

*Sixth Annual Report to
Congress*

of the

*Federal Board for
Vocational
Education*

1922

SECTION I.—General Survey of the Work of the Board.

SECTION II.—Vocational Education.

*SECTION III.—Vocational Rehabilitation of Persons Disabled in
Industry or Otherwise.*

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Editor and Statistician.

CERTIFICATE: By order of the Director of the Federal Board for Vocational Education the matter contained herein is published as administrative information and is required for the proper transaction of the public business.

CONTENTS.

	Page.
Letter of transmittal.....	II
Section I.—GENERAL SURVEY OF THE WORK OF THE BOARD.	
Organization chart of the Federal Board for Vocational Education. Face page 1	
Legislative requirements under which the board reports to Congress.....	1
Administrative services of the board.....	2
Reorganization of services in the year ended June 30, 1922.....	2
Administrative policies of the board.....	3
Representative character of administrative agencies.....	4
Social values determine public-school vocational training.....	6
Vocational rehabilitation services.....	7
Extension of public-school functions.....	7
Cooperation with the States.....	8
Administrative systems built up under the Federal acts.....	8
Table 1.—Enrollment in federally aided schools: 1918 to 1922.....	10
Table 2.—Expenditures of Federal, State, and local money under the vocational education act: 1918 to 1922.....	13
Plans for the future.....	20
School mortality and part-time education for employed boys and girls.....	21
Recommendations to Congress.....	26
Section II.—VOCATIONAL EDUCATION SERVICE.	
PART I.—AGRICULTURAL EDUCATION.	
General survey of progress: 1917 to 1922.....	31
Growth in enrollment in federally aided schools and classes.....	32
Character of courses aided.....	34
Part-time education.....	36
State supervision.....	36
Directed or supervised practice.....	37
Teacher training.....	38
Research work of the service.....	40
Cooperative activities.....	41
Conferences.....	41
Negro education.....	42
PART II.—TRADE AND INDUSTRIAL EDUCATION.	
General survey of progress: 1917 to 1922.....	45
General continuation school growth.....	46
Supervision.....	48
Teacher training.....	48
National and foremanship training demonstration conferences.....	50
Publications.....	50

	Page.
Trade and industrial education for girls and women.....	52
Day trade schools.....	53
Part-time schools.....	55
Evening schools.....	55
Training in plants.....	56
Teacher training.....	57
Workers' educational movement.....	57
PART III.—HOME ECONOMICS EDUCATION.	
General survey of progress: 1917 to 1922.....	58
Supervision.....	60
Work in the schools.....	62
All-day schools.....	62
Part-time schools.....	66
Evening schools.....	67
Training of teachers.....	69
Negro education.....	72
Research and publications.....	76
Cooperative activities.....	78
Conferences.....	79
Committee work.....	82
Legislation.....	84
PART IV.—COMMERCIAL EDUCATION.	
General statement of conditions prior to 1917.....	86
Teacher training in 1916.....	87
Traditional courses not vocational.....	88
Traditional practices not questioned by commercial teachers.....	89
Work of the commercial education service.....	89
State and city supervision improving.....	90
Occupation surveys being made.....	91
Occupation analyses.....	91
Conferences.....	92
Courses for training commercial teachers.....	93
Certification of commercial teachers.....	94
Service work.....	95
The continuation schools.....	96
Retail selling education.....	97
General conditions prior to 1917.....	97
Service work, in store education.....	99
State plans.....	100
Teacher training.....	101
PART V.—PUBLICATIONS IN 1922.	
Statement of policies.....	103
Agricultural education.....	103
Trade and industrial education.....	104
Home economics education.....	104

CONTENTS.

v

PART VI.—SUMMARY OF PROGRESS BY STATES.

