vocational education. The State appropriates $10,000 annually for administration and supervision; to match Federal funds for the year 1919–20, $27,560; for the year 1920–21, $31,950. The act also appropriates specific sums until the maximum of $62,680 is reached in 1926, with a like sum being appropriated annually thereafter.

AGRICULTURAL EDUCATION.

The State director for vocational education devoted one-half of his time to supervising and promoting vocational agriculture. Beginning with the next fiscal year the State board will have a full-time State supervisor of agriculture.

The State board issued in printed form its first annual report for 1917–18.

During the year six schools, with an enrollment of 193 boys and 43 girls, received aid, as against four schools, with an enrollment of 165 boys and 22 girls for the previous year. In the main these schools have been county high schools in type, and the teacher of vocational agriculture has acted as county leader in the organization of junior project work. Directed or supervised practical work in agriculture has been carried on by the vocational pupils from an intensive productive standpoint.

The State agricultural and mechanical college continued teacher-training work for the State board.

Progress in agricultural education in Colorado has been a steady growth from the first. Nothing has been done that needs undoing in the future promotion of the work.

HOME-ECONOMICS EDUCATION.

The plan for the supervision of home economics for 1918 was for the home demonstration agent to spend part of her time in visiting the vocational schools. Due to the pressure of her demonstration work she was able to spend practically no time on vocational work.

Under the general direction of the State director of vocational education, four departments, with a total enrollment of 85 students, in consolidated rural high schools, were organized. The training of teachers for home economics is conducted at the Colorado Agricultural College. They have 173 students enrolled, and this year graduated 33 seniors. The teacher-training course is in the department of home

economics; the practice teaching is in charge of the department of rural education.

At present Colorado plans to use all of the Federal funds for home economics education in the rural schools.

TRADE AND INDUSTRIAL EDUCATION.

During the current year the State made considerable progress in developing trade and industrial education. This progress was largely due to the organization of a complete administrative staff, including a director and supervisor. A survey of the possibilities for industrial training in connection with the Minequa Steel Works in Pueblo resulted in the immediate establishment of part-time trade extension classes. These classes were attended by apprentices employed under an apprenticeship agreement. Since the State of Colorado is one of the foremost States in both coal and metal mining, considerable progress has been made in evening schools for miners. The subjects given in these trade extension classes include mine gases, mine ventilation, mine mechanics, elementary electricity, and the principles of mining.

During the fiscal year the State increased in the number of schools approved from 1 evening and 1 unit trade to 23 evening, 2 part-time, and 1 unit trade. The above increase is practically all in schools giving instruction of a trade extension character.

Instructor-training includes extension courses for shop and related subjects instructors and itinerant instructor-training for shop and related subjects instructors, all of this work being under the direction of the State board for vocational education. During the year considerable time was given to an investigation of the possibilities of training for those employed in the mines. This study involved the determination of the kinds of schools, methods of instruction, and subject matter for those employed in above and below ground occupations, and was carried on as part of the general survey in the mining field.

NEW MEXICO.

Membership of State board: O. A. Larrazola, governor; Jonathan H. Wagner, State superintendent of public instruction; Jose Sena, clerk supreme court; Earl Douglass, county superintendent of schools; Amado Charvey, lawyer; Mrs. Josie Lockard, teacher; James W. Wilson, president, military institute.

Executive officer: Jonathan H. Wagner, State superintendent of public instruction, Santa Fe.

State director for vocational education: Mrs. Ruth C. Miller.

State supervisor for agricultural education: E. D. Smith.

State supervisor for industrial education: A. B. Anderson.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved May 5, 1917. The State board of education is designated as the State board for vocational education. For the year 1919–20 the legislature of 1919 provided $20,688.68, and for the year 1920–21, $22,111.85. This legislature enacted a law providing for compulsory part-time school attendance of children 14 to 16 years who have left school to enter employment; five hours of attendance a week is required for at least 150 hours during the school year.

AGRICULTURAL EDUCATION.

Previous to the passage of the Federal vocational education act no organized agricultural instruction was being given in the secondary schools of the State. Many problems that are not in common with any other of the States in the fourth region present themselves, owing to the peculiar complexity of the population. The State board, however, has provided a State supervisor of agriculture. During the year the department has issued the "Vocational Agricultural Record," which contains brief notes of the work and reports of the instructors of vocational agriculture, the State department of education, the office of the State supervisor of vocational agriculture, and the State board for vocational education.

Five schools, with an enrollment of 86 boys and 22 girls, received aid, as against no schools receiving aid for the previous year.

The agricultural and mechanical college was designated by the State board to train teachers.

A much larger field for vocational agriculture work exists in this State than seems possible on first thought because of the extensive acreage of the State devoted to agriculture and the intensive type of agriculture conducted in irrigated sections.

HOME ECONOMICS EDUCATION.

The State director of vocational education supervised the work of home economics last year. Five departments of high schools were aided from Federal funds and two evening schools. The training of teachers of home economics was carried on in New Mexico College of Agriculture under the direction of the home economics department.

The New Mexico plan has set up a good arrangement for itinerant teacher-training by which evening school teachers are to be trained This year one such center was reimbursed from Federal funds. This work promises to be of great value in developing home economics education in the State.

TRADE AND INDUSTRIAL EDUCATION.

The State has employed during the entire year a full-time supervisor of industrial education. As a result of this supervision definite progress has been made within the State. The progress includes

the development of evening classes in the mining camps of Dawson and Tyrone and in the cities of Albuquerque and Roswell, an all-day unit trade school at the State college, and a general industrial school at Raton. The classes organized in mining communities are expected to develop more rapidly when the bulletins under preparation are ready for distribution. The all-day unit trade school in auto mechanics conducted at the State college is organized as a State trade school, drawing its students from the State at large. During the year the number of schools approved for Federal aid increased from one unit trade school to three evening classes and two unit trade schools. Instructor-training is carried on under the direction of the State board for vocational education through an itinerant instructor. Instructors for both shop and related subjects are being trained.

REGION NO. 5.

IDAHO.

Membership of State board: J. A. Keefer, banker; Ramsay M. Walker, banker; J. A. Lippincott, merchant; Evan Evans, retired banker; Mrs. J. G. H. Graveley, housewife; Ethel E. Redfield, State superintendent of public instruction.

Executive officer: Enoch A. Bryan, State commissioner of education.

State director for vocational education: Melvin S. Lewis.

State supervisor for agricultural education: C. B. Wilson.

State supervisor for trade and industrial education: Francis A. Thomson.

State supervisor for home economics education: Amy Kelly.

PROVISIONS FOR COOPERATION.

The governor accepted the act October 31, 1919. The formal acceptance by the legislature was by State statute approved March 14, 1919. The State board of education is designated as the State board for vocational education. The State statute pledges an appropriation for not less than the sum to which the State is entitled from the benefits of the Federal act. The annual appropriation for the biennial period beginning January 1, 1919, is $38,419.77. The expenses of administration and supervision may be borne from the State fund.

AGRICULTURAL EDUCATION.

The professor of agricultural education at the University of Idaho has continued to act in the capacity of supervisor of agriculture in the State.

During the year 7 schools, with an enrollment of 221 boys and 9 girls, received aid, as against 4 schools, with an enrollment of 222 pupils, for the previous year. The University of Idaho continued as the teacher-training institution.

The prospects are considerably brighter for the next fiscal year. The State legislature appropriated a sum of money equal to that appropriated for the State through the Federal vocational education act, and there has recently been elected a State director for vocational education.

HOME ECONOMICS.

A member of the extension staff of the University of Idaho has been loaned to the State department of vocational education for the supervision of the work in the State. The State expects to employ a full-time supervisor for the year 1919–20.

In 1917–18 there was no work in home economics aided from Federal funds. This year there have been two departments organized in high schools, with a total enrollment of 46 students and 4 teachers. Prospective teachers are trained in the home economics department of the University of Idaho in cooperation with the educational department. There were 36 in the vocational class, and this year 6 seniors were graduated.

TRADE AND INDUSTRIAL EDUCATION.

Owing to the absence of any large cities in Idaho and to the fact that the industry of the State is chiefly agricultural, and also owing to the scarcity of laborers and the high wages of the last two years which kept all young men not in the Army profitably employed, this has proved a difficult State in which to start the trade and industrial work. The most interesting phase of that work here undertaken was the part-time work in underground mining developed in the northern part of the State in the Coeur d'Alene mining district. The teacher was a graduate mining engineer who had spent the greater part of his life in underground mining and managerial work. The pupils were for the most part young discharged soldiers without any experience as miners. The school was 1,400 feet underground, and the school work consisted of actual practice in operating rock drills, handling dynamite and blasting, "mucking" out the broken rock, barring down the shattered roof to make it safe, and the cutting and placing of supporting timbers as the work progressed along the vein. This work had to receive not only the approval of the teacher, but in addition had to pass the inspection of a critical mine foreman and an efficient safety engineer. As the work progressed, a second school was started, and the applications for a time exceeded the capacity of the classes. Not the least interesting feature of this unusual type of a trade school was the fact that the members of the school, untrained and ignorant of mining to begin with, received better remu-

neration for their work, which was done on a contract basis, than that received by the skilled miners of the district working for wages.

In the instructor training, great difficulty was experienced in recruiting classes for trade and industrial subjects. This situation was largely due to the effects of the war, and to the epidemic of influenza. The State board plans to continue instructor-training classes in connection with the Idaho Technical Institute. The courses carried on during the year included extension courses for instructors in shop and related subjects. The State expects to employ a teacher-trainer and supervisor of trade and industrial education upon full time for the year 1919–20.

UTAH.

Membership of State board: G. N. Child, State superintendent of schools; John A Widtsoe, president State University; E. G. Peterson, president Utah Agricultural College; Geo. A. Eaton, high school principal; Henry Barker, public school principal; J. C. Swenson, college professor; Mrs. William Reid, housewife; Ephraim Magleby, farmer; D. C. Jensen, superintendent of schools.

Executive officer: G. N. Child, State superintendent of schools, Salt Lake City.

State director for vocational education: Francis W. Kirkham.

State supervisor for agricultural education: I. B. Ball.

State supervisor for trade industrial education: Lon J. Haddock.

State supervisor for home economics education: Jean Cox.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 17, 1917. This act of acceptance was reaffirmed by the legislature of 1919 in an act approved March 21. The reaffirming act provides for the powers and duties of the State board of education, and provides a State fund for the promotion of vocational education. The State board of education is designated as the State board for vocational education. The State legislature appropriated $112,500 for the biennial period beginning July 1, 1919. The State act provides that in addition to the promotion of vocational education this fund may be used "for the promotion, aid, and maintenance of education in health and in civic and patriotic service continuing over the entire year in the school districts of the State of Utah." The State board is authorized to expend such sums as may be necessary for administration and supervision from funds appropriated in the 1919 act. The 1919 session of the legislature extended the age of compulsory education in Utah from 16 to 18. All minors under 18 who have not completed a high-school course must attend a public or private school 30 weeks each year unless legally excused by the superintendent to

enter employment. Such employed minors must attend a part-time or continuation school for at least 144 hours per year. But all minors under 16 must attend school for the full school year unless they have completed the eighth grade.

AGRICULTURAL EDUCATION.

The State board provided for a full-time State supervisor of agriculture, who prepared and sent to the teachers of agriculture regularly a series of letters on vocational education.

Of the 45 high schools in the State, 24 qualified in vocational agriculture under the State plan, and enrolled 888 pupils, as against 15 schools, with an enrollment of 706 the previous year. Of the 24 approved schools, 8 offered a 3-years' course, 9 schools a 2-years' course, and 7 a 1-year's course. Seven of the high schools of the State are located in mining centers, or in cities where agricultural education can not be organized at present. Of the remaining 14 schools 10 taught agriculture, but not on a vocational basis. According to reports a number of these schools will qualify in 1919–20. A shortage of teachers during the war period prevented the employment of vocational agricultural teachers for these districts.

The directed or supervised practice in agriculture by the vocational pupils included the growing of crops on a commercial basis, practice in farm crafts, farm mechanics, and home improvement.

By legislative enactment of the State of Utah, the State university is made the teacher-training institution for the State board. The work is done by cooperation between the State university and the State agricultural college.

HOME ECONOMICS EDUCATION.

Utah has a State supervisor of home economics employed for full time, and the work has been promoted by conferences with the teachers and by helpful material which has been issued by the State board. Last year 6 departments in day schools were aided by Federal funds, this year 30 vocational departments in day schools with a total enrollment of 1,196 students and 48 teachers have been established. The State is making special effort to provide 12-months teachers of home economics who are developing a very close relationship between the girl, the home, and the school. Each girl is required to do 90 hours of home-project work in the year, and a good system of blanks for reporting this work has been devised by the supervisor.

The Agricultural College of Utah, in cooperation with the education department of the University of Utah, is training the home economics teachers for the vocational schools of the State.

TRADE AND INDUSTRIAL EDUCATION.

The past year's experience makes possible a decided forward step in vocational education. The State legislature in March appropriated $112,500 "for the promotion, aid, and maintenance of vocational education, health education, and civic and patriotic service over 12 months in the school districts of Utah." By a law of this session all boys and girls under 18 years must attend school 30 weeks, except that pupils between the ages of 16 and 18 and those who have finished the eighth grade may be excused to enter employment by attending part-time classes not less than 144 hours a year. This law will probably greatly increase the enrollment in the regular full-time school and likewise increase the demand for industrial education.

A two weeks' vocational conference was held in Salt Lake City in July, attended by 90 per cent of the instructors in vocational education in Utah, as well as a large number of school superintendents, school principals, and others, both within, and without, the State. This conference has been a great impetus for Utah's plan for vocational education.

The number of schools organized the previous year included one part-time, three evening, and three all-day. During the present year the number includes one part-time, two all-day schools, with two centers having six evening classes. One general continuation part-time school is in operation. The State of Utah, like many other States in the Rocky Mountain region, offers exceptional opportunities for the promotion of trade extension courses in the field of mining. The University of Utah is responsible for instructor-training and carried on extension work for shop instructors.

ARIZONA.

Membership of State board: Thomas E. Campbell, governor; C. O. Case, State superintendent of public instruction; R. B. von Kleinsmid, president University of Arizona; G. E. Cornelius, president North Arizona Normal School; John D. Loper, city school superintendent; Grant Van Hoose, high school principal; A. J. Matthews, president Tempe State Normal; Elsie Toles, county superintendent of schools; C. F. Philbrook, city superintendent of schools; Josephine Saxon, county superintendent; H. E. Matthews, high-school principal.

Executive officer: C. O. Case, State superintendent of public instruction, Phoenix.

State director for vocational education: I. Colodny.

State supervisor for agricultural education: Homer Deer.

State supervisor for home economics education: Beulah I. Coon.

State supervisor for trade and industrial education: Walter E. Gordon.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 12, 1917. This original act was supplemented by a bill providing for the promotion of vocational education, enacted by the 1919 session of the State legislature. The State board of education is designated as the board to cooperate with the Federal Board. The amount of State funds is not less than $15,000 annually; for the biennial period 1919–21 there is an appropriation of $347,740. The State fund may be used for administration. The 1919 session of the legislature provides for the establishment of compulsory part-time schools for 150 hours a year, of 5 hours a week, for employed children 14 to 16 years of age.

AGRICULTURAL EDUCATION.

The State board for vocational education borrowed from the University of Arizona the services of the professor of agricultural education. He assumed his duties with the board February 1, and devoted his entire time to supervision and improvement of teachers in service until the close of the year. It is expected that a full-time supervisor will be employed by the State board for the coming year. The board issued bulletins setting forth the legislation for vocational education, and a statement of requirements and qualifications to secure State and Federal aid.

During the year 7 schools, with an enrollment of 129 pupils, received aid, as against 4 schools, with an enrollment of 106 pupils for the previous year.

The University of Arizona was designated by the board to train teachers. Due to the war, students did not enroll for work in agricultural education in the institution, and the professor of agricultural education devoted his time to supervision and to improvement of teachers in service for the State board.

While the opportunities for an extended system of vocational agricultural education are not great, there is an opportunity to build up a highly efficient small system.

HOME ECONOMICS.

A member of the home economics staff of the University of Arizona was loaned to the State department to supervise the work in the State. A special survey of the home economics situation in the State was made, to determine how closely related was the school work to the home-making needs of the girls of the State. Twenty-two towns were visited and reports submitted to the State department showing the number of girls in the schools, the number taking home economics, the character of the equipment, and the qualifications of the teacher. The State board expects to secure the services of a full-time supervisor for the year 1919–20.

Two conferences have been held with the teachers of home economics. These conferences have been well attended and important phases of vocational work in part-time and evening schools were discussed.

Five departments of day schools, with an enrollment of 128 pupils, were reimbursed from Federal funds. In one of these centers special classes for Mexican girls of over 14 years of age were organized in two elementary schools. One part-time school for Mexican girls was established at Douglas, but due to lack of funds this work was not subsidized. The most satisfactory work in home economics was done in the evening schools, and seven centers were conducted last year. These reached 167 women.

The training of teachers for the home economics schools is conducted at the University of Arizona. In 1918 there was an enrollment of 45 students in the home economics classes. Special summer classes were offered at the summer school at Bisbee.

TRADE AND INDUSTRIAL EDUCATION.

With but five evening schools approved for Federal aid the previous year, the State recognized and approved evening schools in five cities, part-time schools in two cities, and all-day trade schools in five industrial centers. The industries of the State are largely centered in mining occupations. Many of the mining communities employ large numbers of men, and offer exceptional opportunities for trade extension instruction. The State plans to employ a supervisor of trade and industrial education on a full time basis for the coming year. A study of the training in the mining industry alone would indicate that the relative number of evening classes as compared with the all-day schools is entirely too small. The State has ample funds for matching the Federal dollar in its vocational program, both in payment of salaries of teachers and for administrative purposes. It is expected that the new part-time compulsory attendance act will result in the establishment of a number of part-time classes. No instructor-training in trades and industries was carried on, either in residence or as extension work.

NEVADA.

Membership of State board: Walter J. Hunting, State superintendent of public instruction; Emmet D. Boyle, governor; Walter B. Clark, president State university.

Executive officer: Walter J. Hunting, State superintendent of public instruction, Carson City.

State director for vocational education: Ralph A. Jones.

State supervisor for agricultural education: Charles S. Knight.

State supervisor for home economics education: Millicent L. Sears.

State supervisor for industrial education: Ralph A. Jones and Francis C. Lincoln.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved March 24, 1917. The 1919 session of the legislature reaffirmed this act of acceptance, and in the new acceptance provided for the promotion of vocational education. The State board of education is designated as the State board for vocational education. The 1919 act carries an appropriation of $35,000 for the three-quarter biennium ending December 31, 1920; $23,333.33 of which is to be available for the Federal fiscal year ending June 30, 1920. A portion of the State funds may be used for the expenses of administration and traveling. The amount of money allotted by the Federal Government is $20,000, of which it is planned to use $15,500. The 1919 session of the legislature enacted a compulsory part-time law requiring the attendance of employed children over 14 years of age and less than 18 whenever 15 such children reside in any school district in the State. Attendance is required for the same number of weeks for which other public schools are maintained. The legislature, in its 1919 session, provided for the acceptance of a possible Federal act for the same purpose, and appropriated $10,000 for the promotion of such legislation for the biennial period 1919–1921. In a separate act the 1919 session of the legislature provided for special secondary schools in mining and made appropriation for each of four schools. This act is a transfer of wholly State-aided mining schools to cooperative aid by local community and State to become effective in 1921.

AGRICULTURAL EDUCATION.

The promotion and supervision of vocational agriculture in the State was assigned to the Dean of the College of Agriculture at the University. The State legislature has appropriated a sum of money equal to that appropriated by the Federal Government, and the State board has elected a supervisor of vocational agriculture, who will assume his duties with the beginning of the next fiscal year. The board has begun the issuing of publications and the preparation of report forms and records for use in supervision of agriculture.

During the year 3 schools, with an enrollment of 47 boys and 3 girls, received aid, as against 1 school, with an enrollment of 12 pupils for the previous year.

The State board designated the State university to train teachers of vocational agriculture.

HOME ECONOMICS EDUCATION.

There has been no full-time State supervisor of home economics in Nevada, but a member of the teacher training staff of the University has been loaned to the State department of vocational education. She has been able to visit all of the schools and has offered help to the teachers in solving their problems in developing the vocational work of the State.

Three vocational departments in high schools have been developed, two of which have been given Federal aid and the third school has had a large part of the work done by the extension workers in the State. The training of teachers for Nevada has been carried on at the University.

There was conducted at the University of Nevada during the summer session a course of vocational education with round table and a separate section for the discussion of home economics education.

TRADE AND INDUSTRIAL EDUCATION.

With the adequate staff for administrative purposes, progress in the field of industrial education should be continued the following year. The State has pioneered in the establishment of trade extension schools in the mining industry. The number of evening centers has increased from three to six. No part-time or all-day schools were organized. Instructor-training for industrial education has been carried on through the itinerant teacher method. The State board issues a monthly bulletin as a means of keeping the State interested in and informed upon vocational education. Many opportunities are open in Nevada for promoting trade extension work in its mining communities and railway shops. The University of Nevada conducted during the summer a course in residence in instructor training.

WASHINGTON.

Membership of State board: Josephine Corliss Preston, State superintendent of public instruction; Henry Suzzallo, president State university; E. O. Holland, president State college; Geo. H. Black, president Ellensburg State Normal School; William F. Geiger, city superintendent; H. M. Hart, high-school principal; Georgian Donald, county superintendent.

Executive officer: Josephine Corliss Preston, Olympia, State superintendent of public instruction.

State director for vocational education: C. R. Frazier.

State supervisor for agricultural education: H. M. Skidmore.

State supervisors for home economics education: Effie I. Raitt; Agnes H. Craig.

State supervisors for trade and industrial education: C. R. Frazier; Geo. H. Jensen.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by an item in the State appropriations act passed by the legislature in 1917. The 1919 session of the legislature passed a formal act accepting all of the provisions of the Federal act. The State board of education is designated as the State board for vocational education. For the biennial period 1919–1921 there is appropriated $24,000. The State board is authorized to use a portion of the State funds for administration and supervision. The 1919 session of the legislature passed an act providing for the establishment of compulsory part-time schools or classes for resident or employed minors under 18 years of age, with the requirement of attendance for at least four hours a week during the weeks in which the public schools are in session. This act is to be in effect only upon the decision of the local school board after a request for the establishment of such compulsory part-time schools by 25 or more residents of the district.

AGRICULTURAL EDUCATION.

The State board for vocational education and the State college—the teacher training institution—employed, jointly, a State supervisor of agricultural education. He gave approximately one-fourth time to the supervision of teacher training in the college, devoting the balance of his time to supervision of schools and improvement of teachers in service. Next year one man will give his whole time to teacher training, while another will devote his entire time to supervision.

War conditions handicapped the teacher-training work, but two classes with fair attendance were organized and good work done.

In the State 12 departments with an enrollment of 283 vocational students received aid as against 5 departments with an enrollment of 70 students for the previous year. Much emphasis has been laid on the organization of the supervised practical work of the students in these departments.

Two conferences of vocational agriculturists were held during the year, one in late August at Yakima and one in April at Spokane. The latter was in conjunction with the Inland Empire Teachers' Association, and the superintendents concerned took part in the discussions. An organization of the instructors was effected, the object of which is the promotion of vocational agricultural education.

Some progress has been made this year and a foundation laid for a rapid extension of the work in the future.

HOME ECONOMICS EDUCATION.

The work of supervision of home economics schools has been divided between two supervisors, one loaned by the University of Washington and one by the State Agricultural College. No attempt

has been made to organize a large number of vocational home economics schools. Two, however, were given Federal aid, both of these being departments in high schools. Although the classes were small, they meet a very real need, and, as a type, have been of distinct value as examples of home economics work to the rest of the State.

The training of teachers of home economics in Washington has been conducted at the University of Washington and at the State college. At the university the training of teachers is in the home economics department of the College of Arts and Science. In the State college the training of teachers is under the direction of the dean of the educational department in cooperation with the home economics department. Practice teaching at both institutions is provided in the city public schools. Supervised home management is offered to the seniors, who in groups of three or four live for four weeks in the cottage, where the work of the home is done under the supervision of a woman with good home-making experience.

TRADE AND INDUSTRIAL EDUCATION.

After closing up a large war-training program involving training given to 2,112 men, considerable attention was given to a permanent vocational policy involving standardized day courses in trades and industries, and a part-time general continuation school program. The work carried on in day schools shows a steady improvement in its character. Much time and thought has been given by the representatives of the State board and vocational people in the local schools to the matter of courses of study, and to improvement of these, especially in the related subject matter. Experience during the year seems to justify the statement that the best results are obtained where the shop instructor also is made responsible for the instruction in related subjects. From a total of seven evening classes and 5 all-day schools organized during the previous year, the state approved 2 part-time classes, 5 centers having 11 classes and 6 all-day schools with 10 classes. During the year a conference of trade and industrial instructors was held in Seattle and was attended by a large number of people interested in vocational training. Fairly good progress is noted in the instructor training for trades and industries. The University of Washington is responsible for the training and is offering instruction in extension courses and in summer courses given in residence. Extension courses were given in the form of itinerant teacher training by the supervisor of teacher training, who also assisted the State director in the supervision of trades and industries.

OREGON.

Membership of State board: J. A. Churchill, State superintendent of public instruction; Mrs. Geo. McMath, housewife; David M. Dunne, business man; E. J. Stack, secretary State federation of labor; F. B. Ingells, farmer.

Executive officer: J. A. Churchill, State superintendent of public instruction, Salem.

State director for vocational education: None.

State supervisor for agricultural education: H. P. Barrows.

State supervisor for home economics education: Hatty Dahlberg.

State supervisor for trade and industrial education: Frank H. Shepherd.

The Federal act was accepted by the governor of Oregon on May 12, 1917. The 1919 session of the State legislature passed a formal act of acceptance. The act of acceptance created a State board for vocational education to consist of the members of the State board of education ex officio and four other members to be appointed by the governor, one of the four appointed members to represent agriculture, one, the employers of labor, one, the employees and one, a woman representing home interests. For the biennial period 1919–21 there is appropriated $40,813.18, an amount equal to that to which the State is entitled from Federal funds. The State board for vocational education may use as much of the State funds as is necessary for administration and supervision. The 1919 session of the legislature provided for the establishment of compulsory part-time schools and classes for minors 14 to 18 years of age. Five hours a week attendance is required for the same length of year as that of the public schools. In the Oregon act minors may be excused from attendance if they are in attendance upon evening schools, where such are established.

AGRICULTURAL EDUCATION.

The State board has been insistent in the demand that the vocational work should be introduced in no school where there was not a strong sentiment in its favor. The board has had part time of the man in charge of teacher-training work at the State agricultural and mechanical college. As a result of this careful program the work has been introduced into but three schools up to January 1, 1919. During the spring two other schools were added, making a total of five schools with an enrollemnt of 86 boys. Considerable promotional work was done during the year and many schools of the State have sent in applications for approval of vocational agriculture for next year.

The agricultural and mechanical college has been designated by the board to train teachers. The outlook for the future development of vocational work in agriculture in the state is very satisfactory.

HOME ECONOMICS EDUCATION.

Oregon has a part-time supervisor of home economics loaned from the State agricultural college to the State board for vocational education. There has been one flourishing department of a high school aided this year. Oregon has made the requirement that each school receiving Federal funds shall have a practice house furnished to carry on the work of the home. The school at Salem has an enrollment of 68 students with two teachers. They have taken over an old house which is being made over and furnished according to the plans of the girls in the home-economics department.

The training of teachers is carried on at the agricultural college under the direction of the Dean of the school of education. Good vocational experience is provided for the girls in a practice home in which groups of eight girls live for six weeks and also in a large boarding house where vocational problems have been successfully worked out.

TRADE AND INDUSTRIAL EDUCATION.

Owing to a lack of State funds, a supervisor for industrial education was not employed during the fiscal year. This situation made difficult the promotion of trade and industrial education within the State. It is gratifying to know that the State has recognized the situation and employed a full-time director-supervisor for the industrial field. The number of classes during the preceding year included two evening and four all-day schools, while during the present year there were under way no evening and four all-day schools. Since the State has large interests in ship building and lumbering products, it would seem that there ought to be a marked development in trade-extension courses in the evening or part-time school. Oregon agricultural college carried on as residence work instructor training for shop and related subjects instructors.

CALIFORNIA.

Membership of State board: E. P. Clarke, publisher; Mrs. O. S. Barnum, housewife; Stanley B. Wilson, publisher; two vacancies.

Executive officer: Edwin R. Snyder, State commissioner of industrial and vocational education, Sacramento.

State supervisors for agricultural education: J. B. Lillard; F. L. Griffin and S. H. Dadisman.

State supervisor for home economics education: Maude I. Murchie.

State supervisors for trade and industrial education: E. R. Snyder, J. C. Beswick; Chas. L. Jacobs and George W. Galbraith.

PROVISIONS FOR COOPERATION.

The Federal act was accepted by State statute approved May 31, 1917. The State board of education was designated as the administrative board.. There is a continuous annual State appropriation

of the same amount as that to which the State is entitled from Federal funds. For the biennial period 1919–21 this amount is $168,875. This State fund and the Federal fund becomes a vocational education fund, to be expended by the State board for the purposes specified in the Federal act. Funds for administration are provided from other school moneys. A compulsory part-time educational act was passed by the 1919 session of the legislature, requiring the attendance of all employed children under 18 years of age. This law provides for the gradual enforcement of the act, with the maximum age reached during the school year 1921–22. The California legislature also passed an act providing for the registration of all minors, such registration giving complete and necessary facts to enable the school authorities to make proper and adequate provisions for the education of all minors.

AGRICULTURAL EDUCATION.

The State board provided a full-time State Supervisor of Agriculture. The State board has issued, in cooperation with the teacher-training institution, a "News Letter in Agriculture." It also has published a "Bibliography of Government publications suitable for use of agricultural classes in elementary and secondary schools."

During the year 22 schools, with an enrollment of 333 boys and 2 girls received aid, as against 10 schools, with an enrollment of 172 pupils for the previous year.

In addition to the above, more than 100 high schools in California maintain courses in agricultural subjects. A number of these schools also provide for practical work in farming. Up to the beginning of this year none of them however, fully met the requirements set up by the State board for Federal and State-aided classes. During the coming year 34 high schools will be maintaining courses under the Federal act, and some other schools will be maintaining courses conforming to the Federal and State requirement but without expectation of special aid.

The University of California continued to train teachers for the State board, and enrolled 153 men and 40 women as prospective teachers of vocational agriculture.

The substantial basis on which vocational work is being organized, the close coordination of the directed or supervised practical work in agriculture of the vocational pupils with the extension work, the large amount of time given to vocational education at the principals' convention, and the hearty support of the State school men, all indicate a most satisfactory outlook for the vocational work of the State.

HOME ECONOMICS EDUCATION.

The supervision of vocational home economics work in California is a part of the duty of the State supervisor of teacher-training

courses in home economics. Much help has been given to the teachers through conferences and visits.

In 1917–18 one department in a day school and five evening schools were aided from Federal funds. This year there were 71 part-time classes with an enrollment of 2,243 students and 43 teachers and four departments in day schools with an enrollment of 61 students and 16 teachers.

California is offering no work after 6 o'clock which is aided from Federal funds, but they are reaching a large group of women who are home makers, through their part-time courses.

The training of teachers of home economics in California is carried on under the direction of the State supervisor of teacher-training, with centers located in six normal schools. The course of study offered is two years in length. The applicants are required to give satisfactory evidence of vocational experience in home making, which is accepted in lieu of two years of academic work.

TRADE AND INDUSTRIAL EDUCATION.

The State of California offers very large opportunities for vocational training. In addition to the large mining fields a large portion of the population is engaged in manufacturing pursuits, including shipbuilding and occupations depending upon raw products from the oil fields and lumber regions. A decided impetus to vocational training was given to the State through the war-training classes. Arrangements have been made for the employment of a full-time supervisor for trade and industrial education. While during the year 11 war training classes, 3 part-time classes, and 11 all-day schools were organized, the present year, although showing a decrease in the total number of evening classes on account of the war-training being discontinued, showed increased activity in shipbuilding occupations.

California does not apply Federal money to the reimbursement of classes maintained by evening schools after the hour of 6 o'clock. The evening high schools of California had an enrollment of between sixty and seventy thousand persons. A large proportion of these were receiving instruction which directly supplemented their occupations. The development of these schools has been largely due to the general promotion of vocational education in the State through the application of the Federal act.

The University of California is charged with the responsibility of training instructors for trade and industrial subjects. During the fiscal year, through extension courses, classes were organized for shop and related subjects instructors. It is expected that during the coming year other extension courses will be promoted. During the present year evening schools were conducted in three centers with four separate classes, part-time schools in five centers with 10 classes, and all-day schools in nine centers with 50 classes.

INTEREST EARNED ON FEDERAL FUNDS.

The Secretary of the Treasury has rendered a decision in effect that the funds deposited with the State treasurers under the provisions of the vocational education act are United States funds. The title to the funds remains in the United States until disbursements are made in accordance with the requirements of the act. Since title is still in the United States during the period in which the State treasurer is custodian of the funds, it follows that any interest earned on the funds belongs to the United States and should be covered into the Treasury as miscellaneous receipts.

It is the duty of the Federal Board and the various State boards to check up the interest received on the funds allotted to the State through the State treasurer as custodian. The Federal Board, therefore, requires the State board on or before September 1, as a part of its annual report to the Federal Board, to include an affidavit from the custodian concerning the amount of funds received by him during the current fiscal year and also the amount of interest, if any, earned on these funds.

The following States have filed through the State treasurer an affidavit to the effect that the amount of the interest set opposite each State was earned on Federal funds for the fiscal year ended June 30, 1919:

Arkansas	$330.39	Nebraska	$390.33
Connecticut	268.52	New Hampshire	193.49
Delaware	41.78	New Jersey	602.80
Georgia	513.82	New York	2,653.41
Idaho	378.51	North Carolina	653.36
Illinois	1,554.97	North Dakota	278.90
Indiana	655.28	Ohio	[1] 2,102.73
Iowa	530.25	Oklahoma	384.56
Kansas	708.92	Rhode Island	105.27
Kentucky	315.56	South Dakota	[2] 326.81
Maine	352.16	Tennessee	753.35
Maryland	606.25	Utah	156.34
Massachusetts	1,028.44	Virginia	545.67
Minnesota	138.88	West Virginia	195.53
Mississippi	289.69	Wisconsin	374.42
Missouri	1,360.96	Wyoming	260.40
Montana	438.59	Total	

The following States have filed through the State treasurer an affidavit to the effect that no interest was earned on Federal funds for the fiscal year ended June 30, 1919:

Alabama,
California,
Colorado,
Michigan,
Nevada,
Oregon,
South Carolina,
Texas,
Vermont,
Washington.

[1] Includes $500.80 interest earned on Federal funds for year ended June 30, 1918.
[2] Includes $199.69 interest earned on Federal funds for year ended June 30, 1918.

PART III.

STATISTICAL REPORT.

STATISTICAL REPORT.

Statistical returns relating to vocational schools and to vocational teacher training institutions for the year ended June 30, 1919, are tabulated by States in the Tables Nos. 14 to 38.

So far as they are available, comparable figures for the preceding year are included in these tables, but it is to be noted that the 1919 reports of State boards to the Federal Board are in some respects more detailed than those of 1918, and where this is the case comparisons of 1919 with 1918 can not be made in full detail.

State Tables Nos. 14 to 20 relate to vocational schools; Tables 21 to 24 to teacher training institutions; Tables 25 and 26 to State directors and supervisors; and Tables 27 to 38 to the allotment and expenditure of Federal funds.

Summary totals for the United States and in some cases for regions are brought together in Tables 1 to 13 following.

VOCATIONAL SCHOOLS FEDERALLY AIDED.

In Table 1 the number of vocational schools federally aided in the years ended June 30, 1919 and 1918, and the amount of Federal reimbursement to these schools are given by type of school, separate administrative units, separately reimbursed from Federal funds being counted as separate schools in compiling the data of State board reports as to number of schools federally aided.

Administratively the organization of schools and school centers varies in any year from community to community and varies in the same community from year to year to such an extent that it is difficult to define the term "school" as a statistical unit of enumeration so as to produce figures for different communities and years that are entirely comparable. In a large city an evening, or part-time or all-day school may in any given case represent several school centers organized as a single administrative unit, while in other communities a school may represent only one school center. Again, several school centers of a given type may be administratively separate, and counted, therefore, as separate schools, as is true in the case of Buffalo and of New York City, each of which cities reports in 1919 four all-day trade or industrial schools reimbursed from Federal funds. Evening or part-time school centers reported as independent units in one year, may in a succeeding year in consequence of administrative changes be reported as a single administrative unit.

It is clear from the compilation of returns from State boards as regards number of schools federally aided in the two years ended June 30, 1919 and 1918, that the administrative unit of reimbursement in some States and for some types of schools has in fact changed

somewhat in the period covered by the data. Number of schools reimbursed is, therefore, not an accurate measure of development. A very considerable extension of Federal aid to, for example, part-time continuation schools—and the same is true of any other type of school—may be shown by increase in number of part-time teachers reimbursed and in number of pupils enrolled, without any increase in number of part-time schools reimbursed. As a measure of development, number of teachers, and number of pupils enrolled is clearly a much more accurate measure of the extension of Federal aid than is number of schools federally aided.

As regards schools, defined as units of Federal reimbursement, it is very generally true that each school of any given type represents a community in which vocational teaching of that type has been conducted during the year. In some cases, however, as noted above, a community reports two or more administratively separate schools of a given type. Much more frequently several schools of different types are reported from a single community. So that in the aggregate the number of schools exceeds the number of communities for which federally aided schools are reported.

In Table 1, as in other similar tables, the classification of schools, showing three types of part-time schools, i. e., "trade or industrial," "home economics," and "continuation," is the classification adopted for the 1919 reports. This distinction was not made in the 1918 reports, and in order to produce a total for which comparable figures for 1918 are available a line has been added for part-time schools of all types combined. As regards the 1919 figures, it will be understood, these schools are shown separately in the table as trade or industrial, home economics, and continuation part-time schools.

A total of 2,039 schools of all types are reported as having received reimbursement from Federal funds in the year ended June 30, 1919, giving an increase of 298 over the number reported in 1918.

Of the schools federally aided in 1919, more than two-fifths, 42.3 per cent, were agricultural; 28.2 per cent were trade or industrial; 22.7 per cent were home economics; and 6.8 were general continuation part-time schools.

Reimbursement paid to these schools out of Federal funds, as reported in 1919, amounted to $1,136,519.01, the average reimbursement per school being $557.88.

For regions and States the number of federally aided schools is given in Table 14. Schools of one or more types are reported in 1919 from every State. North Atlantic States report 562 schools; Southern States 430; East Central 644; West Central 178; and Pacific States 225. Although Southern and East Central States report 557 of the 863 agricultural schools federally aided during the year, the largest

number of such schools reported by any single State, 52, is for New York; Michigan reports 49 such schools; Texas 46; Illinois 42; and Ohio 40. Of evening trade or industrial schools, the State reporting the largest number is Ohio with 37 such schools. Ohio reports the largest number of part-time trade or industrial schools (14); California the largest number of all-day trade or industrial (18); Massachusetts the largest number of evening home economics schools (21); California of part-time home economics (17); Pennsylvania the largest number of all-day home economics (57), and also the largest number of general continuation part-time schools (92).

TABLE 1.—*Number of schools Federally aided, for years ended June 30, 1919 and 1918, and Federal reimbursement, 1919.*

Type of school.	Vocational schools.						
	Number.			Percentage distribution.		Federal reimbursement: 1919.	
	1919	1918	Increase 1919 over 1918.	1919	1918	Amount.	Average per school.
	a	b	c	d	e	f	g
Total	2,039	1,741	298	100.0	100.0	$1,136,519.01	557.88
Agricultural	863	609	254	42.3	34.9	526,122.43	609.64
Trade or industrial:							
Evening	325	300	25	15.9	17.2	82,867.40	254.98
Part-time	83	(1)	.....	4.1	(1)	85,856.72	1,034.42
All-day	167	168	−1	8.3	9.8	258,231.75	1,546.29
Home economics:							
Evening	127	123	4	6.2	7.1	23,877.04	188.01
Part-time	27	(1)	.....	1.3	(1)	7,983.48	295.68
All-day	309	200	109	15.1	11.4	86,635.77	280.37
Part-time continuation	138	(1)	.....	6.7	(1)	64,944.42	470.61
Total, part-time [2]	248	341	−93	12.1	19.6	158,784.62	640.26

[1] Not separately reported for 1918.
[2] Includes all types of part-time schools shown separately for 1919.

TEACHERS OF VOCATIONAL COURSES.

For schools reimbursed from Federal funds a total of 6,378 teachers regularly engaged in conducting vocational courses are reported in 1919. Of these 4,103, or 64.3 per cent, were men, and 2,275, or 35.7 per cent, were women. Except in four States (see Table 16) teachers of vocational agriculture are men, the number of men teachers of this class being 1,200 and of women teachers 127. A large majority, 2,468 out of 3,002, of the teachers of trade or industrial subjects are men. Home economics teachers are with few exceptions women; and women constitute a majority of the part-time continuation school teachers.

Table 2 shows the distribution of vocational teachers by type of school and by sex for the country as a whole

TABLE 2.—*Vocational teachers in schools Federally aided, for years ended June 30, 1919 and 1918.*

Type of school.	Vocational teachers.					
	Both sexes.		Male.		Female.	
	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f
	Number.					
Total	6,378	5,257	4,103	3,236	2,275	2,021
Agricultural	1,327	895	1,200	[1] 895	127	(1)
Trade or industrial:						
Evening	1,652	1,397	1,583	1,200	69	197
Part-time	292	(2)	226	(2)	66	(2)
All-day	1,058	1,052	859	762	199	290
Home economics:						
Evening	758	688	1	2	757	686
Part-time	71	(2)	1	(2)	70	(2)
All-day	604	398	24	10	580	388
Part-time continuation	616	(2)	209	(2)	407	(2)
Total, part-time	979	827	436	367	543	490
	Percentage distribution by type of school.					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural	20.8	17.0	29.3	[1] 27.7	5.5	(1)
Trade or industrial:						
Evening	25.8	26.6	38.5	37.2	3.1	9.8
Part-time	4.6	(2)	5.5	(2)	3.0	(2)
All-day	16.5	19.9	20.9	23.5	8.9	14.3
Home economics:						
Evening	11.9	13.1	.....	.1	33.3	33.9
Part-time	1.1	(2)	.....	(2)	3.2	(2)
All-day	9.3	7.6	.5	.3	25.5	19.2
Part-time continuation	9.7	(2)	5.1	(2)	18.0	(2)
Total, part-time	15.3	15.7	10.6	11.3	24.3	22.8
	Percentage distribution by sex.					
Total	100.0	100.0	64.3	61.6	35.7	38.4
Agricultural	100.0	100.0	92.5	[1] 100.0	7.5	(1)
Trade or industrial:						
Evening	100.0	100.0	95.2	85.9	4.8	14.1
Part-time	100.0	(2)	77.4	(2)	22.6	(2)
All-day	100.0	100.0	81.1	72.4	18.9	27.6
Home economics:						
Evening	100.0	100.0	.....	.3	100.0	99.7
Part-time	100.0	(2)	.....	(2)	100.0	(2)
All-day	100.0	100.0	4.0	2.5	96.0	97.5
Part-time continuation	100.0	(2)	33.9	(2)	66.1	(2)
Total, part-time	100.0	100.0	44.5	44.3	55.5	55.7
	Increase: 1919 over 1918.					
Total	1,121	.....	867	.....	254	.....
Agricultural	432	.....	305	.....	127	.....
Trade or industrial:						
Evening	255	.....	383	.....	−128	.....
Part-time	292	.....	226	.....	66	.....
All-day	6	.....	97	.....	−89	.....
Home economics:						
Evening	70	.....	−1	.....	71	.....
Part-time	71	.....	1	.....	70	.....
All-day	206	.....	14	.....	192	.....
Part-time continuation	616	.....	209	.....	407	.....
Total, part-time	152	.....	69	.....	83	.....

[1] Agricultural teachers were not returned by sex in 1918, but were classified as male because comparatively few women teachers are engaged teaching vocational agriculture.
[2] Not separately reported for 1918.

There is undoubtedly some duplication in the return of vocational teachers for the several types of schools. A teacher returned as giving instruction in an all-day trade or industrial school, for example, may be returned as giving instruction also in an evening or in a part-time school where these several types of trade or industrial schools are conducted in the same community. For any given type of school, however, the figures given are free of duplications, and represent accurately the teaching force regularly engaged in giving the specified type of instruction in federally aided vocational schools. It will, of course, be understood that no account is taken of vocational teachers in schools not reimbursed out of Federal funds.

The number given as the number of teachers is, perhaps, more accurately described as the number of teaching positions, since in cases of resignation during the year, where new appointments are made to fill vacancies, or where for any other reason two or more teachers have successively filled a given position, only one teacher is counted for that position.

As compared with the preceding year, the increase in the number of teachers for the year ended June 30, 1919, is 1,121 for all types of schools combined.

Table 15 gives the number of teachers of vocational courses by States for 1919 and for 1918, and Table 16 the number of men and of women teachers for 1919. In these State tables the number of agricultural teachers engaged for the full year of 12 months and the number engaged for the school year only are shown separately. It will be seen that a large majority of the agricultural teachers, 1,015 out of 1,327, are on a 12 months basis.

For 33 States the number of teachers reported in 1919 exceeds the number reported in 1918, the increase by regions being, for the East Central States combined, from 1,311 in 1918 to 1,913 in 1919; for Southern States, from 473 to 820; for West Central States, from 161 to 442; for Pacific States, from 277 to 557; a decrease from 3,035 to 2,646 being reported for North Atlantic States. It may be noted that the decrease in number of teachers reported by the North Atlantic States is not accompanied by any considerable change in the enrollment of pupils in vocational schools federally aided in this region.

By States, some of the more marked increases are the following: For Arkansas, from 19 to 249, all of this increase being in the class of agricultural teachers; for Ohio, from 166 to 524, the increase being principally in the class of evening trade or industrial and evening home-economics teachers; for Michigan, from 132 to 228, the increase being distributed among several types of schools; for Illinois, from 76 to 243, and for Missouri, from 65 to 121, these increases also being distributed among several types of schools; for North Dakota,

from 32 to 131, the increase being principally for agricultural and for home-economics all-day teachers; for Colorado, from 23 to 118, the increase being principally for evening trade or industrial teachers; for California, from 123 to 322, the increase being largely for all-day trade or industrial and part-time home economics-teachers.

PUPILS ENROLLED IN VOCATIONAL COURSES.

Table 17 gives by States the number of pupils enrolled in vocational courses in different types of schools, as reported in 1919 and 1918, and Table 18 the number of pupils classified by sex for 1919. In Table 3 the totals for each type of school are given for the country as a whole, and in Table 4, totals for regions.