	Page.
Alabama-----	105
Arizona-----	108
Arkansas-----	109
California-----	112
Colorado-----	115
Connecticut-----	117
Delaware-----	119
Florida-----	121
Georgia-----	124
Idaho-----	127
Illinois-----	129
Indiana-----	132
Iowa-----	134
Kansas-----	137
Kentucky-----	138
Louisiana-----	141
Maine-----	143
Maryland-----	145
Massachusetts-----	147
Michigan-----	160
Minnesota-----	162
Mississippi-----	165
Missouri-----	167
Montana-----	171
Nebraska-----	173
Nevada-----	176
New Hampshire-----	178
New Jersey-----	180
New Mexico-----	184
New York-----	186
North Carolina-----	188
North Dakota-----	192
Ohio-----	194
Oklahoma-----	198
Oregon-----	201
Pennsylvania-----	203
Rhode Island-----	209
South Carolina-----	211
South Dakota-----	213
Tennessee-----	215
Texas-----	218
Utah-----	221
Vermont-----	225
Virginia-----	226
Washington-----	229
West Virginia-----	231
Wisconsin-----	235
Wyoming-----	237

PART VII.—STATISTICAL REPORT.

Table 1.—Vocational schools federally aided, for years ended June 30, 1918 to 1922-----	239
Table 2.—Teachers in vocational schools federally aided, for years ended June 30, 1918 to 1922-----	240

	Page.
Table 3.—Pupils enrolled in vocational schools federally aided, by sex, for years ended June 30, 1918 to 1922.....	241
Table 4.—Federal money allotted to the States, expended, and unexpended, for years ended June 30, 1918 to 1922.....	242
Table 5.—Federal money expended for reimbursement of vocational schools for the year ended June 30, 1922, and increase in reimbursement, 1922, over 1921, by character of instruction and type of school. (Reimbursements of teacher-training institutions are not included.)....	243
Table 6.—Number of vocational schools federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	244
Table 7.—Number of teachers of vocational courses in schools federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	252
Table 8.—Sex of teachers of vocational courses in schools federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	254
Table 9.—Number of pupils enrolled in vocational courses in schools, federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	262
Table 10.—Sex of pupils enrolled in vocational courses in specified type of vocational schools federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	268
Table 11.—Number of vocational teacher-training institutions federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	274
Table 12.—Number of teachers of teacher-training courses in institutions federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	276
Table 13.—Sex of teachers of teacher-training courses in institutions federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	276
Table 14.—Number of pupils enrolled in vocational teacher-training courses in institutions federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	282
Table 15.—Sex of pupils enrolled in vocational teacher-training courses in institutions federally aided, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	284
Table 16.—Vocational schools and classes reported as not receiving reimbursement from Federal funds—Number of schools, enrollment, and number of teachers, by type of school, by States, for the year ended June 30, 1922.....	288
Table 17.—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, 1922, 1921, 1920, 1919, and 1918.....	290
Table 18.—Amount of salaries of State directors and supervisors paid or reimbursed out of Federal and State funds, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	294
Table 19.—Expenditure of Federal, State, and local money for vocational agricultural education, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	298
Table 20.—Expenditure of Federal, State, and local money for vocational trade and industrial education, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	302

CONTENTS.

VII

	Page.
Table 21.—Expenditure of Federal, State, and local money for vocational home economics education, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	306
Table 22.—Expenditure of Federal, State, and local money for part-time general continuation education, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	310
Table 23.—Expenditure of Federal, State, and local money for vocational teacher training, by States, for years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	313
Table 24.—Reimbursement of trade and industrial and home economics evening, part-time, and all-day schools, and of part-time general continuation schools—Amount of Federal money expended for each type of school, by States, for the years ended June 30, 1922, 1921, 1920, 1919, and 1918.....	320
Table 25.—Availability of Federal funds for home economics and for all-day and evening trade and industrial 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 66 $\frac{2}{3}$ per cent of the total—for the year ended June 30, 1922.....	327
Table 26.—Availability of Federal funds for each class of teacher training, by States—Amount expended for training teachers of agriculture, of trade and industry, and of home economics, compared with 60 per cent of total allotment for maintenance of teacher training, for the year ended June 30, 1922.....	328
Table 27.—Unexpended balance and amount to be sent to the State for vocational agriculture during the year ending June 30, 1923, by States—Allotment, expenditure, and unexpended balance for 1922, and allotment and amount to be sent to the State for 1923.....	329
Table 28.—Unexpended balance and amount to be sent to State for vocational trade, industry, and home economics during the year ending June 30, 1923, by States—Allotment, expenditure, and unexpended balance for 1922, and allotment and amount to be sent to the State for 1923.....	330
Table 29.—Unexpended balance and amount to be sent to State for vocational teacher training during the year ending June 30, 1923, by States—Allotment, expenditure, and unexpended balance for 1922, and allotment and amount to be sent to the State for 1923.....	331
Table 30.—Interest earned on Federal vocational education funds deposited with State treasurers, for the year ended June 30, 1922.....	331
Table 31.—Allotment of Federal vocational education funds to the States, for the year ended June 30, 1922.....	332
Table 32.—Allotment of Federal vocational education funds to States, for the year ending June 30, 1923.....	334
Table 33.—Allotment of Federal vocational education funds to the States, for the year ending June 30, 1924.....	336
Table 34.—Allotment of Federal vocational education funds to the States, for the year ending June 30, 1925.....	338
Table 35.—Allotment of Federal vocational education funds to the States, for the year ending June 30, 1926, and annually thereafter.....	340

**Section III.—VOCATIONAL REHABILITATION OF PERSONS DISABLED IN
INDUSTRY OR OTHERWISE.**

PART I.—GENERAL SURVEY.

	Page.
Size of the problem of vocational rehabilitation.....	345
Responsibility of the Federal Government.....	346
Need for a definite and permanent policy on the part of the Federal Government.....	346
Legislation in the States.....	347
Conditions met by States in accepting Federal act.....	347
Mandatory requirements in State acts.....	348
Uniformity in legislation.....	348
Federal appropriations and allotments to the States.....	349
Cooperative activities of the division.....	349
Conferences.....	351
State administrative systems.....	352
Cooperating agencies in the States.....	352

PART II.—ILLUSTRATIVE CASES.

Illustrative cases.....	353
-------------------------	-----

PART III.—SUMMARY OF PROGRESS IN THE STATES.

Introduction.....	358
Expansion of State service.....	358
Scope of services.....	361
The case method.....	361
Variety of objectives.....	362

PART IV.—EXCERPTS FROM STATE REPORTS.

California.....	364
Massachusetts.....	369
North Carolina.....	375
Ohio.....	377

**PART V.—STATE STAFFS FOR VOCATIONAL REHABILITATION OF PERSONS DIS-
ABLED IN INDUSTRY OR OTHERWISE.**

Alabama.....	381
Arizona.....	381
California.....	381
Georgia.....	381
Idaho.....	381
Illinois.....	382
Indiana.....	382
Iowa.....	382
Kentucky.....	382
Louisiana.....	382
Maine.....	382
Massachusetts.....	383
Michigan.....	383
Minnesota.....	383
Mississippi.....	383
Missouri.....	383
Montana.....	384
Nebraska.....	384
Nevada.....	384
New Jersey.....	384

	Page.
New Mexico.....	385
New York.....	385
North Carolina.....	385
North Dakota.....	385
Ohio.....	386
Pennsylvania.....	386
Rhode Island.....	386
South Dakota.....	386
Tennessee.....	387
Utah.....	387
Virginia.....	387
West Virginia.....	387
Wisconsin.....	387
Wyoming.....	387

PART VI.—PUBLICATIONS IN 1922.

Vocational rehabilitation of persons disabled in industry or otherwise.....	388
---	-----

PART VII.—STATISTICAL REPORT.