In the aggregate the enrollment for the year ended June 30, 1919, in all types of schools was 194,895, the corresponding figure for the preceding year being 164,183, and the increase for the year 30,712. This increase was largely in part-time schools, which in the aggregate reported an enrollment of 77,677 pupils in 1919 as compared with 53,005 in 1918. For these schools the increase in enrollment is about equally divided between males and females, although the male enrollment in part-time schools in both years is considerably in excess of the female enrollment. Decreases are shown for the enrollment of females in evening and in all-day trade or industrial schools.

By regions, the enrollment in vocational courses decreased slightly in the North Atlantic States from 105,016 for the year ended June 30, 1918, to 102,224 for 1919. In each of the other regions increased enrollment is reported for the last year over the year preceding, the increase being, for Southern States, from 9,473 to 12,358; for East Central States, from 37,145 to 61,087; for West Central States, from 4,669 to 7,237; and for Pacific States, from 7,880 to 11,989.

Pennsylvania's enrollment of 48,321 pupils in schools federally reimbursed in the year ended June 30, 1919, exceeded that of any other State, the second largest enrollment being that reported by Massachusetts, 25,475. Michigan's enrollment totaled 14,234; Ohio's, 13,319; and New York's, 11,339.

Enrollment in agricultural and in trade or industrial schools was predominantly male, and in home-economics schools almost entirely female. In general continuation part-time schools enrollment was more nearly evenly divided by sex, females being, however, as noted above, considerably in excess.

Of male pupils by far the larger proportion—75,976, or nearly two-thirds of the total male enrollment—were in trade or industrial schools; 27,324, or 22.7 per cent, were in part-time general continuation schools; and 16,959, or 14.1 per cent, in agricultural schools. Of female pupils, 39,267, or more than half, were in home-economics schools, and 23,459, or nearly one-third, were in part-time continuation schools.

TABLE 3.—*Vocational pupils in schools Federally aided: for years ended June 30, 1919 and 1918.*

Type of school.	Vocational pupils.					
	Both sexes.		Male.		Female.	
	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f
	Number.					
Total	[1] 194,895	[2] 164,183	120,406	100,757	73,049	62,941
Agricultural	[1] 19,933	15,453	16,959	13,901	1,534	1,286
Trade or industrial:						
Evening	43,485	46,333	42,094	39,580	1,391	6,708
Part-time	22,616	.....	17,276	.....	5,340	.....
All-day	18,664	18,593	16,606	14,642	2,058	3,883
Home economics:						
Evening	22,691	22,360	.....	4	22,691	22,356
Part-time	4,278	.....	.....	.....	4,278	.....
All-day	12,445	8,439	147	25	12,298	8,308
Part-time continuation	50,783	.....	27,324	.....	23,459	.....
Total part-time	77,677	53,005	44,600	32,605	33,077	20,400
	Percentage distribution by type of schools.					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural	10.2	9.4	14.1	13.9	2.1	2.0
Trade or industrial:						
Evening	22.3	28.2	35.0	39.0	1.9	10.6
Part-time	11.6	.....	14.3	.....	7.3	.....
All-day	9.6	11.3	13.8	14.6	2.8	6.2
Home economics:						
Evening	11.6	13.6	.....	0.0	31.1	35.5
Part-time	2.2	.....	.....	.....	5.9	.....
All-day	6.4	5.1	.1	0.0	16.8	13.2
Part-time continuation	26.1	.....	22.7	.....	32.1	.....
Total part-time	39.9	32.3	37.0	32.4	45.3	32.5
	Percentage distribution by sex.					
Total	100.0	100.0	62.2	61.6	7.8	38.43
Agricultural	100.0	100.0	91.7	91.5	8.3	8.5
Trade or industrial:						
Evening	100.0	100.0	96.8	85.5	3.2	14.5
Part-time	100.0	.....	76.4	.....	23.6	.....
All-day	100.0	100.0	89.0	79.0	11.0	21.0
Home economics:						
Evening	100.0	100.0	.....	0.0	100.0	99.9
Part-time	100.0	.....	.....	.....	100.0	.....
All-day	100.0	100.0	1.2	0.3	98.8	99.7
Part-time continuation	100.0	.....	53.8	.....	46.2	.....
Total part-time	100.0	100.0	57.4	61.5	42.6	38.5
	Increase: 1919 over 1918.					
Total	30,712	.....	19,649	.....	10,108	.....
Agricultural	4,480	.....	3,058	.....	248	.....
Trade or industrial:						
Evening	[3] 2,803	.....	2,514	.....	[3] 5,317	.....
Part-time	.....	.....	.....	.....	.....	.....
All-day	139	.....	1,964	.....	[3] 1,825	.....
Home economics:						
Evening	331	.....	[3] 4	.....	335	.....
Part-time	.....	.....	.....	.....	.....	.....
All-day	4,112	.....	122	.....	3,990	.....
Part-time continuation	.....	.....	.....	.....	.....	.....
Total part-time	24,672	.....	11,995	.....	12,677	.....

[1] Includes 1,440 pupils in agricultural schools not classified by sex, i. e., from Michigan 1,243, from North Dakota 197.

[2] Includes 485 pupils not classified by sex, i. e., in agricultural schools 266; in trade or industrial evening 45; in trade or industrial all-day 68; and in home economics all-day 106.

[3] Decrease.

TABLE 4.—*Vocational pupils in schools Federally aided, by regions: for year ended June 30, 1919.*

Type of school.	Vocational pupils.					
	United States.	Region.				
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.
	a	b	c	d	e	f
	Number.					
Total	194,895	102,224	12,358	61,087	7,237	11,989
Agricultural	19,933	3,509	5,715	7,072	1,636	2,001
Trade or industrial:						
Evening	43,485	15,346	3,448	18,486	3,419	2,786
Part-time	22,616	10,028	32	11,411	455	690
All-day	18,664	12,463	486	3,159	313	2,243
Home economics:						
Evening	22,691	11,413	1,246	9,595	270	167
Part-time	4,278	385	55	1,583	12	2,243
All-day	12,445	3,886	1,221	4,896	895	1,547
Part-time continuation	50,783	45,194	155	4,885	237	312
Total part-time	77,677	55,607	242	17,879	704	3,245
	Percentage distribution by region.					
Total	100.0	52.5	6.3	31.3	3.7	6.2
Agricultural	100.0	17.6	28.7	35.5	8.2	10.0
Trade or industrial:						
Evening	100.0	35.3	7.9	42.5	7.9	6.4
Part-time	100.0	44.3	.1	50.5	2.0	3.1
All-day	100.0	66.8	2.6	16.9	1.7	12.0
Home economics:						
Evening	100.0	50.3	5.5	42.3	1.2	.7
Part-time	100.0	9.0	1.3	37.0	.3	52.4
All-day	100.0	31.2	9.8	39.3	7.2	12.4
Part-time continuation	100.0	89.0	.3	9.6	.5	.6
Total part-time	100.0	71.6	.3	23.0	.9	4.2
	Percentage distribution by type of school.					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural	10.2	3.4	46.2	11.6	22.6	16.7
Trade or industrial:						
Evening	22.3	15.0	27.9	30.3	47.2	23.2
Part-time	11.6	9.8	.3	18.7	6.3	5.8
All-day	9.6	12.2	3.9	5.2	4.3	18.6
Home economics:						
Evening	11.6	11.2	10.1	15.7	3.7	1.4
Part-time	2.2	.4	.4	2.6	.2	18.6
All-day	6.4	3.8	9.8	8.0	12.3	12.9
Part-time continuation	26.1	44.2	1.3	7.9	3.3	2.6
Total part-time	39.9	54.4	2.0	29.1	9.7	27.1
	Increase in number over preceding year.					
Total	30,712	[1] 2,792	2,885	23,942	2,568	4,109
Agricultural	4,480	[1] 140	1,067	2,391	449	713
Trade or industrial:						
Evening	[1] 2,848	8,158	1,754	3,555	1,079	[1] 1,083
Part-time						
All-day	71	[1] 576	[1] 175	[1] 423	183	1,062
Home economics:						
Evening	331	[1] 3,857	113	3,843	215	17
Part-time						
All-day	4,006	[1] 300	331	3,095	36	844
Part-time continuation						
Total part-time	24,672	10,234	[1] 205	11,481	606	2,556

[1] Decrease.

SUBJECTS TAUGHT IN VOCATIONAL SCHOOLS.

Table 5 gives a list of subjects taught in vocational trade or industrial evening, part-time, and all-day schools, in evening and part-time home economics schools, and in continuation part-time schools. In this table, subjects have been listed as reported on the State schedules, with minor changes in terminology, and no attempt has been made to combine subjects, or to arrange the list systematically. Where it has seemed quite clear that differences in terminology from State to State, and from school to school, have resulted in the reporting of two or more designations for similar or even identical types of instruction, some few combinations have been made to avoid undue extension of the list.

Subjects taught and number of schools of different types teaching each subject are shown for each State in Table 19.

An examination of these lists will make clear the need for more complete standardization of terminology as regards subjects taught in vocational schools.

TABLE 5.—*Subjects taught, number of vocational schools Federally aided teaching specified subjects, by type of school, for year ended June 30, 1919.*

Subjects taught.	Number of schools teaching specified subjects: 1919.				Subjects taught.	Number of schools teaching specified subjects: 1919.			
	Total.	Evening.	Part time.	All day.		Total.	Evening.	Part time.	All day.
	a	b	c	d		a	b	c	d
TRADE OR INDUSTRIAL SCHOOLS.					TRADE OR INDUSTRIAL SCHOOLS—continued.				
Aeroplane	1	1			Drafting:				
Arithmetic, shop	4	4			Architectural	11	7		4
Arithmetic, cottonmill	16	16			Industrial	2	2		
Assaying	3	2		1	Machine	5	3		2
Auto assembly	1	1			Mechanical	22	13		9
Auto mechanics	67	49	1	17	Shop	7		7	
Auto repair	36	25	3	8	Drawing, mechanical	97	83	2	12
Auto trade	2			2	Dressmaking	18	5	2	11
Baking	2		2		Electricity	47	14	9	24
Baking technology	1	1			Electric construction	3	3		
Blacksmithing	10	4	2	4	Electric wiring	13	1		12
Blue-print reading	24	24			Engine:				
Boilermaking	2	2			Gas	10	6	1	3
Bookbinding	1			1	Stationary	2	2		
Bricklaying	2	1	1		Steam	7	4		3
Building trades	2			2	English	5		4	1
Cabinet work	46	13	6	27	Estimating	2	2		
Carpentry	61	16	5	40	Fireman	4	3	1	
Catering	3	1		2	Forging	5	4		1
Cement work	1			1	Foundry	3	2		1
Chemistry, applied	9	9			Hairdressing	6		6	
Chemistry:					Industrial	15	5	5	5
Commercial	2	2			Janitor service	3	3		
Industrial	4	3		1	Jewelry trades	2	1	1	
Oil	2	1		1	Lake carrier occupation	2	1	1	
Sugar	1			1	Lamp shade making	1			1
Textile	1	1			Lathe work	1	1		
Civics	4		3	1	Loom fixing	3	3		
Cloth analysis	1	1			Machine shop	84	76	8	
Commercial art	1	1			Machinist	32	2	13	17
Cooking	2	1		1	Mathematics:				
Coppersmith	1	1			Applied	7	4	3	
Design	12	11		1	Mining	10	10		

TABLE 5.—*Subjects taught, number of vocational schools Federally aided teaching specified subjects, by type of school, for year ended June 30, 1919*—Continued.

Subjects taught.	Number of schools teaching specified subjects: 1919.				Subjects taught.	Number of schools teaching specified subjects: 1919.			
	Total.	Evening.	Part time.	All day.		Total.	Evening.	Part time.	All day.
	a	b	c	d		a	b	c	d
TRADE OR INDUSTRIAL SCHOOLS.—Contd.					HOME ECONOMICS SCHOOLS.				
Mathematics.—Cond.					Clothing	5	4	1	.....
Shop	51	43	4	4	Cooking	91	83	8	.....
Trade	2	2	.....	.....	Dietetics	4	2	2	.....
Masonry	2	.....	.....	2	Dressmaking	57	41	16	.....
Mechanics	11	.....	4	7	Embroidery	4	4	.....	.....
Messenger	1	.....	1	.....	Food	4	3	1	.....
Metallurgy	3	3	.....	.....	Food conservation	2	2	.....	.....
Millinery	6	4	1	1	Garment making	8	8	.....	.....
Metal trades	1	.....	.....	1	Home economics	10	7	3	.....
Milling	1	1	.....	.....	Home making	2	2	.....	.....
Mining	32	32	.....	.....	Millinery	69	52	17	.....
Mineralogy	1	1	.....	.....	Nursing	11	11	.....	.....
Molding	11	11	.....	.....	Nutrition	1	.....	1	.....
Motor cycle	2	2	.....	.....	Remodelling	1	1	.....	.....
Nursing	2	1	.....	1	Sewing	59	56	3	.....
Paper hanging	1	1	.....	.....	Tailoring	1	1	.....	.....
Paper making	1	1	.....	.....	GENERAL CONTINUATION SCHOOLS.				
Plating	1	.....	1	.....					
Pattern making	48	15	10	23					
Pipe fitting	2	2	.....	.....					
Painting	8	2	2	4	Academic subjects	92	.....	92	.....
Plastering	1	1	.....	.....	Arithmetic	7	.....	7	.....
Plumbing	21	11	4	6	Bookkeeping	3	.....	3	.....
Pottery	1	1	.....	.....	Business method	1	.....	1	.....
Power plant	8	1	5	2	Civics	7	.....	7	.....
Power machine sewing	5	2	.....	3	Cooking	4	.....	4	.....
Printing	51	14	7	30	Commercial subjects	8	.....	8	.....
Radio and buzzer	80	75	3	2	Drawing	5	.....	5	.....
Sewing	3	.....	.....	3	English	9	.....	9	.....
Sheet metal	22	10	3	9	First aid	2	.....	2	.....
Shipbuilding	10	10	.....	.....	General improvement	1	.....	1	.....
Shipfitting	2	2	.....	.....	Geography	2	.....	2	.....
Sign painting	2	.....	.....	2	Gymnastics	1	.....	1	.....
Shoe work	2	2	.....	.....	Hygiene	3	.....	3	.....
Sugar technology	10	10	.....	.....	Mathematics	6	.....	6	.....
Surveying	1	.....	1	.....	Music	1	.....	1	.....
Tailoring	6	2	3	1	Retail selling	5	.....	5	.....
Telegraphy	8	5	2	1	Salesmanship	2	.....	2	.....
Telephony	2	2	.....	.....	Spanish	1	.....	1	.....
Textiles	13	11	1	1	Spelling	2	.....	2	.....
Tool making	4	3	1	.....	Shop work	1	.....	1	.....
Trade extension	14	.....	14	.....	Stenography	4	.....	4	.....
Truck-tractor drivers	6	2	1	3	Swimming	1	.....	1	.....
Valve setting	1	1	.....	.....	Typewriting	3	.....	3	.....
Ventilation	1	1	.....	.....	Vocational subjects	56	.....	56	.....
Welding, gas	8	8	.....	.....	Writing	1	.....	1	.....
Wood finishing	2	.....	.....	2					
Woodworking	8	7	.....	1					

TEACHER-TRAINING INSTITUTIONS—TEACHERS AND ENROLLMENTS.

Summary totals for teacher-training institutions, showing number of institutions reimbursed from Federal funds, number of teachers of vocational teacher-training courses, and number of pupils enrolled in such courses, are given in Table 6. Corresponding details by States are given in Tables 21 to 24.

Courses for training vocational teachers of agriculture were given in 60 institutions reimbursed from Federal funds on account of this particular line of work in the year ended June 30, 1919, the corre-

sponding number for the preceding year being 40. For training vocational teachers of trade or industrial subjects 68 institutions were reimbursed out of the Federal teacher-training fund in the last fiscal year, and 45 in the year preceding; and for training vocational teachers of home-economics subjects the number of institutions reimbursed was 78 for 1919 and 60 for 1918. In 1919, 11 institutions reported teacher training in mixed or not classified subjects.

These several totals do not of course represent in the aggregate different institutions, since in many cases institutions setting up courses for training vocational teachers have covered two and in some cases all three of the several fields of vocational teacher training. The total number of different institutions Federally reimbursed for teacher training as reported in 1919 was 144, the corresponding number for 1918 being 94, as shown in column a of Table 6. State boards and public-school departments, conducting teacher-training courses and reimbursed in part on account of that work from the Federal fund are counted as institutions, along with colleges, normal schools, and other educational institutions. The number of teacher-training institutions Federally reimbursed is given for States in Table 21.

In several States numerous teacher-training centers or classes have been conducted in different localities under central administrative supervision, as, for example, in Massachusetts, where the State board for vocational education and other public school agencies have conducted teacher-training classes in some 54 centers. In other States educational institutions have conducted extension classes in different localities. Such centers or classes, when under single administrative control, are not counted as separate teacher-training schools or institutions.

In 1919 the 144 different teacher-training institutions reported 829 vocational teacher-training teachers, an increase of 205 over the number reported in the preceding year.

Enrollment in teacher-training classes was 7,364 as reported in 1919, giving an increase in enrollment of 775 for the year. Enrollment as reported for agricultural and for home economics teacher-training courses in 1919 was slightly under the enrollment reported for such courses in 1918. For trade or industrial courses the enrollment of 2,774 pupils reported in 1919 was more than double that of 1,101 reported in the preceding year, the increase for the year for this class of pupils being 1,673.

It is believed, however, that the increase of enrollment in strictly vocational teacher-training courses has been in fact greater than appears from these figures, since in making returns of enrollment for the year ended June 30, 1918, in the case of several States total

enrollment in teacher-training institutions seems to have been reported, rather than enrollment in vocational teacher-training courses. In the reports for the year ended June 30, 1919, the enrollments reported from these States, as from other States, are for strictly vocational teacher-training courses. Smaller enrollments reported for the latter year, therefore, do not in such cases indicate any real decreases, but rather a restriction of reports to the proper class of pupils.

Statistics relating to vocational teacher-training teachers are given by States in Tables 22 and 23; and statistics relating to pupils in Tables 24 and 25.

TABLE 6.—*Vocational teacher-training institutions, teachers and pupils, for years ended June 30, 1919 and 1918.*

Item.	Vocational teacher training.				
	Total, all types.	Agricultural.	Trade or industrial.	Home economics.	Not specified type.
	a	b	c	d	e
	1919				
Number of institutions	[1] 144	60	68	78	11
Number of teachers:					
Total	829	222	219	366	22
Male	494	220	206	48	20
Female	335	2	13	318	2
Number of pupils:					
Total	7,364	1,334	2,774	3,098	158
Male	3,998	1,289	2,484	114	111
Female	3,366	45	290	2,984	47
	1918				
Number of institutions	[1] 94	40	45	60	.....
Number of teachers [2]	524	116	95	263	50
Number of pupils [2]	6,589	1,534	1,101	3,319	635
	Increase, 1919 over 1918.				
Number of institutions	50	20	23	18	11
Number of teachers [2]	205	106	124	103	[3] 28
Number of pupils [2]	775	[3] 200	1,673	[3] 221	[3] 477

[1] Different institutions, some of which conduct teacher-training work in two or more fields.
[2] Not reported by sex for 1918.
[3] Decrease.

SCHOOLS AND INSTITUTIONS APPROVED BY STATE BOARDS FOR REIMBURSEMENT OUT OF FEDERAL FUNDS.

A total of 1,931 schools of all types applied to State boards for Federal reimbursement on account of salaries paid to vocational teachers in the year ended June 30, 1919. Of those applications, 754 were made by agricultural schools or departments; 385 were made by evening and 155 by all-day trade or industrial; 103 by evening,

and 305 by all-day home economics; and 229 by part-time schools, of which 85 were trade or industrial, 27 home economics, and 117 general continuation. Of these schools, 1,789 were approved for Federal reimbursement and 142 were not approved. Of schools applying to State boards a somewhat larger proportion (1,789 out of 1,931) were approved in the year ended June 30, 1919, than were approved in the year preceding (1,415 out of 1,810), which would seem to indicate improvement in the character of schools applying for Federal reimbursement. The number of schools approved for Federal reimbursement is given by States in Table 20.

In 1919 State boards reported 126 teacher-training institutions applying for Federal reimbursement, as compared with 88 in 1918, the number approved being 123 and 83 in the two years respectively.

TABLE 7.—*Number of schools and of teacher-training institutions applying for Federal reimbursement, approved and not approved by State boards, for years ended June 30, 1919 and 1918.*

Type of school or institution.	Schools or institutions applying for Federal reimbursement.						
	Number.		Approved by State boards.			Not approved by State boards.	
			Number.		Increase 1919 over 1918.		
	1919	1918	1919	1918		1919	1918
	a	b	c	d	e	f	g
VOCATIONAL SCHOOLS.							
Total	1,931	1,810	1,789	1,415	374	142	395
Agricultural	754	746	694	569	125	60	177
Trade or industrial:							
Evening	385	276	369	260	109	16	16
Part-time	85	.....	78	.....	.....	7	.....
All-day	155	160	135	122	13	20	38
Home economics:							
Evening	103	140	96	95	1	7	45
Part-time	27	.....	25	.....	.....	2	.....
All-day	305	320	276	209	67	29	111
Part-time continuation	117	.....	116	.....	.....	1	.....
Total, part-time	229	168	219	160	59	10	8
TEACHER-TRAINING INSTITUTIONS.							
Total	126	89	123	83	40	3	6

STATE DIRECTORS AND SUPERVISORS.

The number of State directors and supervisors giving full time and part time to supervisory work is given in Table 8, together with the number whose salary was reimbursed in part out of Federal funds, the amount of Federal reimbursement on account of supervisory work, and the corresponding amount paid out of State funds. For States corresponding data are given in Tables 25 and 26.

TABLE 8.—*State directors and supervisors, for years ended June 30, 1919 and 1918.*

Items.	State directors and supervisors.		
	1919	1918	Increase 1919 over 1918.
	a	*b*	*c*
Number, total	182	139	43
Number giving to supervisors—			
Full time	57	63	[1] 6
Part time	105	51	54
Time not specified	20	25	[1] 5
Number reimbursed in part out of Federal funds	105	54	51
Amount of salaries reimbursed or paid out of—			
Federal funds	$81,120.78	$40,842.28	$40,278.50
State funds	$164,054.86	$140,611.12	$23,443.74

[1] Decrease.

AMOUNT OF FEDERAL REIMBURSEMENT.

The amount of Federal money expended by the States in the year ended June 30, 1919, for reimbursement of vocational schools and for maintenance of teacher training amounted in the aggregate to $1,561,414.66. As compared with the amount similarly expended and reimbursed in the preceding year, this is an increase of $731,287.70. For agricultural schools the amount of reimbursement increased in round numbers from $273,000 to $526,000, an increase of $253,000. For trade or industrial and home economics schools the increase was from $365,000 to $609,000, or $243,000; and for teacher training from $196,000 to $435,000, the increase being $229,000. As shown in Table 9 the increased use of Federal funds in the States is fairly well distributed through the several geographical regions in which the States are grouped for administrative purposes.

Amounts expended by the States during the year ended June 30, 1919, are shown by States, for agriculture in Table 33; for trade, industry, and home economics in Table 34; and for teacher training in Table 35. Comparative figures for the two years by States are given in Table 27. With the exception of North Dakota, every State received a larger amount of Federal money for reimbursement of schools in 1919 than it received in the preceding year. With few exceptions, it is true also that the States increased their utilization of each of the several Federal funds available, for vocational schools of different types and for teacher training.

TABLE 9.—*Amount of Federal money expended by the States for reimbursement, by regions, for fiscal years ended June 30, 1919 and 1918.*

Region.	Amount of Federal money expended.		
	1919 [1]	1918	Increase 1919 over 1918.
	a	b	c
	Total.		
United States	$1,561,414.66	$829,783.96	$731,287.70
North Atlantic	520,047.32	343,673.72	176,373.60
Southern	319,353.30	144,176.20	175,177.10
East Central	473,433.09	216,522.88	256,910.21
West Central	124,828.67	70,074.22	54,754.45
Pacific	123,652.28	55,679.94	67,972.34
	For agricultural schools.		
United States	526,122.43	273,587.68	252,534.75
North Atlantic	92,162.79	78,002.49	14,160.30
Southern	172,159.48	82,352.41	89,807.07
East Central	170,244.02	68,575.31	101,668.71
West Central	51,127.36	25,892.48	25,234.88
Pacific	40,428.78	18,764.99	21,663.79
	For trade, industrial, and home economics schools.		
United States	609,554.85	365,812.46	243,742.39
North Atlantic	306,078.49	208,904.02	97,174.47
Southern	43,478.66	22,644.02	20,834.64
East Central	188,976.13	96,617.03	92,359.10
West Central	27,592.46	12,917.57	14,674.89
Pacific	43,329.11	24,729.82	18,599.29
	For teacher-training institutions.		
United States	425,737.38	196,726.82	229,010.56
North Atlantic	121,806.04	56,767.21	65,038.83
Southern	103,715.16	39,179.77	64,535.39
East Central	114,212.94	51,330.54	62,882.40
West Central	46,108.85	31,264.17	14,844.68
Pacific	39,894.39	12,185.13	27,709.26

[1] Provisional figures subject to final auditing of State accounts.

REIMBURSEMENT OF TRADE OR INDUSTRIAL AND OF HOME ECONOMICS SCHOOLS.

For the year ended June 30, 1919, reimbursement of trade or industrial and of home economics schools has been reported separately for each type of school—evening, part-time, and all-day—defined on the 1919 State schedule. For the preceding year, however, comparative figures are available only for trade or industrial schools as a group and for home economics schools as a group. In Table 10 the reimbursements of these several types of schools are shown for 1919 in detail, and for 1918 in so far as data are available.

As reported in 1919, State expenditures for salaries of teachers in trade or industrial schools were reimbursed to the amount of $426,955.87, the amount of the reimbursements for such schools in the preceding year being $305,352, an increase for the year of $121,603.87. For home economics schools reimbursements reported in 1919 amounted to $118,496.29, as compared with $60,460.46 in the preceding year, the increase for these schools amounting to $58,035.83.

The amount of reimbursements reported in 1919 for evening trade or industrial schools and for part-time trade or industrial schools was approximately the same in amount for each type of school, being $82,867.40 for the evening and $85,356.72 for the part-time schools. For all-day trade or industrial schools reimbursements out of Federal funds amounted in this year to $258,231.75. As regards home economics schools, also, it is true that a very large proportion of the total reimbursements—$86,635.77 out of $118,496.29—was for all-day schools.

State tables Nos. 28 and 29 show for States figures corresponding to those given in Table 10 for regions. Among the States showing large increases in utilization of the Federal funds available for trade or industrial schools may be noted the following: Ohio, New York, California, Massachusetts, Michigan, Illinois, Connecticut. Smaller increases are shown in the reimbursements of home economics schools by States because the total fund available for these schools is much smaller than the fund available for trade or industrial schools. Relatively, the increase in amount of reimbursements for home economics schools in the country as a whole has been much greater than for trade or industrial schools. Increased utilization of Federal money available for reimbursements of home economics schools characterizes the reports from a large majority of the States.

TABLE 10.—*Reimbursement of trade or industrial and of home economics schools, by regions—Amount of Federal money expended for evening, part-time, and all-day schools for years ended June 30, 1919 and 1918.*

Region.	Amount of Federal money expended.					
	Total.			1919 [1]		
	1919 [1]	1918	Increase 1919 over 1918.	In evening schools.	In part-time schools.	In all-day schools.
	a	b	c	d	e	f
	For trade or industrial schools.					
United States	$426,955.87	$305,352.00	$121,603.87	$82,867.40	$85,856.72	$258,231.75
North Atlantic	223,517.52	181,629.06	41,888.46	24,091.70	39,222.84	160,202.98
Southern	27,242.90	15,196.49	12,046.41	9,722.53	431.25	17,089.12
East Central	124,050.17	80,580.36	43,469.81	36,921.58	43,681.63	43,446.96
West Central	17,669.00	7,307.80	10,361.20	6,837.43	670.50	10,161.07
Pacific	34,476.28	20,638.39	13,837.99	5,294.16	1,850.50	27,331.62
	For home economics schools.					
United States	$118,496.29	$60,460.46	$58,035.83	$23,877.04	$7,983.48	$86,635.77
North Atlantic	40,365.84	27,274.96	13,090.89	8,034.13	640.00	31,691.71
Southern	13,952.31	7,447.53	6,504.78	2,208.86	187.00	11,556.42
East Central	46,109.91	16,036.66	30,073.24	12,316.75	4,323.87	29,469.29
West Central	9,299.10	5,609.77	3,689.33	817.36	65.18	8,416.56
Pacific	8,769.13	4,091.53	4,677.60	499.91	2,767.43	5,501.79

[1] Provisional figures subject to final auditing of State accounts.

REIMBURSEMENTS OF PART-TIME SCHOOLS.

In Table 11 the amount of Federal reimbursements of part-time schools of all types is shown. Of the total amount of reimbursements of such schools in the year ended June 30, 1919, $85,856.72 was for trade or industrial part-time schools, $7,983.48 for home economics part-time schools, and $64,944.42 for general continuation part-time schools.

Approximately two-thirds of the reimbursements for general continuation schools was for schools located in the North Atlantic Region, including $27,690.49 for schools located in Pennsylvania, and $9,868.28 for schools located in New York (see Table 30), and more than one-fourth of these reimbursements was for schools located in the East Central Region, including $10,216.88 for schools in Illinois. Small reimbursements are shown for this type of schools in the Southern, West Central, and Pacific Regions.

TABLE 11.—*Reimbursement of part-time schools by regions—Amount of Federal money expended for part-time trade or industrial, home economics, and general continuation schools for years ended June 30, 1919 and 1918.*

Region.	Amount of Federal money expended for part-time schools.					
	Total.			1919 [1]		
	1919 [1]	1918	Increase 1919 over 1918.	Trade or industrial.	Home economics.	General continuation.
	a	b	c	d	e	f
United States	$158,784.62	$92,241.45	$66,543.17	$85,856.72	$7,983.48	$64,944.42
North Atlantic	82,633.62	58,690.26	23,943.36	39,222.84	640.00	42,770.78
Southern	2,941.68	2,585.33	356.35	431.25	187.00	2,323.43
East Central	65,426.08	29,132.82	36,293.26	43,681.63	4,323.87	17,420.58
West Central	1,919.42	467.65	1,451.77	670.50	65.18	1,183.74
Pacific	5,863.82	1,365.39	4,498.43	1,850.50	2,767.43	1,245.89

[1] Provisional figures, subject to final auditing of State accounts.

AVAILABILITY OF FEDERAL FUNDS FOR DIFFERENT TYPES OF SCHOOLS AND FOR TEACHER TRAINING.

Tables 31 and 32 relate expenditures reimbursed from Federal funds in the year ended June 30, 1919, for home economics schools, for all-day and evening schools, and for each type of teacher training to the maximum amount of Federal money available, under the provisions of the vocational education act, for each class of expenditure. In table 31 the amount of reimbursements of home economics schools is given in comparison with 20 per cent of the total allotment for trade, industry, and home economics; and the amount expended for all-day and evening schools in comparison with two-thirds of the total allotment for trade, industry, and home economics. In table 32, expenditures for each class of teacher training are compared with 60 per cent of the total allotment for the maintenance of teacher training.

INCREASES IN FEDERAL FUNDS AVAILABLE FOR THE PROMOTION OF VOCATIONAL EDUCATION.

Under the Federal vocational education act the amount of Federal money available each year in the States increases up to the year 1925–26. For each of the three years ending June 30, 1918–19–20, the amount of the Federal appropriation is given in table 12 for each of the three funds created under the Federal statute. Allotments of these funds to the States are shown in table 36 for the year ended June 30, 1919, and in table 37 for the year ending June 30, 1920. In table 38 the total of the allotments from each of the three funds is shown by States for the three years shown by regions in table 12. It may be noted that allotments of these funds for subsequent years can not be determined at this time, since these allotments must under

the law be based upon the returns of population—total, urban, and rural—at the Fourteenth Federal Decennial Census to be taken in 1920.

In the year ending June 30, 1920, Federal funds in excess of $3,000,000 will be available for reimbursement of expenditures on account of vocational education and vocational teacher training in the States. The increase in the total amount available this year, as compared with the amount available in the year ended June 30, 1919, is $744,458.57. In the fiscal year 1919–20 approximately $1,000,000 is available for vocational agriculture, for vocational trade, industry, and home economics, and for vocational teacher training.

TABLE 12.—*Increase in the total of allotments of Federal funds for the promotion of vocational education, by regions, for years ending June 30, 1918, 1919 and 1920.*

Region.	Total of allotments for year ending June 30—				
	Amount.			Increase.	
	1920	1919	1918	1920 over 1919	1919 over 1918
	a	b	c	d	e
	Total.				
United States	$3,051,919.01	$2,307,460.44	$1,655,586.72	$744,458.57	$651,873.72
North Atlantic	935,029.75	706,764.31	505,023.06	228,265.44	201,741.25
Southern	691,576.03	527,462.07	369,202.10	164,113.96	158,259.97
East Central	928,223.07	705,127.99	482,429.66	223,095.08	222,698.33
West Central	279,336.50	206,327.81	165,560.99	73,008.69	40,766.82
Pacific	217,753.66	161,778.26	133,370.91	55,975.40	28,407.35
	For vocational agriculture.				
United States	$1,022,637.75	$782,575.76	$547,027.79	$240,061.99	$235,547.97
North Atlantic	163,551.17	130,163.37	98,118.69	33,387.80	32,044.68
Southern	363,914.23	272,935.68	181,957.12	90,978.55	90,978.56
East Central	324,735.60	243,551.70	162,367.80	81,183.90	81,183.90
West Central	113,578.24	88,417.17	64,950.92	25,161.07	23,466.25
Pacific	56,858.51	47,507.84	39,633.26	9,350.67	7,874.58
	For vocational trade, industry, and home economics.				
United States	$1,032,875.96	$794,463.33	$564,444.89	$238,412.63	$230,018.44
North Atlantic	475,048.26	359,262.34	244,998.63	115,785.92	114,263.71
Southern	105,139.30	83,482.26	64,176.94	21,657.04	19,305.32
East Central	315,190.13	237,345.02	159,896.67	77,845.11	77,448.35
West Central	61,168.20	52,126.15	45,837.82	9,042.05	6,288.33
Pacific	76,330.07	62,247.56	49,534.83	14,082.51	12,712.73
	For vocational teacher training.				
United States	$996,405.30	$730,421.35	$544,114.04	$265,983.95	$186,307.31
North Atlantic	296,430.32	217,338.60	161,905.74	79,091.72	55,432.86
Southern	222,522.50	171,044.13	123,068.04	51,478.37	47,976.09
East Central	288,297.34	224,231.27	160,165.19	64,066.07	64,066.08
West Central	104,590.06	65,784.49	54,772.25	38,805.57	11,012.24
Pacific	84,565.08	52,022.86	44,202.82	32,542.22	7,820.04

TABLE 13.—*Unexpended balance in State treasuries June 30, 1919, and amount to be sent to States, by regions, for the year ending June 30, 1920.*

Regions.	Year ending June 30—				
	1919			1920	
	Amount sent to States.	Amount expended by States.[1]	Unexpended balance in State treasuries (1–b).[1]	Allotment to States.	Amount to be sent to States (d–c).[1]
	a	b	c	d	e
	Total.				
United States	$2,307,460.44	[2] $1,561,414.66	$748,984.86	$3,051,919.01	$2,302,934.15
North Atlantic	706,764.31	520,047.32	186,716.99	935,029.75	748,312.76
Southern	527,467.07	319,353.30	208,113.77	691,576.03	483,462.26
East Central	705,127.99	[2] 473,433.11	234,628.98	928,223.07	693,594.09
West Central	206,327.81	124,828.67	81,499.14	279,336.50	197,837.36
Pacific	161,778.26	123,752.28	38,025.98	214,753.06	179,727.68
	For vocational agriculture.				
United States	$782,575.76	$526,122.43	$256,453.33	$1,022,637.75	$766,184.42
North Atlantic	130,163.37	92,162.79	38,000.58	163,551.17	125,550.59
Southern	272,935.68	172,159.48	100,776.20	363,914.23	263,138.03
East Central	243,551.70	170,244.04	73,307.68	324,735.60	251,427.92
West Central	88,417.17	51,127.36	37,289.81	113,578.24	76,288.43
Pacific	47,507.84	40,428.78	7,079.06	56,858.51	49,779.45
	For vocational trade, industry, and home economics.				
United States	$794,468.33	[2] $609,554.85	$187,847.56	$1,029,875.96	$845,028.40
North Atlantic	359,262.34	306,078.49	53,183.85	475,048.26	421,864.41
Southern	83,487.26	43,478.66	40,008.60	105,139.30	65,130.70
East Central	37,795.02	[2] 188,976.13	51,302.97	315,190.13	263,887.16
West Central	52,126.15	27,592.46	24,533.69	61,168.20	36,634.51
Pacific	62,247.56	43,429.11	18,818.45	73,330.07	57,511.62
	For vocational teacher training.				
United States	$730,421.35	$425,737.38	$304,683.97	$996,405.30	$691,721.33
North Atlantic	217,338.60	121,806.04	95,532.56	296,430.32	200,897.76
Southern	171,044.13	103,715.16	67,328.97	222,522.50	155,193.53
East Central	224,231.27	114,212.94	110,018.33	288,297.34	178,279.01
West Central	65,784.49	46,108.85	19,675.64	104,590.06	84,914.42
Pacific	52,022.86	39,894.39	12,128.47	84,565.08	72,436.61

[1] Provisional figures subject to final auditing of State accounts.
[2] Includes $1,467.04 over expenditure by Wisconsin.

UNEXPENDED BALANCES IN STATE TREASURIES, JUNE 30, 1919, AND AMOUNT TO BE SENT TO STATES IN THE YEAR ENDING JUNE 30, 1920.

Provisional figures, subject to final auditing of State accounts, showing expenditures reimbursed out of Federal funds and unexpended balances in State treasuries June 30, 1919, together with the allotment to States and the amount to be sent to States in the fiscal year 1919–20, are shown in Table 13. Corresponding data for

States are given for agriculture in Table 33; for trade, industry, and home economics in Table 34, and for teacher training in Table 35.

Although amounts available in the States for each class of expenditure in the year ended June 30, 1919, were greater than the amounts available in the preceding year, smaller balances of Federal money in State treasuries unexpended at the close of the fiscal year are reported in 1919 than were reported in 1918. It was still true in this year as in the year preceding that local communities had not developed their facilities for utilizing Federal funds to the full amount under the standards set up by the State boards in cooperation with the Federal board, but it is clear that they are rapidly developing facilities to meet these standards as regards equipment, qualifications of teachers, and character of instruction provided.

TABLE 14.—*Number of vocational schools Federally aided, by States, for years ended June 30, 1919 and 1918.*

Region or State.	Number of schools.															
	Total.		Agricultural.		Trade or industrial.						Home economics.					Part-time general continuation: 1919.[2]
					Evening.		Part-time.		All-day.		Evening.		Part-time: 1919.[2]	All-day.		
	1919	1918	1919	1918	1919	1918	1919	1918[1]	1919	1918	1919	1918		1919	1918	
United States	2,039	1,741	863	609	325	300	83	341	167	168	127	123	27	309	200	138
REGIONS.																
I. North Atlantic	562	794	150	166	82	104	24	275	66	71	49	76	2	90	102	99
II. Southern	430	285	296	200	52	24	2	10	18	17	10	10	2	44	24	6
III. East Central	644	423	261	159	120	125	45	37	35	33	55	35	5	96	34	27
IV. West Central	178	92	76	45	48	12	2	3	11	6	6	1	1	33	25	1
V. Pacific	225	147	80	39	23	35	10	16	37	41	7	1	17	46	15	5
I. NORTH ATLANTIC.																
Maine	23	27	9	8	5	3			1	4	5	6		3	6	
New Hampshire	21	26	12	17			3	4	6	4					1	
Vermont	10	24	2	2	3	5	3	1						2	16	
Massachusetts	84	83	17	17	19	20		2	16	16	21	19		9	9	1
Rhode Island	9	8			6	6	3	2								
Connecticut	27	28	3	3	7	7	5	5	7	7	2	3		3	3	
New York	72	114	52	54		10		35	15	15						5
New Jersey	43	71	7	15	10	7		6	8	11	8	22	2	6	10	1
Pennsylvania	236	393	38	42	19	39	5	220	12	14	13	26		57	52	92
Delaware	16	11	5	3	3	4	3							5	4	
Maryland	21	9	5	5	10	3			1					5	1	
II. SOUTHERN.																
Virginia	53	26	36	18	4	2		1	1	1	8	4	1	1		2
North Carolina	36	19	30	14	3	4								3	1	
South Carolina	40	14	25	13	14	1								1		
Georgia	51	49	27	23	7	5		5	4	6		3		11	7	2
Florida	16	13	10	8	1	1								5	4	
Tennessee	29	23	21	22	4				1	1	1		1	1		
Alabama	48	23	27	13	11	4	2	3	5	2				3	1	
Mississippi	42	34	36	30	1			1						4	3	1

Arkansas	20	15	17	11	1	1			1	1		1		1	1	
Louisiana	28	21	21	16					1	1				6	4	
Texas	67	48	46	32	6	6			5	5	1	2		8	3	1
III. EAST CENTRAL.																
West Virginia	54	22	20	11	28	7	2				3	4		1		
Ohio	131	61	40	18	37	24	14	3	4	3	14	6		21	7	1
Kentucky	48	21	25	8	2	1	1		3	3	1	1		16	8	
Michigan	72	60	49	43	5	4	5	3	3	1	4	4		6	5	
Indiana	90	88	32	35	13	24	5	10	9	3	15	13		8	3	8
Wisconsin	36	26	13	8	4	4	5	4	1	4	1	4	5	2	2	5
Illinois	102	45	42	15	10	14	7	9	4	1	9	3		20	3	10
Minnesota	51	68	23	12	8	35	5	2	5	13				9	6	3
Iowa	20	10	10	6	4	2		1	2	1	1			3		
Missouri	40	22	7	3	9	10	3	5	4	4	7			10		
IV. WEST CENTRAL.																
North Dakota	19	14	8	7	1	1				2	1			9	4	
South Dakota	11	1	9											2	1	
Nebraska	13	7	8	2	2	4			1					2	1	
Kansas	31	8	16	6	8	1		1	3		3			1		
Oklahoma	24	26	10	13	9				1					4	13	
Montana	17	13	9	9	2				2	1				4	3	
Wyoming	10	10	5	4	1	3		1	1			1	1	2	1	
Colorado	36	11	6	4	22	2	2	1	1	2				4	2	1
New Mexico	17	2	5		3	1			2	1	2			5		
V. PACIFIC.																
Idaho	13	6	7	4	1		3			2				2		
Utah	59	28	24	15	2	3		1	2	3				30	6	1
Arizona	31	14	7	4	5	5			5		7			5	5	2
Nevada	11	11	3	1	6	10								2		
Washington	29	18	12	5	5	5			8	5				2	3	2
Oregon	10	6	5			1			4	4		1		1		
California	72	64	22	10	4	11	7	15	18	27			17	4	1	

[1] Includes part-time home economics and general continuation schools. Such schools were not separately reported on the schedule for 1918.
[2] Not separately reported on the schedule for 1918.

TABLE 15.—*Number of teachers of vocational courses in schools Federally aided, by States, for the years ended June 30, 1919 and 1918.*

Region or State.	Number of teachers.																	
	Total.		Agricultural schools.				Trade or industrial schools.						Home economics schools.					Part-time general continuation schools, 1919.[2]
			Full year (12 months).		School year only.		Evening.		Part-time.		All-day.		Evening.		Part-time.	All-day.		
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918[1]	1919	1918	1919	1918	1919[2]	1919	1918	
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
United States	6,378	5,257	1,075	686	312	209	1,652	1,397	292	827	1,058	1,052	758	688	71	604	398	616
REGIONS.																		
I. North Atlantic	2,646	3,035	196	216	57	89	602	662	100	599	586	738	395	479	6	210	252	494
II. Southern	820	473	372	185	166	55	138	71	3	23	38	79	40	30	2	52	30	9
III. East Central	1,913	1,311	288	208	8	12	680	530	169	184	196	138	298	171	19	157	68	98
IV. West Central	442	161	80	38	55	24	156	62	4	4	25	12	12	3	1	103	18	6
V. Pacific	557	277	79	39	26	29	76	72	16	17	213	85	13	5	43	82	30	9
I. NORTH ATLANTIC.																		
Maine	60	50	9	8	.....	.....	25	17	.....	.....	4	10	13	15	.....	9	.....	.....
New Hampshire	31	55	12	11	.....	14	.....	.....	5	13	14	16	.....	.....	.....	.....	1	.....
Vermont	32	44	8	12	.....	5	11	6	6	4	.....	.....	.....	.....	.....	7	17	.....
Massachusetts	917	758	53	45	53	4	241	189	20	34	192	185	267	252	.....	53	49	38
Rhode Island	45	29	.....	.....	.....	.....	25	19	20	10	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	164	220	3	36	.....	.....	63	87	14	9	65	73	10	8	.....	9	7	.....
New York	298	395	52	40	.....	57	.....	28	.....	.....	214	270	.....	.....	.....	.....	.....	32
New Jersey	183	330	12	18	.....	.....	49	96	5	9	28	61	57	104	6	25	42	1
Pennsylvania	798	1,117	37	38	4	9	112	196	13	520	64	123	48	100	.....	97	131	423
Delaware	43	25	5	3	.....	.....	16	18	17	.....	.....	.....	.....	.....	.....	5	4	.....
Maryland	75	15	5	5	.....	.....	60	9	.....	.....	5	.....	.....	.....	.....	5	1	.....
II. SOUTHERN.																		
Virginia	78	56	36	12	.....	13	12	13	.....	1	2	3	22	14	1	2	.....	3
North Carolina	39	20	30	8	.....	6	5	4	.....	.....	.....	.....	.....	.....	.....	4	2	.....
South Carolina	56	14	25	.....	.....	13	30	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Georgia	94	111	35	34	5	8	28	28	.....	11	8	11	.....	8	.....	15	11	3
Florida	15	10	9	5	1	.....	[3]	2	.....	.....	.....	.....	.....	.....	.....	5	3	.....