Table 1.—Vocational rehabilitation—Live roll of cases at beginning and end of fiscal year, new cases listed, and closures during the year, by States, for the year ended June 30, 1922.....	390
Table 2.—Vocational rehabilitation—Number of cases, registrations, and closures, by States, for years ended June 30, 1922 and 1921.....	392
Table 3.—Vocational rehabilitation—Status of live roll cases, by States, June 30, 1922.....	392
Table 4.—Vocational rehabilitation—Closures classified as rehabilitated and other, by States, for the year ended June 30, 1922.....	393
Table 5.—Vocational rehabilitation—Financial aid contributed and other service rendered by cooperating agencies in States, for the year ended June 30, 1922.....	394
Table 6.—Vocational rehabilitation—Nature of disability for new cases registered, for the year ended June 30, 1922.....	395
Table 7.—Vocational rehabilitation—Origin of disability for new cases registered, for the year ended June 30, 1922.....	396
Table 8.—Vocational rehabilitation—Age of new cases registered, for the year ended June 30, 1922.....	397
Table 9.—Vocational rehabilitation—Schooling of new cases registered, for the year ended June 30, 1922.....	398
Table 10.—Vocational rehabilitation—Number of cases requiring and receiving special services, for the year ended June 30, 1922.....	399
Table 11.—Vocational rehabilitation—Personnel of State staffs, for the year ended June 30, 1922.....	400
Table 12.—Vocational rehabilitation—Expenditures from Federal, State, and local funds and from contributions, for years ended June 30, 1922 and 1921, and by States, 1921.....	401
Table 13.—Vocational rehabilitation—Classification of expenditures, covered by the Federal vocational rehabilitation act, from all funds, for the year ended June 30, 1922.....	403
Table 14.—Vocational rehabilitation—Classification of expenditures not covered by the Federal vocational rehabilitation act, for the year ended June 30, 1922.....	405
Table 15.—Vocational rehabilitation—Interest earned on Federal vocational rehabilitation funds deposited with State treasurers, for the year ended June 30, 1922.....	405

DIAGRAMS.

	Page.
I. Enrollment in federally aided schools; 1918 to 1922.....	Face page 9
II. Matching the Federal dollar under the vocational education act— expenditure of State and local money per dollar of Federal money expended: 1918 to 1922.....	11
III. Expenditures from Federal, State, and local funds: 1918 to 1922..	14
IV. Percentage expended of Federal grants under the vocational edu- cation act: 1918 to 1922.....	15
V. Federal grants for the promotion of vocational education and amount expended and unexpended, by years.....	17
VI. Percentage unexpended and expended of total Federal grants: 1918 to 1922.....	17
VII. Amount of Federal grants for agriculture, for trade, industry, and home economics, and for teacher training, and amount ex- pended and unexpended, by years.....	19
VIII. Percentage unexpended and expended of Federal grants for agri- culture, for trade, industry, and home economics, and for teacher training, by years: 1918 to 1922.....	19
IX. Boys and girls in school and not in school: 1920.....	22
X. From school to work.....	24
XI. Number not in school in the ages 14, 15, 16, and 17 years and number of all ages enrolled in federally aided part-time schools..	26
XII. State allotments of Federal grants in aid for salaries of teachers and supervisors of vocational agriculture, by years.....	Face page 31
XIII. Agricultural schools federally aided, by years: 1918 to 1922.....	31
XIV. Vocational pupils in agricultural schools federally aided, by years: 1918 to 1922.....	33
XV. Vocational teachers in agricultural schools federally aided, by years: 1918 to 1922.....	33
XVI. Enrollment in federally aided trade and industrial teacher-train- ing classes: 1918 to 1922.....	44
XVII. Enrollment in federally aided trade and industrial schools and classes of all types: 1918 to 1922.....	46
XVIII. Enrollment in federally aided evening trade and industrial classes: 1918 to 1922.....	47
XIX. Enrollment in federally aided part-time trade and industrial, and general continuation classes: 1918 to 1922.....	49
XX. Enrollment in federally aided all-day unit trade schools: 1918 to 1922.....	51
XXI. Case procedure—vocational rehabilitation of persons disabled in industry or otherwise.....	Face page 353

MAP.

Status of vocational rehabilitation, June 30, 1922.....	344
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LETTER OF TRANSMITTAL.

FEDERAL BOARD FOR VOCATIONAL EDUCATION,
Washington, D. C., December 1, 1922.