Tennessee	61	19	24	19	.....	.....	23	.....	.....	.....	[8]	.....	10	.....	1	3	.....	.....
Alabama	56	67	27	13	.....	.....	12	5	3	6	11	42	.....	.....	.....	3	1	.....
Mississippi	57	56	41	34	8	14	1	.....	.....	5	.....	.....	.....	.....	.....	5	3	2
Arkansas	249	19	94	12	151	1	1	2	.....	.....	2	2	.....	1	.....	1	1	.....
Louisiana	28	38	21	16	.....	.....	.....	.....	.....	.....	[3]	16	.....	.....	.....	7	6	.....
Texas	87	63	30	32	1	.....	26	16	.....	.....	15	5	8	7	.....	6	3	1
III. EAST CENTRAL.																		
West Virginia	100	46	16	11	7	1	66	25	2	.....	.....	.....	8	9	.....	1	.....	.....
Ohio	524	166	39	18	1	.....	274	52	39	30	15	.....	126	59	.....	21	7	9
Kentucky	71	42	25	8	.....	.....	5	2	2	.....	8	9	2	1	.....	29	22	.....
Michigan	228	132	49	43	.....	.....	69	30	32	6	17	8	41	28	.....	20	17	.....
Indiana	297	252	32	35	.....	.....	89	114	8	29	64	13	66	58	.....	8	3	30
Wisconsin	157	166	[4] 34	5	.....	5	31	45	36	78	5	16	3	13	19	4	4	25
Illinois	243	76	42	15	.....	1	55	27	20	20	21	4	30	3	.....	49	6	26
Minnesota	150	324	34	67	.....	2	51	184	9	8	35	54	.....	.....	.....	13	9	8
Iowa	22	42	10	6	.....	.....	4	18	.....	1	4	17	1	.....	.....	3	.....	.....
Missouri	121	65	7	.....	.....	3	36	33	21	12	27	17	21	.....	.....	9	.....	.....
IV. WEST CENTRAL.																		
North Dakota	131	22	8	9	51	1	2	2	.....	.....	.....	4	2	.....	.....	68	6	.....
South Dakota	12	2	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2	.....
Nebraska	23	19	8	2	.....	.....	6	16	.....	.....	7	.....	.....	.....	.....	2	1	.....
Kansas	55	13	16	.....	.....	6	24	6	.....	1	5	.....	8	.....	.....	2	.....	.....
Oklahoma	54	32	15	13	.....	1	23	18	.....	.....	7	.....	.....	.....	.....	9	.....	.....
Montana	19	24	9	8	.....	8	2	.....	.....	.....	2	2	.....	.....	.....	6	6	.....
Wyoming	12	20	4	2	3	7	1	6	.....	1	1	.....	.....	3	1	2	1	.....
Colorado	118	23	6	4	1	1	95	10	4	2	2	4	.....	.....	.....	4	2	6
New Mexico	18	6	5	.....	.....	.....	3	4	.....	.....	1	2	2	.....	.....	7	.....	.....
V. PACIFIC.																		
Idaho	20	13	9	6	.....	4	1	.....	5	.....	.....	3	.....	.....	.....	5	.....	.....
Utah	83	36	24	15	.....	2	6	4	.....	1	3	3	.....	.....	.....	48	11	2
Arizona	58	20	7	4	.....	.....	22	10	.....	.....	5	.....	13	.....	.....	6	6	5
Nevada	11	12	3	1	.....	.....	6	11	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
Washington	51	55	12	5	.....	8	19	22	.....	.....	15	13	.....	.....	.....	3	7	2
Oregon	12	18	5	.....	.....	.....	.....	5	.....	.....	5	8	.....	5	.....	2	.....	.....
California	322	123	19	8	26	15	22	20	11	16	185	58	.....	.....	43	16	6	.....

[1] Includes part-time home economics and general continuation schools. Such schools were-not separately reported on the schedule for 1918

[2] Not separately reported on the schedule for 1918.

[3] No report.

[4] All agricultural teachers classified as full year. Wisconsin reports information not available as to whether these taugh t for full year or school year only.

TABLE 16.—*Sex of teachers of vocational courses in schools Federally aided, by States, for the year ended June 30, 1919.*

Region or State.	Number of teachers—																			
	Total.			Agricultural schools.				Trade or industrial schools.						Home economics schools.						Part-time general continuation schools.	
				Full year (12 months).		School year only.		Evening.		Part-time.		All-day.		Evening.		Part-time.		All-day.			
	Both sexes.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u
United States	6,378	4,103	2,275	941	74	259	53	1,583	69	226	66	859	199	1	757	1	70	24	580	209	407
REGION.																					
I. North Atlantic	2,646	1,547	1,099	196	.....	57	.....	578	24	82	18	468	118	.....	395	.....	6	2	208	164	330
II. Southern	820	641	179	298	74	165	1	135	3	3	.....	36	2	.....	40	.....	2	.....	52	4	5
III. East Central	1,913	1,284	629	288	.....	8	.....	657	23	127	42	163	33	.....	298	.....	19	4	153	37	61
IV. West Central	442	277	165	80	.....	10	45	140	16	3	1	25	.....	.....	12	.....	1	17	86	2	4
V. Pacific	557	354	203	79	.....	19	7	73	3	11	5	167	46	1	12	1	42	1	81	2	7
I. NORTH ATLANTIC.																					
Maine	60	39	21	9	.....	.....	.....	25	.....	.....	.....	4	.....	.....	13	.....	.....	1	8	.....	.....
New Hampshire	31	31	.....	12	.....	.....	.....	.....	.....	5	.....	14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont	32	25	7	8	.....	.....	.....	11	.....	5	1	.....	.....	.....	.....	.....	.....	1	6	.....	.....
Massachusetts	917	495	422	53	.....	53	.....	229	12	12	8	131	61	.....	267	.....	.....	.....	53	17	21
Rhode Island	45	43	2	.....	.....	.....	.....	25	.....	18	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	164	135	29	3	.....	.....	.....	57	6	14	.....	61	4	.....	10	.....	.....	.....	9	.....	.....
New York	298	233	65	52	.....	.....	.....	.....	.....	.....	.....	169	45	.....	.....	.....	.....	.....	.....	12	20
New Jersey	183	89	94	12	.....	.....	.....	47	2	5	.....	25	3	.....	57	.....	6	.....	25	.....	1
Pennsylvania	798	353	445	37	.....	4	.....	108	4	10	3	59	5	.....	48	.....	.....	.....	97	135	288
Delaware	43	34	9	5	.....	.....	.....	16	.....	13	4	.....	.....	.....	.....	.....	.....	.....	5	.....	.....
Maryland	75	70	5	5	.....	.....	.....	60	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5	.....	.....
II. SOUTHERN.																					
Virginia	78	51	27	36	.....	.....	.....	11	1	.....	.....	2	.....	.....	22	.....	1	.....	2	2	1
North Carolina	39	35	4	30	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
South Carolina	56	55	1	25	.....	.....	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Georgia	94	75	19	35	.....	5	.....	26	2	.....	.....	7	1	.....	.....	.....	.....	.....	15	2	1

Florida	15	10	5	9		1		(1)	(1)										5		
Tennessee	61	47	14	24				23				(1)	(1)		10		1		3		
Alabama	56	53	3	27				12		3		11							3		
Mississippi	57	50	7	41		8		1											5		2
Arkansas	249	173	76	20	74	151		1				1	1						1		
Louisiana	28	21	7	21								(1)	(1)						7		
Texas	87	71	16	30			1	26				15			8				6		1
III. EAST CENTRAL.																					
West Virginia	100	91	9	16		7		66		2					8				1		
Ohio	524	354	170	39		1		271	3	29	10	9	6		126				21	5	4
Kentucky	71	37	34	25				5			2	6	2		2			1	28		
Michigan	228	149	79	49				59	10	24	8	17			41				20		
Indiana	297	192	105	32				89		3	5	62	2		66				8	6	24
Wisconsin	157	100	57	[2] 34				23	8	30	6	3	2		3		19		4	10	15
Illinois	243	153	90	42				55		18	2	19	2		30			3	46	16	10
Minnesota	150	111	39	34				51		6	3	20	15	(1)	(1)	(1)	(1)		13		8
Iowa	22	18	4	10				4				4			1				3		
Missouri	121	79	42	7				34	2	15	6	23	4		21				9		
IV. WEST CENTRAL.																					
North Dakota	131	31	100	8		6	45	2							2			15	53		
South Dakota	12	9	3	9															3		
Nebraska	23	20	3	8				5	1			7							2		
Kansas	55	45	10	16				24				5			8				2		
Oklahoma	54	34	20	15				10	13			7						2	7		
Montana	19	13	6	9				2				2							6		
Wyoming	12	9	3	4		3		1				1					1		2		
Colorado	118	107	11	6		1		93	2	3	1	2						4	2	4	
New Mexico	18	9	9	5				3				1			2				7		
V. PACIFIC.																					
Idaho	20	16	4	9				1		5								1	4		
Utah	83	33	50	24				6				2	1						48	1	1
Arizona	58	33	25	7				19	3			5		1	12				6	1	4
Nevada	11	9	2	3				6											2		
Washington	51	46	5	12				19				15							3		2
Oregon	12	10	2	5								5							2		
California	322	207	115	19		19	7	22		6	5	140	45			1	42		16		

[1] No report.
[2] All agricultural teachers classified as full year. Wisconsin reports information not available as to whether these taught for full year or school year only.

TABLE 17.—*Number of pupils enrolled in vocational courses in schools Federally aided, by States, for the years ended June 30, 1919 and 1918.*

Region or State.	Number of pupils enrolled.															
	Total.		Agricultural schools.		Trade or industrial schools.						Home economics schools.					Part-time general continuation schools.
					Evening.		Part-time.		All-day.		Evening.		Part-time.	All-day.		
	1919	1918	1919	1918	1919	1918	1919	[1]1918	1919	1918	1919	1918	[2]1919	1919	1918	[2]1919
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
United States	194,895	164,183	19,933	15,453	43,485	46,333	22,616	53,005	18,664	18,593	22,691	22,360	4,278	12,445	8,439	50,783
REGIONS.																
I. North Atlantic	102,224	105,016	3,509	3,649	15,346	23,499	10,028	45,373	12,463	13,039	11,413	15,270	385	3,886	4,186	45,194
II. Southern	12,358	9,473	5,715	4,648	3,448	1,694	32	447	486	661	1,246	1,133	55	1,221	890	155
III. East Central	61,087	37,145	7,072	4,681	18,486	14,931	11,411	6,398	3,159	3,582	9,595	5,752	1,583	4,896	1,801	4,885
IV. West Central	7,237	4,669	1,636	1,187	3,419	2,340	455	98	313	130	270	55	12	895	859	237
V. Pacific	11,989	7,880	2,001	1,288	2,786	3,869	690	689	2,243	1,181	167	150	2,243	1,547	703	312
I. NORTH ATLANTIC.																
Maine	1,359	1,743	202	246	623	400	.....	.....	27	524	208	316	.....	299	257	.....
New Hampshire	513	741	132	251	.....	.....	78	185	303	287	.....	.....	.....	.....	18	.....
Vermont	391	631	90	96	161	56	76	33	.....	.....	.....	.....	.....	64	446	.....
Massachusetts	25,475	19,027	458	505	5,613	4,225	8,085	3,992	2,524	2,716	6,918	7,006	.....	450	583	1,427
Rhode Island	1,374	711	.....	.....	576	536	798	175	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	5,009	6,563	55	216	2,340	4,502	481	322	1,390	1,110	360	166	.....	383	247	.....
New York	11,339	8,350	971	1,031	.....	1,475	.....	.....	5,941	5,844	.....	.....	.....	.....	.....	4,427
New Jersey	6,058	9,433	450	327	1,483	2,958	30	307	660	1,161	2,635	3,948	385	390	732	25
Pennsylvania	48,321	56,540	1,005	852	3,042	8,351	375	40,359	1,528	1,397	1,292	3,834	.....	1,764	1,747	39,315
Delaware	655	668	70	58	329	494	105	.....	.....	.....	.....	.....	.....	151	116	.....
Maryland	1,730	609	76	67	1,179	502	.....	.....	90	.....	.....	.....	.....	385	40	.....
II. SOUTHERN.																
Virginia	1,721	1,612	402	267	663	533	.....	169	20	60	537	583	34	8	.....	57
North Carolina	701	337	473	231	128	72	.....	.....	.....	.....	.....	.....	.....	100	34	.....
South Carolina	798	334	463	309	313	25	.....	.....	.....	.....	.....	.....	.....	22	.....	.....
Georgia	2,376	2,541	1,012	1,145	668	534	.....	178	149	204	.....	143	.....	498	337	49

Florida	684	206	147	65	446	22	.....	.....	.....	.....	.....	.....	.....	91	119	.....
Tennessee	1,654	430	633	430	342	.....	.....	.....	75	.....	559	.....	21	24	.....	.....
Alabama	743	437	406	231	173	99	32	62	83	31	.....	.....	.....	49	14	.....
Mississippi	1,119	829	972	726	30	.....	.....	38	.....	.....	.....	.....	.....	83	65	34
Arkansas	489	497	433	254	14	34	.....	.....	12	21	.....	161	.....	30	27	.....
Louisiana	528	886	323	369	.....	.....	.....	.....	(3)	265	.....	.....	.....	205	252	.....
Texas	1,545	1,364	451	621	671	375	.....	.....	147	80	150	246	.....	111	42	15
III. EAST CENTRAL.																
West Virginia	1,923	1,296	356	182	1,418	856	16	.....	.....	.....	122	258	.....	11	.....	.....
Ohio	13,319	8,736	745	363	6,235	4,291	1,270	979	379	840	3,767	2,050	.....	624	213	299
Kentucky	2,381	788	785	131	192	32	29	16	299	89	33	18	.....	1,043	502	.....
Michigan	14,234	6,618	1,243	1,874	4,037	3,086	7,517	255	167	122	851	894	.....	419	387	.....
Indiana	9,569	7,765	1,912	813	2,139	3,622	401	547	1,015	866	2,916	1,835	.....	151	82	1,035
Wisconsin	5,097	7,017	(4)	491	735	1,772	1,165	2,393	54	782	54	506	1,583	75	73	1,431
Illinois	8,923	1,855	1,136	323	1,700	646	491	559	137	16	1,383	191	.....	2,051	120	2,025
Minnesota	2,954	1,542	626	386	1,063	93	306	118	566	521	.....	.....	.....	298	424	95
Iowa	365	130	160	78	69	29	.....	5	58	18	21	.....	.....	57	.....	.....
Missouri	2,322	1,398	109	40	898	504	216	526	484	328	448	.....	.....	167	.....	.....
IV. WEST CENTRAL.																
North Dakota	537	485	197	266	54	45	.....	.....	.....	68	56	.....	.....	230	106	.....
South Dakota	327	(3)	205	(3)	.....	(3)	.....	(3)	.....	(3)	.....	(3)	.....	122	(3)	.....
Nebraska	409	561	154	76	123	456	.....	.....	96	.....	.....	.....	.....	36	29	.....
Kansas	846	505	263	82	320	390	.....	33	52	.....	184	.....	.....	27	.....	.....
Oklahoma	858	700	229	295	540	.....	.....	.....	(3)	.....	.....	.....	.....	89	405	.....
Montana	520	448	168	179	84	.....	.....	.....	95	13	.....	.....	.....	173	256	.....
Wyoming	134	364	76	102	12	184	.....	15	8	.....	.....	55	12	26	8	.....
Colorado	3,288	1,527	236	187	2,245	1,208	455	50	30	27	.....	.....	.....	85	55	237
New Mexico	318	79	108	.....	41	57	.....	.....	32	22	30	.....	.....	107	.....	.....
V. PACIFIC.																
Idaho	338	243	230	222	10	.....	52	.....	.....	21	.....	.....	.....	46	.....	.....
Utah	2,471	1,186	888	706	304	115	.....	37	25	68	.....	.....	.....	1,196	260	58
Arizona	1,343	447	129	106	645	125	.....	.....	52	.....	167	.....	.....	128	216	222
Nevada	215	251	50	12	135	239	.....	.....	.....	.....	.....	.....	.....	30	.....	.....
Washington	1,543	2,901	283	70	871	2,492	.....	.....	325	128	.....	.....	.....	32	211	32
Oregon	203	414	86	.....	.....	56	.....	.....	63	208	.....	150	.....	54	.....	.....
California	5,876	2,438	335	172	821	842	638	652	1,778	756	.....	.....	2,243	61	16	.....

[1] Includes part-time home economics and general continuation schools. Such schools were not separately reported in the schedules for 1918.
[2] Not separately reported in the schedules for 1918.
[3] No report.
[4] Wisconsin reports this information unavailable.

TABLE 18.—*Sex of pupils enrolled in vocational courses in schools Federally aided, by States, for the year ended June 30, 1919.*

Region or State.	Number of pupils enrolled.																	
	Total.			Agricultural schools.		Trade or industrial schools.						Home economics schools.						Part-time general continuation schools.	
						Evening.		Part-time.		All-day.		Evening.		Part-time.		All-day.			
	Both sexes.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s
United States	[1] 194,895	120,406	73,049	16,959	1,534	42,094	1,391	17,276	5,340	16,606	2,058	.....	22,691	.....	4,278	147	12,298	27,324	23,459
REGION.																			
I. North Atlantic	102,224	60,950	41,274	3,359	150	14,649	697	6,468	3,560	11,478	985	.....	11,413	.....	385	.....	3,886	24,996	20,198
II. Southern	12,358	8,903	3,455	5,140	575	3,211	237	32	.....	437	49	.....	1,246	.....	55	.....	1,221	83	72
III. East Central	[1] 61,087	38,335	21,509	5,216	613	18,081	405	10,518	893	2,264	895	.....	9,595	.....	1,583	147	4,749	2,109	2,776
IV. West Central	[1] 7,237	5,184	1,856	1,257	182	3,410	9	131	324	313	.....	.....	270	.....	12	.....	895	73	164
V. Pacific	11,989	7,034	4,955	1,987	14	2,743	43	127	563	2,114	129	.....	167	.....	2,243	.....	1,547	63	249
I. NORTH ATLANTIC.																			
Maine	1,359	695	664	178	24	490	133	.....	.....	27	.....	.....	208	.....	.....	.....	299	.....	.....
New Hampshire	513	513	.....	132	.....	.....	.....	78	.....	303	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont	391	327	64	90	.....	161	.....	76	.....	.....	.....	.....	.....	.....	.....	.....	64	.....	.....
Massachusetts	25,475	13,322	12,153	452	6	5,440	173	4,634	3,451	1,832	692	.....	6,918	(2)	(2)	.....	450	964	463
Rhode Island	1,374	1,361	13	.....	.....	565	11	796	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	5,009	3,839	1,170	55	.....	2,080	260	481	.....	1,223	167	.....	360	.....	.....	.....	383	.....	.....
New York	11,339	8,997	2,342	971	.....	.....	.....	.....	.....	5,941	.....	.....	.....	.....	.....	.....	.....	2,085	2,342
New Jersey	6,058	2,509	3,549	420	30	1,439	44	30	.....	620	40	.....	2,635	.....	385	.....	390	.....	25
Pennsylvania	48,321	27,538	20,783	915	90	2,966	76	268	107	1,442	86	.....	1,292	.....	.....	.....	1,764	21,947	17,368
Delaware	655	504	151	70	.....	329	.....	105	.....	.....	.....	.....	.....	.....	.....	.....	151	.....	.....
Maryland	1,730	1,345	385	76	.....	1,179	.....	.....	.....	90	.....	.....	.....	.....	.....	.....	385	.....	.....
II. SOUTHERN.																			
Virginia	1,721	874	847	379	23	471	192	.....	.....	20	.....	.....	537	.....	34	.....	8	4	53
North Carolina	701	601	100	473	.....	128	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	.....	.....
South Carolina	798	737	61	424	39	313	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	.....	.....
Georgia	2,376	1,728	648	941	71	647	21	.....	.....	101	48	.....	.....	.....	.....	.....	498	39	10

Florida	684	584	100	138	9	446											91		
Tennessee	1,654	764	890	364	269	326	16			74	1		559		21		24		
Alabama	743	657	86	369	37	173		32		83							49		
Mississippi	1,119	1,032	87	972		30											83	30	4
Arkansas	489	385	104	359	74	14				12							30		
Louisiana	528	323	205	323						(4)	(4)						205		
Texas	1,545	1,218	327	398	53	663	8			147			150				111	10	5
III. EAST CENTRAL.																			
West Virginia	1,923	1,653	270	241	115	1,396	22	16					122				11		
Ohio	13,319	8,511	4,808	726	19	6,229	6	1,057	213	200	179		3,767				624	299	
Kentucky	2,381	937	1,444	464	321	161	31		29	165	134		33			147	896		
Michigan	[1] 14,234	11,638	1,353	(2)	(2)	4,037		7,434	83	167			851				419		
Indiana	9,569	5,204	4,365	1,912		2,106	33	87	314	977	38		2,916				151	122	913
Wisconsin	5,097	2,262	2,835	(3)	(3)	446	289	1,045	120	54			54		1,583		75	717	714
Illinois	8,923	4,229	4,694	1,013	123	1,676	24	462	29	137			1,383				2,051	941	1,084
Minnesota	2,954	2,089	865	592	34	1,063		234	72	170	396	(4)	(4)	(4)	(4)		298	30	65
Iowa	365	287	78	160		69				58			21				57		
Missouri	2,322	1,525	797	108	1	898		183	33	336	148		448				167		
IV. WEST CENTRAL.																			
North Dakota	[1] 537	54	286	(1)	(1)	54							56				230		
South Dakota	327	150	177	150	55												122		
Nebraska	409	356	53	137	17	123				96							36		
Kansas	846	635	277	263		320				52			184				27		
Oklahoma	858	733	125	193	36	540				(4)	(4)						89		
Montana	520	347	173	168		84				95							173		
Wyoming	134	93	41	73	3	12				8					12		26		
Colorado	3,288	2,663	625	193	43	2,236	9	131	324	30							85	73	164
New Mexico	318	153	165	80	28	41				32			30				107		
V. PACIFIC.																			
Idaho	338	283	55	221	9	10		52									46		
Utah	2,471	1,240	1,231	888		304				25							1,196	23	35
Arizona	1,343	866	477	129		645				52			167				128	40	182
Nevada	215	182	33	47	3	135											30		
Washington	1,543	1,479	64	283		871				325							32		32
Oregon	203	144	59	86						58	5						54		
California	5,876	2,840	3,036	333	2	778	43	75	563	1,654	124				2,243		61		

[1] Number of pupils from Michigan and North Dakota not reported separately by sex: Michigan, 1,243; North Dakota, 197.
[2] Massachusetts reports these figures as included in the figures for part-time general continuation schools and for all-day trade and industrial schools.
[3] Wisconsin reports this information unavailable.
[4] No report.

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919.*

	Number of schools.
ALABAMA.	
Evening trade and industrial:	
Blueprint reading	1
Boiler making	1
Radio and buzzer	1
Textile	6
Part-time trade and industrial:	
Machinist	1
Textile	1
All-day trade and industrial:	
Machine drafting	1
Machinist	2
Pattern making	2
ARIZONA.	
Evening trade and industrial:	
Arithmetic, shop	1
Blacksmithing	1
Cabinetwork	1
Chemistry—applied	2
Drafting—machine	1
Drawing—mechanical	4
Mineralogy	1
Radio and buzzer	2
All-day trade and industrial:	
Assaying	1
Auto mechanics	1
Carpentry	2
Painting	1
Home economics—evening:	
Home making	.....
General continuation:	
Academic	1
Arithmetic, shop	1
English	1
Salesmanship	1
Spanish	1
Stenography	1
ARKANSAS.	
Evening trade and industrial:	
Drawing—mechanical	1
All-day trade and industrial:	
Printing	1
CALIFORNIA.	
Evening trade and industrial:	
Shipbuilding	3
Part-time trade and industrial:	
Machine-shop practice	2
Power plants	2
Salesmanship	2
All-day trade and industrial:	
Auto repair	6
Building trade	1
Cabinetwork	2
Carpentry	4
Chemistry—oil	1
Chemistry—sugar	1
Cooking	1
Drafting	1
Drawing—mechanical	1
Electricity	6
Foundry	1
Machinist	9
Pattern making	1
Radio and buzzer	2
Sheet metal	2
Home economics—part time:	
Cooking	3
Dressmaking	13
Dietetics	2
Home economics	2
Millinery	15
Nutrition	1
COLORADO.	
Evening trade and industrial:	
Auto mechanics	1
Blueprint reading	1
Chemistry	1
Drawing—mechanical	4
Machine shop practice	2
Mathematics—mining	10
Mathematics—shop	13
Molding	7
Printing	1
Radio and buzzer	1
Sheet metal	1
Sugar technology	10
Tractor driver	1
Welding—oxy-acetylene	2
Part-time trade and industrial:	
Drafting	1
Mathematics—shop	2
Millinery	1
Telegraphy	1
All-day trade and industrial:	
Carpentry	1
General continuation:	
Bookkeeping	1
Stenography	1
Typewriting	1
CONNECTICUT.	
Evening trade and industrial:	
Industrial	5
Part-time trade and industrial:	
Industrial	5
All-day trade and industrial:	
Industrial	5
Home economics—evening:	
Home making	2
DELAWARE.	
Evening trade and industrial:	
Arithmetic, shop	1
Drawing—mechanical	1
Radio and buzzer	1
Ship fitting	1
FLORIDA.	
Evening trade and industrial:	
Arithmetic	1
Blueprint reading	1
Carpentry	1
Drafting—architecture	1
Estimating	1
Plumbing	1
Shipbuilding	1
Sanitary inspection	1
GEORGIA.	
Evening trade and industrial:	
Auto mechanics	1
Carpentry	2
Chemistry	1
Cooking	1
Drawing—mechanical	2
Dressmaking	1
Janitorial service	1
Machine-shop practice	1
Millinery	1
Nursing	1
Salesmanship	2
Textiles	2
All-day trade and industrial:	
Blacksmithing	2
Carpentry	1
Cement work	1

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919*—Continued.

	Number of schools.
GEORGIA—continued.	
All-day trade and industrial—Contd.	
Dressmaking	1
Masonry	1
General continuation:	
Arithmetic	2
Civics	2
English	2
Geography	1
Hygiene	1
Spelling	2
Shopwork	1
Writing	1
IDAHO.	
Evening trade and industrial:	
Drawing—mechanical	1
Part-time trade and industrial:	
Mining	1
ILLINOIS.	
Evening trade and industrial:	
Baking technology	1
Blue print reading	1
Chemistry—industrial	1
Design	1
Drafting—architecture	1
Drafting—industrial	1
Drawing—mechanical	6
Electricity	4
Forging	1
Foundry	2
Machine-shop practice	7
Mathematics—mining	2
Mathematics—shop	2
Pattern making	1
Printing	1
Tailoring	1
Wireless	1
Part-time trade and industrial:	
Auto mechanics	1
Baking	1
Carpentry	1
Drafting	3
Lake carriers occupation	1
Machinist	4
Pattern making	3
Plumbing	1
Sheet metal	1
Tailoring	1
All-day trade and industrial:	
Drawing—mechanical	2
Mathematics—shop	3
Home economics—evening:	
Cooking	8
Dressmaking	4
Millinery	6
Remodeling	1
Sewing	2
Tailoring	1
General continuation:	
Retail selling	2
Commercial subjects	4
INDIANA.	
Evening trade and industrial:	
Auto mechanics	8
Blueprint reading	1
Cabinetwork	2
Carpentry	1
Chemistry—commercial	1
Chemistry—industrial	1
Drafting	1
Electricity	2
Engineer	1
Machine-shop practice	6

	Number of schools.
INDIANA—continued.	
Evening trade and industrial—Contd.	
Mathematics—applied	1
Mathematics—shop	1
Pattern making	3
Plumbing	1
Power plants	1
Printing	1
Radio and buzzer	10
Salesmanship	1
Sheet metal	2
Typewriting	1
Welding	1
Part-time trade and industrial:	
Power plant	1
Salesmanship	5
All-day trade and industrial:	
Auto mechanics	3
Cabinetwork	2
Drafting—mechanical	1
Drawing—mechanical	2
Dressmaking	1
Electricity	2
Forging	1
Machinist	7
Mathematics—shop	1
Pattern making	1
Printing	4
Home economics—evening:	
Cooking	12
Dressmaking	9
Garment making	8
Millinery	11
Nursing	3
General continuation:	
Arithmetic	4
Cooking	4
Civics	4
English	6
First aid	2
Geography	1
Gymnastics	1
Hygiene	2
Mathematics	1
Salesmanship	1
Music	1
Swimming	1
IOWA.	
Evening trade and industrial:	
Arithmetic—shop	1
Drafting—building	1
Drafting—shop	1
Drawing—mechanical	2
Machinist	1
Mathematics—shop	1
All-day trade and industrial:	
Machinist	1
Home economics—evening:	
Millinery	1
KANSAS.	
Evening trade and industrial:	
Assaying	2
Auto mechanics	1
Carpentry	1
Machinist	1
Plumbing	1
Mathematics—shop	1
All-day trade and industrial:	
Auto mechanics	2
Carpentry	1
Machinist	1
Tailoring	1
Home economics—evening:	
Cooking	3
Dressmaking	3
Millinery	1

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919.*—Continued.

	Number of schools.
KENTUCKY.	
Evening trade and industrial:	
Auto mechanics	1
Drawing—mechanical	1
Machine-shop practice	1
Woodworking	1
Part-time trade and industrial:	
Salesmanship	1
All-day trade and industrial:	
Bookbinding	1
Cabinet work	1
Carpentry	2
Clerical	1
Dressmaking	1
Electric wiring	1
Engineer—steam	1
Printing	1
Home economics—evening:	
Cooking	1
Sewing	1
LOUISIANA.	
MAINE.	
Evening trade and industrial:	
Auto mechanics	2
Building—ship	1
Paper making	1
Shoe worker	1
All-day trade and industrial:	
Machinist	1
Mechanics, theory	6
Home economics—evening:	
Cooking	5
Sewing	5
MARYLAND.	
Evening trade and industrial:	
Auto repair	7
Blue print reading	3
Chemistry—industrial	1
Drawing—mechanical	4
Electricity	1
Mathematics—applied	1
Molding	3
Radio and buzzer	4
All-day trade and industrial:	
Pattern making	1
Printing	1
MASSACHUSETTS.	
Evening trade and industrial:	
Aeroplane	1
Auto repair	3
Auto mechanics	7
Blacksmithing	1
Blue print reading	2
Cabinetwork	4
Carpentry	5
Catering	1
Coppersmith	1
Decorating and painting	1
Design	7
Drafting—	
Architectural	1
Machine	2
Mechanical	3
Shop	1
Mechanical	7
Dressmaking	1
Electricity	8
Engineer—Gas	2
Engineer—Steam	3
Estimating	1
Fireman	3

	Number of schools.
MASSACHUSETTS—continued.	
Evening trade and industrial:—Contd.	
Forging	1
Janitorial service	2
Jewelry	1
Loom fixing	2
Machine-shop practice	15
Mathematics—applied	1
Mathematics—shop	2
Millinery	1
Molding	1
Paper hanging	1
Plumbing	4
Printing	6
Radio and buzzer	13
Sheet metal	2
Tool making	2
Trigonometry	1
Ventilating	1
Welding—oxy acetylene	1
Woodworking	4
Part-time trade and industrial:	
Trade extension	1
All-day trade and industrial:	
Auto repair	1
Auto mechanics	2
Cabinetwork	6
Carpentry	8
Catering	1
Decorating and painting	2
Drafting—mechanical	1
Dressmaking	3
Electricity	6
Engineer—steam	2
Machinist	11
Pattern making	4
Power-machine sewing	2
Printing	5
Sewing	1
Sheet metal	2
Textiles	1
Wood finishing	1
Home economics—evening:	
Cooking	16
Clothing	1
Dressmaking	16
Embroidery	3
Food conservation	1
Millinery	16
Nursing	4
Sewing	3
General continuation—part-time:	
General improvement	1
MICHIGAN.	
Evening trade and industrial:	
Blue print reading	1
Chemistry—applied	1
Drafting—mechanical	2
Drawing—mechanical	3
Machine-shop practice	3
Part-time trade and industrial:	
English	2
Machine-shop practice	1
Mathematics—shop	1
Mechanics—theory	2
Trade extension	1
All-day trade and industrial:	
Blacksmithing	1
Carpentry	1
Machinist	4
Pattern making	1
Home economics—evening:	
Cooking	3
Dressmaking	1
Millinery	1
Nursing	2
Sewing	2

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919*—Continued.

	Number of schools.
MINNESOTA.	
Evening trade and industrial:	
Auto repair	3
Blue print reading	2
Cabinet work	1
Chemistry—textile	1
Drafting—mechanical	1
Electricity	2
Lathe work	1
Machine-shop practice	4
Mathematics—shop	1
Milling	1
Radio and buzzer	3
Shaper	1
Sheet metal	2
Ship fitting	1
Telephony	1
Toolmaking	1
Tractor driving	1
Woodworking	1
Part-time trade and industrial:	
Fireman	1
Machinist	1
Truck and tractor driving	1
All-day trade and industrial:	
Cabinetwork	1
Carpentry	1
Catering	1
Drafting—architectural	1
Drafting—machine	1
Dressmaking	1
Electric wiring	1
Machinist	1
Nursing	1
Pattern making	1
Printing	1
General continuation—part-time:	
Retail selling	2
MISSISSIPPI.	
Evening trade and industrial:	
Blue print reading	1
Drafting—mechanical	1
MISSOURI.	
Evening trade and industrial:	
Auto repair	1
Auto mechanics	4
Commercial arts	1
Drawing—mechanical	6
Engineer—gas	1
Forging	1
Machine-shop practice	6
Printing	1
Part-time trade and industrial:	
Cabinetwork	1
Carpentry	1
Civics	1
Decorating and painting	1
Drawing—mechanical	1
Dressmaking	1
Electricity	1
Engineer—gas	1
Machinist	1
Mathematics—shop	1
Pattern making	1
Plumbing	1
Printing	2
Sheet metal	1
All-day trade and industrial:	
Cabinetwork	1
Carpentry	3
Civics	1
Decorating and painting	1
MISSOURI—continued.	
All-day trade and industrial—Continued.	
Drafting—mechanical	1
Dressmaking	2
Electricity	2
Engineer—gas	1
English	1
Mathematics—applied	1
Masonry	1
Pattern making	1
Plumbing	1
Printing	2
Sheet metal	1
Home economics-evening:	
Cooking	7
Millinery	5
Sewing	6
MONTANA.	
Evening trade and industrial:	
Drawing—mechanical	2
All-day trade and industrial:	
Auto mechanics	2
Tractor driving	2
NEBRASKA.	
Evening trade and industrial:	
Drafting—mechanical	1
Radio and buzzer	1
All-day trade and industrial:	
Auto mechanics	1
Carpentry	1
NEVADA.	
Evening trade and industrial:	
Mining	1
Radio and buzzer	5
NEW HAMPSHIRE.	
Part-time trade and industrial:	
Repair	1
Blacksmithing	1
Radio and buzzer	3
NEW JERSEY.	
Evening trade and industrial:	
Blue print reading	2
Boiler making	1
Building—ship	3
Drafting—architectural	1
Drafting—mechanical	2
Machine-shop practice	2
Pipe fitting	2
Plumbing	1
Radio and buzzer	1
Part-time trade and industrial:	
Drafting	1
English	2
Machinist	1
Mathematics—applied	2
Mechanics—shop	2
All-day trade and industrial:	
Drafting—mechanical	2
Machinist	2
Printing	1
Wood finishing	1
Home economics—evening:	
Cooking	2
Millinery	1
Sewing	3

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919*—Continued.

	Number of schools.
NEW MEXICO.	
Evening trade and industrial:	
Auto mechanics	1
Drafting—mechanical	1
Machine-shop practice	1
All-day trade and industrial:	
Auto mechanics	1
Building trade	1
Home economics—evening:	
Clothing	2
Food	1
NEW YORK.	
All-day trade and industrial:	
Auto repair	1
Auto mechanics	4
Cabinetwork	7
Carpentry	4
Chemistry—industrial	1
Design	1
Drafting—architectural	2
Drawing—mechanical	7
Dressmaking	1
Electricity	6
Electric wiring	4
Lamp-shade making	1
Machinist	14
Millinery	1
Pattern making	5
Plumbing	4
Power plants	1
Power sewing	1
Printing	8
Sheet metal	3
Sign painting	2
NORTH CAROLINA.	
Evening trade and industrial:	
Mathematics—applied	1
Textile	3
NORTH DAKOTA.	
Evening trade and industrial:	
Carpentry	1
Drafting—architectural	1
Home economics—evening:	
Cooking	1
Dressmaking	1
Sewing	1
OHIO.	
Evening trade and industrial:	
Agriculture	2
Auto repair	1
Auto mechanics	20
Blue print work	1
Blue print reading	1
Cabinetwork	4
Carpentry	2
Chemistry—applied	4
Design	3
Drafting—mechanical	22
Electricity	12
Engineer—gas	1
Lake carriers' occupations	1
Machine-shop practice	9
Mathematics—shop	12
Metallurgy	3
Motorcycle	2
Pattern making	8
Power machine sewing	1
Printing	2
Plumbing	2
Radio	14

	Number of schools.
OHIO—continued.	
Evening trade and industrial—Contd.	
Sheet metal	1
Telegraphy	2
Welding	2
Part-time trade and industrial:	
Lake carriers' occupations	1
Messenger boy	1
All-day trade and industrial:	
Auto trade	1
Electricity	1
Machinist	2
Sewing	2
Woodworking	1
Home economics—evening:	
Cooking	10
Food conservation	1
Sewing	9
OKLAHOMA.	
Evening trade and industrial:	
Mining	8
Radio and buzzer	1
All-day trade and industrial:	
Auto mechanics	1
Cabinetwork	1
Carpentry	1
Forging	1
Machinist	1
OREGON.	
All-day trade and industrial:	
Carpentry	1
Engineer—gas	1
Plumbing	1
Printing	1
Tractor driving	1
PENNSYLVANIA.	
Evening trade and industrial:	
Auto repair	1
Building—ship	1
Cabinetwork	1
Carpentry	1
Decorating and painting	1
Drafting—architectural	2
Drawing—mechanical	5
Electrical wiring	1
Electricity	1
Electrical construction	3
Engineer—gas	2
Forging	1
Machine shop practice	6
Mathematics—shop	3
Millinery	1
Mining	4
Pattern making	2
Plumbing	1
Power machine	1
Printing	1
Radio and buzzer	5
Sheet metal	1
Telegrapny	2
Telephony	1
Part-time trade and industrial:	
Bricklaying	1
Cabinetwork	1
Drafting	1
Electricity	3
Machinist	2
Pattern making	3
Plating metal	1
Printing	1
Salesmanship	1
Sheet metal	1
Tool making	1

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919*—Continued.

	Number of schools.
PENNSYLVANIA—continued.	
All-day trade and industrial:	
Blacksmithing	1
Cabinetwork	5
Carpentry	5
Drafting (architectural)	1
Drafting (mechanical)	2
Dressmaking	1
Electric wiring	6
Machinist	7
Mechanics—theory	1
Millinery	1
Pattern making	6
Power plants	2
Printing	3
Home economics—evening:	
Cooking	8
Millinery	3
Nursing	1
Sewing	13
General continuation—part-time:	
Academic subjects	92
Vocational subjects	56
RHODE ISLAND.	
Evening trade and industrial:	
Blue print reading	2
Drawing—mechanical	2
Electricity	1
Loom fixing	1
Machine shop practice	3
Radio and buzzer	2
Woodworking	1
Part-time trade and industrial:	
Auto repair	1
Decorating and painting	1
Drawing—mechanical	1
Electricity	1
Machine shop practice	1
Mathematics—apphed	1
Printing	1
SOUTH CAROLINA.	
Evening trade and industrial:	
Arithmetic—cotton mill	7
Calculating—cotton mill	9
Cloth analysis	1
SOUTH DAKOTA.	
TENNESSEE.	
Evening trade and industrial:	
Blacksmithing	1
Bricklaying	1
Carpentry	1
Electricity	2
Engineer—steam	1
Machine shop practice	3
Mathematics—shop	3
Plastering	1
Show card	1
Telegraphy	1
Valve setting	1
All-day trade and industrial:	
Carpentry	1
Home economics—evening:	
Cooking	1
Dressmaking	1
Millinery	1
Sewing	1
Home economics—part-time:	
Cooking	1

	Number of schools.
TEXAS.	
Evening trade and industrial:	
Auto mechanics	2
Blue print reading	4
Chemistry—oil	1
Drawing—mechanical	4
Machine-shop practice	1
Mathematics—shop	3
Radio and buzzer	5
All-day trade and industrial:	
Cabinetwork	1
Carpentry	1
Drawing—mechanical	1
Machinist	2
Home economics—evening:	
Clothing	1
Food	1
General continuation—part-time:	
Bookkeeping	1
Business methods	1
Stenography	1
Typewriting	1
UTAH.	
Evening trade and industrial:	
Auto repair	1
Auto ignition	1
Auto mechanics	1
Machine shop practice	1
All-day trade and industrial:	
Carpentry	1
Machinist	1
Home economics—evening:	
Dressmaking	1
Food	1
Sewing	1
VERMONT.	
Evening trade and industrial:	
Auto repair	2
Blacksmithing	1
Part-time trade and industrial:	
Machinist	3
VIRGINIA.	
Evening trade and industrial:	
Auto repair	2
Electricity	1
Machine-shop practice	1
Radio and buzzer	2
All-day trade and industrial:	
Machinist	1
Home economics—evening:	
Cooking	3
Dressmaking	5
Dietetics	1
Embroidery	1
Millinery	4
Nursing	1
Sewing	5
Home economics—part-time:	
Dressmaking	1
General continuation—part-time:	
Civics	1
Stenography	1
Typewriting	1
WASHINGTON.	
Evening trade and industrial:	
Auto repair	2
Blacksmithing	1

TABLE 19.—*Subjects taught.—Number of vocational schools teaching specified subject, by States, for the year ended June 30, 1919*—Continued.

	Number of schools.
WASHINGTON—continued.	
Evening trade and industrial—Contd.	
Building—shop	1
Drafting—ship	1
Drawing—mechanical	1
Electricity	2
Machine-shop practice	2
All-day trade and industrial:	
Cabinetwork	1
Carpentry	1
Electricity	1
Engineer—gas	1
Machinist	4
Printing	1
General continuation—part-time:	
Retail selling	1
WEST VIRGINIA.	
Evening trade and industrial:	
Chemistry—applied	1
Drawing—mechanical	1
Mathematics—shop	1
Mining	19
Pottery	1
Sheet metal	1
Welding—oxy-acetylene	1
Part-time trade and industrial:	
Plumbing	1
Trade extension	12
Home economics—evening:	
Cooking	2
Dietetics	1
Millinery	2
Sewing	3
WISCONSIN.	
Evening trade and industrial:	
Auto repair	2
Auto assembly	1
Carpentry	1
Drawing—mechanical	4
Dressmaking	3
Electricity	3
Machine shop practice	2
Millinery	1
Motor—gas	1
Pattern making	1
WISCONSIN—continued.	
Evening trade and industrial—Contd.	
Printing	1
Shoe worker	1
Tailoring	1
Welding—oxy-acetylene	1
Part-time trade and industrial;	
Auto repair	1
Baking	1
Blacksmithing	1
Cabinet work	4
Carpentry	2
Drafting	1
Dressmaking	1
Electricity	4
Fibre chair making	1
Hair dressing	1
Machine-shop practice	4
Pattern making	3
Power plants	2
Printing	3
Sheet metal	1
Tailoring	2
Telegraphy	1
All-day trade and industrial:	
Printing	1
Sheet metal	1
Tailoring	1
Home economics—evening:	
Cooking	1
Sewing	1
Home economics—part-time:	
Cooking	5
Dressmaking	2
Home economics	1
Millinery	2
Sewing	3
General continuation—part-time:	
Commercial	4
Mathematics	5
Drawing	5
WYOMING.	
Evening trade and industrial:	
Radio and buzzer	1
Home economics—part-time:	
Clothing	1
Food	1

TABLE 20.—*Vocational schools applying for Federal aid, by States. Number approved and not approved by State boards; for the year ended June 30, 1919.*

	Number of schools applying for Federal aid.																					
	All types.			Agricultural				Trade or industrial.						Home economics.						Part-time general continuation schools.	
				Separate.		Departmental.		Evening.		Part-time.		All-day.		Evening.		Part-time.		All-day.			
	Total.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u
United States	1,931	1,789	142	139	13	555	47	369	16	78	7	135	20	96	7	25	2	276	29	116	1
REGION.																					
I. North Atlantic	516	492	24	45	1	51	3	84	5	24	4	53	4	49	2	1	.....	91	5	94	.....
II. Southern	392	346	46	72	11	148	22	76	3	4	3	8	2	3	.....	1	1	32	3	2	1
III. East Central	656	623	33	8	.....	221	15	162	4	45	.....	36	6	40	3	5	.....	88	5	18	.....
IV. West Central	180	149	31	2	1	74	3	34	4	2	.....	8	7	4	2	1	.....	24	14	.....	.....
V. Pacific	187	179	8	12	.....	61	4	13	.....	3	.....	30	1	.....	.....	17	1	41	2	2	.....
I. NORTH ATLANTIC.																					
Maine	23	23	.....	.....	.....	9	.....	5	.....	.....	.....	1	.....	5	.....	.....	.....	3	.....	.....	.....
New Hampshire	22	21	1	12	1	.....	.....	.....	.....	3	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont	7	7	.....	2	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Massachusetts	84	84	.....	6	.....	11	.....	19	.....	1	.....	16	.....	21	.....	.....	.....	9	.....	1	.....
Rhode Island	9	9	.....	.....	.....	.....	.....	6	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	24	24	(1)	.....	(1)	3	(1)	7	(1)	5	(1)	7	(1)	2	(1)	.....	.....	3	(1)	.....	.....
New York[1]																					
New Jersey	50	40	10	2	.....	5	.....	8	3	1	3	8	2	8	2	1	.....	6	.....	1	.....
Pennsylvania	237	235	2	23	.....	11	1	19	.....	5	1	14	.....	13	.....	.....	.....	58	.....	92	.....
Delaware	17	17	.....	.....	.....	5	.....	4	.....	3	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....
Maryland	40	29	11	.....	.....	7	2	16	2	.....	.....	1	2	.....	.....	.....	.....	5	5	.....	.....

[1] No report.

TABLE 20.—*Vocational schools applying for Federal aid, by States. Number approved and not approved by State boards; for the year ended June 30, 1919*—Continued.

	Number of schools applying for Federal aid.																					
	All types.			Agricultural.				Trade or industrial.						Home economics.						Part-time general continuation schools.	
				Separate.		Departmental.		Evening.		Part-time.		All-day.		Evening.		Part-time.		All-day.			
	Total.	Approved.	Not approved	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.	Approved.	Not approved.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u
II. SOUTHERN.																					
Virginia[1]																					
North Carolina	42	38	4	17	2	13	1	5	1									3			
South Carolina	56	56				25		30										1			
Georgia[1]																					
Florida	48	33	15			11	14	17	1									5			
Tennessee	37	32	5			22	4	5		1	1	1		1		1		1			
Alabama	45	45				27		11		2		2						3			
Mississippi	63	43	20	21	9	15	3	1	1	1	2						1	4	3	1	1
Arkansas	21	21		3		14		1				1		1				1			
Louisiana	28	28				21						1						6			
Texas	52	50	2	31				6				3	2	1				8		1	
III. EAST CENTRAL.																					
West Virginia	70	56	14			20	10	31	2	1				3	2			1			
Ohio	127	127				40		33		14		4		14				21		1	
Kentucky	52	48	4			25	2	2		1		3		1				16	2		
Michigan	78	72	6			49		5	1	5		3	2	4	1			6	2		
Indiana																					
Wisconsin	36	36		5		8		4		5		1		1		5		2		5	
Illinois	135	135				42		37		12		4		9				20		11	
Minnesota	99	91	8	3		20	2	38	1	5		15	4					9	1	1	

Iowa	21	20	1			10	1	4				2		1				3			
Missouri	38	38				7		8		2		4		7				10			
IV. WEST CENTRAL.																					
North Dakota	28	21	7	2		6		2					2	2	1			9	4		
South Dakota	11	11				9												2			
Nebraska	13	13				8		2				1						2			
Kansas	27	27				16		5				3		2				1			
Oklahoma[1]																					
Montana	19	17	2		1	9		2				2	1					4			
Wyoming	16	11	5			5	2	2	1			1	1		1	1		2			
Colorado	45	44	1			16	1	21		2		1						4			
New Mexico	21	5	16			5			3				3						10		
V. PACIFIC.																					
Idaho	13	13				7		1		3								2			
Utah	63	63				24		6				2						30		1	
Arizona[1]																					
Nevada	9	6	3			3	2	1										2	1		
Washington	26	26		12				5				6						2		1	
Oregon	10	10				5						4						1			
California	66	61	5			22	2					18	1			17	1	4	1		

TABLE 21.—*Number of vocational teacher training institutions Federally aided, by States, for years ended June 30, 1919 and 1918.*

Region or State.	Number of institutions.									
	Total.		Training vocational teachers of—							
			Agriculture.		Trade or industry.		Home economics.		Not classified subject.	
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f	g	h	i	j
United States	144	94	60	40	68	45	78	60	11	.....
REGIONS.										
I. North Atlantic	29	27	12	8	18	20	13	12	1	.....
II. Southern	42	24	20	9	16	6	20	13	1	.....
III. East Central	38	17	14	11	20	7	17	11	8	.....
IV. West Central	20	12	9	7	8	5	15	12	.....	.....
V. Pacific	15	14	5	5	6	7	13	12	1	.....
I. NORTH ATLANTIC.										
Maine	3	4	1	1	1	1	2	2	.....	.....
New Hampshire	1	1	1	1	.....	.....	.....	1	.....	.....
Vermont	1	2	1	1	.....	1	1	1	.....	.....
Massachusetts	[1] 8	6	2	.....	5	5	1	2	.....	.....
Rhode Island	1	.....	1	.....	.....	.....	1	.....	.....	.....
Connecticut	4	2	1	.....	3	3	1	.....	.....	.....
New York	4	5	1	1	3	5	2	2	.....	.....
New Jersey	[2] 2	2	1	1	2	1	2	3	1	.....
Pennsylvania	3	3	1	1	2	3	1	.....	.....	.....
Delaware	1	1	1	1	1	1	1	1	.....	.....
Maryland	1	1	1	1	1	.....	1	.....	.....	.....
II. SOUTHERN.										
Virginia	4	[3]	1	.....	.....	.....	3	.....	.....	.....
North Carolina	4	3	2	1	.....	.....	2	2	.....	.....
South Carolina	3	2	2	2	1	.....	2	.....	.....	.....
Georgia	5	5	3	1	4	1	2	3	.....	.....
Florida	3	.....	2	.....	1	.....	2	.....	.....	.....
Tennessee	3	[3]	3	[3]	1	[3]	1	[3]	.....	.....
Alabama	4	4	2	1	1	2	2	2	1	.....
Mississippi	3	3	2	2	1	2	2	2	.....	.....
Arkansas	3	[3]	2	[3]	1	[3]	1	[3]	.....	.....
Louisiana	5	5	1	1	1	1	3	3	.....	.....
Texas	5	2	.....	1	5	.....	.....	1	.....	.....
III. EAST CENTRAL.										
West Virginia	5	1	1	1	1	.....	1	1	7	.....
Ohio	14	1	3	1	8	.....	4	.....	.....	.....
Kentucky	2	2	2	2	.....	.....	2	.....	.....	.....
Michigan	3	3	1	1	1	1	2	2	.....	.....

[1] Massachusetts, in addition to teacher training classes in two trade schools for women, reports teacher training classes in trade and industry as follows: Regular teacher training classes in trade and industry under the board of education at Beverly, Boston (8 divisions), Lowell, Lynn, New Bedford, Springfield, and Worcester; special classes for industry under the department of vocational education at Clinton, Framingham (3 divisions), and Worcester; classes in trade and industry for employed teachers (professional improvement) under the division of industrial teacher training at Beverly, Lawrence, Lowell, Somerville, Springfield, Worcester (2 divisions), Boston, and New Bedford. Under the division of household arts teacher training it reports regular teacher training classes in day household arts at Boston, Lowell, and New Bedford; classes for employed teachers (professional improvement) in day household arts at Boston (2 centers), Essex County, Newton, and Worcester; teacher training classes in evening practical arts at Boston (2 centers), Holyoke, Lawrence, Lowell (2 centers), and New Bedford; evening classes for employed teachers (professional improvement) at Boston (2 centers), Fall River, Plymouth, and Worcester.

[2] New Jersey reports one institution approved for teacher training by the State board. In addition, the State board itself conducted two teacher training classes in trades and industries at Newark and Plainfield for munitions plants; five classes in trades and industries at Newark, Jersey City, Perth Amboy, New Brunswick, and Atlantic City; and four classes in home economics at Atlantic City, Newark, Jersey City, and Orange for the professional improvement of teachers in service.

[3] No report.

TABLE 21.—*Number of vocational teacher training institutions Federally aided, by States, for years ended June 30, 1919 and 1918*—Continued.

Region or State.	Number of institutions.									
	Total.		Training vocational teachers of—							
			Agriculture.		Trade or industry.		Home economies.		Not classified subject.	
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f	g	h	i	j
III. EAST CENTRAL—continued.										
Indiana	[1] 4	3	1	1	3	3	2	3	1	.....
Wisconsin	2	2	1	.....	1	1	1	1	.....	.....
Illinois	2	3	2	3	1	1	2	2	.....	.....
Minnesota	[2] 2	1	1	1	2	1	1	1	.....	.....
Iowa	3	[3]	1	.....	2	.....	1	.....	.....	.....
Missouri	1	1	1	1	1	.....	1	1	.....	.....
IV. WEST CENTRAL.										
North Dakota	2	1	1	1	1	1	2	1	.....	.....
South Dakota	2	2	1	1	.....	.....	2	2	.....	.....
Nebraska	1	1	1	1	.....	.....	1	1	.....	.....
Kansas	2	2	1	.....	.....	.....	2	2	.....	.....
Oklahoma	3	2	1	1	.....	2	3	2	.....	.....
Montana	1	1	1	1	1	1	1	1	.....	.....
Wyoming	1	1	1	.....	1	1	1	1	.....	.....
Colorado	[4] 6	1	1	1	5	.....	1	1	.....	.....
New Mexico	2	1	1	1	.....	.....	2	1	.....	.....
V. PACIFIC.										
Idaho	2	2	1	1	1	1	1	1	.....	.....
Utah	1	1	1	1	1	1	1	1	1	.....
Arizona	1	1	.....	.....	.....	.....	1	1	.....	.....
Nevada	1	1	.....	.....	.....	.....	1	1	.....	.....
Washington	2	2	1	1	1	1	2	2	.....	.....
Oregon	1	1	1	1	1	2	1	1	.....	.....
California	7	6	1	1	2	2	6	5	.....	.....

[1] Indiana reports five teacher training courses in trade and industry under the Indiana University at the following centers: Anderson, Evansville, Indianapolis, Richmond, and South Bend.

[2] Minnesota reports five teacher training extension courses in trade and industry under the State board for vocational education at the following centers: Duluth, St. Paul, Minneapolis, and Virginia.

[3] No report.

[4] Colorado reports five teacher training courses in trade and industry under the State board for vocational education at the following centers: Denver, Pueblo, Walsen and Farr, Trinidad, and Colorado Agricultural College.

TABLE 22.—*Number of teachers of teacher training courses in institutions Federally aided, by States, for years ended June 30, 1919 and 1918.*

Region or State.	Number of teachers.									
	Total.		Training vocational teachers of—							
			Agriculture.		Trade or industry.		Home economics.		Not classified subject.	
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f	g	h	i	j
United States	829	524	222	116	219	95	366	263	22	50
REGION.										
I. North Atlantic	197	113	29	18	86	61	81	34	1	.....
II. Southern	163	115	66	24	19	15	73	76	5	.....
III. East Central	226	108	53	30	80	8	84	35	9	35
IV. West Central	115	96	43	19	13	4	59	61	.....	12
V. Pacific	128	92	31	25	21	7	69	57	7	3
I. NORTH ATLANTIC.										
Maine	8	14	3	7	(1)	2	5	5	.....	.....
New Hampshire	(1)	9	(1)	4	(1)	.....	(1)	5	.....	.....
Vermont	2	6	1	2	.....	.....	1	4	.....	.....
Massachusetts	57	17	4	.....	33	12	20	5	.....	.....
Rhode Island	2	.....	1	.....	.....	.....	1	.....	.....	.....
Connecticut	23	7	(1)	.....	6	7	17	.....	.....	.....
New York	43	30	6	.....	23	22	14	8	.....	.....
New Jersey	24	5	6	1	8	1	9	3	1	.....
Pennsylvania	20	18	6	2	11	16	3	.....	.....	.....
Delaware	13	6	1	1	4	1	8	4	.....	.....
Maryland	5	1	1	1	1	.....	3	.....	.....	.....
II. SOUTHERN.										
Virginia	12	.....	2	.....	.....	.....	10	.....	.....	.....
North Carolina	19	10	11	2	.....	.....	8	8	.....	.....
South Carolina	12	3	11	3	1	.....	.....	.....	.....	.....
Georgia	25	17	15	5	5	2	5	10	.....	.....
Florida	12	.....	3	.....	3	.....	6	.....	.....	.....
Tennessee	7	.....	[2] 4	.....	[2]	.....	3	.....	.....	.....
Alabama	38	20	12	4	3	4	18	12	5	.....
Mississippi	24	21	4	5	1	.....	19	16	.....	.....
Arkansas	6	.....	2	.....	1	.....	3	.....	.....	.....
Louisiana	3	31	2	2	(1)	9	[3] 1	20	.....	.....
Texas	5	13	.....	3	5	.....	.....	10	.....	.....
III. EAST CENTRAL.										
West Virginia	11	6	1	4	1	.....	2	2	7	.....
Ohio	33	2	3	2	25	.....	5	.....	.....	.....
Kentucky	16	6	5	6	.....	.....	11	.....	.....	.....
Michigan	13	11	2	2	4	2	7	7	.....	.....
Indiana	23	27	6	.....	9	.....	6	.....	2	27
Wisconsin	35	.....	9	.....	13	.....	13	.....	.....	.....
Illinois	36	26	14	8	8	1	14	17	.....	.....
Minnesota	32	22	6	8	13	5	13	9	.....	.....
Iowa	13	.....	3	.....	4	.....	6	.....	.....	.....
Missouri	14	8	4	.....	3	.....	7	.....	.....	8
IV. WEST CENTRAL.										
North Dakota	17	12	4	.....	6	.....	7	.....	.....	12
South Dakota	8	17	2	5	.....	.....	6	12	.....	.....
Nebraska	32	16	[4] 15	6	.....	.....	[5] 17	10	.....	.....
Kansas	8	24	3	.....	.....	.....	5	24	.....	.....
Oklahoma	(1)	.....	(1)	.....	(1)	.....	(1)	.....	(1)	.....
Montana	4	6	1	2	1	2	2	2	.....	.....
Wyoming	6	7	2	.....	1	2	3	5	.....	.....
Colorado	30	12	14	5	5	.....	11	7	.....	.....
New Mexico	10	2	2	1	.....	.....	8	1	.....	.....
V. PACIFIC.										
Idaho	6	4	1	.....	1	1	4	.....	.....	3
Utah	10	5	1	2	1	1	1	2	7	.....
Arizona	7	3	.....	.....	.....	.....	7	3	.....	.....
Nevada	1	1	.....	.....	.....	.....	1	1	.....	.....
Washington	10	8	2	3	2	.....	6	5	.....	.....
Oregon	12	6	[6] 3	2	[6] 4	1	[6] 5	3	.....	.....
California	82	65	24	18	13	4	45	43	.....	.....

[1] No report.
[2] Those employed by the University of Tennessee for teacher-training work in agriculture and trade and industry were loaned to the State board for vocational education to be used by it as supervisors.
[3] No report from two schools having home economics courses.
[4] Includes 10 teachers in summer school.
[5] Includes 11 teachers in summer school.
[6] Two instructors, the heads of the departments of education and psychology, gave courses in classes combining the three groups, agriculture, home economics, and trade and industry.

TABLE 23.—*Sex of teachers of teacher training courses in institutions Federally aided, by States, for year ended June 30, 1919.*

Region or State.	Number of teachers: 1919.										
	Total.			Training vocational teachers of—							
				Agriculture.		Trade or industry.		Home economics.		Not classified subject.	
	Both sexes.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	a	b	c	d	e	f	g	h	i	j	k
United States	829	494	335	220	2	206	13	48	318	20	2
REGION.											
I. North Atlantic	197	112	85	29	.....	80	6	2	79	1	.....
II. Southern	163	94	69	65	1	18	1	6	67	5	.....
III. East Central	226	163	63	53	.....	77	3	25	59	8	1
IV. West Central	115	66	49	42	1	13	.....	11	48	.....	.....
V. Pacific	128	59	69	31	.....	18	3	4	65	6	1
I. NORTH ATLANTIC.											
Maine	8	3	5	3	.....	.....	.....	.....	5	.....	.....
New Hampshire	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Vermont	2	1	1	1	.....	.....	.....	.....	1	.....	.....
Massachusetts	57	35	22	4	.....	31	2	.....	20	.....	.....
Rhode Island	2	1	1	1	.....	.....	.....	.....	1	.....	.....
Connecticut	23	6	17	(1)	.....	6	.....	.....	17	.....	.....
New York	43	26	17	6	.....	19	4	1	13	.....	.....
New Jersey	24	15	9	6	.....	8	.....	.....	9	1	.....
Pennsylvania	20	17	3	6	.....	11	.....	.....	3	.....	.....
Delaware	13	6	7	1	.....	4	.....	1	7	.....	.....
Maryland	5	2	3	1	.....	1	.....	.....	3	.....	.....
II. SOUTHERN.											
Virginia	12	2	10	2	.....	.....	.....	.....	10	.....	.....
North Carolina	19	11	8	11	.....	.....	.....	.....	8	.....	.....
South Carolina	12	12	.....	11	.....	1	.....	.....	.....	.....	.....
Georgia	25	19	6	15	.....	4	1	.....	5	.....	.....
Florida	12	6	6	3	.....	3	.....	.....	6	.....	.....
Tennessee	7	4	3	4	.....	.....	.....	.....	3	.....	.....
Alabama	38	24	14	12	.....	3	.....	4	14	5	.....
Mississippi	24	7	17	4	.....	1	.....	2	17	.....	.....
Arkansas	6	2	4	1	1	1	.....	.....	3	.....	.....
Louisiana	3	2	1	2	.....	.....	.....	.....	[2] 1	.....	.....
Texas	5	5	.....	.....	.....	5	.....	.....	.....	.....	.....
III. EAST CENTRAL.											
West Virginia	11	9	2	1	.....	1	.....	.....	2	7	.....
Ohio	33	18	5	3	.....	25	.....	.....	5	.....	.....
Kentucky	16	6	10	5	.....	.....	.....	1	10	.....	.....
Michigan	13	13	.....	2	.....	4	.....	7	.....	.....	.....
Indiana	23	17	6	6	.....	9	.....	1	5	1	1
Wisconsin	35	22	13	9	.....	13	.....	.....	13	.....	.....
Illinois	36	24	12	14	.....	8	.....	2	12	.....	.....
Minnesota	32	29	3	6	.....	10	3	13	.....	.....	.....
Iowa	13	8	5	3	.....	4	.....	1	5	.....	.....
Missouri	14	7	7	4	.....	3	.....	.....	7	.....	.....
IV. WEST CENTRAL.											
North Nakota	17	10	7	4	.....	6	.....	.....	7	.....	.....
South Dakota	8	4	4	2	.....	.....	.....	2	4	.....	.....
Nebraska	32	15	17	[3] 15	.....	.....	.....	.....	[4] 17	.....	.....
Kansas	8	3	5	3	.....	.....	.....	.....	5	.....	.....
Oklahoma	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Montana	4	2	2	1	.....	1	.....	.....	2	.....	.....
Wyoming	6	4	2	2	.....	1	.....	1	2	.....	.....
Colorado	30	21	9	13	1	5	.....	3	8	.....	.....
New Mexico	10	7	3	2	.....	.....	.....	5	3	.....	.....
V. PACIFIC.											
Idaho	6	2	4	1	.....	1	.....	.....	4	.....	.....
Utah	10	8	2	1	.....	1	.....	.....	1	6	1
Arizona	7	2	5	.....	.....	.....	.....	2	5	.....	.....
Nevada	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Washington	10	4	6	2	.....	2	.....	.....	6	.....	.....
Oregon	12	9	3	[5] 3	.....	[5] 4	.....	[5] 2	3	.....	.....
California	82	34	48	24	.....	10	3	.....	45	.....	.....

[1] No report.
[2] No report from the schools having home economics courses.
[3] Includes 10 teachers in S. S.
[4] Includes 11 teachers in S. S.
[5] 2 instructors, the heads of the departments of education and psychology, gave courses in classes combining the three groups—agriculture, trade and industry, and home economics.

TABLE 24.—*Sex of pupils enrolled in vocational teacher training courses in institutions Federally aided, by States, for year ended June 30, 1919.*

Region or State.	Number of pupils enrolled.										
	Total.			In courses training vocational teachers of—							
				Agriculture.		Trade or industry.		Home economics.		Not classified subject.	
	Both sexes.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	a	b	c	d	e	f	g	h	i	j	k
United States	7,364	3,998	3,366	1,289	45	2,484	290	114	2,984	111	47
REGION.											
I. North Atlantic	2,315	1,378	937	246	1	1,127	200	.....	732	5	4
II. Southern	1,042	641	401	389	.....	195	14	23	383	34	4
III. East Central	2,391	1,321	1,070	278	4	946	19	71	1,016	26	31
IV. West Central	807	242	565	164	.....	77	10	1	555	.....	.....
V. Pacific	809	416	393	212	40	139	47	19	298	46	8
I. NORTH ATLANTIC.											
Maine	84	14	70	14	.....	(1)	(1)	.....	70	.....	.....
New Hampshire	3	3	.....	3	.....	(1)	(1)	(1)	(1)	.....	.....
Vermont	70	7	63	7	.....	.....	.....	.....	63	.....	.....
Massachusetts	897	477	420	69	.....	408	115	.....	305	.....	.....
Rhode Island	17	7	10	7	.....	.....	.....	.....	10	.....	.....
Connecticut	76	37	39	1	.....	36	.....	.....	39	.....	.....
New York	426	241	185	[2] 69	.....	172	32	.....	153	.....	.....
New Jersey	267	166	101	23	.....	138	53	.....	44	5	4
Pennsylvania	422	389	33	37	.....	352	.....	.....	33	.....	.....
Delaware	10	10	.....	4	.....	6	.....	.....	.....	.....	.....
Maryland	43	27	16	12	1	15	.....	.....	15	.....	.....
II. SOUTHERN.											
Virginia	5	3	2	3	.....	.....	.....	.....	2	.....	.....
North Carolina	91	35	56	[3] 35	.....	.....	.....	.....	[4] 56	.....	.....
South Carolina	85	85	.....	55	.....	30	.....	.....	.....	.....	.....
Georgia	134	112	22	79	.....	33	4	.....	18	.....	.....
Florida	67	3	64	3	.....	(1)	(1)	.....	64	.....	.....
Tennessee	58	35	23	35	.....	.....	.....	.....	23	.....	.....
Alabama	222	143	79	63	.....	46	5	.....	70	34	4
Mississippi	179	70	109	66	.....	4	.....	.....	109	.....	.....
Arkansas	90	44	46	35	.....	9	5	.....	41	.....	.....
Louisiana	38	38	.....	15	.....	(1)	(1)	23	.....	.....	.....
Texas	73	73	.....	.....	.....	73	.....	.....	.....	.....	.....
III. EAST CENTRAL.											
West Virginia	48	31	17	9	.....	4	.....	.....	.....	18	17
Ohio	356	325	31	7	.....	318	.....	.....	31	.....	.....
Kentucky	224	54	170	54	.....	.....	.....	.....	170	.....	.....
Michigan	272	272	.....	30	.....	171	.....	71	.....	.....	.....
Indiana	244	165	79	18	.....	139	8	.....	57	8	14
Wisconsin [5]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illinois	606	162	444	30	4	132	.....	.....	440	.....	.....
Minnesota	235	166	69	52	.....	114	11	.....	58	.....	.....
Iowa	325	90	235	62	.....	28	.....	.....	235	.....	.....
Missouri	81	56	25	16	.....	40	.....	.....	25	.....	.....
IV. WEST CENTRAL.											
North Dakota	77	17	60	5	.....	12	.....	.....	60	.....	.....
South Dakota	194	78	116	78	.....	.....	.....	.....	116	.....	.....
Nebraska	43	18	25	18	.....	.....	.....	.....	25	.....	.....
Kansas	160	12	148	12	.....	.....	.....	.....	148	.....	.....
Oklahoma	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Montana	46	23	23	[6] 23	.....	.....	.....	.....	23	.....	.....
Wyoming	21	16	5	5	.....	11	.....	.....	5	.....	.....
Colorado	187	75	112	21	.....	54	10	.....	102	.....	.....
New Mexico	79	3	76	2	.....	.....	.....	1	76	.....	.....
V. PACIFIC.											
Idaho	41	5	36	2	.....	3	.....	.....	36	.....	.....
Utah	115	107	8	36	.....	6	.....	19	.....	46	8
Arizona	(1)	.....	.....	.....	.....	.....	.....	(1)	(1)	.....	.....
Nevada	10	.....	10	.....	.....	.....	.....	.....	10	.....	.....
Washington	223	63	160	15	.....	48	.....	.....	160	.....	.....
Oregon	61	8	53	6	.....	2	.....	.....	53	.....	.....
California	359	233	126	153	40	80	47	.....	39	.....	.....

[1] No report.
[2] Includes 20 summer students and 21 emergency summer course students.
[3] Includes 24 students in six weeks' special summer school course.
[4] Includes 12 students in six weeks' special summer school course.
[5] Wisconsin reports this information unavailable.
[6] Includes 18 students n itinerant teacher training courses.

TABLE 25.—*State directors and supervisors—Number paid or reimbursed out of Federal, State, and local funds, and number giving full time and part time to supervision, by States, for years ended June 30, 1919 and 1918.*

Region or State	Number of State directors and supervisors.													
	Total.		Source of salary.						Apportionment of time.					
			Federal and State funds.		State funds.		Other, none, and no report.		Give full time to supervision.		Give part time to supervision.		No report.	
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918
United States	182	139	105	54	40	44	37	41	57	63	105	51	20	25
REGIONS.														
I. North Atlantic	47	49	32	19	11	19	4	11	22	31	20	13	5	5
II. Southern	44	22	29	10	4	7	11	5	8	6	34	9	2	7
III. East Central	38	31	19	11	14	7	5	13	15	13	18	15	5	3
IV. West Central	20	21	10	8	5	6	5	7	2	6	14	7	4	8
V. Pacific	33	16	15	6	6	5	12	5	10	7	19	7	4	2
I. NORTH ATLANTIC.														
Maine	[1] 4	3	3				[1] 1	3			3	3	[1] 1	
New Hampshire	1	1	1	1							1	1		
Vermont	1	2	1	1				1	1	1		1		
Massachusetts	11	10	7	7	4			3	6	6	4		1	4
Rhode Island	4		2				2				2		2	
Connecticut	2	10			2	6		4	2	10				
New York	5	5	5	4		1			3	5	2			
New Jersey	4	4	3	3		1	1		2	4	2			
Pennsylvania	[2] 9	9	4		[3] 5	9			7	4	1	4	[3] 1	1
Delaware	3	1	3	1					1	1	2			
Maryland	3	4	3	2		2					3	4		
II. SOUTHERN.														
Virginia	3	1		1			3		1		2			1
North Carolina	2	2	2	1				1			2	1		1
South Carolina	3	1	3	1							3	1		

[1] Includes one on leave of absence 1917–1919.
[2] Includes one who was loaned by I. S. College, Ames, for special work for which expenses only were paid.
[3] Includes one on leave of absence in France, American Expeditionary Forces.

TABLE 25.—*State directors and supervisors—Number paid or reimbursed out of Federal, State, and local funds, and number giving full time and part time to supervision, by States, for years ended June 30, 1919 and 1918*—Continued.

Region or State.	Number of State directors and supervisors.													
	Total.		Source of salary.						Apportionment of time.					
			Federal and State funds.		State funds.		Other, none, and no report.		Give full time to supervision.		Give part time to supervision.		No report.	
	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918	1919	1918
II. SOUTHERN—continued.														
Georgia	5	3	4	1	1	2			1	1	4	2		
Florida	3	3	1				2	3			2	2	1	1
Tennessee	5		2				3				5			
Alabama	3	4			1	3	2	1			3			4
Mississippi	4	2	4	2					2	2	2			
Arkansas	5	1	4	1			1				4	1	1	
Louisiana	3	1	3	1					2	1	1			
Texas	8	4	6	2	2	2			2	2	6	2		
III. EAST CENTRAL.														
West Virginia	7	5	6	2	1	1		2			5	3	2	2
Ohio	2	4				1	2	3		2	2	1		
Kentucky	3	2		1	1	1	2				3	2	1	
Michigan	4	3	2	1	2			2	1		3	3		
Indiana	4	3			4	3			4	3				
Wisconsin	4	6		1	4	1		4	3	5	1	1		
Illinois	3	3	3	1				2	2	2	1	1		
Minnesota	4	3	2	3	1		1				2	3	2	
Iowa	[1] 3	1	[1] 3	1					1		1	1	1	1
Missouri	4	1	3	1	1				4	1				
IV. WEST CENTRAL.														
North Dakota	2	4	2					4			2			4
South Dakota	2	2				2	2				1		1	2
Nebraska	3	3	1	1	1	1	1	1	1	1	1	2	1	
Kansas	1	1	1	1							1	1		
Oklahoma	4	2		2	4				1	2	3			
Montana	3	3	1	1			2	2			1	1	2	2

Wyoming	1	3	1	2		1				1	1	2		
Colorado	1	1	1	1							1	1		
New Mexico	3	2	3			2				2	3			
V. PACIFIC.														
Idaho	4	1	3	1			1		2		2	1		
Utah	4	4	1	1	2	2	1	1	2	3	1	1	1	
Arizona	4	1	3		1	1			1		3	1		
Nevada	5	1	4		1	1				1	5			
Washington	5	2	2	2			3		1	1	1	1	3	
Oregon	3	4					3	4			3	2		2
California	8	3	2	2	2	1	4		4	2	4	1		

[1] Includes one on leave of absence in France, American Expeditionary Force.

TABLE 26.—*Amount of salaries of State directors and supervisors paid or reimbursed out of Federal and State funds, by States, for year ended June 30, 1919.*

Region or State.	Amount of salaries paid or reimbursed.					
	Total.		Source of salaries.			
			Federal funds.		State funds.	
	1919	1918	1919	1918	1919	1918
	a	b	c	d	e	f
United States	$245,175.64	$181,453.40	$81,120.78	$40,842.28	$164,054.86	$140,611.12
REGIONS.						
1. North Atlantic	85,054.77	85,999.82	27,405.59	14,007.58	57,649.18	71,992.24
I. Southern	46,764.08	21,785.01	20,509.54	8,952.09	26,254.54	12,832.92
III. East Central	56,122.61	29,018.59	17,090.30	5,924.29	39,032.31	23,094.30
IV. West Central	19,390.37	15,675.02	6,351.44	6,262.50	13,038.93	9,412.52
V. Pacific	37,843.81	28,974.96	9,763.91	5,695.82	28,079.90	23,279.14
I. NORTH ATLANTIC.						
Maine	5,558.32	.....	1,689.40	.....	3,868.92	.....
New Hampshire	749.96	500.00	374.98	250.00	374.98	250.00
Vermont	3,882.44	2,075.16	1,695.85	1,037.58	2,186.59	1,037.58
Massachusetts	25,650.01	13,700.00	7,058.34	5,465.00	18,591.67	8,235.00
Rhode Island	1,065.52	.....	532.76	.....	532.76	.....
Connecticut	5,250.00	15,000.00	.....	.....	5,250.00	15,000.00
New York	14,201.66	13,624.66	6,100.83	3,017.50	8,100.83	10,607.16
New Jersey	580.00	10,200.00	320.00	2,850.00	260.00	7,350.00
Pennsylvania	18,650.00	22,100.00	4,900.00	.....	13,750.00	22,100.00
Delaware	5,866.86	1,500.00	2,933.43	750.00	2,933.43	750.00
Maryland	3,600.00	7,300.00	1,800.00	637.50	1,800.00	6,662.50
II. SOUTHERN.						
Virginia	N. R.	1,041.66	N. R.	520.83	N. R.	520.83
North Carolina	2,866.66	2,600.00	1,133.33	1,300.00	1,733.33	1,300.00
South Carolina	1,229.11	1,081.31	1,229.11	1,081.31	.....	.....
Georgia	5,379.74	3,150.00	2,389.88	875.00	2,989.86	2,275.00
Florida	404.42	.....	202.21	.....	202.21	.....
Alabama	650.00	.....	.....	.....	650.00	.....
Mississippi	7,100.00	3,333.33	3,050.00	1,666.66	3,050.00	1,666.67
Arkansas	8,422.46	1,600.00	3,541.21	400.00	4,881.25	1,200.00
Louisiana	8,400.00	2,200.00	3,650.00	1,100.00	4,750.00	1,100.00
Texas	9,550.76	6,778.71	3,433.33	2,008.29	6,117.43	4,770.42
Tennessee	3,760.93	.....	1,880.47	.....	1,880.46	.....
III. EAST CENTRAL.						
West Virginia	5,941.68	1,600.00	2,758.34	800.00	3,183.34	800.00
Ohio	.....	.....	N. R.	.....	N. R.	.....
Kentucky	1,000.00	437.50	.....	218.75	1,000.00	218.75
Michigan	3,999.99	661.13	1,999.99	330.56	2,000.00	330.57
Indiana	1,565.00	10,800.00	.....	.....	1,565.00	10,800.00
Wisconsin	11,112.00	5,570.00	.....	220.00	11,112.00	5,350.00
Illinois	7,800.00	900.00	3,900.00	900.00	3,900.00	.....
Minnesota	9,100.00	5,449.96	2,550.00	1,724.98	6,550.00	3,724.98
Iowa	5,303.94	3,400.00	2,481.97	1,530.00	2,821.97	1,870.00
Missouri	10,300.00	200.00	3,400.00	200.00	6,900.00	.....
IV. WEST CENTRAL.						
North Dakota	728.72	.....	364.36	.....	364.36	.....
South Dakota	.....	.....	N. R.	.....	N. R.	.....
Nebraska	4,720.00	2,500.00	1,210.00	1,250.00	3,510.00	1,250.00
Kansas	1,791.66	2,000.00	447.92	1,000.00	1,343.74	1,000.00
Oklahoma	2,466.66	3,600.00	.....	2,700.00	2,466.66	900.00
Montana	625.00	900.00	312.50	450.00	312.50	450.00
Wyoming	683.33	3,075.00	341.66	237.50	341.67	2,837.50
Colorado	1,875.00	2,500.00	625.00	625.00	1,250.00	1,875.00
New Mexico	6,500.00	1,100.02	3,050.00	.....	3,450.00	1,100.02
V. PACIFIC.						
Idaho	1,685.30	424.96	842.65	212.48	842.65	212.48
Utah	7,250.00	7,750.00	1,000.00	1,250.00	6,250.00	6,500.00
Arizona	6,218.72	3,000.00	1,609.36	.....	4,609.36	3,000.00
Nevada	3,389.81	2,000.00	1,307.74	.....	2,082.07	2,000.00
Washington	5,799.98	5,800.00	1,504.16	1,233.34	4,295.82	4,566.66
Oregon	500.00	.....	500.00	.....	.....	.....
California	13,000.00	10,000.00	3,000.00	3,000.00	10,000.00	7,000.00

TABLE 27.—*Reimbursement of expenditures for agriculture, for trade, industry, and home economics, and for teacher training, by States, for years ended June 30, 1919 and 1918.*

Region or State.	Amount of Federal money expended by States in fiscal years ended June 30.											
	Total.			For vocational agriculture.			For vocational trade, industry, and home economics.			For teacher training.		
	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.
	a	b	c	d	e	f	g	h	i	j	k	l
United States	$1,561,314.66	$829,783.91	$731,530.75	$526,122.43	$273,587.68	$252,534.75	$609,454.85	$365,469.41	$243,985.44	$425,737.38	$190,726.82	$235,010.56
REGIONS.												
I. North Atlantic	520,047.31	343,673.72	176,373.59	92,162.79	78,002.49	14,160.30	306,078.49	208,904.02	97,174.47	121,806.04	56,767.21	65,038.83
II. Southern	319,353.30	144,176.20	175,177.10	172,159.48	82,352.41	89,807.07	43,478.66	22,644.02	20,834.64	103,715.16	39,179.77	64,535.39
III. East Central	473,433.11	216,179.83	257,253.28	170,244.02	68,575.31	101,668.71	188,976.13	96,273.98	92,702.15	114,212.94	51,330.54	62,882.40
IV. West Central	124,828.67	70,074.22	54,754.45	51,127.36	25,892.48	25,234.88	27,592.46	12,917.57	14,674.89	46,108.85	31,264.17	14,844.68
V. Pacific	123,752.28	55,679.94	68,072.34	40,428.78	18,764.99	21,663.79	43,429.11	24,729.82	18,699.29	39,894.39	12,185.13	27,709.26
I. NORTH ATLANTIC.												
Maine	13,311.55	7,582.00	5,729.55	4,059.52	1,750.00	2,309.52	4,287.60	2,432.00	1,855.60	4,964.43	3,400.00	1,564.43
New Hampshire	11,702.55	11,391.35	311.20	4,999.96	5,000.00	[1] .04	3,928.83	5,000.00	[1] 1,071.17	2,773.76	1,391.35	1,382.41
Vermont	14,970.74	12,605.50	2,365.24	5,000.00	5,000.00	.....	4,999.96	2,964.44	2,035.52	4,970.78	4,641.06	329.72
Massachusetts	75,258.57	46,543.61	28,714.96	5,000.00	5,000.00	.....	55,424.38	35,949.59	18,474.79	14,834.19	4,594.02	10,240.17
Rhode Island	10,255.33	4,454.65	5,800.68	.....	.....	.....	9,304.07	4,454.65	4,849.42	951.26	.....	951.26
Connecticut	29,742.60	16,524.34	13,218.26	3,496.88	845.88	2,651.00	17,730.67	11,820.58	5,910.09	8,515.05	3,857.88	4,657.17
New York	159,490.00	115,504.26	43,985.74	18,679.52	19,535.60	[1] 856.08	94,818.64	67,804.74	27,013.90	45,991.84	28,163.92	17,827.92
New Jersey	43,736.39	27,203.98	16,532.41	9,574.03	6,296.18	3,277.85	23,639.10	18,531.73	5,107.37	10,523.26	2,376.07	8,147.19
Pennsylvania	135,294.38	90,510.75	44,783.63	34,335.58	30,744.79	3,396.79	82,114.21	54,745.99	27,368.22	18,844.59	5,019.97	13,824.62
Delaware	11,951.56	7,521.95	4,429.61	3,890.22	1,610.98	2,279.24	3,750.82	3,128.80	622.02	4,310.52	2,782.17	1,528.35
Maryland	14,333.65	3,831.33	10,502.32	3,127.08	2,219.06	908.02	6,080.21	1,071.50	5,008.71	5,126.36	540.77	4,585.59
II. SOUTHERN.												
Virginia	30,303.97	14,429.14	15,874.83	18,762.63	10,264.89	8,497.74	4,641.27	4,164.25	477.02	6,900.07	.....	6,900.07
North Carolina	22,932.07	10,598.74	12,333.33	15,444.60	4,584.76	10,859.84	1,385.63	773.75	611.88	6,101.84	5,240.23	861.61
South Carolina	28,615.14	6,612.16	22,002.98	16,915.84	5,295.09	11,620.75	1,297.25	44.00	1,253.25	10,402.05	1,273.07	9,128.98

[1] Decrease.

TABLE 27.—*Reimbursement of expenditures for agriculture, for trade, industry, and home economics, and for teacher training, by States, for years ended June 30, 1919 and 1918*—Continued.

Region or State.	Amount of Federal money expended by States in fiscal years ended June 30.											
	Total.			For vocational agriculture.			For vocational trade, industry, and home economics.			For teacher training.		
	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.	1919	1918	Increase 1919 over 1918.
	a	b	c	d	e	f	g	h	i	j	k	l
II. SOUTHERN—continued.												
Georgia	39,740.02	27,507.80	12,232.22	23,510.49	14,789.26	8,721.23	6,701.27	6,306.14	395.13	9,528.26	6,412.40	3,115.86
Florida	12,717.48	4,790.05	7,927.43	5,568.75	2,730.27	2,838.48	2,024.00	496.05	1,527.95	5,124.73	1,563.73	3,561.00
Tennessee	23,929.93	14,184.22	9,745.71	12,547.21	10,189.22	2,357.99	5,361.25	1,605.00	3,756.25	6,021.47	2,390.00	3,631.47
Alabama	31,485.92	9,745.56	21,740.36	18,816.35	4,850.00	13,966.35	4,499.45	1,303.54	3,195.91	8,170.12	3,592.02	4,578.10
Mississippi	34,151.07	13,952.75	20,198.32	21,919.51	9,567.20	12,352.31	1,745.98	678.72	1,067.26	10,485.58	3,706.83	6,778.75
Arkansas	17,642.62	4,458.34	13,184.28	10,216.19	3,144.96	7,071.23	1,347.61	1,241.36	106.25	6,078.82	72.02	6,006.80
Louisiana	34,263.74	17,590.15	16,673.59	16,164.16	9,956.78	6,207.38	5,870.05	3,913.37	1,956.68	12,229.53	3,720.00	8,509.53
Texas	43,571.34	20,307.29	23,264.05	12,293.75	6,979.98	5,313.77	8,604.90	2,117.84	6,487.06	22,672.69	11,209.47	11,463.22
III. EAST CENTRAL.												
West Virginia	18,082.54	8,375.70	9,706.84	8,384.99	4,482.39	3,902.60	4,084.57	2,868.31	1,216.26	5,612.98	1,025.00	4,587.98
Ohio	87,644.07	24,619.08	63,024.99	23,612.49	5,275.09	18,337.40	45,384.93	18,673.99	26,710.94	18,646.65	670.00	17,976.65
Kentucky	33,189.89	13,525.72	19,664.17	17,090.68	2,091.94	14,998.74	6,795.95	4,148.80	2,646.15	9,303.26	7,284.98	2,018.28
Michigan	61,000.55	37,592.75	23,407.80	22,538.64	14,916.90	7,621.74	23,530.30	14,697.75	8,832.55	14,931.61	7,978.10	6,953.51
Indiana	49,323.32	35,115.31	14,208.01	20,049.04	15,775.85	4,273.19	18,077.11	12,294.80	5,782.31	11,197.17	7,044.66	4,152.51
Wisconsin	50,368.43	21,916.68	28,451.75	20,005.49	2,928.04	17,077.45	19,277.37	11,873.55	7,403.82	11,085.55	7,115.09	3,970.46
Illinois	80,747 81	26,476.16	54,271.65	28,700.34	7,825 12	20,875.22	37,087.28	9,977.52	27,109.76	14,960.19	8,673.52	6,286.67
Minnesota	45,767.36	27,868.06	17,899.30	18,623.74	10,800.00	7,823.74	13,324.86	7,783.48	5,541.38	13,818.76	9,284.58	4,534.18
Iowa	18,124.60	4,328.57	13,796.03	7,955.25	3,458.32	4,496.93	1,959.58	870.25	1,089.33	8,209.77	----------	8,209.77
Missouri	29,184.54	16,361.80	12,822.74	3,283.36	1,021.66	2,261.70	19,454.18	13,085.53	6,368.65	6,447.00	2,254.61	4,192.39
IV. WEST CENTRAL.												
North Dakota	11,212.80	12,615.98	[1] 1,403.18	5,117.80	5,205.98	[1] 88.18	1,095.00	2,410.00	[1] 1,315.00	5,000.00	5,000.00	----------
South Dakota	8,232.51	3,492.50	4,740.01	3,382.51	----------	3,382.51	950.00	593.75	356.25	3,900.00	2,898.75	1,001.25
Nebraska	17,725.03	4,486.60	13,238.43	6,664.39	1,190.41	5,473.98	3,617.04	355.00	3,262.04	7,443.60	2,941.25	4,502 35
Kansas	15,348.89	4,180.17	11,168.72	9,372.29	1,760.03	7,612.26	3,440.57	700.01	2,740.56	2,536.03	1,720.13	815.90
Oklahoma	21,151.53	17,128.83	4,022.70	7,672.50	6,150.00	1,522.50	3,785.03	1,937.30	1,847.73	9,690.00	9,041.53	652.47

Montana	11,570.65	9,439.19	2,131.46	4,937.35	5,000.00	62.65	3,333.33	1,562.50	1,770.83	3,299.97	2,876.69	423.28
Wyoming	9,110.12	5,780.59	3,329.53	4,270.25	2,498.55	1,771.70	1,409.28	1,206.02	203.26	3,430.59	2,076.02	1,354.57
Colorado	18,430.11	11,070.84	7,359.27	5,990.78	3,737.50	2,253.28	6,634.67	3,333.34	3,301.33	5,804.66	4,000.00	1,804.66
New Mexico	12,047.03	1,879.46	10,167.57	3,719.49	350.01	3,369.48	3,327.54	819.65	2,507.89	5,000.00	709.80	4,290.20
V. PACIFIC.												
Idaho	9,910.33	4,436.43	5,473.90	4,862.92	3,223.14	1,639.78	1,804.62	310.12	1,494.50	3,242.79	903.17	2,339.62
Utah	13,315.55	9,999.22	3,316.33	5,000.00	5,000.00	.....	3,315.55	3,362.07	[1] 46.52	5,000.00	1,637.15	3,362.85
Arizona	10,942.11	5,095.78	5,846.33	3,970.79	2,732.50	1,238.29	3,766.72	1,805.00	1,961.72	3,204.60	558.28	2,646.32
Nevada	7,607.93	3,957.66	3,650.27	2,571.42	360.00	2,211.42	2,376.00	3,333.33	957.33	2,660.51	264.33	2,396.18
Washington	21,870.83	9,280.02	12,590.81	8,153.07	3,002.69	5,150.38	7,503.87	4,772.58	2,731.29	6,213.89	1,504.75	4,709.14
Oregon	12,183.58	6,188.64	5,994.94	3,416.67	250.00	3,166.67	3,630.21	2,999.55	630.66	5,136.70	2,939.09	2,197.61
California	47,921.95	16,722.19	31,199.76	12,453.91	4,196.66	8,257.25	21,032.14	8,147.17	12,884.97	14,435.90	4,378.36	10,057.54

[1] Decrease.

TABLE 28.—*Reimbursement of trade or industrial evening, part-time, and all-day schools, by States—Amount of Federal money expended for each type of school, for years ended June 30, 1919 and 1918.*

Region or State.	Amount of Federal money expended for trade or industrial schools.					
	Total.			1919 [1]		
	1919 [1]	1918	Increase 1919 over 1918.	In evening schools.	In part-time schools.	In all-day schools.
	a	b	c	d	e	f
United States	$426,955.87	$305,352.00	$121,603.87	$82,867.40	$85,856.72	$258,231.75
REGION.						
I. North Atlantic	223,517.52	181,629.06	41,888.46	24,091.70	39,222.84	160,202.98
II. Southern	27,242.90	15,196.49	12,046.41	9,722.53	431.25	17,089.12
III. East Central	124,050.17	80,580.36	43,469.81	36,921.58	43,681.63	43,446.96
IV. West Central	17,669.00	7,307.80	10,361.20	6,837.43	670.50	10,161.07
V. Pacific	34,476.28	20,638.29	13,837.99	5,294.16	1,850.50	27,331.62
I. NORTH ATLANTIC.						
Maine	2,935.47	1,656.75	1,278.72	1,758.15		1,177.32
New Hampshire	3,928.83	4,892.86	[2] 964.03		595.50	3,333.33
Vermont	4,000.00	1,964.44	2,035.56	592.50	3,407.50	
Massachusetts	39,176.24	29,559.67	9,616.57	2,797.80	13,311.53	23,066.91
Rhode Island	9,304.07	4,454.65	4,849.42	1,839.56	7,464.51	
Connecticut	15,747.60	9,456.58	6,291.02	1,937.50	5,910.22	7,899.88
New York	84,950.36	67,804.74	17,145.62			84,950.36
New Jersey	16,825.96	14,707.28	2,118.68	4,799.50	978.00	11,048.46
Pennsylvania	39,280.46	43,796.79	[2] 4,516.33	6,341.72	6,890.11	26,048.63
Delaware	2,750.82	2,263.80	487.02	2,085.35	665.47	
Maryland	4,617.71	1,071.50	3,546.21	1,939.62		2,678.09
II. SOUTHERN.						
Virginia	1,896.41	3,037.50	[2] 1,141.09	1,111.69		784.72
North Carolina	800.00	475.00	325.00	800.00		
South Carolina	847.25	44.00	803.25	847.25		
Georgia	4,314.32	4,326.11	[2] 11.79	1,945.45		2,368.87
Florida	1,024.00	43.55	980.45	1,024.00		
Tennessee	3,796.98	325.00	3,471.98	632.89		3,164.09
Alabama	3,496.84	1,241.04	2,255.80	1,295.50	431.25	1,770.09
Mississippi	210.00	607.47	[2] 397.47	210.00		
Arkansas	897.61	503.86	393.75	83.75		813.86
Louisiana	4,109.04	3,008.37	1,100.67			4,109.04
Texas	5,850.45	1,584.59	4,265.86	1,772.00		4,078.45
III. EAST CENTRAL.						
West Virginia	3,428.82	2,601.31	827.51	2,677.58	751.24	
Ohio	35,986.93	15,936.82	20,050.11	13,543.23	15,286.60	7,157.10
Kentucky	4,825.95	2,866.95	1,959.00	468.50	229.25	4,128.20
Michigan	18,823.91	11,559.97	7,263.94	5,734.43	7,842.90	5,246.58
Indiana	11,558.59	9,590.21	1,968.38	2,398.69	2,092.51	7,067.39
Wisconsin	9,197.93	9,498.84	[2] 300.91	1,596.21	7,415.77	185.95
Illinois	14,538.63	8,442.43	[2] 6,096.20	6,234.25	4,580.29	3,724.09
Minnesota	9,666.76	5,785.00	3,881.76	2,571.75	2,566.50	4,528.51
Iowa	1,520.83	870.25	650.58	227.75		1,293.08
Missouri	14,501.82	13,085.53	1,407.29	1,460.19	2,916.57	10,116.06
IV. WEST CENTRAL.						
North Dakota	95.00	1,410.00	[2] 1,315.00	95.00		
South Dakota		168.75	[2] 168.75			
Nebraska	2,712.04	163.75	2,548.29	217.50		2,494.54
Kansas	2,413.21	700.01	1,713.20	1,117.85		1,295.36
Oklahoma	3,097.00	237.30	2,859.70	2,309.50		787.50
Montana	2,360.33	562.50	1,797.83	207.00		2,153.33
Wyoming	642.85	632.50	10.35	100.00		542.85
Colorado	4,020.93	2,613.34	1,407.59	2,632.50	670.50	717.93
New Mexico	2,327.64	819.65	1,507.99	158.08		2,169.56
V. PACIFIC.						
Idaho	1,042.75	310.12	732.63	81.00	961.75	
Utah	1,848.05	2,362.07	[2] 514.02	860.90		987.15
Arizona	2,475.82	805.00	1,670.82	1,445.05		1,030.77
Nevada	1,751.00	3,333.33	[2] 1,582.33	1,751.00		
Washington	6,427.45	4,172.58	2,254.87	770.80		5,656.65
Oregon	3,550.00	2,474.55	1,075.45			3,550.00
California	17,381.21	7,180.64	10,200.57	385.41	888.75	16,107.05

[1] Provisional figures, subject to final auditing of State accounts. [2] Decrease.