TO THE PRESIDENT OF THE SENATE AND THE SPEAKER OF THE HOUSE
OF REPRESENTATIVES OF THE SIXTY-SEVENTH CONGRESS:

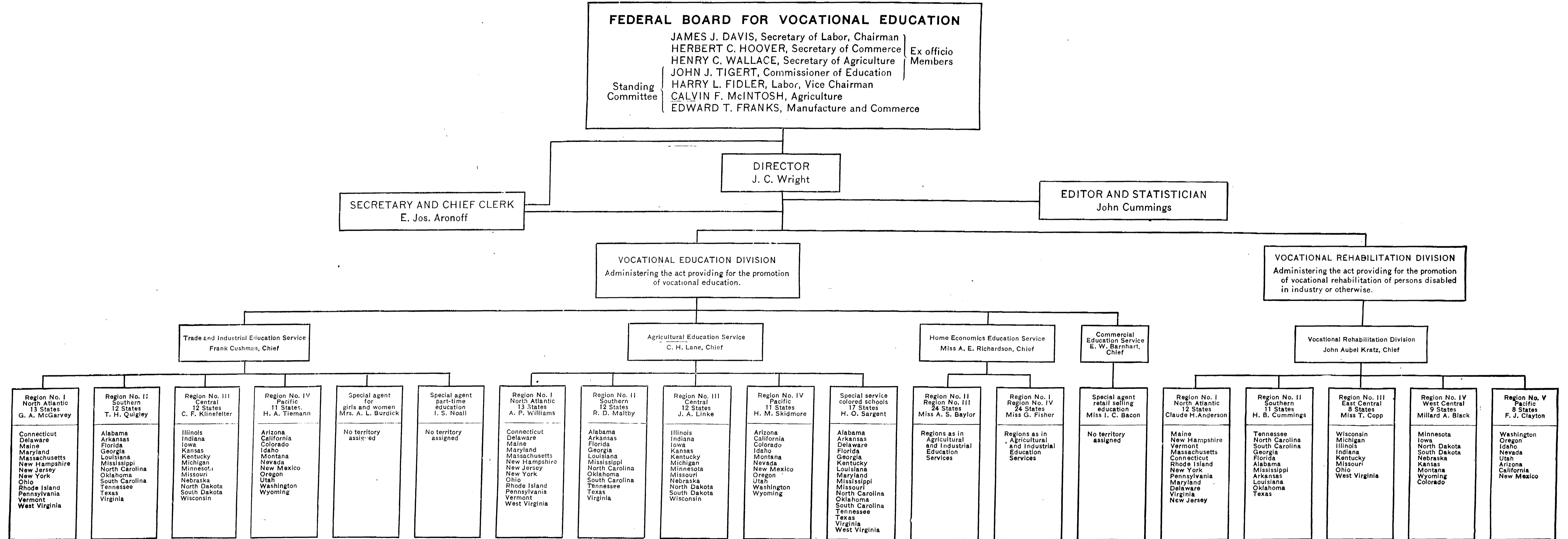
By direction of the Federal Board for Vocational Education and in accordance with the provision of the vocational education act of February 23, 1917, and the act providing for the vocational rehabilitation of persons disabled in industry or otherwise of June 2, 1920, I have the honor to submit the following report.

Respectfully,

JAMES J. DAVIS,
Chairman.

HARRY L. FIDLER,
Vice Chairman.

ORGANIZATION CHART OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION



008218

GENERAL SURVEY OF THE WORK OF THE FEDERAL BOARD.

In the present report to Congress the Federal board gives a general survey of its work during the past five years. This period is sufficiently extended to show real trends in the development of vocational education under the national program set up in the vocational education act of 1917. Moreover, in respect to the formulation of State plans the board has proposed to the States that plans be submitted in the future on a five-year rather than a one-year basis, as heretofore, covering in the first instance the period 1922 to 1927. In a sense, therefore, the present report is quinquennial rather than annual, covering the initial five-year period, 1917-1922, and marks the initiation of quinquennial programs in the several States.

LEGISLATIVE REQUIREMENTS UNDER WHICH THE BOARD REPORTS TO CONGRESS.