TABLE 29.—*Reimbursement of home economics evening, part-time, and all-day schools, by States—Amount of Federal money expended for each type of school, for years ended June 30, 1919 and 1918.*

Region or State.	Amount of Federal money expended for home economics schools.					
	Total.			1919 [1]		
	1919 [1]	1918	Increase, 1919 over 1918.	In evening schools.	In part-time schools.	In all-day schools.
	a	b	c	d	e	f
United States	$118,496.29	$60,460.46	$58,035.83	$23,877.04	$7,893.48	$86,635.77
REGION.						
I. North Atlantic	40,365.84	27,274.96	13,090.88	8,034.13	640.00	31,691.71
II. Southern	13,952.31	7,447.53	6,504.78	2,208.89	187.00	11,556.42
III. East Central	46,109.91	16,036.67	30,073.24	12,316.75	4,323.87	29,469.29
IV. West Central	9,299.10	5,609.77	3,689.33	817.36	65.18	8,416.56
V. Pacific	8,769.13	4,091.53	4,677.60	499.91	2,767.43	5,501.79
I. NORTH ATLANTIC.						
Maine	1,352.13	775.25	576.88	409.00	.....	943.13
New Hampshire	.....	107.14	[2] 107.14	.....	.....	.....
Vermont	1,000.00	1,000.00	.....	.....	.....	1,000.00
Massachusetts	11,084.88	7,389.92	3,694.96	4,166.71	.....	6,918.17
Rhode Island	.....	.....	.....	.....	.....	.....
Connecticut	1,983.07	2,364.00	[2] 380.93	210.00	.....	1,773.07
New York	.....	.....	.....	.....	.....	.....
New Jersey	7,340.00	3,824.45	3,515.55	2,179.20	640.00	4,520.80
Pennsylvania	15,143.26	10,949.20	4,194.06	1,069.22	.....	14,074.04
Delaware	1,000.00	865.00	135.00	.....	.....	1,000.00
Maryland	1,462.50	.....	1,462.50	.....	.....	1,462.50
II. SOUTHERN.						
Virginia	1,730.11	1,126.75	603.36	1,397.82	40.00	292.29
North Carolina	585.63	298.75	286.88	.....	.....	585.63
South Carolina	450.00	.....	450.00	.....	.....	450.00
Georgia	1,910.45	1,980.03	[2] 69.58	.....	.....	1,910.45
Florida	1,000.00	452.50	547.50	.....	.....	1,000.00
Tennessee	1,564.27	1,280.00	284.27	539.07	147.00	878.20
Alabama	1,002.61	62.50	940.11	.....	.....	1,002.61
Mississippi	968.78	71.25	897.53	.....	.....	968.78
Arkansas	450.00	737.50	[2] 287.50	.....	.....	450.00
Louisiana	1,761.01	905.00	856.01	.....	.....	1,761.01
Texas	2,529.45	533.25	1,996.20	272.00	.....	2,257.45
III. EAST CENTRAL.						
West Virginia	655.75	267.00	388.75	205.75	.....	450.00
Ohio	8,945.00	2,737.17	6,207.83	2,844.25	.....	6,100.75
Kentucky	1,970.00	1,281.85	688.15	36.60	.....	1,933.40
Michigan	4,706.39	3,137.78	1,568.61	1,053.00	.....	3,653.39
Indiana	4,056.89	2,704.59	1,352.30	2,087.52	.....	1,969.37
Wisconsin	5,029.11	2,374.71	2,654.40	171.13	4,323.87	534.11
Illinois	12,331.77	1,535.09	10,796.68	3,391.16	.....	8,940.61
Minnesota	3,015.00	1,998.48	1,016.52	.....	.....	3,015.00
Iowa	438.75	.....	438.75	50.00	.....	388.75
Missouri	4,961.25	.....	4,961.25	2,477.34	.....	2,483.91
IV. WEST CENTRAL.						
North Dakota	1,105.00	1,000.00	105.00	105.00	.....	1,000.00
South Dakota	950.00	425.00	525.00	.....	.....	950.00
Nebraska	905.00	191.25	713.75	.....	.....	905.00
Kansas	1,027.36	.....	1,027.36	667.36	.....	360.00
Oklahoma	1,115.53	1,700.00	[2] 584.47	.....	.....	1,115.53
Montana	999.88	1,000.00	[2] .12	.....	.....	999.88
Wyoming	766.43	573.52	192.91	.....	65.18	701.25
Colorado	1,430.00	720.00	710.00	.....	.....	1,430.00
New Mexico	999.90	.....	999.90	45.00	.....	954.90
V. PACIFIC.						
Idaho	761.87	.....	761.87	.....	.....	761.87
Utah	1,000.00	1,000.00	.....	.....	.....	1,000.00
Arizona	999.91	1,000.00	[2] .09	599.91	.....	500.00
Nevada	625.00	.....	625.00	.....	.....	625.00
Washington	731.42	600.00	131.42	.....	.....	731.42
Oregon	1,000.00	525.00	475.00	.....	.....	1,000.00
California	3,650.93	966.53	2,684.40	.....	2,767.43	883.50

[1] Provisional figures subject to final auditing of State accounts. [2] Decrease.

TABLE 30.—*Reimbursement of part-time schools by States—Amount of Federal money expended for part-time trade or industrial, home economics, and general continuation schools, for years ended June 30, 1919 and 1918.*

Region or State.	Amount of Federal money expended for part-time schools.					
	Total.			1919 [1]		
	1919 [1]	1918	Increase 1919 over 1918.	Trade or industrial.	Home economics.	General continuation.
	a	b	c	d	e	f
United States	$158,784.62	$92,241.45	$66,543.17	$85,856.72	$7,983.48	$64,944.42
REGION.						
I. North Atlantic	82,633.62	58,690.26	58,690.26	39,222.84	640.00	42,770.78
II. Southern	2,941.68	2,585.33	356.35	431.25	187.00	2,323.43
III. East Central	65,426.08	29,132.82	36,293.26	43,681.63	4,323.87	17,420.58
IV. West Central	1,919.42	467.65	1,451.77	670.50	65.18	1,183.74
V. Pacific	5,863.82	1,365.39	4,498.43	1,850.50	2,767.43	1,245.89
I. NORTH ATLANTIC.						
Maine						
New Hampshire	595.50	1,777.50	1,182.00	595.50		
Vermont	3,407.50	1,526.44	1,881.06	3,407.50		
Massachusetts	18,474.79	12,316.53	6,158.26	13,311.53		5,163.26
Rhode Island	7,464.51	3,192.42	4,272.09	7,464.51		
Connecticut	5,910.22	3,940.00	1,970.22	5,910.22		
New York	9,868.28	11,171.17	[2] 1,302.89			9,868.28
New Jersey	1,666.75	3,499.76	[2] 1,833.01	978.00	640.00	48.75
Pennsylvania	34,580.60	21,266.44	13,314.16	6,890.11		27,690.49
Delaware	665.47		665.47	665.47		
Maryland						
II. SOUTHERN.						
Virginia	1,094.73	561.25	533.48		40.00	1,054.73
North Carolina						
South Carolina						
Georgia	476.50	1,231.61	[2] 755.11			476.50
Florida						
Tennessee	147.00		147.00		147.00	
Alabama	431.25	185.00	246.25	431.25		
Mississippi	567.20	607.47	[2] 40.27			567.20
Arkansas						
Louisiana						
Texas	225.00		225.00			225.00
III. EAST CENTRAL.						
West Virginia	751.24		751.24	751.24		
Ohio	15,739.60	4,931.72	10,807.88	15,286.60		453.00
Kentucky	229.25	229.00	.25	229.00		
Michigan	7,842.90	4,238.53	3,604.37	7,842.90		
Indiana	4,554.14	3,279.49	1,274.65	2,092.51		2,461.63
Wisconsin	15,322.93	7,915.70	7,407.23	7,415.77	4,323.87	3,583.29
Illinois	14,797.16	4,586.83	10,210.34	4,580.29		10,216.88
Minnesota	3,272.28	1,125.00	2,147.28	2,566.50		705.78
Iowa		48.75	[2] 48.75			
Missouri	2,916.57	2,777.80	138.77	2,916.57		
IV. WEST CENTRAL.						
North Dakota						
South Dakota		168.75	[2] 168.75			
Nebraska						
Kansas		71.40	[2] 71.40			
Oklahoma						
Montana						
Wyoming	65.18	227.50	[2] 162.32		65.18	
Colorado	1,854.24		1,854.24	670.50		1,183.74
New Mexico						
V. PACIFIC.						
Idaho	961.75	45.12	916.63	961.75		
Utah	467.50	393.75	73.75			467.50
Arizona	433.39		433.39			433.39
Nevada						
Washington	345.00		345.00			345.00
Oregon						
California	3,656.18	926.52	2,729.66	888.75	2,767.43	

[1] Provisional figures subject to final auditing of State accounts. [2] Decrease.

TABLE 31.—*Availability of Federal fund for home economics and for all-day and evening schools, by States—Amount expended for home economics compared with 20 per cent of the total allotment for trade, industry, and home economics; and amount expended for all-day and evening schools compared with 66⅔ per cent of the total, for the year ended June 30, 1919.*

Region or State.	1919				
	Total allotment for trade, industry, and home economics.	Home economics schools.		All-day and evening schools.	
		Maximum amount available (20 per cent of allotment.)	Amount expended.	Maximum amount available (66⅔ per cent of total).	Amount expended.
	a	b	c	d	e
United States	$794,468.33	$158,913.66	$118,496.28	$529,648.98	$451,602.97
REGION.					
I. North Atlantic	359,262.34	71,852.48	40,365.84	239,511.73	224,020.52
II. Southern	83,487.26	16,697.44	13,952.31	55,658.12	40,576.96
III. East Central	237,345.02	47,489.00	46,109.91	158,230.02	122,145.59
IV. West Central	52,126.15	10,425.23	9,299.10	34,750.75	26,232.42
V. Pacific	62,247.56	12,449.51	8,769.12	41,498.36	38,627.48
I. NORTH ATLANTIC.					
Maine	6,764.40	1,352.88	1,352.13	4,509.60	4,287.60
New Hampshire	5,000.00	1,000.00	.....	3,333.33	3,333.33
Vermont	5,000.00	1,000.00	1,000.00	3,333.33	1,592.50
Massachusetts	55,424.38	11,084.88	11,084.88	36,949.59	36,949.59
Rhode Island	9,304.07	1,860.81	.....	6,207.71	1,839.56
Connecticut	17,730.86	3,546.17	1,983.07	11,820.57	11,820.45
New York	127,425.53	25,485.11	.....	84,950.36	84,950.36
New Jersey	33,821.93	6,764.39	7,340.00	22,547.96	22,547.96
Pennsylvania	82,118.98	16,423.80	15,143.26	54,744.49	47,533.61
Delaware	5,000.00	1,000.00	1,000.00	3,333.33	3,085.35
Maryland	11,672.19	2,334.44	1,462.50	7,781.46	6,080.21
II. SOUTHERN.					
Virginia	8,450.63	1,690.13	1,730.11	5,633.75	3,586.52
North Carolina	5,647.73	1,129.55	585.63	3,765.15	1,385.63
South Carolina	5,000.00	1,000.00	450.00	3,333.33	1,297.25
Georgia	9,552.27	1,910.45	1,910.45	6,368.15	6,224.77
Florida	5,000.00	1,000.00	1,000.00	3,333.33	2,024.00
Tennessee	7,821.37	1,564.27	1,564.27	5,214.25	5,214.25
Alabama	6,569.12	1,313.82	1,002.61	4,379.41	4,068.20
Mississippi	5,000.00	1,000.00	968.78	3,333.33	1,178.78
Arkansas	5,000.00	1,000.00	450.00	3,333.33	1,347.61
Louisiana	8,810.07	1,762.01	1,761.01	5,873.38	5,870.05
Texas	16,636.07	3,327.21	2,529.45	11,090.71	8,379.90
III. EAST CENTRAL.					
West Virginia	5,000.00	1,000.00	655.75	3,333.33	3,333.33
Ohio	47,262.90	9,452.58	8,945.00	31,508.60	29,645.33
Kentucky	9,850.05	1,970.01	1,970.00	6,566.70	6,566.70
Michigan	23,533.42	4,706.68	4,706.39	15,688.95	15,687.41
Indiana	20,284.45	4,056.89	4,056.89	13,522.97	13,522.97
Wisconsin	17,810.33	3,562.07	5,029.11	11,873.55	2,487.40
Illinois	61,658.88	12,331.77	12,331.77	41,105.92	22,290.11
Minnesota	15,078.87	3,015.77	3,015.00	10,052.58	10,115.26
Iowa	12,059.89	2,431.98	438.75	8,039.93	1,959.58
Missouri	24,806.23	4,961.25	4,961.25	16,537.49	16,537.50
IV. WEST CENTRAL.					
North Dakota	5,000.00	1,000.00	1,105.00	3,333.33	1,200.00
South Dakota	5,000.00	1,000.00	950.00	3,333.33	950.00
Nebraska	5,512.56	1,102.51	905.00	3,675.04	3,617.04
Kansas	8,756.73	1,751.35	1,027.36	5,837.82	3,440.57
Oklahoma	5,677.54	1,135.51	1,115.53	3,785.03	4,212.53
Montana	5,000.00	1,000.00	999.88	3,333.33	3,360.21
Wyoming	5,000.00	1,000.00	766.43	3,333.33	1,344.10
Colorado	7,179.32	1,435.86	1,430.00	4,786.21	4,780.43
New Mexico	5,000.00	1,000.00	999.90	3,333.33	3,327.54
V. PACIFIC.					
Idaho	5,000.00	1,000.00	761.87	3,333.33	842.87
Utah	5,000.00	1,000.00	1,000.00	3,333.33	2,848.05
Arizona	5,000.00	1,000.00	999.91	3,333.33	3,475.73
Nevada	5,000.00	1,000.00	625.00	3,333.33	2,376.00
Washington	10,738.30	2,147.66	731.42	7,158.87	7,158.87
Oregon	5,445.32	1,089.06	1,000.00	3,630.21	4,550.00
California	26,063.94	5,212.79	3,650.93	17,375.96	17,375.96

TABLE 32.—*Availability of Federal fund for each class of teacher training, by States—Amount expended for training teachers of agriculture, of trade or industry, and of home economics, compared with 60 per cent of total allotment for maintenance of teacher training, for year ended June 30, 1919.*

Region or State.	Teacher training: 1919.				
	Allotment.	Maximum amount available for one class of training (60 per cent of allotment).	Amount expended for training teachers of—		
			Agriculture.	Trade or industry.	Home economics.
	a	b	c	d	e
United States	$730,421.35	$438,252.82	$134,771.70	$116,296.41	$174,669.34
REGION.					
I. North Atlantic	217,338.60	130,403.16	36,822.02	43,669.11	41,314.91
II. Southern	171,044.13	102,626.48	40,345.67	17,858.82	45,510.68
III. East Central	224,231.27	134,538.76	33,399.67	34,377.98	46,435.30
IV. West Central	65,784.49	39,470.70	12,727.57	6,200.04	27,181.25
V. Pacific	52,022.86	31,213.72	11,476.77	14,190.46	14,227.20
I. NORTH ATLANTIC.					
Maine	5,670.59	3,402.35	954.88	607.20	3,402.35
New Hampshire	5,000.00	3,000.00	268.84	626.31	1,878.61
Vermont	5,000.00	3,000.00	1,000.00	970.78	3,000.00
Massachusetts	25,714.32	15,428.59	3,660.71	6,728.39	4,445.09
Rhode Island	5,000.00	3,000.00	405.58	.....	545.68
Connecticut	8,515.05	5,109.03	1,703.01	2,554.52	4,257.52
New York	69,614.21	41,768.53	16,461.59	15,566.70	13,963.55
New Jersey	19,380.11	11,628.07	3,247.25	4,293.14	2,982.87
Pennsylvania	58,549.84	35,129.90	7,146.77	9,320.72	2,377.78
Delaware	5,000.00	3,000.00	434.92	1,086.82	2,788.78
Maryland	9,894.48	5,936.69	1,538.47	1,914.53	1,673.36
II. SOUTHERN.					
Virginia	15,747.59	9,448.55	1,724.54	1,116.04	4,059.49
North Carolina	16,852.69	10,111.61	2,791.93	.....	3,309.91
South Carolina	11,575.36	6,945.22	4,339.43	1,454.06	4,608.56
Georgia	19,929.73	11,957.84	6,132.18	1,263.93	2,132.15
Florida	5,748.87	3,449.32	1,620.86	1,523.30	1,980.57
Tennessee	16,688.48	10,013.09	3,673.97	1,150.82	1,196.69
Alabama	16,331.79	9,799.07	2,086.42	1,952.01	4,131.69
Mississippi	13,727.23	8,236.34	4,314.40	1,250.55	4,920.63
Arkansas	12,026.41	7,215.85	2,809.38	1,171.10	2,098.34
Louisiana	12,652.30	7,591.38	2,107.69	2,530.46	7,591.38
Texas	29,763.68	17,858.21	8,744.87	4,446.55	9,481.27
III. EAST CENTRAL.					
West Virginia	9,327.50	5,596.50	2,089.59	2,652.72	870.67
Ohio	36,413.59	21,848.15	5,154.82	7,482.53	6,009.30
Kentucky	17,491.41	10,494.85	3,605.45	.....	5,697.81
Michigan	21,465.47	12,879.28	4,932.87	4,502.94	5,495.80
Indiana	20,630.60	12,378.36	2,517.67	5,919.21	2,760.29
Wisconsin	17,827.16	10,696.30	2,687.22	2,701.94	5,696.39
Illinois	43,070.30	25,842.18	3,818.90	4,522.13	6,619.17
Minnesota	15,855.27	9,513.16	5,275.31	3,891.79	4,651.66
Iowa	16,993.88	10,196.33	2,251.25	1,397.96	4,560.56
Missouri	25,156.09	15,093.65	1,066.59	1,306.76	4,073.65
IV. WEST CENTRAL.					
North Dakota	5,000.00	3,000.00	1,875.00	1,350.00	1,775.00
South Dakota	5,000.00	3,000.00	1,900.00	.....	2,000.00
Nebraska	9,106.71	5,464.03	3,256.18	.....	4,187.42
Kansas	12,916.29	7,749.77	157.64	.....	2,378.39
Oklahoma	12,658.16	7,594.90	2,100.00	.....	7,594.00
Montana	5,000.00	3,000.00	1,051.66	.....	2,248.32
Wyoming	5,000.00	3,000.00	207.50	2,116.76	1,106.33
Colorado	6,103.33	3,662.00	1,220.67	922.00	3,661.99
New Mexico	5,000.00	3,000.00	958.92	1,811.28	2,229.80
V. PACIFIC.					
Idaho	5,000.00	3,000.00	1,048.46	679.67	1,514.69
Utah	5,000.00	3,000.00	1,873.76	1,524.13	1,602.11
Arizona	5,000.00	3,000.00	813.16	1,050.38	1,341.06
Nevada	5,000.00	3,000.00	363.43	1,030.88	1,266.21
Washington	8,723.07	5,233.84	722.89	3,292.53	2,198.47
Oregon	5,138.91	3,083.35	1,632.37	1,327.30	2,177.03
California	18,160.88	10,896.53	5,022.70	5,285.57	4,127.63

TABLE 33.—*Unexpended balance and amount to be sent to State for vocational agriculture, by States—Amount sent to State during the year ended June 30, 1919, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the year ending June 30, 1920.*

Region or State.	Amount for agriculture for fiscal year ending June 30.				
	1919			1920	
	Sent to State.	Expended by State.[1]	Unexpended balance in State treasury June 30[2] (a–b).	Allotment to State.	To be sent to State (d–e).[2]
	a	b	c	d	e
United States	$782,575.76	$526,122.43	$256,453.33	$1,022,637.75	$766,184.42
REGION.					
I. North Atlantic	130,163.37	92,162.79	38,000.58	163,551.17	125,550.59
II. Southern	272,935.68	172,159.48	100,776.20	363,914.23	263,138.03
III. East Central	243,551.70	170,244.02	73,307.68	324,735.60	251,427.92
IV. West Central	88,417.17	51,127.36	37,289.81	113,578.24	76,288.43
V. Pacific	47,507.84	40,428.78	7,079.06	56,858.51	49,779.45
I. NORTH ATLANTIC.					
Maine	5,485.35	4,059.52	1,425.83	7,313.80	5,887.97
New Hampshire	5,000.00	4,999.96	.04	5,000.00	4,999.96
Vermont	5,000.00	5,000.00	----------	5,000.00	5,000.00
Massachusetts	5,000.00	5,000.00	----------	5,000.00	5,000.00
Rhode Island	5,000.00	----------	5,000.00	5,000.00	----------
Connecticut	5,000.00	3,496.88	1,503.12	5,000.00	3,496.88
New York	29,303.40	18,679.52	10,623.88	39,071.20	28,447.32
New Jersey	9,574.03	9,574.03	----------	12,765.38	12,765.38
Pennsylvania	46,117.18	34,335.58	11,781.60	61,489.58	49,707.98
Delaware	5,000.00	3,890.22	1,109.78	5,000.00	3,890.22
Maryland	9,683.41	3,127.08	6,556.33	12,911.21	6,354.88
II. SOUTHERN.					
Virginia	24,089.95	18,762.63	5,327.32	32,119.94	26,792.62
North Carolina	28,690.82	15,444.60	13,246.22	38,254.42	25,008.20
South Carolina	19,613.94	16,915.84	2,698.10	26,151.92	23,453.82
Georgia	31,466.84	23,510.49	7,956.35	41,955.78	33,999.43
Florida	8,108.68	5,568.75	2,539.93	10,811.57	8,271.64
Tennessee	26,501.27	12,547.21	13,954.06	35,335.02	21,380.96
Alabama	26,864.77	18,816.35	8,048.42	35,819.70	27,771.28
Mississippi	24,161.69	21,919.51	2,242.18	32,215.58	29,973.40
Arkansas	20,848.01	10,216.19	10,631.82	27,797.35	17,165.53
Louisiana	17,627.63	16,164.16	1,463.47	23,503.51	22,040.04
Texas	44,962.08	12,293.75	32,668.33	59,949.44	27,281.11
III. EAST CENTRAL.					
West Virginia	15,089.66	8,384.99	6,704.67	20,119.54	13,414.87
Ohio	31,945.68	23,612.49	8,333.19	42,594.24	34,261.05
Kentucky	26,360.22	17,090.68	9,269.54	35,146.96	25,877.42
Michigan	22,540.46	22,538.64	1.82	30,053.95	30,052.13
Indiana	23,663.77	20,049.04	3,614.73	31,551.70	27,936.97
Wisconsin	20,206.23	20,005.51	200.74	26,941.64	26,740.90
Illinois	32,852.75	28,700.34	4,152.41	43,803.67	39,651.26
Minnesota	18,623.74	18,623.74	----------	24,831.65	24,831.65
Iowa	23,476.47	7,955.25	15,521.22	31,301.96	15,780.74
Missouri	28,792.72	3,283.36	25,509.36	38,390.29	12,880.93
IV. WEST CENTRAL.					
North Dakota	7,808.99	5,117.80	2,691.19	10,411.99	7,720.80
South Dakota	7,708.61	3,382.51	4,326.10	10,278.15	5,952.05
Nebraska	13,394.86	6,664.39	6,730.47	17,859.82	11,129.35
Kansas	18,194.32	9,372.29	8,822.03	24,259.09	15,437.06
Oklahoma	20,319.61	7,672.50	12,647.11	27,092.81	14,445.70
Montana	5,000.00	4,937.35	62.65	5,000.00	4,937.35
Wyoming	5,000.00	4,270.25	729.75	5,000.00	4,270.25
Colorado	5,990.78	5,990.78	----------	7,987.70	7,987.70
New Mexico	5,000.00	3,719.49	1,280.51	5,688.68	4,408.17
V. PACIFIC.					
Idaho	5,000.00	4,862.92	137.08	5,181.39	5,044.31
Utah	5,000.00	5,000.00	----------	5,000.00	5,000.00
Arizona	5,000.00	3,970.79	1,029.21	5,000.00	3,970.79
Nevada	5,000.00	2,571.42	2,428.58	5,000.00	2,571.42
Washington	8,153.07	8,153.07	----------	10,870.76	10,870.76
Oregon	5,557.95	3,416.67	2,141.28	7,410.60	5,269.32
California	13,796.82	12,453.91	1,342.91	18,395.76	17,052.85

[1] Provisional figures taken from the financial reports made by State boards. These reports are subject to correction and auditing by the Federal board to insure full compliance with the provisions of the Federal act.

[2] Unexpended balances in State treasuries June 30 and amounts to be sent to States in the year ending June 30, 1920, as given in the table, are calculated from reports of reimbursements of schools by State boards in the year ended June 30, 1919. The figures are provisional and subject to revision in the case of change in the amount of reimbursement allowed, as finally determined by the Federal board in auditing State accounts.

TABLE 34.—*Unexpended balance and amount to be sent to State for trade, industry, and home economics, by States—Amount sent to State during the year ended June 30, 1919, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the year ending June 30, 1920.*

Region or State.	Amount for trade, industry, and home economics, for year ending June 30—				
	1919			1920	
	Sent to State.	Expended by State.[1]	Unexpended balance in State treasury, June 30, (a–b).[2]	Allotment to State.	To be sent to State (d–c).[2]
	a	b	c	d	e
United States	$794,468.33	[3]$960,554.85	$187,847.56	$1,032,875.96	$845,028.40
REGION.					
I. North Atlantic	359,262.34	306,078.49	53,183.85	475,048.26	421,864.41
II. Southern	83,487.26	43,478.66	40,008.60	105,139.30	65,130.70
III. East Central	237,795.02	[3]188,976.13	51,302.97	315,190.13	263,887.16
IV. West Central	52,126.15	27,592.46	24,533.69	61,168.20	36,634.51
V. Pacific	62,247.56	43,329.11	18,818.45	76,330.07	57,511.62
I. NORTH ATLANTIC.					
Maine	6,764.40	4,287.60	2,476.80	9,019.20	6,542.40
New Hampshire	5,000.00	3,928.83	1,071.17	6,031.81	4,960.64
Vermont	5,000.00	4,999.96	.04	5,000.00	4,999.96
Massachusetts	55,424.38	55,424.38	----------	73,899.17	73,899.17
Rhode Island	9,304.07	9,304.07	----------	12,405.42	12,405.42
Connecticut	17,730.86	17,730.67	.19	23,641.15	23,640.96
New York	127,425.53	94,818.64	32,606.89	169,900.71	137,293.82
New Jersey	33,821.93	23,639.10	10,182.83	45,095.90	34,913.07
Pennsylvania	82,118.98	82,114.21	4.77	109,491.98	109,487.21
Delaware	5,000.00	3,750.82	1,249.18	5,000.00	3,750.82
Maryland	11,672.19	6,080.21	5,591.98	15,562.92	9,970.94
II. SOUTHERN.					
Virginia	8,450.63	4,641.27	3,809.36	11,267.51	7,458.15
North Carolina	5,647.73	1,385.63	4,262.10	7,530.30	3,268.20
South Carolina	5,000.00	1,297.25	3,702.75	5,316.14	1,613.39
Georgia	9,552.27	6,701.27	2,851.00	12,736.36	9,885.36
Florida	5,000.00	2,024.00	2,976.00	5,180.14	2,204.14
Tennessee	7,821.37	5,361.25	2,460.12	10,428.49	7,968.37
Alabama	6,569.12	4,499.45	2,069.67	8,758.83	6,689.16
Mississippi	5,000.00	1,745.98	3,254.02	5,000.00	1,745.98
Arkansas	5,000.00	1,347.61	3,652.39	5,000.00	1,347.61
Louisiana	8,810.07	5,870.05	2,940.02	11,740.10	8,800.08
Texas	16,636.07	8,604.90	8,031.17	22,181.43	14.150.26
III. EAST CENTRAL.					
West Virginia	5,000.00	4,084.57	915.43	5,396.77	4,481.34
Ohio	47,262.90	45,384.93	1,877.97	63,017.20	61,139.23
Kentucky	9,850.05	6,795.95	3,054.10	13,133.40	10,079.30
Michigan	23,533.42	23,530.30	3.12	31,377.90	31,374.78
Indiana	20,284.45	18,077.11	2,207.34	27,045.93	24,838.59
Wisconsin	17,810.33	[3]19,277.37	[4]1,467.04	23,747.10	22,280.06
Illinois	61,658.88	37,087.28	24,571.60	82,211.84	57,640.24
Minnesota	15,078.87	13,324.86	1,754.01	20,105.17	18,351.16
Iowa	12,509.89	1,959.58	10,100.31	16,079.85	5,979.54
Missouri	24,806.23	19,454.18	5,352.05	33,074.97	27,722.92
IV. WEST CENTRAL.					
North Dakota	5,000.00	1,095.00	3,905.00	5,000.00	1,095.00
South Dakota	5,000.00	950.00	4,050.00	5,000.00	950.00
Nebraska	5,512.56	3,617.04	1,895.52	7,350.08	5,454.56
Kansas	8,756.73	3,440.57	5,316.16	11,675.64	6,359.48
Oklahoma	5,677.54	3,785.03	1,892.51	7,570.05	5,677.54
Montana	5,000.00	3,333.33	1,666.67	5,000.00	3,333.33
Wyoming	5,000.00	1,409.28	3,590.72	5,000.00	1,409.28
Colorado	7,179.32	6,634.67	544.65	9,572.43	9,027.78
New Mexico	5,000.00	3,327.54	1,672.46	5,000.00	3,327.54
V. PACIFIC.					
Idaho	5,000.00	1,804.62	3,195.38	5,000.00	1,804.62
Utah	5,000.00	3,315.55	1,684 45	5,000.00	3,315.55
Arizona	5,000.00	3,766.72	1,233.28	5,000.00	3,766.72
Nevada	5,000.00	2,376.00	2,624.00	5,000.00	2,376.00
Washington	10,738.30	7,503.87	3,234.43	14,317.73	11,083.30
Oregon	5,445.32	3,630.21	1,815.11	7,260.42	5,445.31
California	26,063.94	21,032.14	5,031.80	34,751.92	29,720.12

[1] Includes $1,467.04 over expenditure by Wisconsin.

[2] Unexpended balances in State treasuries June 30, and amounts to be sent to States in the year ending June 30, 1920, as given in the table, are calculated from reports of reimbursements of schools by State boards in the year ended June 30, 1919. The figures are provisional and subject to change in the case of change in the amount of reimbursement allowed, as finally determined by the Federal Board in auditing State accounts.

[3] Provisional figures taken from financial reports made by State boards. These reports are subject to correction and auditing by the Federal Board to insure full compliance with the provisions of the Federal act.

[4] Over expenditure.

TABLE 35.—*Unexpended balance and amount to be sent to State for teacher training, by States—Amount sent to State during year ended June 30, 1919, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the year ending June 30, 1920.*

Region or State.	Amount for teacher training during the year ending June 30—				
	1919			1920	
	Sent to State.	Expended by State.[1]	Unexpended balance in State treasury June 30 [2] (a–b).	Allotment to State.	To be sent to State (d–c).[2]
	a.	b.	c.	d.	e.
United States	$730,421.35	$425,737.38	$304,683.97	$996,405.30	$691,721.33
REGION.					
I. North Atlantic	217,338.60	121,806.04	95,532.56	296,430.32	200,897.76
II. Southern	171,044.13	103,715.16	67,328.97	222,522.50	155,193.53
III. East Central	224,231.27	114,212.94	110,018.33	288,297.34	178,279.01
IV. West Central	65,784.49	46,108.85	19,675.64	104,590.06	84,914.42
V. Pacific	52,022.86	39,894.39	12,128.47	84,565.08	72,436.61
I. NORTH ATLANTIC.					
Maine	5,670.59	4,964.43	706.16	10,000.00	9,293.84
New Hampshire	5,000.00	2,773.76	2,226.24	10,000.00	7,773.76
Vermont	5,000.00	4,970.78	29.22	10,000.00	9,970.78
Massachusetts	25,714.32	14,834.19	10,880.13	33,061.27	22,181.14
Rhode Island	5,000.00	951.26	4,048.74	10,000.00	5,951.26
Connecticut	8,515.05	8,515.05	.....	10,947.92	10,947.92
New York	69,614.21	45,991.84	23,622.37	89,503.99	65,881.62
New Jersey	19,380.11	10,523.26	8,856.85	24,917.29	16,060.44
Pennsylvania	58,549.84	18,844.59	39,705.25	75,278.37	35,573.12
Delaware	5,000.00	4,310.52	689.48	10,000.00	9,310.52
Maryland	9,894.48	5,126.36	4,768.12	12,721.48	7,953.36
II. SOUTHERN.					
Virginia	15,747.59	6,900.07	8,847.52	20,246.91	11,399.39
North Carolina	16,852.69	6,101.84	10,750.85	21,667.75	10,916.90
South Carolina	11,575.36	10,402.05	1,173.31	14,882.61	13,709.30
Georgia	19,929.73	9,528.26	10,401.47	25,623.94	15,222.47
Florida	5,748.87	5,124.73	624.14	10,000.00	9,375.86
Tennessee	16,688.48	6,021.47	10,667.01	21,456.62	10,789.61
Alabama	16,331.79	8,170.12	8,161.67	20,998.02	12,836.35
Mississippi	13,727.23	10,485.58	3,241.65	17,649.30	14,407.65
Arkansas	12,026.41	6,078.82	5,947.59	15,462.52	9,514.93
Louisiana	12,652.30	12,229.53	422.77	16,267.24	15,844.47
Texas	29,763.68	22,672.69	7,090.99	38,267.59	31,176.60
III. EAST CENTRAL.					
West Virginia	9,327.50	5,612.98	3,714.52	11,992.50	8,277.98
Ohio	36,413.59	18,646.65	17,766.94	46,817.47	29,050.53
Kentucky	17,491.47	9,303.26	8,188.15	22,488.95	14,300.80
Michigan	21,465.47	14,931.61	6,533.86	27,598.46	21,064.60
Indiana	20,630.60	11,197.17	9,433.43	26,525.06	17,091.63
Wisconsin	17,827.16	11,085.55	6,741.61	22,920.63	16,179.02
Illinois	43,070.30	14,960.19	28,110.11	55,376.10	27,265.99
Minnesota	15,855.27	13,818.76	2,036.51	20,385.34	18,348.83
Iowa	16,993.88	8,209.77	8,784.11	21,849.28	13,065.17
Missouri	25,156.09	6,447.00	18,709.09	32,343.55	13,634.46
IV. WEST CENTRAL.					
North Dakota	5,000.00	5,000.00	.....	10,000.00	10,000.00
South Dakota	5,000.00	3,900.00	1,100.00	10,000.00	8,900.00
Nebraska	9,106.71	7,443.60	1,663.11	11,708.63	10,045.52
Kansas	12,916.29	2,536.03	10,380.26	16,606.66	6,226.40
Oklahoma	12,658.16	9,694.00	2,964.16	16,274.77	13,310.61
Montana	5,000.00	3,299.97	1,700.03	10,000.00	8,299.97
Wyoming	5,000.00	3,430.59	1,569.41	10,000.00	8,430.59
Colorado	6,103.33	5,804.66	298.67	10,000.00	9,701.33
New Mexico	5,000.00	5,000.00	.....	10,000.00	10,000.00
V. PACIFIC.					
Idaho	5,000.00	3,242.79	1,757.21	10,000.00	8,242.79
Utah	5,000.00	5,000.00	.....	10,000.00	10,000.00
Arizona	5,000.00	3,204.60	1,795.40	10,000.00	8,204.60
Nevada	5,000.00	2,660.51	2,339.49	10,000.00	7,660.51
Washington	8,723.07	6,213.89	2,509.18	11,215.38	8,706.20
Oregon	5,138.91	5,136.70	2.21	10,000.00	9,997.79
California	18,160.88	14,435.90	3,724.98	23,349.70	19,624.72

[1] Provisional figures taken from the financial reports made by State boards. These reports are subject to correction and auditing by the Federal Board to insure full compliance with the provisions of the Federal act.

[2] Unexpended balances in State treasuries June 30, and amounts to be sent to States in the year ending June 30, 1920, as given in the table, are calculated from reports of reimbursements of schools by State boards in the year ended June 30, 1919. The figures are provisional and subject to change in the case of change in the amount of reimbursement allowed, as finally determined by the Federal Board in auditing State accounts.

TABLE 36.—*Allotment of vocational education Federal funds to States, for year ended June 30, 1919.*

Region or State.	Allotment for the fiscal year 1918–19, ending June 30.											
	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Allotted on the basis of population.				Special allotment to guarantee minimum of $5,000.			
					Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.
United States	$2,307,460.44	$782,575.76	$794,463.33	$730,421.35	$2,200,000.00	$750,000.00	$750,000.00	$700,000.00	$107,460.44	$32,575.76	$44,463.33	$30,421.35
REGIONS.												
I. North Atlantic	706,764.31	130,163.37	359,262.34	217,338.60	675,495.11	112,954.61	353,503.86	209,036.64	31,269.20	17,208.76	5,758.48	8,301.96
II. Southern	527,462.07	272,935.68	83,482.26	171,044.13	522,604.96	272,935.68	78,625.15	171,044.13	4,857.11	.....	4,857.11	.....
III. East Central	705,127.99	243,551.70	237,345.02	224,231.27	704,175.57	243,551.70	236,392.60	224,231.27	952.42	.....	952.42	.....
IV. West Central	206,327.81	88,417.17	52,126.15	65,784.49	172,638.18	82,932.69	33,565.64	56,139.85	33,689.63	5,484.48	18,560.51	9,644.64
V. Pacific	161,778.26	47,507.84	62,247.56	52,022.86	125,086.18	37,625.32	47,912.75	39,548.11	36,692.08	9,882.52	14,334.81	12,474.75
I. NORTH ATLANTIC.												
Maine	17,920.34	5,485.35	6,764.40	5,670.59	17,920.34	5,485.35	6,764.40	5,670.59	.....	.....	.....	.....
New Hampshire	15,000.00	5,000.00	5,000.00	5,000.00	10,479.59	2,666.82	4,523.85	3,288.92	4,520.41	2,333.18	476.15	1,711.08
Vermont	15,000.00	5,000.00	5,000.00	5,000.00	8,557.17	2,842.21	2,995.99	2,718.97	6,442.83	2,157.79	2,004.01	2,281.03
Massachusetts	86,138.70	5,000.00	55,424.38	25,714.32	84,802.14	3,663.44	55,424.38	25,714.32	1,336.56	1,336.56	.....	.....
Rhode Island	19,304.07	5,000.00	9,304.07	5,000.00	13,721.68	272.89	9,304.07	4,144.72	5,582.39	4,727.11	.....	855.28
Connecticut	31,245.91	5,000.00	17,730.86	8,515.05	27,992.41	1,746.50	17,730.86	8,515.05	3,253.50	3,253.50	.....	.....
New York	226,343.14	29,303.40	127,425.53	69,614.21	226,343.14	29,303.40	127,425.53	69,614.21	.....	.....	.....	.....
New Jersey	62,776.07	9,574.03	33,821.93	19,380.11	62,776.07	9,574.03	33,821.93	19,380.11	.....	.....	.....	.....
Pennsylvania	186,786.00	46,117.18	82,118.98	58,549.84	186,786.00	46,117.18	82,118.98	58,549.84	.....	.....	.....	.....
Delaware	15,000.00	5,000.00	5,000.00	5,000.00	4,866.49	1,599.38	1,721.68	1,545.43	10,133.51	3,400.62	3,278.32	3,454.57
Maryland	31,250.08	9,683.41	11,672.19	9,894.48	31,250.08	9,688.41	11,672.19	9,894.48	.....	.....	.....	.....
II. SOUTHERN.												
Virginia	48,288.17	24,089.95	8,450.63	15,747.59	48,288.17	24,089.95	8,450.63	15,747.59	.....	.....	.....	.....
North Carolina	51,191.24	28,690.82	5,647.73	16,852.69	51,191.24	28,690.82	5,647.73	16,852.69	.....	.....	.....	.....
South Carolina	36,189.30	19,613.94	5,000.00	11,575.36	35,176.41	19,613.94	3,987.11	11,575.36	1,012.89	.....	1,012.89	.....
Georgia	60,948.84	31,466.84	9,552.27	19,929.73	60,948.84	31,466.84	9,552.27	19,929.73	.....	.....	.....	.....

Florida	18,857.55	8,108.68	5,000.00	5,748.87	17,742.65	8,108.68	3,885.10	5,748.87	1,114.90	.....	1,114.90	.....
Tennessee	51,011.12	26,501.27	7,821.37	16,688.48	51,011.12	26,501.27	7,821.37	16,688.48	.....	.....	.....	.....
Alabama	49,765.68	26,864.77	6,569.12	16,331.79	49,765.68	26,864.77	6,569.12	16,331.79	.....	.....	.....	.....
Mississippi	42,888.92	24,161.69	5,000.00	13,727.23	41,565.31	24,161.69	3,676.39	13,727.23	1,323.61	.....	1,323.61	.....
Arkansas	37,874.42	20,848.01	5,000.00	12,026.41	36,468.71	20,848.01	3,594.29	12,026.41	1,405.71	.....	1,405.71	.....
Louisiana	39,085.00	17,627.63	8,805.07	12,652.30	39,085.00	17,627.63	8,805.07	12,652.30	.....	.....	.....	.....
Texas	91,361.83	44,962.08	16,636.07	29,763.68	91,361.83	44,962.07	16,636.07	29,763.68	.....	.....	.....	.....
III. EAST CENTRAL.												
West Virginia	29,417.16	15,089.66	5,000.00	9,327.50	28,464.74	15,089,66	4,047.58	9,327.50	952.42	.....	952.42	.....
Ohio	115,622.17	31,945.68	47,262.90	36,413.59	115,622.17	31,945.68	47,262.90	36,413.59	.....	.....	.....	.....
Kentucky	53,701.68	26,360.22	9,850.05	17,491.41	53,701.68	26,360.22	9,850.05	17,491.41	.....	.....	.....	.....
Michigan	67,539.35	22,540.46	23,533.42	21,465.47	67,539.35	22,540.46	23,533.42	21,465.47	.....	.....	.....	.....
Indiana	64,578.82	23,663.77	20,284.45	20,630.60	64,578.82	23,663.77	20,284.45	20,630.60	.....	.....	.....	.....
Wisconsin	55,843.72	20,206.23	17,810.33	17,827.16	55,843.72	20,206.23	17,810.33	17,827.16	.....	.....	.....	.....
Illinois	137,581.93	32,852.75	61,658.88	43,070.30	137,581.93	32,852.75	61,658.88	43,070.30	.....	.....	.....	.....
Minnesota	49,557.88	18,623.74	15,078.87	15,855.27	49,557.88	18,623.74	15,078.87	15,855.27	.....	.....	.....	.....
Iowa	52,530.24	23,476.47	12,059.89	16,993.88	52,530.24	23,476.47	12,059.89	16,993.88	.....	.....	.....	.....
Missouri	78,755.04	28,792.72	24,806.23	25,156.09	78,755.04	28,792.72	24,806.23	25,156.09	.....	.....	.....	.....
IV. WEST CENTRAL.												
North Dakota	17,808.99	7,898.99	5,000.00	5,000.00	13,338.23	7,808.99	1,121.41	4,407.83	4,470.76	.....	3,878.59	592.17
South Dakota	17,708.61	7,708.61	5,000.00	5,000.00	13,528.33	7,708.61	1,359.70	4,460.02	4,180.28	.....	3,640.30	539.98
Nebraska	28,014.13	13,394.86	5,512.56	9,106.71	28,014.13	13,394.86	5,512.56	9,106.71	.....	.....	.....	.....
Kansas	39,867.34	18,194.32	8,756.73	12,916.29	39,867.34	18,194.32	8,756.73	12,916.29	.....	.....	.....	.....
Oklahoma	38,655.31	20,319.61	5,677.54	12,658.16	38,655.31	20,319.61	5,677.54	12,658.16	.....	.....	.....	.....
Montana	15,000.00	5,000.00	5,000.00	5,000.00	8,926.03	3,687.52	2,366.03	2,872.48	6,073.97	1,312.48	2,633.97	2,127.52
Wyoming	15,000.00	5,000.00	5,000.00	5,000.00	3,442.91	1,561.49	766.47	1,114.95	11,557.09	3,438.51	4,233.53	3,885.05
Colorado	19,273.43	5,990.78	7,179.32	6,103.33	19,273.43	5,990.78	7,179.32	6,103.33	.....	.....	.....	.....
New Mexico	15,000.00	5,000.00	5,000.00	5,000.00	7,592.47	4,266.51	825.88	2,500.08	7,407.53	733.49	4,174.12	2,499.92
V. PACIFIC.												
Idaho	15,000.00	5,000.00	5,000.00	5,000.00	7,612.65	3,886.05	1,239.55	2,487.05	7,387.35	1,113.95	3,760.45	2,512.95
Utah	15,000.00	5,000.00	5,000.00	5,000.00	8,964.52	3,045.92	3,066.76	2,851.84	6,035.48	1,954.08	1,933.24	2,148.16
Arizona	15,000.00	5,000.00	5,000.00	5,000.00	4,827.12	2,144.33	1,121.83	1,560.96	10,172.88	2,855.67	3,878.17	3,439.04
Nevada	15,000.00	5,000.00	5,000.00	5,000.00	1,903.63	1,041.18	237.05	625.40	13,096.37	3,958.82	4,762.95	4,374.60
Washington	27,614.44	8,153.07	10,738.30	8,723.07	27,614.44	8,153.07	10,738.30	8,723.07	.....	.....	.....	.....
Oregon	16,142.18	5,557.95	5,445.32	5,138.91	16,142.18	5,557.95	5,445.32	5,138.91	.....	.....	.....	.....
California	58,021.64	13,796.82	26,063.94	18,160.88	58,021.64	13,796.82	26,063.94	18,160.88	.....	.....	.....	.....

TABLE 37.—*Allotment of vocational education Federal funds to States, for the year ending June 30, 1920.*

Region or State.	Allotment for the year ending June 30, 1920.											
					Allotted on the basis of population.				Special allotment to guarantee minimum.			
	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Total.	Agriculture: For salaries of teachers, supervisors and directors. To guarantee minimum of $5,000.	Trade, industry, and home economics: For salaries of teachers. To guarantee minimum of $5,000.	Teacher training: For salaries of teachers and maintenance of teacher training. To guarantee minimum of $10,000.
United States	$3,051,919.01	$1,022,637.75	$1,032,875.96	$996,405.30	$2,900,000.00	$1,000,000.00	$1,000,000.00	$900,000.00	$151,919.01	$22,637.75	$32,875.96	$96,405.30
REGIONS.												
I. North Atlantic	935,029.75	163,551.17	475,048.26	296,430.32	890,706.05	150,606.16	471,338.48	268,761.41	44,323.70	12,945.01	3,709.78	27,668.91
II. Southern	691,576.03	363,914.23	105,139.30	222,522.50	688,661.67	363,914.23	104,833.54	219,913.90	2,914.36	.....	305.76	2,608.60
III. East Central	928,223.07	324,735.60	315,190.13	288,297.34	928,223.07	324,735.60	315,190.13	288,297.34	.....	.....	.....	.....
IV. West Central	279,336.50	113,578.24	61,168.20	104,590.06	227,510.90	110,576.92	44,754.18	72,179.80	51,825.60	3,001.32	16,414.02	32,410.26
V. Pacific	217,753.66	56,858.51	76,330.07	84,565.08	164,898.31	50,167.09	63,883.67	50,847.55	52,855.35	6,691.42	12,446.40	33,717.53
I. NORTH ATLANTIC.												
Maine	26,333.00	7,313.80	9,019.20	10,000.00	23,623.76	7,313.80	9,019.20	7,290.76	2,709.24	.....	.....	2,709.24
New Hampshire	21,031.81	5,000.00	6,031.81	10,000.00	13,816.18	3,555.76	6,031.81	4,228.61	7,215.63	1,444.24	.....	5,771.39
Vermont	20,000.00	5,000.00	5,000.00	10,000.00	11,280.07	3,789.61	3,994.65	3,495.81	8,719.93	1,210.39	1,005.35	6,504.19
Massachusetts	111,960.44	5,000.00	73,899.17	33,061.27	111,845.03	4,884.59	73,899.17	33,061.27	115.41	115.41	.....	.....
Rhode Island	27,405.42	5,000.00	12,405.42	10,000.00	18,098.20	363.86	12,405.42	5,328.92	9,307.22	4,636.14	.....	4,671.08
Connecticut	39,589.07	5,000.00	23,641.15	10,947.92	36,917.73	2,328.66	23,641.15	10,947.92	2,671.34	2,671.34	.....	.....
New York	298,475.90	39,071.20	169,900.71	89,503.99	298,475.90	39,071.20	169,900.71	89,503.99	.....	.....	.....	.....
New Jersey	82,778.57	12,765.38	45,095.90	24,917.29	82,778.57	12,765.38	45,095.90	24,917.29	.....	.....	.....	.....
Pennsylvania	246,259.93	61,489.58	109,491.98	75,278.37	246,259.93	61,489.58	109,491.98	75,278.37	.....	.....	.....	.....
Delaware	20,000.00	5,000.00	5,000.00	10,000.00	6,415.07	2,132.51	2,295.57	1,986.99	13,584.93	2,867.49	2,704.43	8,013.01
Maryland	41,195.61	12,911.21	15,562.92	12,721.48	41,195.61	12,911.21	15,562.92	12,721.48	.....	.....	.....	.....

II. SOUTHERN.												
Virginia	63,634.36	32,119.94	11,267.51	20,246.91	63,634.36	32,119.94	11,267.51	20,246.91				
North Carolina	67,452.47	38,254.42	7,530.30	21,667.75	67,452.47	38,254.42	7,530.30	21,667.75				
South Carolina	46,350.67	26,151.92	5,316.14	14,882.61	46,350.67	26,151.92	5,316.14	14,882.61				
Georgia	80,316.08	41,955.78	12,736.36	25,623.94	80,316.08	41,955.78	12,736.36	25,623.94				
Florida	25,991.71	10,811.57	5,180.14	10,000.00	23,383.11	10,811.57	5,180.14	7,391.40	2,608.60			2,608.60
Tennessee	67,220.13	35,335.02	10,428.49	21,456.62	67,220.13	35,335.02	10,428.49	21,456.62				
Alabama	65,576.55	35,819.70	8,758.83	20,998.02	65,576.55	35,819.70	8,758.83	20,998.02				
Mississippi	54,864.88	32,215.58	5,000.00	17,649.30	54,766.74	32,215.58	4,991.86	17,649.30	98.14		98.14	
Arkansas	48,259.87	27,797.35	5,000.00	15,462.52	48,052.25	27,797.35	4,792.38	15,462.52	207.62		207.62	
Louisiana	51,510.85	23,503.51	11,740.10	16,267.24	51,510.85	23,503.51	11,740.10	16,267.24				
Texas	120,398.46	59,949.44	22,181.43	38,267.59	120,398.46	59,949.44	22,181.43	38,267.59				
III. EAST CENTRAL.												
West Virginia	37,508.81	20,119.54	5,396.77	11,992.50	37,508.81	20,119.54	5,396.77	11,992.50				
Ohio	152,428.91	42,594.24	63,017.20	46,817.47	152,428.91	42,594.24	63,017.20	46,817.47				
Kentucky	70,769.31	35,146.96	13,133.40	22,488.95	70,769.31	35,146.96	13,133.40	22,488.95				
Michigan	89,030.31	30,053.95	31,377.90	27,598.46	89,030.31	30,053.95	31,377.90	27,598.46				
Indiana	85,122.69	31,551.70	27,045.93	26,525.06	85,122.69	31,551.70	27,045.93	26,525.06				
Wisconsin	73,609.37	26,941.64	23,747.10	22,920.63	73,609.37	26,941.64	23,747.10	22,920.63				
Illinois	181,391.61	43,803.67	82,211.84	55,376.10	181,391.61	43,803.67	82,211.84	55,376.10				
Minnesota	65,322.16	24,831.65	20,105.17	20,385.34	65,322.16	24,831.65	20,105.17	20,385.34				
Iowa	69,231.09	31,301.96	16,079.85	21,849.28	69,231.09	31,301.96	16,079.85	21,849.28				
Missouri	103,808.81	38,390.29	33,074.97	32,343.55	103,808.81	38,390.29	33,074.97	32,343.55				
IV. WEST CENTRAL.												
North Dakota	25,411.99	10,411.99	5,000.00	10,000.00	17,574.41	10,411.99	1,495.21	[1] 5,667.21	7,837.58		3,504.79	4,332.79
South Dakota	25,278.15	10,278.15	5,000.00	10,000.00	17,825.39	10,278.15	1,812.93	5,734.31	7,452.76		3,187.07	4,265.69
Nebraska	36,918.53	17,859.82	7,350.08	11,708.63	36,918.53	17,859.82	7,350.08	11,708.63				
Kansas	52,541.39	24,259.09	11,675.64	16,606.66	52,541.39	24,259.09	11,675.64	16,606.66				
Oklahoma	50,937.63	27,092.81	7,570.05	16,274.77	50,937.63	27,092.81	7,570.05	16,274.77				
Montana	20,000.00	5,000.00	5,000.00	10,000.00	11,764.58	4,916.69	3,154.71	3,693.18	8,235.42	83.31	1,845.29	6,306.82
Wyoming	20,000.00	5,000.00	5,000.00	10,000.00	4,537.46	2,081.99	1,021.96	1,433.51	15,462.54	2,918.01	3,978.04	8,566.49
Colorado	27,560.13	7,987.70	9,572.43	10,000.00	25,407.27	7,987.70	[2] 9,572.43	7,847.14	2,152.86			2,152.86
New Mexico	20,688.68	5,688.68	5,000.00	10,000.00	10,004.24	5,688.68	1,101.17	3,214.39	10,684.44		3,898.83	6,785.61
V. PACIFIC.												
Idaho	20,181.39	5,181.39	5,000.00	10,000.00	10,031.76	5,181.39	1,652.74	3,197.63	10,149.63		3,347.26	6,802.37
Utah	20,000.00	5,000.00	5,000.00	10,000.00	11,816.90	4,061.23	4,089.02	3,666.65	8,183.10	938.77	910.98	6,333.35
Arizona	20,000.00	5,000.00	5,000.00	10,000.00	6,361.83	2,859.11	1,495.78	2,006.94	13,638.17	2,410.89	3,504.22	7,993.06
Nevada	20,000.00	5,000.00	5,000.00	10,000.00	2,508.39	1,388.24	316.06	804.09	17,491.61	3,611.76	4,683.94	9,195.91
Washington	36,403.87	10,870.76	14,317.73	11,215.38	36,403.87	10,870.76	14,317.73	11,215.38				
Oregon	24,671.02	7,410.60	7,260.42	10,000.00	21,278.18	7,410.60	7,260.42	6,607.16	3,392.84			3,392.84
California	76,497.38	18,395.76	34,751.92	23,349.70	76,497.38	18,395.76	34,751.92	23,349.70				

[1] Decrease 1 cent to make total come out even.

[2] Increased by 1 cent to make total come out even.

TABLE 38.—*Increase in the total of allotments of Federal funds for the promotion of vocational education, by States, for years ending June 30, 1918, 1919, and 1920.*

Region or State.	Total of allotments for year ending June 30—			Increase.	
	1920	1919	1918	1920 over 1919	1919 over 1918
	a	b	c	d	e
United States	$3,051,919.01	$2,307,460.44	$1,655,586.72	$744,458.57	$651,873.72
REGION.					
I. North Atlantic	935,029.75	706,764.31	505,023.06	228,265.44	201,741.25
II. Southern	691,576.03	527,462.07	369,202.10	164,113.96	158,259.97
III. East Central	928,223.07	705,127.99	482,429.66	223,095.08	222,698.33
IV. West Central	279,336.50	206,327.81	165,560.99	73,008.69	40,766.82
V. Pacific	217,753.66	161,778.26	133,370.91	55,975.40	28,407.35
I. NORTH ATLANTIC.					
Maine	26,333.06	17,920.34	15,000.00	8,412.66	- 2,920.34
New Hampshire	21,031.81	15,000.00	15,000.00	6,031.81	----------
Vermont	20,000.00	15,000.00	15,000.00	5,000.00	----------
Massachusetts	111,960.44	86,138.70	60,316.96	25,821.74	25,821.74
Rhode Island	27,405.42	19,304.07	16,202.71	8,101.35	3,101.36
Connecticut	39,589.07	31,245.91	22,902.76	8,343.16	8,343.15
New York	298,475.90	226,343.14	154,210.39	72,132.76	72,132.75
New Jersey	82,778.57	62,776.07	42,773.58	20,002.50	20,002.49
Pennsylvania	246,259.93	186,786.00	127,312.10	59,473.93	59,473.90
Delaware	20,000.00	15,000.00	15,000.00	5,000.00	----------
Maryland	41,195.61	31,250.08	21,304.56	9,945.53	9,945.52
II. SOUTHERN.					
Virginia	63,634.36	48,288.17	32,942.00	15,346.19	15,346.17
North Carolina	67,452.47	51,191.24	36,164.85	16,261.23	15,026.39
South Carolina	46,350.67	36,189.30	26,344.08	10,161.37	9,845.22
Georgia	80,316.08	60,948.84	41,581.57	19,367.24	19,367.25
Florida	25,991.71	18,857.55	15,405.79	7,134.16	3,451.76
Tennessee	67,220.13	51,011.12	34,802.10	16,209.01	16,209.02
Alabama	65,576.55	49,765.68	34,575.42	15,810.87	15,190.26
Mississippi	54,864.88	42,888.92	30,912.95	11,975.96	11,975.97
Arkansas	48,259.87	37,874.42	27,488.96	10,385.45	10,385.46
Louisiana	51,510.85	39,085.00	26,659.16	12,425.85	12,425.84
Texas	120,398.46	91,361.83	62,325.20	29,036.63	29,036.63
III. EAST CENTRAL.					
West Virginia	37,508.81	29,417.16	21,722.27	8,091.65	7,694.89
Ohio	152,428.91	115,622.17	78,815.42	36,806.74	36,806.75
Kentucky	70,769.31	53,701.68	36,634.04	17,067.63	17,067.64
Michigan	89,030.31	67,539.35	46,048.41	21,490.96	21,490.94
Indiana	85,122.69	64,578.82	44,034.97	20,543.87	20,543.85
Wisconsin	73,609.37	55,843.72	38,078.05	17,765.65	17,765.67
Illinois	181,391.61	137,581.93	93,772.25	43,809.68	43,809.68
Minnesota	65,322.16	49,557.88	33,793.59	15,764.28	15,764.29
Iowa	69,231.09	52,530.24	35,829.39	16,700.85	16,700.85
Missouri	103,808.81	78,755.04	53,701.27	25,053.77	25,053.77
IV. WEST CENTRAL.					
North Dakota	25,411.99	17,808.99	15,205.99	7,603.00	2,603.00
South Dakota	25,278.15	17,708.61	15,139.07	7,569.54	2,569.54
Nebraska	36,918.53	28,014.13	20,434.70	8,904.40	7,579.43
Kansas	52,541.39	39,867.34	27,193.28	12,674.05	12,674.06
Oklahoma	50,937.63	38,655.31	27,587.95	12,282.32	11,067.36
Montana	20,000.00	15,000.00	15,000.00	5,000.00	----------
Wyoming	20,000.00	15,000.00	15,000.00	5,000.00	----------
Colorado	27,560.13	19,273.43	15,000.00	8,286.70	4,273.43
New Mexico	20,688.68	15,000.00	15,000.00	5,688.68	----------
V. PACIFIC.					
Idaho	20,181.39	15,000.00	15,000.00	5,181.39	----------
Utah	20,000.00	15,000.00	15,000.00	5,000.00	----------
Arizona	20,000.00	15,000.00	15,000.00	5,000.00	----------
Nevada	20,000.00	15,000.00	15,000.00	5,000.00	----------
Washington	36,403.87	27,614.44	18,825.02	8,789.43	8,789.42
Oregon	24,671.02	16,142.18	15,000.00	8,528.84	1,142.18
California	76,497.38	58,021.64	39,545.89	18,475.74	18,475.75

66TH CONGRESS, 2d Session } HOUSE OF REPRESENTATIVES { DOCUMENT No. 428

THIRD ANNUAL REPORT OF THE

FEDERAL BOARD

FOR

VOCATIONAL EDUCATION

1919



VOLUME II

VOCATIONAL REHABILITATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

FEDERAL BOARD FOR VOCATIONAL EDUCATION.

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Agriculture.

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Labor.

All communications should be addressed to

The Federal Board for Vocational Education, Washington, D. C.

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LETTER OF TRANSMITTAL.

FEDERAL BOARD FOR VOCATIONAL EDUCATION,
Washington, D. C., October 15, 1919.

To the President of the Senate and the Speaker of the House of Representatives of the Sixty-sixth Congress:

By direction of the Federal Board for Vocational Education, and in accordance with section 9 of the act of Congress approved June 27, 1918, I have the honor to submit the following report.

Respectfully,

JAMES P. MUNROE, *Vice Chairman.*

VOCATIONAL REHABILITATION OF DISABLED SOLDIERS, SAILORS, AND MARINES.

The vocational rehabilitation act to provide for the "vocational rehabilitation and return to civil employment of disabled persons discharged from the military or naval forces of the United States" was approved June 27, 1918.

Under this law the Federal Board for Vocational Education is required "to file with the Clerk of the House and the Secretary of the Senate on July 1 and every three months thereafter, for the information of Congress, an itemized account of all expenditures made under this act, including names and salaries of employees," and to make also "an annual report to the Congress of its doings under this act on or before December 1 of each year."

In compliance with this requirement the Federal Board has reported quarterly to Congress its expenditures and the names and salaries of its employees. Six such reports have been submitted, dated July 1 and October 1, 1918, and January 1, April 1, July 1, and October 1, 1919. The present report, which is the first annual report of the Board under the rehabilitation act, covers the Board's operations from the date of passage of the act to June 30, 1919, and gives in addition a brief résumé of developments during the first quarter of the current fiscal year.

PROVISIONS OF THE ACT.

The vocational rehabilitation act provides for the vocational training and return to gainful employment of persons disabled in the military or naval forces of the United States after their discharge from military service.

The training to be furnished under the act is divided into two classes determined, respectively, by the provisions of sections 2 and 3, the distinction between the two classes being that men embraced by the provisions of section 2 receive, in addition to free instruction, support for themselves and dependents during their period of training; whereas men embraced by section 3 receive only free instruction and the compensation awarded on account of their disability under Article III of the war-risk insurance act.

Training under section 2 is intended for those cases suffering from disabilities that have resulted in vocational handicaps, and is designed

to fit the disabled man for new employment, his injury preventing his return to his former occupation. The training to be furnished under section 3 of the act is in the nature of job-improvement instruction, and is intended primarily for men with minor disabilities who are not prevented by their injuries from returning to gainful occupations. It is an opportunity furnished by Congress to the slightly disabled men, who desire to avail themselves of it, of part-time trade, industrial, and commercial education for the purpose of advancement in the occupations in which they are employed.

As originally enacted three conditions of eligibility were established to insure training under section 2; first, the disability must have been suffered in the service and incurred under circumstances entitling the disabled man, after discharge, to compensation under Article III of the war-risk insurance act; second, the injury must have been such as to prevent him from carrying on a gainful occupation, from resuming his former occupation, or from entering upon some other occupation successfully; and third, the disability must have been one that could be overcome by vocational training. It was found from experience that this first condition established a dual administrative system, with the unfortunate result that the Board was unable to proceed with the training of any man, no matter how seriously handicapped, until the Bureau of War Risk Insurance had ruled that the disability was incurred under the circumstances prescribed by Article III of the war-risk insurance act and compensation had been awarded to him. No person was eligible for training by the Board until his claim for compensation had been passed upon by the Bureau of War Risk Insurance. This dual system occasioned considerable delay in placing men in training. Under the war-risk insurance act it was the duty of the bureau to exercise the greatest care in making awards, and extensive proof not only as to the circumstances under which the disability was incurred but also with respect to other matters was required before claims for compensation could be approved. Men declared to be in need of training by the Federal Board could not be placed in training until these proofs—required by another act—had been secured. In order to relieve this situation the Secretary of the Treasury, the Director of the Bureau of War Risk Insurance, and the Federal Board petitioned Congress to amend the law; and by the passage of the amendment to section 2 by the act of July 11, 1919, the condition with respect to compensation was eliminated and the Federal Board was charged with the duty of prescribing and furnishing vocational training under this section to every member of the military or naval forces of the United States honorably discharged with a disability incurred, increased, or aggravated while a member of such forces, or traceable to service therein, provided vocational rehabilitation was necessary, in

the opinion of the Board, to overcome the handicap of the disability incurred.

The responsibility of the Board, as defined in the law, does not, however, terminate with the completion of the training course prescribed. In addition to furnishing and prescribing suitable courses of vocational training the Board is charged with the duty of placing rehabilitated persons in suitable and gainful occupations, and the task of the Board is therefore not completed until positions have been obtained by all persons vocationally rehabilitated.

Congress thus set up a program of rehabilitation for disabled soldiers, sailors, and marines, liberally conceived, and intended to discharge a public obligation to insure, so far as possible, the return of these men to civilian life under conditions which would enable them to compete successfully in some chosen and suitable line of useful employment.

For the achievement of this high purpose of reestablishing our war disabled men in civilian life, Congress charged the Federal Board for Vocational Education with far-reaching responsibilities, delegated to it special powers, and under the original act appropriated to its use the sum of $2,000,000.

RESPONSIBILITY OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION AS DEFINED IN THE LAW.

In its legislation providing for the rehabilitation of our war-disabled men prior to the recent amendment of July 11, Congress proceeded on the theory first, that men disabled would be, so far as possible, restored to health in the Army and Navy hospitals, receiving their discharge from the service at the termination of the period of convalescence; secondly, that such men would be awarded disability compensation and allowances by the Bureau of War Risk Insurance for support of their dependents during the period of their vocational training; thirdly, that the Federal Board for Vocational Education would furnish training and bear all expenses incidental thereto out of the funds made available for this purpose.

Support of dependents during the period of training was thus entirely outside the range of the Federal Board's functions as defined in the original law.

As regards support of the man himself while in training it was provided that the man should receive compensation from the War Risk Insurance Bureau during the period of training in amount equal to compensation paid in cases of temporary total disability or an amount equal to his pay for the last month of his active service, whichever amount was greater. The Federal Board was authorized to provide such additional support for the man himself while in training as it might deem necessary.

Under these provisions the Federal Board could not undertake the support of dependents of disabled men either before or during the period of training, nor could it assume the support of any disabled men until such men were determined to be compensable under the war-risk insurance act, and were actually put into training under supervision of the Federal Board.

Except as regarded expenses incidental to training, including, for example, provision for additional support of men in cases where training required them to live apart from their families for a period and where the compensation awarded was inadequate the problem of support of disabled men and of their dependents was definitely reserved as a problem of awarding compensation and allowances by the War Risk Insurance Bureau. The responsibility put upon the Federal Board was that of providing training, in every case where training would enable the man to avoid or at least partially overcome the vocational handicap of his disability, and to provide for expenses incidental to the giving of such training.

The fact that the Federal Board could not assume any charges for support of men under investigation and pending the initiation of their training, and could not proceed to put men in training pending the award of compensation, has greatly complicated the problem of rehabilitation as it has been presented to the Federal Board.

Recent legislation has gone far to remedy the situation which developed under the original act. A brief résumé of the legislation under which the Board has operated in undertaking the vocational rehabilitation of disabled soldiers, sailors, and marines follows:

THE VOCATIONAL REHABILITATION ACT.

The principal provisions of the original vocational rehabilitation act, approved June 27, 1918, may be summarized as follows:

Section 1 gives the short title of the act and defines the word "board" to mean "Federal Board for Vocational Education," and the word "bureau" to mean the "Bureau of War Risk Insurance."

Section 2 provides that every person entitled to compensation under Article III of the war risk insurance act, "who, after his discharge, in the opinion of the Board, is unable to carry on a gainful occupation, to resume his former occupation, or to enter upon some other occupation, or having resumed or entered upon such occupation is unable to continue the same successfully, shall be furnished by the said Board, where vocational rehabilitation is feasible, such course of vocational rehabilitation as the Board shall prescribe and provide."

It is made the duty of the Board to furnish such persons with suitable courses of vocational rehabilitation, and it is provided that every person electing to follow such a course "shall, while following

the same, receive monthly compensation equal to the amount of his monthly pay for the last month of his active service," or equal to the amount of compensation to which he would be entitled under the war-risk insurance act, whichever amount is greater. In the case of an enlisted man it is provided further that his family shall receive during the period of training the compulsory allotment of pay, and family allowance, the same as if the man were still an enlisted man in the service. Any portion of the compensation not subject to compulsory allotment may be withheld in cases of wilful failure or refusal to follow the prescribed course which the man has elected to follow, and it is provided further "that no vocational teaching shall be carried on in any hospital until the medical authorities certify that the condition of the patient is such as to justify such teaching."

The military and naval family allowance and compensation appropriations are made available for payment of allowances and compensation to men in training.

Section 3 opens the vocational rehabilitation courses provided under the act without cost for instruction to men entitled to compensation who are not included in section 2. Under this section a man determined to be compensable might enter a vocational rehabilitation course under supervision of the Board, although he were able with his disability to return to his former occupation, or to enter upon and continue successfully in some other occupation. In such a case the man would not be entitled to receive any support from the Federal Board during training, nor to recieve any compensation other than that which his disability, as adjudged by the Bureau of War Risk Insurance, entitled him to receive whether or not he entered upon training.

Section 4 authorizes the Board to provide facilities, instructors, and courses; to prescribe courses; to pay necessary expenses of travel, lodging, subsistence, and other necessary expenses of persons following prescribed courses; to do all things necessary to insure vocational rehabilitation; to provide for placement of rehabilitated persons in suitable occupations; to make rules and regulations; and to utilize, in so far as may be practicable, with the approval of the Secretary of Labor, the facilities of the Department of Labor in the placement of rehabilitated persons.

Section 5 declares it to be the duty of the Board to make or cause to have made studies, investigations, and reports regarding vocational rehabilitation and placement of disabled persons, independently or in cooperation with other departments of the Government, and further authorizes the Board in its discretion to cooperate with such public and private agencies as it may deem advisable in performing the duties imposed by the act.

Section 6 provides that active medical treatment prior to discharge shall be under control of the War and Navy Departments, and authorizes the Board to act in an advisory capacity wherever training during convalescence is provided as a therapeutic measure, "to insure, in so far as medical requirements permit, a proper process of training and the proper preparation of instructors for such training." Similarly it is provided that a plan may be devised "between the War and Navy Departments and the Board whereby these departments shall act in an advisory capacity with the Board in the care of the health of the soldier and sailor after his discharge." As regards vocational training set up in hospitals, and after discharge of men from the service the purpose of this cooperation is stated to be to "effect a continuous process" in such training from its initiation in the hospital to the ultimate establishment of the rehabilitated person in civil employment.

In section 7 the Board is authorized to receive such gifts and donations from either public or private sources as may be offered unconditionally to be covered into the Treasury as a special fund to be used in connection with appropriations out of the Treasury to defray the expenses of providing and maintaining courses of vocational rehabilitation.

Section 8 budgets the $2,000,000 appropriation as follows:

For renting and remodeling buildings and quarters, repairing, maintaining, and equipping same, and for equipment and other facilities necessary for proper instruction of disabled persons	$250,000
For the preparation of instructors and salaries of instructors, supervisors, and other experts, including necessary traveling expenses	545,000
For traveling expenses of disabled persons in connection with training and for lodging, subsistence, and other necessary expenses in special cases of persons following prescribed courses	250,000
For tuition for disabled persons pursuing courses in existing institutions, public or private	545,000
For placement and supervision after placement of vocationally rehabilitated persons	45,000
For studies, investigations, reports, and preparation of special courses of instruction	55,000
For miscellaneous contingencies, including special mechanical appliances necessary in special cases, for disabled men	110,000
For administrative expenses of said Board incident to performing the duties imposed by this act, including salaries of such assistants, experts, clerks, and other employees in the District of Columbia or elsewhere as the Board may deem necessary, actual traveling and other expenses incurred by members of the Board and by its employees under its orders, etc	200,000
Total	2,000,000

Section 9 provides for making quarterly and annual reports to Congress; section 10 repeals section 304 of the war-risk insurance act

of September 2, 1914; and section 11 provides that no fit person shall be exempted from military service on account of being employed under the terms of the act.

ACT EXTENDING THE USE OF THE SPECIAL FUND AND OF THE APPROPRIATION MADE IN THE ORIGINAL ACT.

An act approved February 26, 1919, entitled "An act extending the use of the special fund for vocational education, provided by section 7 of the vocational rehabilitation act * * * and for other purposes," made the special fund of gifts and donations and the items of appropriation provided in the original act available for the payment of expenses of disabled men "while under investigation by the Board to determine their eligibility for training under the act, and the purchase of supplies, equipment, and clothing for disabled men when ready for employment, and the traveling expenses of such men to place of employment, and for supplementing any and all of the other items of appropriation made by said act."

The occasion for this extension of the use of the funds available for vocational rehabilitation developed under the original act in consequence of the fact that men under investigation by the Board, as well as men in training, were frequently in need of support, especially in cases pending the determination of compensability and the award and payment of compensation; and, further, in consequence of the fact that the original items of appropriation, as budgeted in the vocational rehabilitation act, were found to be in the case of certain items, greater than was required and in the case of other items to be inadequate to meet the needs of the work. The Board, for example, at the very outset adopted the policy of utilizing the existing educational facilities and equipment of the country for institutional vocational training and the policy of training men on the job in industrial and other establishments, in preference to the policy of establishing special schools for the disabled men. Under its adopted policy the Board made practically no expenditures for renting, remodeling, repairing, maintaining, and equipping buildings and quarters for instruction. The fund made available in the original act for this purpose was in the act of February 26 made available to cover other expenses incurred on account of disabled men under provisions of the act. Congress thus authorized the Board to class the various items of the $2,000,000 appropriation so as to expend the money as needed for the remainder of the fiscal year. Even under this new legislation releasing unexpended balances from the restriction of the original budgeting, however, the amount available proved to be inadequate, and the work of the Board during the first year of its operation under the rehabilitation act was greatly handicapped, not only by the original restriction upon the use of its funds, but also by the

inadequacy of the original appropriation as a whole to effect the purposes of the act.

Finding men waiting for long periods of time for their award of compensation under the war-risk insurance act, the Board found it necessary to make use of this time, in so far as funds permitted, for preliminary investigations and surveys of the men to determine what sort of training should be provided as most suitable in each case and for testing out cases. Men could not be put in training until they had been awarded compensation, but the act of February 26 authorized the Board to treat the cases of disabled men not yet in receipt of compensation as cases under investigation and to pay for the support of such men while being investigated.

Under this new authority, receiving stations were set up in each of the 14 districts of the country, a total of 27 receiving stations being established up to June 30, 1919. Men were placed in these stations for further advisement and for testing as to their physical and mental condition, and as to their aptitudes and ambitions. In many cases the beginnings of their vocational training were undertaken. On June 30 there were in these receiving stations a total of approximately 1,300 men.

CONGRESS AUTHORIZES THE BOARD TO AWARD TRAINING WITH FULL SUPPORT.

It was found early in the year 1919 that the provision in the original vocational rehabilitation act that men should be in receipt of compensation before being put into training by the Federal Board was not workable. Under this provision many cases approved by the Board could not be put in training, and long delays resulted in cases approved for training with funds available to give training, but pending the award of compensation. During the adjournment of Congress, after March 4, the Board found it impossible with funds available to carry these men as cases under investigation.

In order to remedy the situation, as soon as Congress reassembled in May, a bill was introduced with the joint consent of the Secretary of the Treasury, representing the War Risk Insurance Bureau, and the Federal Board for Vocational Education. This bill did not become a law until July 11, 1919.

Under the provisions of this law the work of vocational rehabilitation under the Federal Board for Vocational Education was disassociated from the work of determining compensability by the War Risk Insurance Bureau. The Federal Board was authorized to award training with full support and maintenance to all men honorably discharged from the service whose disability was such as to require vocational rehabilitation to overcome their handicap, and irrespec-

tive of the question whether they were in receipt of compensation from the War Risk Insurance Bureau.

The act of July 11 appropriated $6,000,000 to be used by the Federal Board for making payments authorized in the act and for defraying administrative expenses incident thereto.

An additional appropriation of $8,000,000 for carrying out the provisions of the vocational rehabilitation act, as amended by subsequent legislation, was included in the sundry civil bill approved July 18, 1919.

It should be noted that these appropriations, aggregating $14,000,000, were to a limited extent only, in the nature of additional appropriations by Congress to the support of its program of vocational rehabilitation, but were in the main in the nature of transfers of charges for this work from the military and naval family allowance and compensation appropriations, upon which in the original vocational rehabilitation act payments for compensation and allowances during training periods were chargeable, to new funds set up in the Treasury made available for expenditure under direction of the Federal Board. The chief effect of the mandatory acts making these sums available for use by the Federal Board was to provide for support of disabled men while under investigation, as well as during the period of their vocational training, and this provision itself was entirely consistent with the original intention of Congress that disabled men should be given support after discharge and until placed in employment. The effect of the new provisions was simply to enable the Federal Board to speed up the work of training and placing disabled men in accordance with the provisions of the original act, the charges for the work being paid out of a new fund instead of out of the funds therefor available. In the act of July 11, Congress itself fixed the amount to be paid in individual cases for support of men in training, thus enabling the Federal Board to provide somewhat more liberally for the support of men than had been possible with the funds at its disposal under the original act.

PROCEDURE OF THE FEDERAL BOARD.

1. UTILIZATION OF EXISTING EDUCATIONAL FACILITIES.

In providing training for disabled men, the Federal Board determined to use the existing educational facilities of the country. The original act, approved June 27, 1918, provided a fund of $545,000, "for tuition for disabled persons pursuing courses in existing institutions, public or private," and authorized the Board "to prescribe the courses to be followed." No authorization was given to the Board in the vocational rehabilitation act to build schools. The

Board was authorized only to spend money for renting, remodeling, repairing, maintaining and equipping quarters for instruction.

The wide range of instruction required, covering a great variety of courses in professional, engineering, commercial, agricultural, trade, industrial, and technical lines, made the use of existing educational facilities imperative. The practically unaninmous response, not only of the universities, colleges, and schools of the whole country, but as well of the shops, offices, and farms, in offering their facilities for giving rehabilitation training to our disabled men, has been in every way most gratifying and helpful to the Federal Board.

2. COOPERATION WITH EXISTING AGENCIES.

Under section 5 of the act the Federal Board was authorized to cooperate with public and private agencies. Here again the response has been most gratifying. The Board has excellent cooperative arrangements with the Departments of Commerce, Labor, and Agriculture; the War and Navy Departments; the Public Health Service; the Surgeon General's Office, War Department; the Bureau of Medicine and Surgery, Navy Department; the War Risk Insurance Bureau; United States Employment Service; the American Red Cross; the Council of National Defense; the National Catholic War Council; the National Manufacturer's Association; the American Federation of Labor; the United States Chambers of Commerce; the Elks' War Relief Commission; the Elks' Clubs throughout the country; the Rotary Clubs throughout the country; and with casualty insurance companies throughout the country, as well as many hundreds of others.

The Board is cooperating with thousands of public and private agencies, National, State, and local in their scope and in countless ways is securing invaluable aid from them in the discharge of its task.

3. INSURING PROPER TRAINING FOR MEN.

As regards its interpretation of that clause of the act which provides that the Federal Board shall provide "suitable" courses of vocational rehabilitation, the policy of the Federal Board has been, first, that men should be thoroughly trained, and that courses should be as long as might be necessary to give such thorough and complete training as would insure success to the rehabilitated person in the elected employment; that men should, other things being equal, be approved for training in that line of work in which they were most interested, provided they were capable of carrying it on successfully with their handicap, and with their previous educational background and experience; thirdly, recognizing the physical charater of a handicap, the effort has been not only to place men in lines

where they could carry on successfully with their disability, but to give them such intellectual training as would enable them to discharge the duties of positions in which they would be somewhat relieved of undue physical strains.

Finally, the Federal Board has adopted the policy of avoiding, so far as possible, prescribing courses of training which would necessitate life-long dependence of the men upon more or less complicated mechanical devices to take the place of natural members in cases of amputation, or upon special adaptations of tools and machines. The experience of foreign countries, where such devices have been resorted to freely, did not justify the policy of keeping men in occupations where their vocational success would ultimately depend upon the devising and successful manipulation of mechanical appliances. As a general policy it was believed to be preferable wherever possible to train a man for some employment in which he could carry on successfully without resort to such devices. Under the adopted policy the rehabilitated man would be enabled to enter upon employment on a basis of equality with his fellow workers, and would not require arrangements and adaptations in the workshop or factory.

4. CONTROL OF MEN IN TRAINING.

In every respect the returned discharged soldier taking training under the Federal Board has been treated as a civilian, voluntarily undertaking such training as would enable him to overcome the handicap of his disability and to reestablish himself in civil life. The only restriction imposed upon him has been that he should conduct himself properly, and should show evidence of serious effort under expert and sympathetic guidance. Under the law men elected training freely after release from military control and discipline as the first step back into normal civilian life.

5. TRAINING IN HOME COMMUNITIES.

When suitable training facilities were available in the man's home community, he has been returned to that community and his training arranged for there.

It has been found that some men are unwilling, unless it is found to be absolutely necessary, to travel long distances and remain for considerable periods separated from their people and former surroundings. It has not been found possible in every case to provide suitable training in the home community, but a very large majority of the men in training are being trained in their own States, or in the district in which they reside.

6. PLACEMENT TRAINING.

It has not been difficult for the Board to provide suitable institutional training along professional, engineering, agricultural, and commercial lines for men requiring this sort of training. In general, educational facilities for giving such training have been found to be adequate and available. Facilities for giving school training along trade and industrial lines, on the other hand, have been found to be inadequate or unavailable. Schools giving thorough trade and industrial training are few in number, and these are crowded with their regular pupils. Enrollments in these schools have been unusually heavy in the fall of 1919, since the close of the war period. Furthermore, the existing industrial and trade schools offer training along comparatively few lines, covering some 15 or 20 occupations, whereas the demands for training that come from our disabled soldiers and sailors embrace a much wider and more diversified occupational range.

Under these conditions, in this country, as has been the case in other countries also, it has been necessary to arrange for training men on the job under a learner system. The scheme for giving this sort of training is being rapidly developed, and there were on October 1, 1919, 934 men in training in 744 establishments.

7. APPROVAL OF TRAINING SUBJECT TO RENEWAL.

In the matter of approvals for training the Board has adopted the policy of approving for periods of not more than one year as a maximum, with the understanding that if the work is satisfactory the second year's course will be awarded. In cases where a man has entered upon a two, three or four year course, under approval for one year, the Board feels that the Government has morally obligated itself to see him through to the end, and that it is bound to approve completion of the course of training which has been adjudged necessary to make the man vocationally efficient.

The average length of course, taking into account simply the periods for which training has been approved by the Board, is approximately nine months, no account being taken in this average of probable continuations or renewals in cases where a course extends over a period longer than one year.

8. MISFITS IN THE SELECTION OF COURSES.

It is not possible in every case for the Board in conference with the man to determine at the outset just what course of training will be best adapted to the man's capacities. Where a course has been entered upon, and it is found on a fair try-out that the man is not profiting by it as anticipated and might better be put into some other

course, arrangements are made to avoid continuance of the misfit training by shifting the man into a new line. He may be taken from a school and put into placement training, or taken out of a workshop and entered in a school, or he may be shifted from one sort of placement or school training to another.

9. FULL SUPPORT AND MAINTENANCE TO MEN IN PLACEMENT TRAINING UNDER WAGE-EARNING CONDITIONS.

Men in placement training receive support and maintenance from the Board in the same amount as do men enrolled for training in an educational institution, wages earned by men in training constituting additional income for them, over and above the support and maintenance granted by the Board under schedules fixed by Congress; under the act as amended July 11, the Board is authorized to pay for the support and maintenance of a man and his dependents such sum as in its judgment is necessary, not to exceed $80 per month for a single man without dependents, nor a maximum of $150 per month for a man with dependents, such payments to be determined according to a graduated schedule.

In the opinion of the Board any policy which could virtually take away from men any portion of the wages earned by them while in training would be calculated to discourage the development of that efficiency which is the end and purpose of all training.

ORGANIZATION.

In order to provide for the discharge of the new duties with which it was charged under the vocational rehabilitation act, the Federal Board created a division of rehabilitation, bringing together coincidently in a separate division its activities relating to the promotion of vocational education under its organic act (the vocational education act approved February 23, 1917), and continued the research division of the Board as charged with certain duties and responsibilities under both acts.

Under the direct supervision of the chief of the rehabilitation division 14 district offices were set up and ultimately in certain districts branch offices were organized under the administrative supervision of district offices. Following is a list of the district and branch offices, and of the geographical areas assigned to each office:

District No. 1—Maine, New Hampshire, Vermont, Massachusetts and Rhode Island. Office: Room 1201 Little Building, 80 Boylston Street, Boston, Mass. Branch office: Rooms 324–326 Masonic Building, Portland, Me.

District No. 2—Connecticut, New York, and New Jersey. Office: 469 Fifth Avenue, New York City, N. Y.

District No. 3—Pennsylvania and Delaware. Office: Emergency Fleet Building, 140 N. Broad Street, Philadelphia, Pa. Branch office: Room 491 Union Arcade Building, Pittsburgh, Pa.

District No. 4.—District of Columbia, Maryland, Virginia, and West Virginia. Office: Room 660 Lexington Building, Baltimore, Md. Branch offices: Room 400 Flat Iron Building, Norfolk, Va.; 1410 Pennsylvania Avenue NW., Washington, D. C.

District No. 5.—North Carolina, South Carolina, Georgia, Florida, and Tennessee. Office: Room 823 Forsyth Building, Atlanta, Ga.

District No. 6.—Alabama, Mississippi, and Louisiana. Office: Rooms 412–432 Maison Blanche Annex, New Orleans, La. Branch office: Jefferson County Bank Building, Birmingham, Ala.

District No. 7.—Ohio, Indiana, and Kentucky. Office: Denton Building, Cincinnati, Ohio. Branch office: Home Service Section, American Red Cross, Park Building, Cleveland, Ohio.

District No. 8.—Michigan, Illinois, and Wisconsin. Office: Room 814 Consumers Building, 220 South State Street, Chicago, Ill. Branch offices: Room 807 Owen Building, Detroit, Mich.; First National Bank Building, Milwaukee, Wis.

District No. 9.—Iowa, Nebraska, Kansas, and Missouri. Office: Rooms 815–824 Chemical Building, St. Louis, Mo. Branch office: Room 413 Massachusetts Building, Kansas City, Mo.

District No. 10.—Minnesota, Montana, North Dakota, and South Dakota. Office: Room 742 Metropolitan Bank Building, Minneapolis, Minn.

District No. 11.—Wyoming, Colorado, New Mexico, and Utah. Office: Room 400 Mercantile Building, Denver, Colo.

District No. 12.—California, Nevada, and Arizona. Office: Room 544 Flood Building, San Francisco, Calif. Branch office: 207 South Broadway, Los Angeles, Calif.

District No. 13.—Idaho, Oregon, and Washington. Office: Room 539 Central Building, Seattle, Wash.

District No. 14.—Arkansas, Oklahoma, and Texas. Office: Dallas Club Building, 118 South Poydras Street, Dallas, Tex.

Outside Continental United States: Chief, Division of Rehabilitation, Convention Hall, Fifth and L Streets NW., Washington, D. C.

WORK ACCOMPLISHED.

When the Federal Board set about its great task of providing for the vocational rehabilitation of disabled soldiers, sailors, and marines, there was no one in this country who had had any experience in this field of work. In European countries and in Canada, however, the work of rehabilitation of the disabled had been developed under pressure of the war emergency, and the Federal Board made a thorough investi-

gation of the policies and methods developed in foreign countries, utilizing every available source of information.

Foreign experience provided an invaluable test of the administrative principles and methods adopted in different countries, and while this experience could not be accepted as entirely valid for guidance in developing the work in this country, it demonstrated clearly that the program of vocational rehabilitation of the disabled was a practical program, and that such a program was absolutely essential for the conservation of the Nation's man power and for effecting, in so far as possible, a recovery from the wounds inflicted upon the Nation during the war. Every nation without exception recognized its obligation, moral and economic, to achieve the vocational rehabilitation of its disabled soldiers and sailors, and out of the experience of every nation in doing this work the Federal Board gathered some helpful principles to guide it in undertaking its own peculiar task.

It summoned to its aid such experts as it could procure for the service. It made a personal investigation of the methods which had been developed in Canada, where conditions were in general similar to those obtaining in the United States. While the vocational rehabilitation bill was pending in Congress, as noted in the last annual report of the Board, a party of 15 persons selected by the Board were given a course of six weeks' training under the auspices and at the expense of the Red Cross Institute for Crippled and Disabled Men, the group being taken to Canada during four of the six weeks' training to inspect Canadian methods.

The Board was fortunate in being able to secure in the initial stages of organization the services of Mr. T. B. Kidner, secretary of the vocational branch of the Canadian department of soldiers' civil reestablishment, who had organized the vocational rehabilitation training for disabled Canadian soldiers, and of Dr. James C. Miller, provincial director of technical education and district vocational officer for the Canadian department of soldiers' civil reestablishment. In many ways, which can not be recounted in detail, the Federal Board is under obligations to the Canadian authorities for their helpful cooperation during the past year.

In building up its rehabilitation staff the Federal Board sought men of experience and demonstrated ability; but it will be obvious that no men of experience in the work of vocationally training war-disabled men were available in this country, because this task confronting the Federal Board was, in nearly every aspect of it, so far as American experience went, an undertaking entirely without precedent. The Board and its staff were in a position where they must learn by undertaking the task imposed by Congress, under pressure of the emergency itself, and it is only fair to add that every

member of the staff embraced with enthusiasm this opportunity to be of service in achieving a great purpose. One and all have devoted themselves unselfishly and untiringly to the full measure of their capacity to the carrying out of the intention of Congress that our disabled men should be liberally provided for and returned to civil life as efficient, self-respecting, and self-sufficient members of society.

From July 1, 1918, to March 1, 1919, the problems before the Board were largely those of organization. The plans of the War Department to discharge disabled men from a restricted number of hospitals were changed on account of the signing of the armistice. During the month of December, 1918, and the first four months of 1919, disabled men were discharged at a rate which averaged over 23,000 a month, and these men were discharged from almost every Army cantonment, camp, post, or hospital. It was, therefore, necessary for the Board to build up a large staff for interviewing disabled men in a relatively short space of time.

During the spring and summer of 1919 the efforts of the Board were largely centered on the problem of placing men in training, making arrangements with institutions for special courses for disabled men, and in making provisions of every sort for the proper training of these men. As the enrollment in institutions throughout the country was exceptionally large, the problem of placing men in training was a great one. The Board is meeting this problem successfully.

The next problem to be met is that of supervising the work of disabled men in training in institutions and in productive establishments to see that adequate training is provided. The final problem is that of placing men who have been trained, in suitable gainful employment.

At the close of the fiscal year ended June 30, 1919, Federal Board registrations of disabled men reported by the district offices numbered 135,000, and at this date new names were being enrolled at the rate of nearly 800 a day. In May, registrations averaged between 900 and 1,000 per day, and for the four weeks ended September 20, somewhat over 400 per day. On September 20 total registrations were 182,000. This registration includes every name of a disabled man which the Federal Board or any of its district offices or agents have been able to secure from any reliable source, including the War Risk Insurance Bureau, the Red Cross, the Department of Labor, the Army and Navy hospitals, and friends or relatives of disabled men. Every case enrolled is a case for investigation, to determine in the first instance eligibility for training under the law. District offices reported contact established with men in 110,000 cases to the end of June. The number of men passed on by the medical examiner numbered 36,000 and the number of men surveyed by vocational advisers 89,000. District office case boards had approved for training, sub-

ject to central office approval, 16,000 cases. On this date approximately 1,300 men were in receiving stations enrolled in try-out vocational courses, 626 men were enrolled for agricultural courses, 664 men for professional courses, 1,180 for commercial and clerical courses, 1,278 for trade and industrial courses, and 602 for elementary and academic courses. Over 500 schools, colleges, and universities were being used by the Board for reeducational purposes, and nearly 200 commercial and industrial establishments.

The statistical tables accompanying this report show in detail how the work has progressed from week to week. The effect of the removal of the limitations upon the activities of the Federal Board in putting men into training, by the act of July 11, may be noted in the totals for men placed in training and approved for training since the passage of that act. According to central office records a total of 4,122 men had been placed in training up to July 11, 1919; in the three months from July 11 to October 11, 8,617 men were reported to the central office as placed in training. The central office approvals for training prior to July 11 numbered 10,273. For the three months July 11 to October 11, central office approvals numbered 15,039.

The following tables show in detail the progress of the Board in the problem of providing vocational rehabilitation to disabled soldiers, sailors, and marines:

STATISTICAL REPORT—REHABILITATION DIVISION.

The accompanying statistical tables are compiled from weekly reports of district vocational offices to the central office. Figures taken from these reports are subject to revision by auditing district office statistical accounting. In some cases auditing of a district's accounts has resulted in changing totals reported of, for example, registrations, cases on hand, and cases in training. During the period of organization of the district offices there was necessarily some duplication in the registration of disabled men, as a result of the migration of men from district to district, and the interdistrict transfer of cases. These duplications have been so far as possible eliminated. They can not, however, be entirely eliminated from compilations based upon district office periodical reports. Central office records of individual cases provide an independent basis for compilation of data, but these records do not cover all the activities of the district offices. It is believed that the district office reports in all essential matters provide a fair statement of the progress of the rehabilitation work of the Federal Board. It will be clear from an examination of the tables that they have been planned to provide the Federal Board with a running statistical account of the rehabilitation work as it has progressed from week to week in the district offices.

While comparatively little interest may attach to some of the detail gathered for administrative purposes, the tables as prepared have been included in the annual report without modification in order to provide Congress with a full and complete statement of the Board's activities under the vocational rehabilitation act.

TABLE 1.—*Registrations of disabled men by agencies reporting cases, since organization to June 28, 1919, and in weeks ended June 28 and June 21.*

Agency.	Registrations.								
	Total since organization to June 28.	By weeks.		Week ended June 28 compared with week ended June 21.		Average per day.		Percentage distribution.	
		In week ended June 28.	In week ended June 21.	Increase	Decrease.	Week ended June 28 (6 days).	Week ended June 21 (6 days).	Total since organization.	In week ended June 28.
	a	b	c	d	e	f	g	h	i
All agencies	136,049	7,244	5,367	1,877	.....	1,207	895	100.0	100.0
War Risk Insurance Bureau	21,358	1,341	857	484	.....	224	143	15.8	18.5
Department of Labor	177	4	9	.....	5	1	2	.1	.1
Red Cross	13,140	1,048	422	626	.....	175	70	9.7	14.5
Hospital	82,822	3,743	3,260	483	.....	624	543	61.0	51.7
Man direct	12,806	788	576	212	.....	131	96	9.4	10.9
Other agency	5,746	320	243	77	.....	53	41	4.0	4.4

TABLE 2.—*Registrations by district vocational offices since organization, and in weeks ended June 28 and June 21, 1919.*

District vocational office.	Registrations.								
	Total since organization to June 28.	By weeks.		Week ended June 28 compared with week ended June 21.		Average per day.		Percentage distribution.	
		In week ended June 28.	In week ended June 21.	Increase.	Decrease.	Week ended June 28 (6 days).	Week ended June 21 (6 days).	Total since organization.	In week ended June 28.
	a	b	c	d	e	f	g	h	i
Total	136,049	7,244	5,367	1,877	.....	1,207	894	100.0	100.0
District No. 1	6,099	165	253	.....	88	28	42	4.5	2.3
District No. 2	19,837	788	395	393	.....	131	66	14.6	10.9
District No. 3	10,769	396	245	151	.....	66	41	7.9	5.4
District No. 4	12,095	359	943	.....	584	60	157	8.9	4.9
District No. 5	16,496	478	409	69	.....	80	68	12.1	6.6
District No. 6	6,636	334	264	70	.....	56	44	4.9	4.6
District No. 7	10,640	390	540	.....	150	65	90	8.0	5.4
District No. 8	15,828	2,816	784	2,032	.....	469	131	11.5	38.9
District No. 9	9,550	410	380	30	.....	68	63	7.9	5.6
District No. 10	3,774	343	199	144	.....	57	33	2.1	4.7
District No. 11	4,022	158	193	.....	35	26	32	2.9	2.1
District No. 12	4,971	181	228	.....	47	30	38	3.3	2.5
District No. 13	3,600	180	220	.....	40	30	37	2.6	2.5
District No. 14	11,732	246	314	.....	68	41	52	8.6	3.4

Agency	Registrations
W. R. I. Bureau	21,358
Department of Labor .	177
Red Cross	13,140
Hospital	82,822
Man direct	12,806
Other agency	5,746

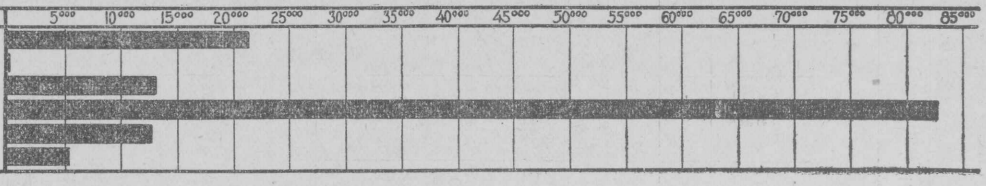


DIAGRAM I.—Registrations by agencies since organization to June 28, 1919.

D. V. O. No.	Registrations
District No. 1	6,099
District No. 2	19,837
District No. 3	10,769
District No. 4	12,095
District No. 5	16,496
District No. 6	6,636
District No. 7	10,640
District No. 8	15,828
District No. 9	9,550
District No. 10 ...	3,774
District No. 11 ...	4,022
District No. 12 ...	4,971
District No. 13 ...	3,600
District No. 14 ...	11,732

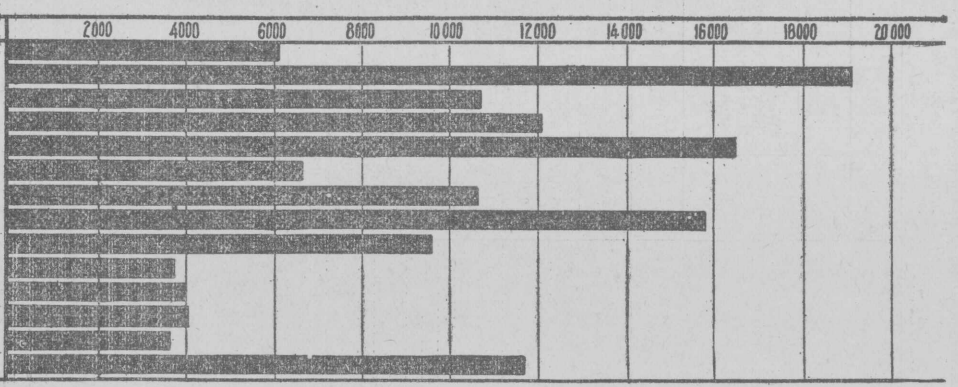


DIAGRAM II.—Registrations by district vocational offices since organization to June 28.

TABLE 3.—*Registrations by agencies and districts, since organization to June 28, 1919, and in week ended June 28.*

District vocational office reporting registration.	Registration.						
	Total.	Agency.					
		War Risk Insurance Bureau.	Department of Labor.	Red Cross.	Hospital.	Man direct.	Other agency.
	a	b	c	d	e	f	g
	Since organization to June 28.						
Total	136,049	21,358	177	13,140	82,822	12,806	5,746
District No. 1	6,099	2,140	11	911	2,200	637	200
District No. 2	19,837	1,903	6	549	15,348	1,957	74
District No. 3	10,769	1,653	48	1,247	6,015	1,599	207
District No. 4	12,095	1,292	5	970	9,242	263	323
District No. 5	16,496	2,426	26	705	11,969	426	914
District No. 6	6,636	1,300	21	1,215	2,882	788	430
District No. 7	10,640	794	16	600	7,138	487	1,605
District No. 8	15,828	3,544	20	1,805	7,955	2,055	449
District No. 9	9,550	1,001	.....	310	6,877	1,022	340
District No. 10	3,774	711	12	508	1,316	759	468
District No. 11	4,022	1,088	.....	596	1,259	1,036	43
District No. 12	4,971	690	.....	626	2,149	1,037	469
District No. 13	3,600	619	.....	233	2,602	99	47
District No. 14	11,732	2,197	12	2,865	5,840	641	177
	In week ended June 28.						
Total	7,244	1,341	4	1,048	3,743	788	320
District No. 1	165	54	.....	44	37	27	3
District No. 2	788	34	.....	37	539	177	1
District No. 3	396	.....	.....	26	312	55	3
District No. 4	359	173	.....	9	113	28	36
District No. 5	478	81	3	11	358	12	13
District No. 6	334	30	.....	183	43	35	43
District No. 7	390	6	.....	31	229	20	104
District No. 8	2,816	842	1	530	1,289	152	2
District No. 9	410	1	.....	.....	302	105	2
District No. 10	343	20	.....	111	70	45	97
District No. 11	158	19	.....	10	75	54	.....
District No. 12	181	53	.....	25	53	50	.....
District No. 13	180	.....	.....	22	129	16	13
District No. 14	246	28	.....	9	194	12	3

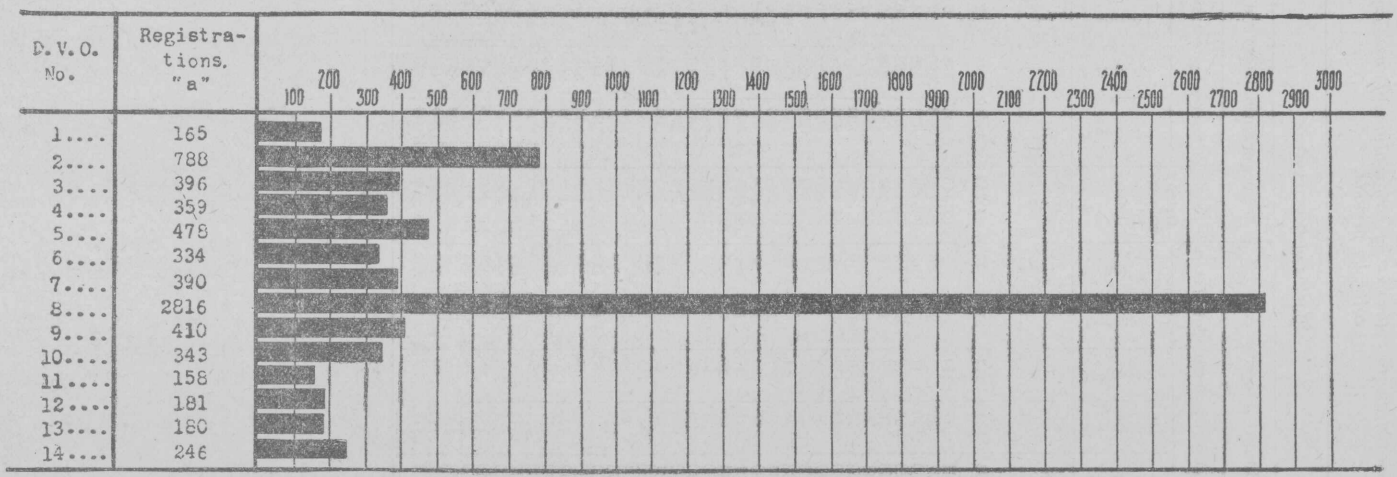


DIAGRAM III.—Registrations by districts in week ended June 28, 1919.

TABLE 4.—*Original registrations, closures by termination of case, and live cases on the rolls, by periods.*

Period.	Number of cases reported.												Live cases on rolls at end of period g–h.
	In period specified.						Since organization to end of period.						
	Original registrations.	Closures by termination of case.					Original registrations.	Closures by termination of case.					
		Total.	Dropped.	Released.	Deceased.	Other.		Total.	Dropped.	Released.	Deceased.	Other.	
	a	b	c	d	e	f	g	h	i	j	k	l	m
To Feb. 8, 1919	25,755	474	341	17	100	16	25,755	474	341	17	100	16	25,281
Week ended:													
Feb. 15	2,420	31	17	10	4	.....	28,175	505	358	27	104	16	27,670
22	2,607	71	32	.....	33	6	30,782	576	390	27	137	22	30,206
Mar. 1	4,487	60	30	7	10	13	35,269	636	420	34	147	35	34,633
8	6,225	−18	−58	2	35	3	41,494	618	362	36	182	38	40,876
15	5,787	116	76	7	30	3	47,281	734	438	43	212	41	46,547
22	4,856	43	26	1	14	2	52,137	777	464	44	226	43	51,360
29	5,531	52	27	6	10	9	57,668	829	491	50	236	52	56,839
Apr. 5	4,813	69	40	12	12	5	62,481	898	531	62	248	57	61,583
12	7,719	69	51	8	6	4	70,200	967	582	70	254	61	69,233
19	5,342	65	43	5	16	1	75,542	1,032	625	75	270	62	74,510
26	6,377	132	25	84	4	19	81,919	1,164	650	159	274	81	80,755
May 3	5,987	134	51	57	20	6	87,906	1,298	701	216	294	87	86,608
10	6,672	189	91	50	26	22	94,578	1,487	792	266	320	109	93,091
17	6,887	101	41	37	22	1	101,465	1,588	833	303	342	110	99,877
24	6,316	144	66	26	30	22	107,781	1,732	899	329	372	132	106,049
31	4,653	80	34	13	10	23	112,434	1,812	933	342	382	155	110,622
June 7	5,478	70	30	28	9	3	117,912	1,882	963	370	391	158	116,030
14	5,472	190	78	22	34	56	123,384	2,072	1,041	392	425	214	121,312
21	5,367	131	62	15	20	34	128,751	2,203	1,103	407	445	248	126,548
28	7,208	158	106	15	25	12	136,049	2,361	1,209	422	470	260	133,688
July 5	5,051	124	58	35	26	5	141,100	2,485	1,267	457	496	265	138,615
12	6,204	173	115	17	23	18	147,304	2,658	1,382	474	519	283	144,646
19	5,906	129	61	27	27	14	153,210	2,787	1,443	501	546	297	150,423
26	4,409	180	95	10	23	52	157,619	2,967	1,538	511	569	349	154,652
Aug. 2	3,416	542	426	31	20	65	161,035	3,509	1,964	542	589	414	157,526
9	4,238	816	370	179	27	240	165,273	4,325	2,334	721	616	654	160,948
16	3,207	600	223	228	69	80	168,480	4,925	2,557	949	685	734	163,555
23	2,137	702	141	381	16	164	170,617	5,627	2,698	1,330	701	898	164,990
30	2,881	3,010	514	335	18	2,143	173,498	8,637	3,212	1,665	719	3,041	164,861
Sept. 6	2,258	482	129	94	10	249	175,756	9,119	3,341	1,759	729	3,290	166,637
13	4,346	758	340	26	7	385	180,102	9,877	3,681	1,785	736	3,675	170,225
20	2,284	552	126	8	14	404	182,386	10,429	3,807	1,793	750	4,079	170,957
27	2,166	3,361	649	39	13	2,660	184,552	13,790	4,456	1,832	763	6,739	170,762
Oct. 4	2,057	802	437	22	9	424	186,609	14,682	4,893	1,854	772	7,163	171,927

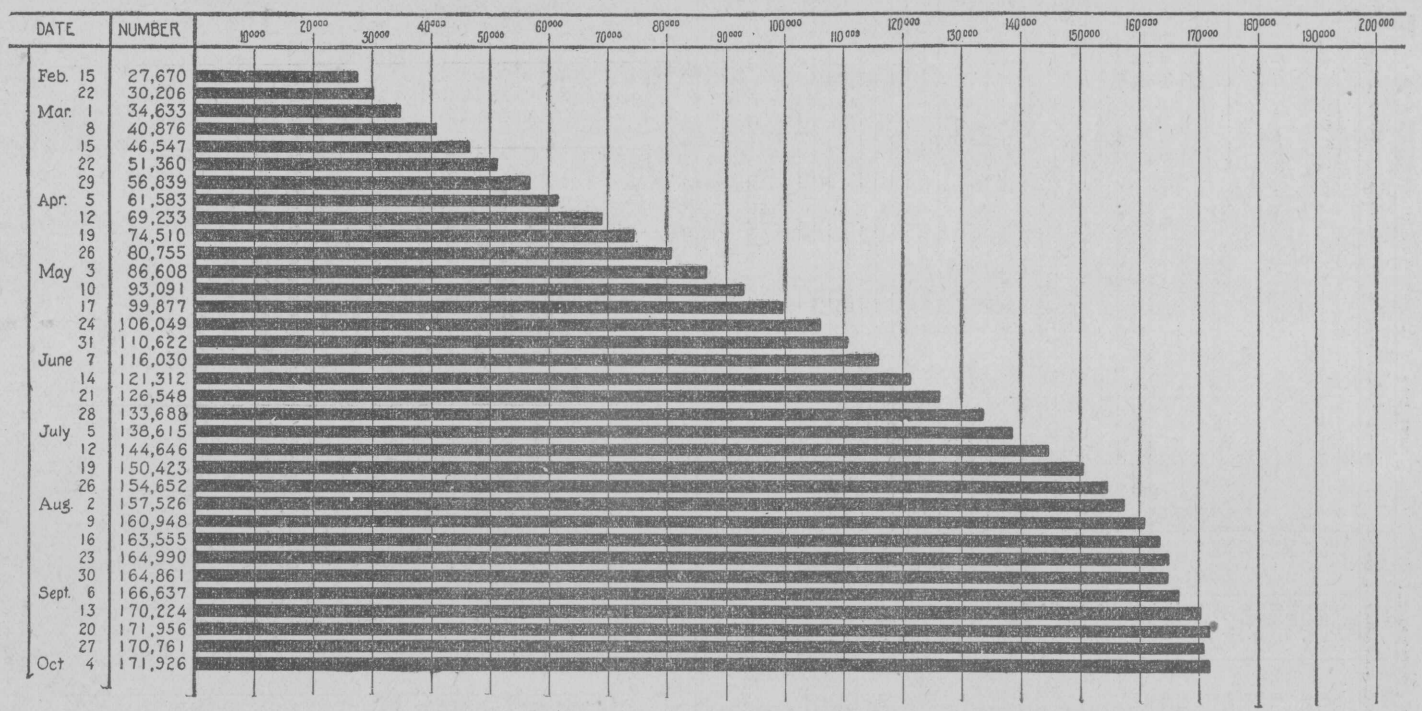
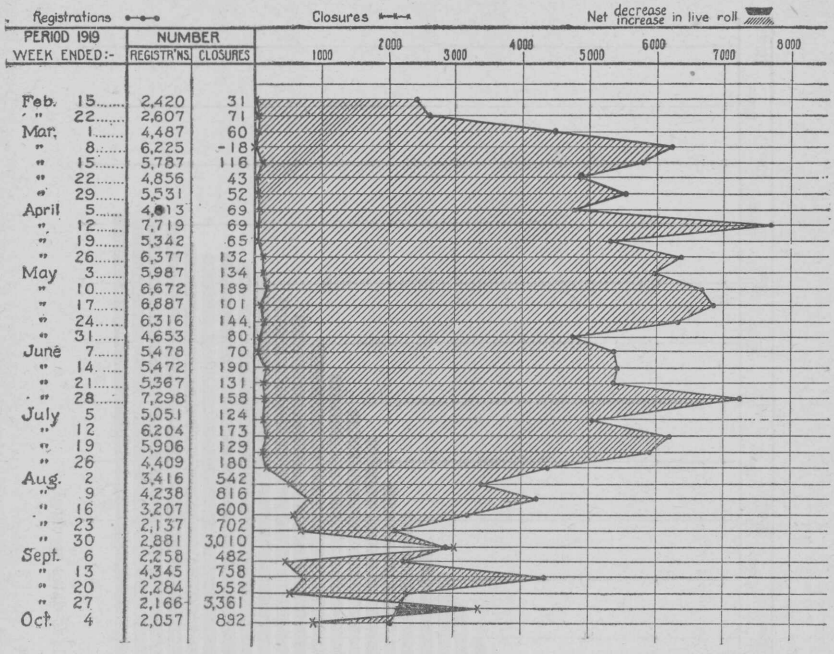
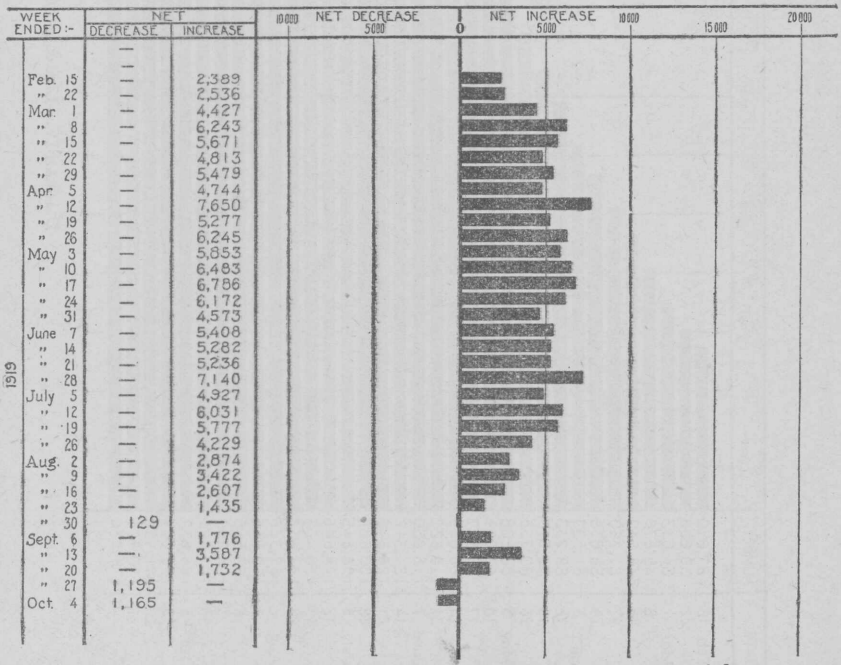


DIAGRAM IV.—Live cases on the rolls at dates specified.



PERIOD 1919 WEEK ENDED:-	NUMBER REGISTR'NS.	CLOSURES
Feb. 15	2,420	31
" 22	2,607	71
Mar. 1	4,487	60
" 8	6,225	-18
" 15	5,787	116
" 22	4,856	43
" 29	5,531	52
April 5	4,813	69
" 12	7,719	69
" 19	5,342	65
" 26	6,377	132
May 3	5,987	134
" 10	6,672	189
" 17	6,887	101
" 24	6,316	144
" 31	4,653	80
June 7	5,478	70
" 14	5,472	190
" 21	5,367	131
" 28	7,298	158
July 5	5,051	124
" 12	6,204	173
" 19	5,906	129
" 26	4,409	180
Aug. 2	3,416	542
" 9	4,238	816
" 16	3,207	600
" 23	2,137	702
" 30	2,881	3,010
Sept. 6	2,258	482
" 13	4,345	758
" 20	2,284	552
" 27	2,166	3,361
Oct. 4	2,057	892

DIAGRAM V.—Original registrations and closures by termination of case, by weeks.



WEEK ENDED:-	NET DECREASE	NET INCREASE
Feb. 15	—	2,389
" 22	—	2,536
Mar. 1	—	4,427
" 8	—	6,243
" 15	—	5,671
" 22	—	4,813
" 29	—	5,479
Apr. 5	—	4,744
" 12	—	7,650
" 19	—	5,277
" 26	—	6,245
May 3	—	5,853
" 10	—	6,483
" 17	—	6,786
" 24	—	6,172
" 31	—	4,573
June 7	—	5,408
" 14	—	5,282
" 21	—	5,236
" 28	—	7,140
July 5	—	4,927
" 12	—	6,031
" 19	—	5,777
" 26	—	4,229
Aug. 2	—	2,874
" 9	—	3,422
" 16	—	2,607
" 23	—	1,435
" 30	129	—
Sept. 6	—	1,776
" 13	—	3,587
" 20	—	1,732
" 27	1,195	—
Oct. 4	1,165	—

DIAGRAM VI.—Net increase or decrease of live cases on the rolls, by periods.

TABLE 5.—*Registrations and closures, including transfers, since organization, and live cases on the rolls, and reported on hand June 28, 1919, and Oct. 4, 1919, by districts.*

District vocational office.	Number of cases since organization to June 28, 1919.									Net live registrations.		Cases reported on hand Oct. 4.
	Registrations.			Closures.								
					By termination of case.				By transfer to other district vocational offices.	Excess of registrations over closures to June 28. a-d.	Excess of registrations over closures to Oct. 4.	
	Total.	Original.	By transfer.	Total.	Dropped.	Released.	Deceased.	Other.				
	a	b	c	d	e	f	g	h	i	j	k	
Total....	166,561	136,049	30,512	39,391	1,209	422	470	260	37,030	127,170	164,165	145,704
District 1.....	7,299	6,099	1,200	1,331	71	25	30	.....	1,205	5,968	7,816	7,835
District 2.....	22,403	19,837	2,566	9,089	2	20	.....	.....	9,067	13,314	19,561	15,500
District 3.....	15,509	10,769	4,740	1,388	589	16	49	.....	734	14,121	13,340	12,775
District 4.....	13,210	12,095	1,115	6,209	.....	.....	29	41	6,139	7,001	9,361	6,379
District 5.....	19,585	16,496	3,089	7,372	180	8	52	128	7,004	12,213	15,237	14,596
District 6.....	8,385	6,636	1,749	604	91	117	40	.....	356	7,781	8,307	4,907
District 7.....	13,195	10,640	2,555	2,284	.....	.....	60	.....	2,224	10,911	15,265	15,280
District 8.....	20,425	15,828	4,597	2,889	133	8	42	.....	2,706	17,536	23,788	20,308
District 9.....	12,113	9,550	2,563	3,492	4	.....	25	43	3,420	8,621	12,317	12,800
District 10.....	6,111	3,774	2,337	620	.....	228	13	.....	379	3,444	9,470	9,864
District 11.....	4,753	4,022	731	1,309	48	.....	51	48	1,162	5,441	4,889	4,993
District 12.....	5,937	4,971	966	477	.....	.....	16	.....	461	5,460	7,299	4,131
District 13.....	4,296	3,600	696	172	3	.....	12	.....	157	4,124	5,328	4,461
District 14.....	13,340	11,732	1,608	2,155	88	.....	51	.....	2,016	11,185	12,187	11,875

TABLE 6.—*Interdistrict transfers during week ended June 28, 1919, by districts and class of case transferred.*

Class of case.	Total.	District vocational office number—													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Cases transferred during week ended June 28, 1919.														
	Received by specified district vocational office from all other offices during week.														
Total	1,546	39	150	332	32	75	51	108	321	135	167	39	21	42	34
For survey	652	37	14	109	14	30	12	28	88	132	159	13	....	5	11
For placement	199	....	39	101	4	10	5	25	.....	.....	8	4	....	6	6
For training	674	2	106	122	14	35	34	55	233	3	.....	22	....	31	17
Not specified	21	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	.....	.....
	Transferred by specified district vocational office to all other offices during week.														
Total	1,476	32	241	26	4	77	10	109	490	176	60	108	53	7	83
For survey	460	28	23	2	....	35	6	34	64	174	59	23	....	5	7
For placement	111	....	43	12	....	3	....	24	.....	.....	1	3	.....	.....	25
For training	852	4	175	12	4	39	4	51	426	2	.....	82	....	2	51
Not specified	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53	.....	.....
	Net gain by transfers during week.														
Total	70	7	.....	306	28	....	41	.....	.....	.....	107	....	....	35	....
For survey	192	9	.....	107	14	....	6	.....	24	.....	100	....	....	....	4
For placement	88	.....	.....	89	4	7	5	1	.....	.....	7	1	....	6	....
For training	.....	.....	.....	110	10	....	30	4	.....	1	.....	.....	....	29	....
Not specified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Net loss by transfers during week.														
Total	.....	....	91	.....	....	2	....	1	169	41	.....	69	32	....	49
For survey	.....	....	9	.....	....	5	....	6	.....	42	.....	10	.....	.....	....
For placement	.....	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
For training	178	2	69	.....	.....	4	.....	.....	193	.....	.....	60	.....	....	34
Not specified	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32	.....	.....

D. V. O.	Net		Net loss							Net gain						
	Loss	Gain	200	150	100	50	0	50	100	150	200	250	300	350
No. 1	-	7												
No. 2	91	-												
No. 3	-	306												
No. 4	-	28												
No. 5	2	-												
No. 6	-	41												
No. 7	1	-												
No. 8	169	-												
No. 9	41	-												
No. 10 ...	-	107												
No. 11 ...	69	-												
No. 12 ...	32	-												
No. 13 ...	-	35												
No. 14 ...	49	-												

DIAGRAM VII.—Net gain or loss by interdistrict transfers during week ended June 28, 1919, by districts.

TABLE 7.—*Interdistrict transfers since organization to June 28, 1919, by districts and class of case.*

Class of case.	Cases transferred since organization to June 28, 1919.															
	Total.	District vocational office.														Not specified district vocational office.
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.	
	a. Received by specified district vocational office from all other offices.															
Total	30,512	1,200	2,566	4,740	1,115	3,089	1,749	2,555	4,597	2,563	2,337	731	966	696	1,608	.....
For survey	9,475	846	98	750	162	1,007	299	435	892	2,312	1,856	234	.....	224	360	.....
For placement	3,399	.....	336	1,079	254	482	225	405	32	11	258	67	.....	50	200	.....
For training	12,255	9	1,575	2,264	609	1,244	935	1,239	2,787	74	41	430	.....	336	712	.....
Not specified	5,383	345	557	647	90	356	290	476	886	166	182	.....	966	86	336	.....
	b. Transferred by specified district vocational office to all other offices.															
Total	37,033	1,205	9,067	734	6,139	7,004	356	2,224	2,706	3,420	379	1,165	461	157	2,016	.....
For survey	9,433	1,030	1,166	132	547	1,440	107	573	370	3,154	286	186	.....	43	399	.....
For placement	4,361	4	1,083	137	1,017	903	39	647	1	.....	25	35	.....	9	461	.....
For training	16,903	10	4,187	370	3,469	3,502	129	937	2,265	33	34	871	.....	59	1,037	.....
Not specified	6,336	161	2,631	95	1,106	1,159	81	67	70	233	34	73	461	46	119	.....
	c. Received by all other offices from specified district vocational office.															
Total	30,512	949	5,482	544	5,340	3,558	636	2,424	1,477	1,974	302	790	404	372	1,688	4,572
For survey	9,475	150	1,764	202	1,603	1,193	242	1,215	817	1,033	75	313	193	109	554	12
For placement	3,399	159	1,004	38	842	414	66	256	57	270	7	26	26	10	224	.....
For training	12,255	622	2,583	271	2,809	1,886	319	936	568	630	212	331	185	97	806	.....
Not specified	5,383	18	131	33	86	65	9	17	35	41	8	120	.....	156	104	4,560

d. Transferred by all other offices to specified district vocational office.

Total	37,033	1,312	2,886	4,451	1,522	2,123	2,043	2,775	3,377	2,949	3,227	973	886	836	1,798	5,875
For survey	9,433	264	1,069	849	417	461	413	553	1,099	688	1,956	473	283	246	616	46
For placement	4,361	181	382	940	245	460	389	325	465	418	97	72	112	73	199	3
For training	16,903	863	1,418	2,650	846	1,178	1,222	1,885	1,770	1,785	1,128	361	484	373	926	14
Not specified	6,336	4	17	12	14	24	19	12	43	58	46	67	7	144	57	5,812

Net gain by specified district vocational office by transfers (*a–b*).

Total	.....	.....	.....	4,006	.....	.....	1,393	331	1,891	.....	1,958	.....	505	539	.....	.....
For survey	42	.....	.....	618	.....	.....	192	.....	522	.....	1,570	48	.....	181	.....	.....
For placement	.....	.....	.....	942	.....	.....	186	.....	31	11	233	32	.....	41	.....	.....
For training	.....	.....	.....	1,894	.....	.....	806	302	522	41	7	.....	.....	277	.....	.....
Not specified	.....	184	.....	552	.....	.....	209	409	816	.....	148	.....	505	40	217	.....

Net loss by specified district vocational office by transfers (*b–a*).

Total	6,521	5	6,501	.....	5,024	3,915	.....	.....	.....	857	.....	434	.....	.....	408	.....
For survey	.....	184	1,068	.....	385	433	.....	138	.....	842	.....	.....	.....	.....	39	.....
For placement	962	4	747	.....	763	421	.....	242	.....	.....	.....	.....	.....	.....	261	.....
For training	4,648	1	2,612	.....	2,860	2,258	.....	.....	.....	.....	.....	441	.....	.....	325	.....
Not specified	953	.....	2,074	.....	1,016	803	.....	.....	.....	67	.....	73	.....	.....	.....	.....

Excess of transfers by over transfers to specified district vocational office (*b–d*).

Total	.....	.....	6,181	.....	4,617	4,881	.....	.....	.....	471	.....	192	.....	.....	218	.....
For survey	.....	766	97	.....	130	979	.....	20	.....	2,466	.....	.....	.....	.....	.....	.....
For placement	.....	.....	701	.....	772	443	.....	322	.....	.....	.....	.....	.....	.....	262	.....
For training	.....	.....	2,769	.....	2,623	2,324	.....	.....	495	.....	.....	510	.....	.....	111	.....
Not specified	.....	157	2,614	83	1,092	1,135	62	55	37	175	.....	6	454	.....	62	.....

Excess of transfers to over transfers by specified district vocational office (*d–b*).

Total	.....	107	.....	3,717	.....	.....	1,687	551	671	.....	2,848	.....	425	679	.....	5,875
For survey	.....	.....	.....	717	.....	.....	306	.....	729	.....	1,670	287	283	203	217	46
For placement	.....	177	.....	803	.....	.....	350	.....	464	418	72	37	112	64	.....	3
For training	.....	853	.....	2,280	.....	.....	1,093	948	.....	1,752	1,094	.....	484	314	.....	14
Not specified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	.....	.....	98	.....	5,812

Received from other offices				Transferred to other offices		
D. V. C.	Total	Net gain		Total	Net loss	D. V. C.
1	1,200	-		1,205	5	1
2	2,566	-		9,067	6,501	2
3	4,740	4,006		734	-	3
4	1,115	-		6,139	5,024	4
5	3,089	-		7,004	3,915	5
6	1,749	1,393		356	-	6
7	2,555	331		2,224	-	7
8	4,597	1,891		2,706	-	8
9	2,563	-		3,420	857	9
10	2,337	1,958		379	-	10
11	731	-		1,165	434	11
12	966	505		461	-	12
13	696	539		157	-	13
14	1,608	-		2,016	408	14

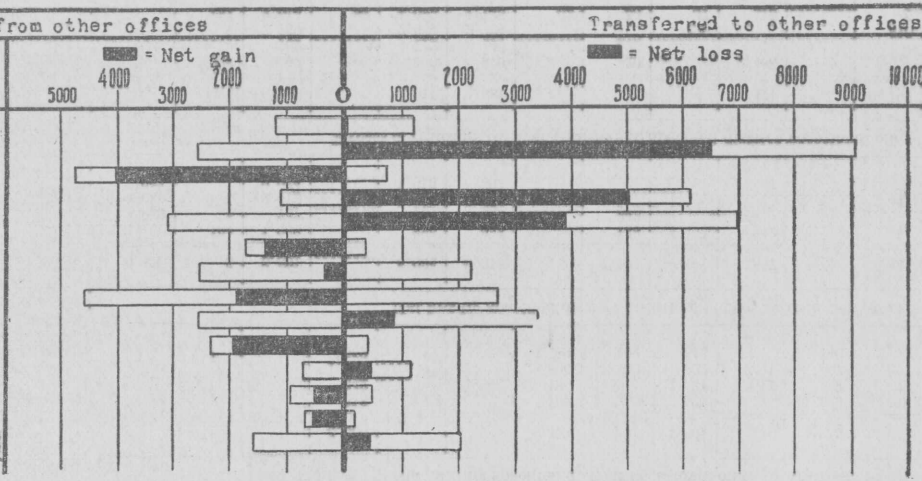


DIAGRAM VIII.—Transfers by districts since organization to June 28, 1919.

TABLE 8.—*Registrations by transfer from other district vocational offices since organization, total for all districts combined, and number in period specified by districts, by periods.*

Period.	Registrations by transfer.															
	Since organization to end of period.	In period specified.														
		Total.	District vocational office.													
			No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
To Feb. 8, 1919	5,136	5,136	384	557	702	148	456	312	538	998	151	226	14	158	105	387
Week ended:																
Feb. 15	5,747	611	32	.....	240	35	70	46	16	.....	.....	61	18	13	4	76
22	6,679	932	46	358	155	22	12	14	53	.....	.....	62	13	30	118	49
Mar. 1	7,338	659	43	94	104	7	24	35	112	.....	15	46	46	48	22	63
8	9,134	1,796	53	145	143	38	61	67	16	1,050	.....	55	37	34	24	73
15	10,374	1,240	21	.....	416	23	284	120	107	72	12	31	41	54	41	18
22	11,419	1,045	47	89	140	26	167	46	146	150	.....	57	24	30	48	75
29	12,514	1,095	43	154	140	102	63	47	148	216	.....	31	38	29	29	55
Apr. 5	13,553	1,039	122	36	177	63	177	35	57	187	.....	40	28	43	31	43
12	14,557	1,004	13	89	99	17	359	78	80	146	.....	39	31	34	9	10
19	15,908	1,351	16	204	158	27	377	108	135	145	.....	71	20	40	28	22
26	18,672	2,764	38	45	201	152	156	68	126	113	1,561	198	41	32	7	26
May 3	20,153	1,481	65	108	193	61	143	105	55	343	54	172	71	45	34	32
10	21,656	1,503	36	113	204	53	157	61	105	180	69	147	94	48	26	210
17	23,031	1,375	19	75	204	44	124	176	135	111	89	128	47	40	22	161
24	24,366	1,335	20	147	384	56	82	114	110	127	110	69	25	54	3	34
31	25,187	821	44	56	109	36	69	41	90	115	54	80	23	46	2	56
June 7	26,298	1,111	45	48	183	28	43	84	102	86	132	175	31	55	16	83
14	27,695	1,397	21	69	246	53	82	68	107	113	140	305	24	60	45	64
21	28,974	1,279	53	29	210	92	108	73	209	124	41	185	26	52	40	37
28	30,512	1,538	39	150	332	32	75	51	108	321	135	159	39	21	42	34
July 5	31,609	1,097	44	44	187	58	58	35	102	158	118	160	37	29	15	52
12	33,052	1,443	78	69	146	91	61	73	222	232	155	103	34	87	27	65
19	34,464	1,412	69	110	172	49	67	64	180	164	71	198	42	42	40	144
26	35,610	1,146	42	44	171	41	105	54	69	166	100	184	50	46	34	40
Aug. 2	36,689	1,079	46	59	134	41	57	49	64	54	311	106	17	51	60	30
9	37,601	912	15	31	27	32	54	17	57	125	324	124	22	47	11	26
16	38,333	732	58	41	32	29	23	96	45	30	163	98	36	28	38	15
23	38,977	644	19	26	110	24	44	45	117	39	41	60	15	36	26	42
30	39,807	830	49	42	47	16	35	73	120	204	68	78	32	32	11	23
Sept. 6	40,346	539	52	9	32	19	63	11	59	.....	62	60	30	19	24	99
13	40,965	619	87	98	31	49	63	24	37	64	57	4	40	21	6	38
20	41,431	466	11	52	6	68	94	14	41	24	31	8	53	17	13	34
27	42,166	735	53	44	18	41	7	68	131	116	81	39	27	35	17	58
Oct. 4	42,771	605	72	60	26	30	44	25	70	103	42	24	24	47	17	21

TABLE 9.—*Transfers to other district vocational offices since organization, total for all districts combined, and number in period specified by districts, by periods.*

Period.	Transfer by specified district to other districts.															
	Since organization to end of period.	In period specified.														
		Total.	District vocational office.													
			No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
To Feb. 8, 1919	6,685	6,685	184	2,631	117	1,224	1,697	95	158	81	130	44	76	44	46	158
Week ended:																
Feb. 15	7,053	368	9	.....	30	17	81	13	128	.....	.....	13	15	14	.....	48
22	10,749	3,696	37	3,105	25	57	371	8	23	.....	.....	14	14	12	9	21
Mar. 1	11,750	1,001	85	261	15	224	274	17	3	.....	39	2	17	21	3	40
8	12,902	1,152	71	146	13	584	7	15	61	116	46	3	16	1	.....	73
15	13,547	645	48	.....	17	278	19	6	44	5	61	4	12	.....	.....	151
22	15,213	1,666	17	211	18	391	792	5	52	20	.....	24	15	.....	2	119
29	17,137	1,924	105	223	29	313	749	8	241	22	.....	14	32	44	2	142
Apr. 5	18,262	1,125	52	139	19	427	160	13	111	15	.....	10	23	41	6	109
12	19,823	1,561	38	202	38	209	734	21	78	64	.....	15	6	28	6	122
19	20,654	831	59	223	35	80	154	9	120	48	.....	9	19	43	3	29
26	23,984	3,330	53	264	25	439	.....	23	149	267	1,929	26	9	18	5	123
May 3	25,101	1,117	40	219	43	116	19	3	112	300	98	15	3	18	22	109
10	26,513	1,412	18	230	26	314	205	7	145	209	78	6	37	6	2	129
17	28,460	1,947	54	195	50	173	724	22	102	214	108	20	174	37	10	64
24	30,239	1,779	103	283	59	274	277	11	151	209	102	27	144	2	10	127
31	31,626	1,387	94	141	44	209	402	15	90	87	147	15	35	32	.....	76
June 7	32,883	1,257	14	159	37	181	80	18	119	137	174	27	148	.....	11	152
14	34,244	1,361	36	163	21	279	107	18	108	163	175	1	153	47	6	84
21	35,557	1,313	56	31	47	346	75	19	120	259	157	30	109	.....	7	57
28	37,033	1,476	32	241	26	4	77	10	109	490	176	60	108	53	7	83
July 5	38,402	1,369	38	153	22	339	152	12	47	176	126	24	119	88	7	66
12	39,610	1,208	21	70	32	190	195	17	100	213	130	21	139	.....	16	64
19	40,547	937	29	202	34	102	86	26	77	104	103	11	80	47	5	31
26	41,335	788	7	35	32	34	135	26	55	60	109	28	124	43	9	31
Aug. 2	41,992	657	.....	15	44	34	131	15	51	29	127	25	106	51	4	25
9	42,832	840	16	94	24	126	91	21	20	57	124	32	124	51	7	53
16	43,021	789	5	90	27	14	228	16	18	41	112	21	82	33	5	97
23	44,195	574	5	48	18	92	115	25	101	26	21	6	87	.....	8	22
30	45,218	1,023	42	91	16	69	266	21	108	121	81	5	77	50	6	70
Sept. 6[1]	45,747	529	71	102	19	74	4	19	31	.....	47	4	66	51	9	32
13	46,507	760	20	72	13	100	210	20	58	41	34	5	79	51	15	42
20[1]	47,192	685	31	89	10	65	62	22	76	70	47	.....	96	50	4	63
27	47,949	757	37	102	40	69	141	24	80	99	30	16	.....	51	6	62
Oct. 4	48,580	631	16	80	23	87	106	8	55	75	17	20	52	39	20	33

[1] No reports from district vocational office No. 8 of Sept. 6, and district vocational office No. 10 of Sept. 20.

TABLE 10.—*Contacts established; total since organization for all districts combined, and number in period specified, by districts.*

Period.	Contacts established.															
	Total since organization to end of period.	In period specified.														
		Total.	District vocational office.													
			No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.
To Feb. 8, 1919	15,367	15,367	1,360	.....	1,153	1,034	2,848	982	1,476	2,011	1,527	273	672	606	233	1,192
Week ended:																
Feb. 15	16,704	1,337	137	.....	119	191	1	236	98	.....	145	67	53	71	8	211
22	15,263	—1,441	88	.....	163	57	—2,460	96	228	.....	.....	44	—67	70	84	256
Mar. 1	23,174	7,911	156	5,521	188	185	597	108	255	.....	313	66	42	116	54	310
8	27,547	4,373	169	885	149	843	518	134	129	477	422	90	169	101	78	209
15	31,897	4,350	86	567	308	289	935	360	441	113	409	59	157	125	85	416
22	35,965	4,068	145	572	264	400	940	162	402	356	.....	88	138	54	149	398
29	40,362	4,397	138	752	251	569	865	125	671	219	.....	49	153	62	156	387
Apr. 5	44,273	3,911	190	757	325	523	555	207	282	345	.....	26	123	156	144	278
12	49,772	5,499	206	808	471	857	1,532	204	306	480	.....	19	96	95	150	275
19	55,035	5,263	244	865	271	508	612	243	353	1,546	.....	32	121	124	160	184
26	63,275	8,240	219	535	348	700	244	159	301	521	4,302	25	138	149	215	384
May 3	67,858	4,583	311	623	264	399	655	198	300	691	256	15	160	172	133	406
10	73,490	5,632	449	644	355	405	895	156	321	612	289	10	270	109	261	856
17	78,216	4,726	236	767	213	338	619	310	326	443	370	41	163	151	185	564
24	83,488	5,272	302	994	441	422	616	255	344	467	382	30	153	226	230	410
31	87,661	4,173	249	510	268	190	621	184	277	598	364	8	148	248	.....	508
June 7	92,950	5,289	249	581	342	244	360	316	340	1,389	454	13	177	172	[1]135	517
14	97,328	4,378	269	518	310	212	272	185	377	536	509	6	292	220	248	424
21	101,700	4,372	247	361	356	676	248	237	428	501	416	22	200	171	195	314
28	107,922	6,222	164	770	209	128	440	289	285	2,539	523	26	163	198	210	278
July 5	113,746	5,824	258	484	348	607	413	224	1,622	722	481	29	205	131	.....	300
12	118,761	5,015	284	528	333	488	357	298	256	809	552	43	211	288	165	403
19	123,740	4,979	284	493	337	263	373	232	200	1,336	303	50	149	344	170	445
26	126,632	2,892	157	307	174	109	378	233	50	280	522	38	146	247	130	121
Aug. 2	129,554	2,922	141	222	148	115	360	217	33	257	795	16	144	207	156	111
9	132,974	3,420	86	427	187	245	369	108	48	414	767	40	182	201	134	212
16	135,981	3,007	95	532	166	106	228	210	18	158	620	69	146	204	139	316
23	138,172	2,191	83	215	122	182	334	174	193	92	169	51	84	143	84	265
30	140,593	2,421	65	285	23	103	317	114	168	480	172	60	163	222	62	187
Sept. 6	142,360	1,767	56	181	24	114	310	85	55	118	193	56	113	197	44	221
13	145,045	2,685	71	1,181	57	180	128	151	93	243	53	89	185	96	23	135
20	146,803	1,758	75	141	96	137	251	210	46	80	137	74	127	204	49	131
27	148,758	1,955	51	376	42	136	184	133	87	221	197	74	94	176	42	142
Oct. 4	150,552	1,794	105	351	51	163	229	101	50	124	116	80	114	158	48	104

[1] For two weeks ended June 7.

Contacts established.

Period Week ended. 1919	In period specified	Since organization to end of period.
Feb. 15	1,337	16,704
" 22	1,441	15,263
Mar. 1	7,911	23,174
" 8	4,373	27,547
" 15	4,350	31,897
" 22	4,068	35,965
" 29	4,397	40,362
Apr. 5	3,911	44,273
" 12	5,499	49,772
" 19	5,263	55,035
" 26	8,240	63,275
May 3	4,583	67,858
" 10	5,632	73,490
" 17	4,726	78,216
" 24	5,272	83,488
" 31	4,173	87,661
June 7	5,289	92,950
" 14	4,378	97,328
" 21	4,372	101,700
" 28	6,222	107,922
July 5	5,824	113,746
" 12	5,015	118,761
" 19	4,979	123,740
" 26	2,892	126,632
Aug. 2	2,922	129,554
" 9	3,420	132,974
" 16	3,007	135,981
" 23	2,191	138,172
" 30	2,421	140,593
Sept. 6	1,767	142,360
" 13	2,685	145,045
" 20	1,758	146,803
" 27	1,955	148,758
Oct. 1	1,794	150,552

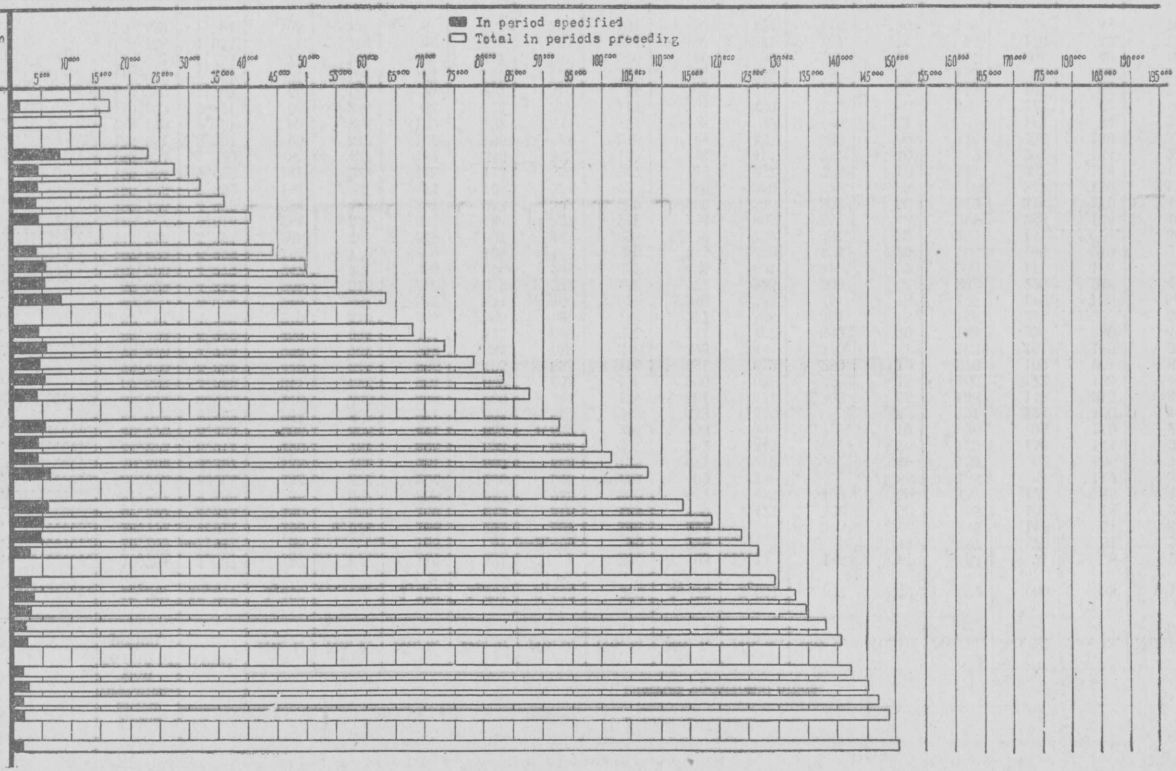


DIAGRAM IX.—Contacts established by periods.

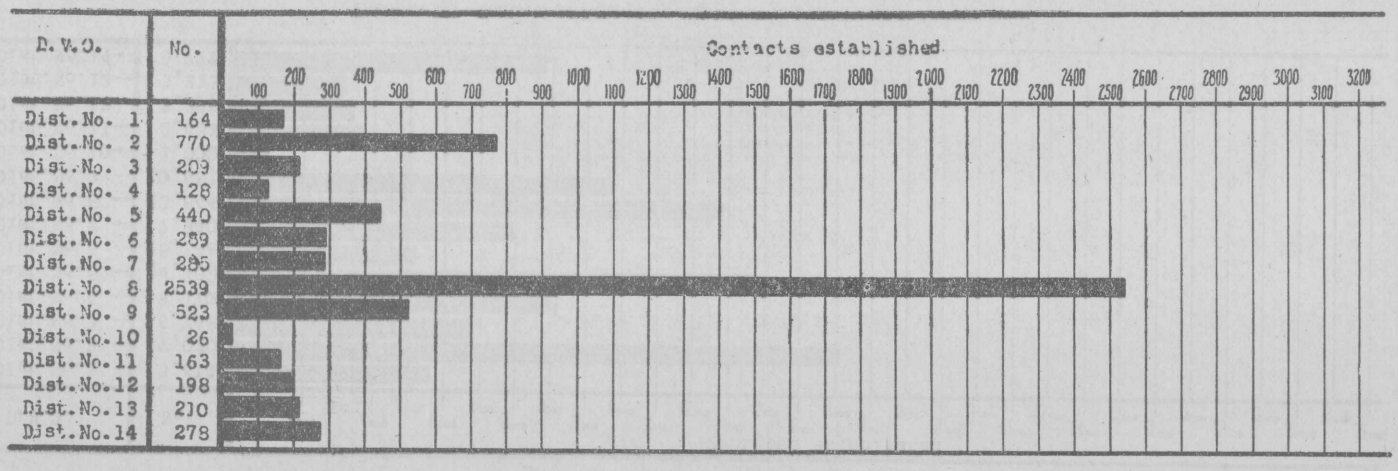


DIAGRAM X.—Contacts established by districts in week ended June 28, 1919.

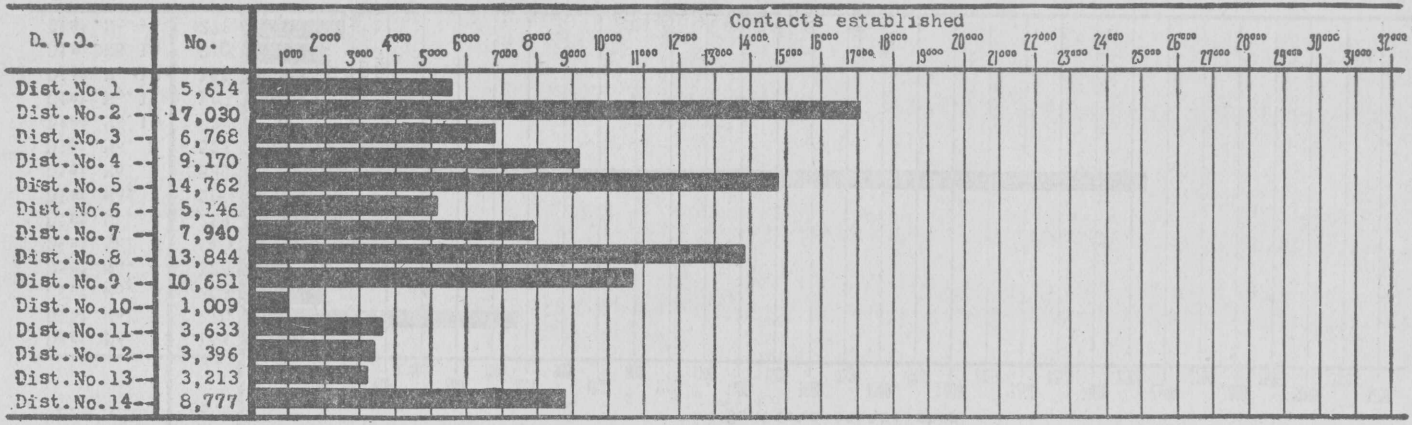


DIAGRAM XI—Contacts established by districts since organization to June 28, 1919.

TABLE 11.—*Disabled soldiers enrolled for specified training courses, June 30, 1919.*

Training course.	Enrollment.
Total	5,650
A. Try-out vocational	1,300
B. Agricultural	626
C. Professional	664
D. Commercial and clerical	1,180
E. Trade and industrial	1,278
F. Elementary and academic	602
B. Agricultural.	
Agronomy	9
Bee culture	3
Dairying	22
General course	17
Dairy manufactures	5
Farm management	10
Farming, general	444
Fish culture	3
Forestry	20
General course	15
Lumbering	2
Tree surgery	3
Gardening, landscape	8
Gardening, truck	26
Hog raising	1
Horticulture	8
Poultry raising	24
Stock raising	48
C. Professional.	
Chemistry—industrial, metallurgical, and analytical	17
Commercial art	27
Dentistry	35
Dental mechanics	23
Dental surgery	12
Drafting and design	163
Architectural	39
Electrical	4
Mechanical	119
Railway	1
Dramatic art	3
Engineering	221
Agricultural	15
Architectural	20
Chemical	12
Civil	35
Electrical	62
Highway	3
Hydroelectric	1
Marine	7
Mechanical	54
Mining	3
Oil	1
Railway	1
Refrigerating	5
Textile	2
Hygiene and health	2
Journalism	9
Law, including law preparatory	63
Medicine	49
Music	19
Instrumental	13
Orchestration (harmony)	3
Voice	3
Nursing	2
Optician	1
Optometry	3
Painting and sculpture	5
Pharmacy	10
Playground supervising	2
Public speaking	1
Teaching	18
Theology	5
Veterinary	6
X-ray operation	3
D. Commercial and clerical.	
Accounting	92
Advertising	8
Banking and finance	20
Bookkeeping	65
Business and commercial	717
Civil service (clerical)	19
Commercial law	19
Foreign trade	13
Insurance	6
Management, employment	2
Management, office	5
Management, store	2
Office appliances, modern	3
Salesmanship	61
Secretarial	41
Show-card writing	10
Stenography and typewriting	33
Telegraphy	37
Telephone operating	1
Typewriting	5
Window trimming	7
Wireless telegraphy	14
E. Trade and industrial.	
Artificial-limb making	4
Automotive trades	283
Assembling	2
Automechanics and farm tractor work	216
Automobile salesmanship	2
Automobile-top trimming	1
Driving and road repair	6
Garage management	2
Maintenance and operation of autos and farm tractors	45
Tire repair and vulcanizing	8
Wagon and automobile painting	1
Barbering	7
Building trades	86
Building construction	13
Brick masonry	1
Cabinetwork	13
Carpentry	14
Concrete construction	5
Estimating	5
Heating and ventilating	2
Painting and decorating	4
Plumbing	19
Plumbing inspection	1
Sign painting	7
Steam fitting	2
Cotton grading	1
Detective work	1
Electrical trades	236
General course	163
Armatures and coils	9
Bench work	2
Electrical equipment	1
Ignition	45
Railroad-signal installation	1
Switchboard work	3
Wiring	12
Embalming and funeral management	16
Food preparation	23
Baking	8
Candy making	1
Cooking	4
Grain testing	2
Meat inspection	7
Milk inspection	1
Furrier (dyeing)	1
Garment trades	49
Cleaning and dyeing	1
Designing and cutting	2
Designing and pattern grading	24

TABLE 11.—*Disabled soldiers enrolled for specified training courses, June 30, 1919*—Continued.

Training course.	Enrollment.
E. Trade and industrial—Continued.	
Garment trades—Continued.	
Glove making	1
Machine operating	10
Tailoring	11
Instrument making	1
Jewelry trades	35
Diamond cutting and polishing	1
Engraving	5
Silversmithing	1
Watch and jewelry making	28
Leather work	27
Saddlery and harness making	1
Shoe-pattern designing	1
Shoe making and repairing	25
Metal trades	318
Boiler making	1
Drill press operating	1
Forge working	1
Gas-engine work	38
Grinding and polishing	1
Machine-shop work	147
Metal pattern making	3
Molding	1
Saw filing	1
Sheet-metal drafting	6
Sheet-metal work	17
Stationary-engine work	45
Steam-engine work	16
Tool designing	7
Tool making	19
Welding	14
Mining, coal and metal	24
General course	6
Coal inspection	1
Coal-mine operating	2
Mine inspection	1
Mine foremanship	2
Ore assaying	12
Navigation	7
Paper manufacturing	1
Phonograph repairing	1
Photography	47
General course	33
Commercial	3
Motion picture	10
Photo-engraving	1
Piano tuning and repair	2
Printing trades	48
General course	2
Bookbinding	1
Cylinder-press operating	1
Linotype operating	31
Lithographing	4
Monotype operating	2
Pressman	2
Proof reading	2
Typesetting	3
Shipfitter's helper	1
Telegraph and telephone repairing	9
Textiles	23
General course	10
Designing	7
Cloth inspection	1
Weaving and knitting	5
Transportation	6
Traffic management	3
Interstate commerce and railway traffic	1
Commercial freight	2
Typewriter repairing	6
Wickerwork	1
Woodworking	14
Finishing	1
Furniture making	2
Machine woodworking	1
Pattern making	10
F. Elementary and academic.	
Academic, preparatory to vocational courses	72
Americanization	12
Braille system	11
Consular service preparatory	1
Elementary, preparatory to vocational (English, etc.)	463
Lip reading	16
Special (including sociology, criminology, biology, geology, mathematics, economics, etc.)	25
Stammering, cure for	2

(Courses registering five or more students.)

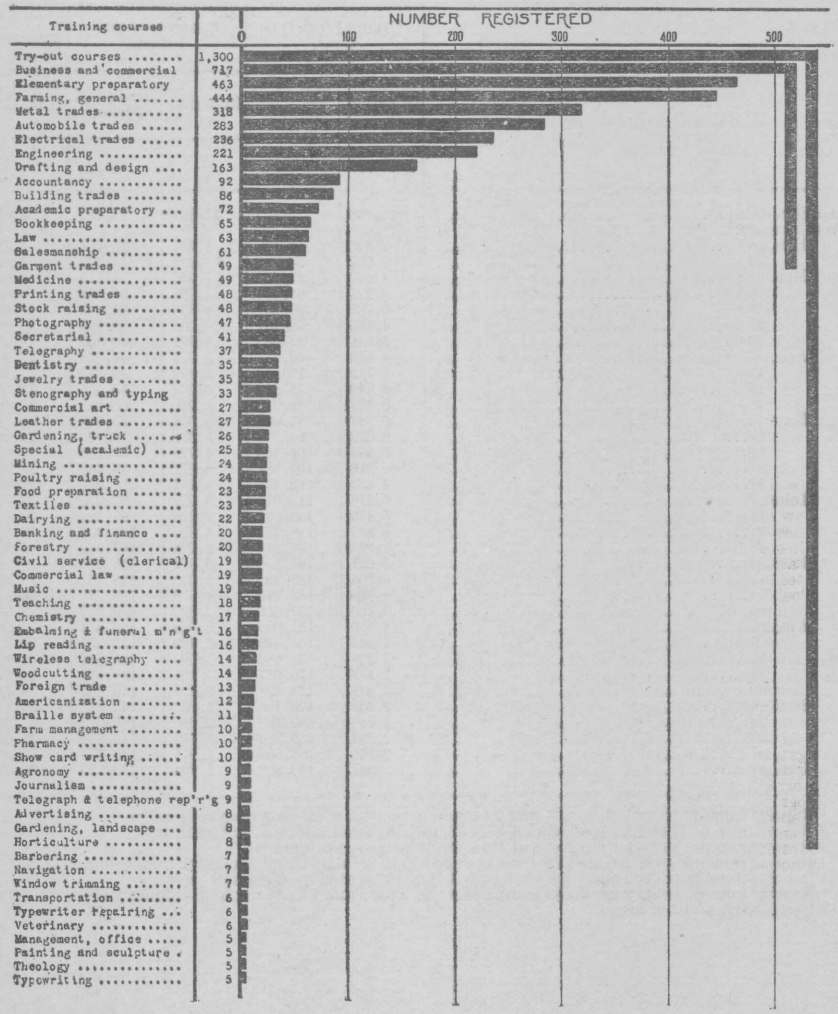


DIAGRAM XII—Disabled soldiers enrolled for specified training courses, June 30, 1919.

TABLE 12.—*Registrations and contacts by periods.*

Period.	Original registrations.		Contacts established.		Contact not established to end of period.
	In period.	To end of period.	In period.	To end of period.	
	a.	b.	c.	d.	e.
To Feb. 8, 1919 [1]	25,755	25,755	15,367	15,367	3,623
Week ended:					
Feb. 15 [2]	2,420	28,175	1,337	16,704	3,823
22 [4]	2,607	30,782	[7] 1,441	15,263	4,497
Mar. 1 [4]	4,487	35,269	7,911	23,174	4,643
8 [4]	6,225	41,494	4,373	27,547	9,682
15 [5]	5,787	47,281	4,350	31,897	14,655
22	4,856	52,137	4,068	35,965	13,896
29 [6]	5,531	57,668	4,397	40,362	14,634
Apr. 5 [6]	4,813	62,481	3,911	44,273	15,652
12 [6]	7,719	70,200	5,499	49,772	17,893
19	5,342	75,542	5,263	55,035	17,086
26	6,377	81,919	8,240	63,275	17,408
May 3	5,987	87,906	4,583	67,858	19,494
10	6,672	94,578	5,632	73,490	19,952
17	6,887	101,465	4,726	78,216	21,923
24	6,316	107,781	5,272	83,488	22,551
31	4,653	112,434	4,173	87,661	22,756
June 7	5,478	117,912	5,289	92,950	23,451
14	5,472	123,384	4,378	97,328	24,560
21	5,367	128,751	4,372	101,700	25,266
28 [3]	7,298	136,049	6,222	107,922	23,593
July 5	5,051	141,100	5,824	113,746	27,345
12	6,204	147,304	5,015	118,761	29,037
19	5,906	153,210	4,979	123,740	30,349
26	4,409	157,619	2,892	126,632	31,886
Aug. 2	3,416	161,035	2,922	129,554	32,562
9	4,238	165,273	3,420	132,974	33,796
16	3,207	168,480	3,007	135,981	34,167
23	2,137	170,617	2,191	138,172	34,562
30	2,881	173,498	2,421	140,593	34,742
Sept. 6	2,258	175,756	1,767	142,360	34,842
13	4,346	180,102	2,685	145,045	35,282
20	2,284	182,386	1,758	146,803	35,654
27	2,166	184,552	1,955	148,758	34,361
Oct. 4	2,057	186,609	1,794	150,552	35,370

[1] Reports from districts 1, 2, 5, 6, 7, and 9 for period to Feb. 8, missing from column "e."
[2] Report from district 2 for week ended Feb. 15, missing from columns "c" and "d."
[3] Report from district 5 for week ended June 28 missing from column "e."
[4] Reports from districts 2, 6, and 7 for weeks ended Feb. 22, Mar. 1, and 8, missing from column "e."
[5] Reports from districts 2 and 7 for week ended Mar. 15 missing from column "e."
[6] Reports from districts 2 for weeks ending Mar. 29, Apr. 5 and 12 missing from column "e."
[7] Decrease by audit of cases.

TABLE 13.—*Compensation awards, by periods.*

Period.	Assisted to fill out W. R. I. application.		Compensation.				Compensation not awarded at end of period.
			Awarded.		Denied.		
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	
	a.	b.	c.	d.	e.	f.	g.
To Feb. 8, 1919	1,978	1,978	3,264	3,264	62	62	5,065
Week ended:							
Feb. 15	453	2,431	221	3,485	17	79	4,995
22	459	2,890	[1] 227	3,712	[1] 9	[1] 88	8,411
Mar. 1	[1] 4,593	7,483	[2] 318	4,030	8	96	10,628
8	[3] 1,231	8,714	[3] 572	4,602	13	109	12,118
15	974	9,688	502	5,104	9	118	16,584
22	[4] 966	10,654	387	5,491	10	128	16,279
29	1,295	11,949	443	5,934	47	175	21,340
Apr. 5	973	12,922	328	6,262	15	190	16,402
12	1,122	14,044	[5] 846	7,108	21	211	17,739
19	1,463	15,507	786	7,894	16	227	19,297
26	[6] 7,214	22,721	[6] 720	8,614	[3] 46	273	39,065
May 3	1,950	24,671	538	9,152	7	280	41,983
10	1,965	26,636	[7] 1,140	10,292	18	298	44,215
17	1,608	28,244	1,300	11,592	24	322	48,481
24	1,876	30,120	1,694	13,286	29	351	50,439
31	1,736	31,856	1,165	14,451	7	358	52,208
June 7	2,235	34,091	[7] 1,557	16,008	35	393	54,917
14	2,351	36,442	1,678	17,686	38	431	55,651
21	2,426	38,868	1,468	19,154	23	454	57,361
28	3,084	41,952	1,329	20,483	13	467	59,599
July 5	[8] 3,413	45,365	[9] 1,237	21,720	[10] 26	493	61,477
12 [11]	2,453	47,818	1,058	22,778	9	502	64,309

[1] Report from district 2 was for entire period since organization to Mar. 1 and from district 9 for two weeks ended Mar. 1.
[2] Report from district 2 for two weeks ended Mar. 1.
[3] Report from district 8 for four weeks ended Mar. 8.
[4] Report from district 7 for two weeks ended Mar. 22.
[5] Report from district 7 for five weeks ended Apr. 12.
[6] Report from district 9 for six weeks ended Apr. 26.
[7] Report from district 10 for two weeks ended June 7.
[8] Includes 1,437 added after audit by D. V. O. 7 and accepted.
[9] Includes 289 added after audit by D. V. O. and accepted.
[10] Includes 11 added after audit by D. V. O. 7 and accepted.
[11] Reports discontinued after approval of act of July 11.

TABLE 14.—*Closures, by periods.*

Period.	Closures.									
	Total.		Dropped after investigation.		Released from supervision.		Deceased.		Other.	
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.
	a	b	c	d	e	f	g	h	i	j
To Feb. 8, 1919	474	474	341	341	17	17	100	100	16	16
Week ended:										
Feb. 15	31	505	17	358	10	27	4	104	.....	16
22	71	576	32	390	.....	27	33	137	6	22
Mar. 1	60	636	30	420	7	34	10	147	13	35
8	−18	618	−58	362	2	36	35	182	3	38
15	116	734	76	438	7	43	30	212	3	41
22	43	777	26	464	1	44	14	226	2	43
29	52	829	27	491	6	50	10	236	9	52
Apr. 5	69	898	40	531	12	62	12	248	5	57
12	69	967	51	582	8	70	6	254	4	61
19	65	1,032	43	625	5	75	16	270	1	62
26	132	1,164	25	650	84	159	4	274	19	81
May 3	134	1,298	51	701	57	216	20	294	6	87
10	189	1,487	91	792	50	266	26	320	22	109
17	101	1,588	41	833	37	303	22	342	1	110
24	144	1,732	66	899	26	329	30	372	22	132
31	80	1,812	34	933	13	342	10	382	23	155
June 7	70	1,882	30	963	28	370	9	391	3	158
14	190	2,072	78	1,041	22	392	34	425	56	214
21	131	2,203	62	1,103	15	407	20	445	34	248
28	158	2,361	106	1,209	15	422	25	470	12	260
July 5	124	2,485	58	1,267	35	457	26	496	5	265
12	173	2,658	115	1,382	17	474	23	519	18	283
19	129	2,787	61	1,443	27	501	27	546	14	297
26	180	2,967	95	1,538	10	511	23	569	52	349
Aug. 2	542	3,509	426	1,964	31	542	20	589	65	414
9	816	4,325	370	2,334	179	721	27	616	240	654
16	600	4,925	223	2,557	228	949	69	685	80	734
23	702	5,627	141	2,698	381	1,330	16	701	163	897
30	3,010	8,637	514	3,212	335	1,665	18	719	2,143	3,040
Sept. 6	482	9,119	129	3,341	94	1,759	10	729	249	3,289
13	758	9,877	340	3,681	26	1,785	7	736	385	3,674
20	552	10,429	126	3,807	8	1,793	14	750	404	4,078
27	3,361	13,790	649	4,456	39	1,832	13	763	2,660	6,738
Oct. 4	892	14,682	437	4,893	22	1,854	9	772	424	7,162

TABLE 15.—*Net increase or decrease of live roll, by periods.*

Period.	Registrations and closures.						
	In period.				To end of period.		
	Original registrations.	Closures by termination of case.	Net.		Original registrations.	Closures by termination of case.	Net gain.
			Gain (a–b).	Loss (b–a).			
	a	b	c	d	e	f	g
To Feb. 8, 1919	25,755	474	25,281	.....	25,755	474	25,281
For week ended:							
Feb. 15	2,420	31	2,389	.....	28,175	505	27,670
22	2,607	71	2,536	.....	30,782	576	30,206
Mar. 1	4,487	60	4,427	.....	35,269	636	34,633
8	6,225	[1] 18	6,243	.....	41,494	618	40,876
15	5,787	116	5,671	.....	47,281	734	46,547
22	4,856	43	4,813	.....	52,137	777	51,360
29	5,531	52	5,459	.....	57,668	829	56,839
Apr. 5	4,813	69	4,744	.....	62,481	898	61,583
12	7,719	69	7,650	.....	70,200	967	69,233
19	5,342	65	5,277	.....	75,542	1,032	74,510
26	6,377	132	6,245	.....	81,919	1,164	80,755
May 3	5,987	134	5,853	.....	87,906	1,298	86,608
10	6,672	189	6,483	.....	94,578	1,487	93,091
17	6,887	101	6,786	.....	101,465	1,588	99,877
24	6,316	144	6,172	.....	107,781	1,732	106,049
31	4,653	80	4,573	.....	112,434	1,812	110,622
June 7	5,478	70	5,408	.....	117,912	1,882	116,030
14	5,472	190	5,282	.....	123,384	2,072	121,312
21	5,367	131	5,236	.....	128,751	2,203	126,548
28	7,298	158	7,140	.....	136,049	2,361	133,688
July 5	5,051	124	4,927	.....	141,100	2,485	138,615
12	6,204	173	6,031	.....	147,304	2,658	144,646
19	5,906	129	5,777	.....	153,210	2,787	150,423
26	4,409	180	4,229	.....	157,619	2,967	154,652
Aug. 2	3,416	542	2,874	.....	161,035	3,509	157,526
9	4,238	816	3,422	.....	165,273	4,325	160,948
16	3,207	600	2,607	.....	168,480	4,925	163,555
23	2,137	702	1,435	.....	170,617	5,627	164,990
30	2,881	3,010	.....	129	173,498	8,637	164,861
Sept. 6	2,258	482	1,776	.....	175,756	9,119	166,637
13	4,346	758	3,588	.....	180,102	9,877	170,225
20	2,284	552	1,732	.....	182,386	10,429	171,957
27	2,166	3,361	.....	1,195	184,552	13,790	170,762
Oct. 4	2,057	892	1,165	.....	186,609	14,682	171,927

[1] Decrease in number of closures reported.

TABLE 16.—*Surveys and cases pending survey, in process of survey, pending recommendation, pending district case board action, and pending placement, by periods.*

Period.	Surveys.				Condition statement at end of period.				
	By medical examiner.		By vocational advisor.		Cases pending survey.	Cases in process of survey.	Cases pending recommendation by supervisor of advisement and training.	Cases pending district case board action.	Cases pending placement.
	In period.	To end of period.	In period.	To end of period.					
	a	b	c	d	e	f	g	h	i
To Feb. 8, 1919	1,107	1,107	10,617	10,617	.....	.....	.....	.....	.....
For week ended—									
Feb. 15	471	1,578	1,468	12,085	2,583	442	1,340	82	470
22	1,486	3,064	3,090	15,175	2,675	1,510	2,567	192	584
Mar. 1	980	4,044	2,555	17,730	2,901	1,498	1,737	294	723
8	1,430	5,474	3,738	21,468	4,787	3,584	2,971	530	1,138
15	1,094	6,568	3,749	25,217	5,754	5,218	3,501	701	1,049
22	939	7,507	3,497	28,714	6,511	6,382	3,334	661	1,190
29	847	8,354	4,022	32,736	6,445	6,821	4,437	652	1,713
Apr. 5	1,190	9,544	3,159	35,895	6,744	7,346	5,298	807	1,842
12	1,574	11,118	5,552	41,447	7,896	8,763	8,524	833	2,818
19	1,322	12,440	3,683	45,130	8,498	9,399	9,123	940	2,758
26	4,794	17,234	9,225	54,355	10,716	12,197	11,862	656	3,155
May 3	1,909	19,143	4,273	58,628	11,046	13,470	12,365	665	3,582
10	1,844	20,987	4,736	63,364	11,810	14,819	13,664	803	3,901
17	1,715	22,702	4,127	67,491	12,757	15,423	13,929	689	4,063
24	2,187	24,889	4,457	71,948	13,234	15,528	14,994	725	4,671
31	2,047	26,936	3,650	75,598	13,984	15,787	14,433	946	4,889
June 7	2,649	29,585	3,752	79,350	14,903	16,486	17,387	1,292	5,317
14	2,541	32,126	3,925	83,275	15,414	16,460	18,334	1,253	5,750
21	2,171	34,297	3,754	87,029	15,392	17,848	18,767	1,417	5,631
28	2,878	37,115	4,732	91,761	16,795	18,259	18,997	1,657	5,656
July 5	2,217	39,332	3,901	95,662	18,051	19,647	19,895	1,829	6,031
12	2,704	42,036	4,026	99,688	18,847	20,320	20,368	2,120	6,043
19	2,105	44,141	3,206	102,894	20,526	20,171	20,682	1,377	6,338
26	2,179	46,320	2,364	105,258	20,801	20,342	21,022	1,289	6,804
Aug. 2	2,099	48,419	2,213	107,471	21,468	21,373	20,894	1,380	7,063
9	2,076	50,495	2,806	110,277	21,970	21,776	20,843	1,350	7,276
16	1,398	51,893	2,093	112,370	23,046	22,095	21,091	1,340	7,484
23	2,335	54,228	3,516	115,886	23,416	22,098	22,109	1,351	7,564
30	1,975	56,203	1,990	117,876	23,207	23,146	22,576	1,460	7,206
Sept. 6	1,280	57,483	1,394	119,270	23,995	23,238	22,667	1,426	7,287
13	1,093	58,576	1,691	120,961	24,211	22,827	22,387	1,084	4,917
20	1,057	59,633	1,242	122,203	25,481	23,238	22,268	1,134	7,091
27	1,216	60,849	1,573	123,776	25,991	22,434	22,437	1,434	7,085
Oct. 4	1,239	62,088	1,314	125,090	25,259	22,277	20,275	1,034	7,058

TABLE 17.—*District vocational office recommendations, approvals, and di approvals for training, reports to central office, and cases pending central office approval, by periods.*

Period.	Training recommended by supervisor of advisement and training.		District case board action.				Reported to central office.		Pending central office approval at end of period.
			Approvals.		Disapprovals.				
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	
	a	b	c	d	e	f	g	h	i
To Feb. 8, 1919	1,475	1,475	1,568	1,568	26	26	1,361	1,361	385
Week ended—									
Feb. 15	418	1,893	401	1,969	3	29	303	1,664	364
22	711	2,604	665	2,634	7	36	523	2,187	659
Mar. 1	479	3,083	433	3,067	15	51	358	2,545	658
8	826	3,909	619	3,686	4	55	512	3,057	1,170
15	1,214	5,123	417	4,103	5	60	439	3,496	1,306
22	801	5,924	539	4,642	.....	60	435	3,931	1,257
29	892	6,816	525	5,167	50	110	556	4,487	1,519
Apr. 5	1,030	7,846	482	5,649	26	136	453	4,940	1,725
12	829	8,675	522	6,171	23	159	492	5,432	2,302
19	722	9,397	666	6,837	21	180	561	5,993	2,487
26	1,008	10,405	961	7,798	55	235	1,035	7,028	3,137
May 3	860	11,265	762	8,560	81	317	855	7,883	3,537
10	917	12,182	867	9,427	55	372	940	8,823	4,140
17	931	13,113	946	10,373	69	441	1,052	9,875	4,741
24	977	14,090	896	11,269	46	487	870	10,745	5,249
31	964	15,054	842	12,111	53	540	799	11,544	5,511
June 7	1,272	16,326	797	12,908	66	606	941	12,485	6,198
14	1,449	17,775	1,279	14,187	34	640	1,384	13,869	7,051
21	1,096	18,871	975	15,162	100	740	1,096	14,965	7,426
28	1,644	20,515	1,204	16,366	97	837	1,057	16,022	7,707
July 5	989	21,504	656	17,022	100	937	836	16,858	7,411
12	1,436	22,940	873	17,895	98	1,035	1,161	18,019	8,549
19	1,479	24,419	1,223	19,118	165	1,200	1,164	19,183	9,409
26	1,029	25,448	985	20,103	117	1,317	1,389	20,572	10,204
Aug. 2	820	26,268	614	20,717	84	1,401	924	21,496	10,304
9	713	26,981	798	21,515	66	1,467	671	22,167	10,224
16	964	27,945	1,017	22,532	85	1,552	997	23,164	10,361
23	611	28,556	733	23,265	61	1,613	474	23,638	9,122
30	797	29,353	828	24,093	56	1,669	944	24,582	8,646
Sept. 6	926	30,279	888	24,981	88	1,757	657	25,239	8,052
13	1,259	31,538	1,737	26,718	80	1,837	1,112	26,351	7,727
20	1,253	32,791	1,237	27,955	95	1,932	1,279	27,630	7,327
27	1,462	34,253	1,356	29,311	133	2,065	1,276	28,906	7,489
Oct. 4	1,239	35,492	1,226	30,537	89	2,154	1,070	29,976	7,570

TABLE 18.—*Central office case board action, initiations of training, and cases pending training, in training, and in retraining, by periods.*

Period.	Central office case board action.				Iniations of training.		Condition statement for end of period.		
	Approvals.		Disapprovals.						
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	Central office approvals pending training.	Cases in training.	Cases in retraining.
	a	b	c	d	e	f	g	h	i
To Feb. 8, 1919	538	538	.....	.....	356	356	272	195	.....
Week ended:									
Feb. 15	132	670	1	1	68	424	179	213	.....
22	450	1,120	1	2	406	830	367	322	.....
Mar. 1	158	1,278	1	3	110	940	339	393	.....
8	303	1,581	.....	3	193	1,133	675	648	.....
15	256	1,837	.....	3	105	1,238	821	733	.....
22	272	2,109	.....	3	86	1,324	833	699	.....
29	294	2,403	.....	3	129	1,453	920	786	.....
Apr. 5	271	2,674	.....	3	141	1,594	979	870	.....
12	363	3,037	.....	3	163	1,757	1,251	1,384	.....
19	318	3,355	.....	3	173	1,930	1,465	1,553	.....
26	518	3,873	.....	3	223	2,153	1,802	1,816	.....
May 3	221	4,094	1	4	188	2,341	1,873	1,989	.....
10	401	4,495	1	5	290	2,631	1,952	2,269	.....
17	419	4,914	1	6	212	2,843	2,182	2,409	.....
24	389	5,303	.....	6	199	3,042	2,376	2,584	.....
31	412	5,715	.....	6	131	3,173	2,579	2,596	.....
June 7	391	6,106	.....	6	159	3,332	2,546	2,644	.....
14	528	6,634	.....	6	220	3,552	3,076	2,936	.....
21	613	7,247	.....	6	200	3,752	3,269	3,099	.....
28	796	8,043	.....	6	298	4,050	3,660	3,304	.....
July 5	386	8,429	2	8	215	4,265	3,832	3,486	.....
12	561	8,990	4	12	303	4,568	3,906	3,738	.....
19	338	9,328	.....	12	308	4,876	5,934	4,076	.....
26	564	9,892	.....	12	326	5,202	4,220	4,517	.....
Aug. 2	668	10,560	1	13	393	5,595	4,611	4,509	.....
9	548	11,108	.....	13	245	5,840	4,878	4,691	.....
16	856	11,964	.....	13	307	6,147	5,656	4,871	.....
23	1,746	13,710	.....	13	422	6,569	6,500	5,187	.....
30	1,073	14,783	.....	13	520	7,089	7,266	5,602	.....
Sept. 6	1,283	16,066	.....	13	675	7,764	7,912	6,164	7
13	1,588	17,654	.....	13	637	8,401	8,735	6,678	8
20	995	18,649	.....	13	884	9,285	8,888	7,524	8
27	1,388	20,037	3	16	1,283	10,568	9,065	8,773	10
Oct. 4	1,263	21,300	1	17	1,840	12,408	8,853	10,162	10

TABLE 19.—*Completion, discontinuance, termination, and suspension of training, by periods.*

Period.	Training.								Condition statement for end of period.		
	Completed.		Voluntarily discontinued.		Terminated by district office.		Suspended for medical treatment.				
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	Training completed pending placement.	Training suspended	
										For medical treatment.	For other causes.
	a	b	c	d	e	f	g	h	i	j	k
To Feb. 8, 1919	2	2	8	8	.....	.....	9	9	.....	4	1
Week ended:											
Feb. 15[1]	.....	2	.....	8	.....	.....	1	10	.....	5	2
22[1]	1	3	44	52	.....	.....	11	21	1	7	5
Mar. 1[1]	1	4	4	56	1	1	8	29	1	10	9
8	4	8	6	62	.....	1	10	39	1	19	16
15[1]	.....	8	9	71	.....	1	2	41	1	17	21
22[1]	2	10	5	76	1	2	5	46	1	19	18
29[1]	4	14	6	82	1	3	4	50	2	29	30
Apr. 5[1]	.....	14	4	86	.....	3	3	53	2	28	32
12[1]	2	16	5	91	.....	3	2	55	8	36	51
19[1]	2	18	12	103	1	4	5	60	9	40	52
26	.....	18	2	105	1	5	7	67	10	46	61
May 3	3	21	9	114	.....	5	2	69	9	43	65
10	1	22	9	123	3	8	9	78	10	59	74
17	4	26	13	136	4	12	4	82	13	59	88
24	8	34	29	165	1	13	18	100	19	69	109
31	15	49	18	183	1	14	9	109	28	66	116
June 7[1]	3	52	12	195	2	16	.....	(109)	30	77	129
14	9	61	25	220	4	20	9	118	34	76	132
21	4	65	17	237	6	26	6	124	35	79	152
28	10	75	22	259	2	28	5	129	36	82	158
July 5	11	86	10	269	2	30	1	130	41	82	169
12	7	93	24	293	4	34	18	148	37	100	182
19	11	104	48	341	2	36	16	164	52	107	214
26	13	117	32	373	7	43	14	178	62	143	230
Aug. 2	15	132	44	417	9	52	6	184	67	140	260
9	7	139	32	449	9	61	16	200	53	139	289
16	25	164	60	509	9	70	34	234	64	143	317
23	15	179	69	578	13	83	20	254	56	179	309
30	29	208	96	674	11	94	22	276	60	212	392
Sept. 6	9	217	31	705	21	115	12	288	61	213	417
13	6	223	37	742	18	133	27	315	54	224	432
20	12	235	37	779	21	154	13	328	60	228	466
27	4	239	41	820	3	157	10	338	75	265	433
Oct. 4	20	259	40	860	8	165	13	351	63	231	498

[1] Report from district 13 for two weeks ending June 7. Report from district 9 for two weeks ending Mar. 22, Mar. 29, Apr. 5, Apr. 12, Apr. 19 missing. Report from district 8 for weeks ending Feb. 15, Feb. 22, Mar. 1 missing. Report from district 2 for weeks ending Feb. 8, Feb. 15, Mar. 1, Mar. 15, missing.

TABLE 20.—*Placements and releases, by periods.*

Period.	Placed by district vocational office.		Placed by self.		Released from supervision after placement.		Condition statement for end of period. Cases under supervision after placement.
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.	
	a	b	c	d	e	f	g
To Feb. 8, 1919	236	236	1,170	1,170	17	17	93
Week ended:							
Feb. 15	41	277	64	1,234	10	27	127
22	319	596	594	1,828	.....	27	195
Mar. 1	100	696	170	1,998	7	34	271
8	81	777	272	2,270	2	36	353
15	65	842	273	2,543	7	43	861
22	84	926	170	2,713	1	44	1,120
29	70	996	199	2,912	6	50	1,321
Apr. 5	91	1,087	314	3,226	12	62	1,447
12	78	1,165	239	3,465	8	70	1,925
19	94	1,259	198	3,663	5	75	2,287
26	171	1,430	164	3,827	84	159	2,487
May 3	110	1,540	198	4,025	57	216	2,786
10	138	1,678	320	4,345	50	266	2,998
17	124	1,802	379	4,724	37	303	3,244
24	136	1,938	312	5,036	26	329	3,368
31	135	2,073	421	5,457	13	342	3,697
June 7	154	2,227	592	6,049	28	370	3,913
14	176	2,403	788	6,837	22	392	4,741
21	132	2,535	624	7,461	15	407	5,184
28	167	2,702	599	8,060	15	422	5,607
July 5	92	2,794	583	8,643	35	457	5,973
12	132	2,926	807	9,450	17	474	6,504
19	178	3,104	840	10,290	27	501	7,067
26	183	3,287	837	11,127	10	511	7,829
Aug. 2	125	3,412	526	11,653	31	542	7,975
9	80	3,492	446	12,099	179	721	8,101
16	71	3,563	376	12,475	228	949	8,373
23	57	3,620	221	12,596	381	1,330	8,174
30	30	3,650	194	12,890	335	1,665	7,977
Sept. 6	28	3,678	101	12,991	94	1,759	6,978
13	24	3,702	96	13,087	26	1,785	6,364
20	16	3,718	33	13,120	8	1,793	6,482
27	17	3,735	41	13,161	39	1,832	6,451
Oct. 4	19	3,754	29	13,190	22	1,854	6,322

TABLE 21.—*Reregistrations, by periods.*

Period.	Reregistrations.					
	For more training.		For medical treatment.		For new job.	
	In period.	To end of period.	In period.	To end of period.	In period.	To end of period.
	a	b	c	d	e	f
To Feb. 8, 1919[1]			1	1	35	35
Week ended:						
Feb. 15[1]				1	4	39
22[1]	2	2		1	12	51
Mar. 1[1]		2	1	2	10	61
8		2		2	47	108
15		2		2	5	113
22[1]		2		2	19	132
29[1]		2		2	17	149
Apr. 5[1]		2	1	3	23	172
12[1]		2		3	19	191
19[1]		2		3	20	211
26		2		3	21	232
May 3	1	3	1	4	24	256
10	2	5		4	58	314
17		5		4	25	339
24		5	2	6	24	363
31		5		6	21	384
June 7	4	9		6	24	408
14	5	14	1	7	25	433
21	3	17		7	24	457
28	5	22		7	23	480
July 5	2	24		7	13	493
12	4	28		7	18	511
19	6	34		7	22	533
26	8	42		7	33	566
Aug. 2	11	53	1	8	21	587
9	16	69		8	19	606
16	11	80	1	9	19	625
23	4	84		9	2	627
30	6	90		9	1	628
Sept. 6	16	106		9	1	628
13	36	142		9		628
20	22	164		9		628
27	45	209		9		628
Oct. 4	53	262		9		628

[1] Reports from district 2 for weeks ending Feb. 8, Feb. 15, Mar. 1, Mar. 15, missing. Reports from district 8 for weeks ending Feb. 15, Feb. 22, Mar. 1, missing. Reports from district 9 for weeks ending Mar. 22, Mar. 29, Apr. 5, Apr. 12, Apr. 19, missing.

TABLE 22.—*Summary of progress of cases for week ended June 28, 1919, by districts.*

Progress steps.	Number of cases advanced by specified step during week.													
	Total.	Reported by district vocational office.												
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.
Original registration: Total	7,244	165	788	396	359	478	334	390	2,816	410	343	158	181	180	246
1. From war-risk insurance	1,341	54	34	....	173	81	30	6	842	1	20	19	53	....	28
2. From Department of Labor	4	....	....	....	....	3	....	....	1	....	....	....	....	....	....
3. From Red Cross	1,048	44	37	26	9	11	183	31	530	....	111	10	25	22	9
4. From hospital	3,743	37	539	312	113	358	43	229	1,289	302	70	75	53	129	194
5. From man direct	788	27	177	55	28	12	35	20	152	105	45	54	50	16	12
6. From other agencies	320	3	1	3	36	13	43	104	2	2	97	....	....	13	3
7. Registration by transfer	1,538	39	150	332	32	75	51	108	321	135	159	39	21	42	34
8. Contact established	6,222	164	770	209	128	440	289	285	2,539	523	26	163	198	210	278
9. Assisted to fill out war-risk insurance application	3,084	38	177	103	77	41	90	229	1,338	499	43	103	134	169	43
10. Compensation awarded	1,329	40	13	118	28	102	31	90	287	272	93	28	66	77	84
11. Compensation denied	14	3	....	3	....	1	1	....	1	....	1	4	....	....	....
12. Dropped after investigation	106	2	....	62	....	14	20	....	2	....	....	3	....	1	2
13. Surveyed by medical examiner	2,818	90	449	84	....	126	290	30	942	381	37	31	23	169	166
14. Surveyed by vocational advisers	4,709	125	757	84	72	380	147	269	1,574	494	86	148	139	204	253
15. Training recommended by supervisor of advisement and training	1,644	75	281	86	....	196	62	92	454	59	138	43	108	45	5
16. Approved for training by case board	1,204	79	294	85	....	178	89	92	129	74	....	43	108	32	1
17. Disapproved for training by case board	72	97	10	....	25	....	19	....	.....	23	....	....	....	4	....
18. Reported to central office for approval	1,057	83	80	24	18	199	64	92	132	69	103	43	108	16	26
19. Central office action:															
Approval	796	46	118	35	41	99	38	105	118	60	17	16	41	28	34
Disapproval	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
20. Training begun:															
In try-out courses	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Vocational	298	14	58	24	25	4	15	32	34	40	3	12	26	4	7
21. Training completed	10	....	2	....	2	....	1	1	4	....	....	....	....	....	....
22. Training voluntarily discontinued	22	1	6	3	3	....	2	....	1	....	2	....	1	3	....
23. Training terminated by district vocational office	2	....	....	....	....	....	....	....	1	1	....	....	....	....	....
24. Training suspended for medical treatment	5	....	3	....	1	....	....	....	.....	....	....	....	....	....	1
25. Placed by district vocational office without training	167	....	13	45	4	2	25	2	56	3	14	....	....	2	1
26. Placed by district vocational office after training	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
27. Placed by self	599	22	67	167	34	64	74	50	51	2	....	21	17	9	21
28. Released from supervision after placement	15	....	5	....	....	....	2	....	.....	....	8	....	....	....	....
29. Reregistration for more training	5	....	....	....	....	....	....	....	5	....	....	....	....	....	....
30. Reregistration for medical treatment	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
31. Reregistration for new job	23	2	....	....	....	....	11	....	10	....	....	....	....	....	....
32. Transferred to other district vocational office	1,476	32	241	26	4	77	10	109	490	176	60	108	53	7	83
33. Closed	12	....	....	....	....	7	....	....	.....	1	....	4	....	....	....
34. Deceased	25	....	....	3	....	7	4	6	2	....	....	1	2	....	....