Under section 18 of the vocational education act of 1917 the Federal Board for Vocational Education is required to report to Congress annually on or before December 1 on the administration of the act, and to include in its report the reports made by State boards on the administration of the act by the several States and on expenditure of money under the act in the States. Under section 5 of the vocational rehabilitation act of 1920, providing for the vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment, the board is similarly required to report to Congress, including State reports to the board.

For vocational education in the fields of agricultural, trade and industrial, home economics, and commercial pursuits summary descriptive reports of activities and progress in the several States are presented in Section II, Part VI, and for vocational rehabilitation in Section III, Part III. Tabulations, including the statistical and financial reports made by States, are presented in Section II, Part VII, for vocational education, and in Section III, Part VII, for vocational rehabilitation. On the administration of the two acts under which it functions the general report of the Federal board is given in Section I and for the several administrative services in Section II, Parts I to IV, and Section III, Parts I and II.

ADMINISTRATIVE SERVICES OF THE BOARD.

As shown in the accompanying chart, the administrative services of the board are organized in the following units:

- Agricultural education service.
- Trade and industrial education service.
- Home-economics education service.
- Commercial education service.
- Vocational rehabilitation service.

REORGANIZATION OF SERVICES IN THE YEAR ENDED JUNE 30, 1922.

In compliance with the provisions of the act approved August 9, 1921, providing for the assembling of all Federal Government activities relating to ex-service men under a single administrative control in the newly established Veterans' Bureau, the Rehabilitation (Soldier and Sailor) Division of the Federal Board was transferred to the Veterans' Bureau on August 9, 1921. Following this transfer the administrative services of the board were organized under a director and five chiefs, one each for the services designated above. Changes involved as a consequence of the transfer of the soldier rehabilitation work to the Veterans' Bureau have thus resulted in making the four coordinate services of the board operating under the vocational education act immediately responsible to the director, whereas formerly these services were immediately responsible to an assistant director for vocational education. Within these several services, and within the service set up under the act providing for the vocational rehabilitation of persons disabled in industry or otherwise, the continuity of administration has been perfectly maintained, being in no respect affected by the transfer of an administrative division which had been from the beginning, except for the directorship and certain joint services, administratively separate from the other services, maintaining separate files, operating under a separate budget, and at the time of the transfer occupying a separate building.

In its fifth annual report to Congress on December 1, 1921, the Federal board gave a complete account of its work under the act providing vocational training for the war disabled up to the date of transfer on August 9 of the fiscal year ending June 30, 1922.

For more than three years the board had given its best efforts to the promotion of this great work of vocationally retraining our war disabled and returning them to remunerative pursuits. In this period the board had placed in training over 116,000, the number in training at the date of transfer being in round numbers 89,000. It had registered over 400,000 cases, and had passed upon over 390,000 cases, determining eligibility for training. During the month of July,

1921—the first month of the fiscal year 1921-22, and the month immediately preceding the transfer of the work—5,128 men were entered in training, and this was very close to the monthly average number entering training for the preceding fiscal year (5,174). In general, men were being entered in training as fast as they were found eligible for training and sufficiently recovered from their disabilities to undertake training. Pending cases included men still under medical care, men who for one reason or another did not elect to take training, and a comparatively small number whose eligibility for training under the provisions of the Federal act had not been determined.

ADMINISTRATIVE POLICIES OF THE BOARD.

In general the administrative policies of the Federal board have been continued without material modification during the year ended June 30, 1922, which is the fifth full year of administrative experience under the vocational education act and the second full year under the vocational rehabilitation (civilian) act.

In the field of vocational education the administrative policies of the board were defined tentatively and published in the first bulletin issued by the board in 1917, in so far as these policies involved interpretation of the provisions of the vocational education act in terms of concrete problems presented by administration of the act in the several States during the initial period of such administration. From year to year as legislation in the several States, and the administrative developments involved in the promotion of vocational education in the public schools have presented new conditions, requiring new rulings by the board to give full effect to the intentions of Congress as expressed in the vocational education act, the board has made such rulings as occasion for them has arisen, and during the last fiscal year these rulings have been assembled and incorporated with the original statement of policies issued in 1917.

While this original statement of policies has been carefully revised in detail and extended to embrace every official pronouncement made by the board during the five-year period, the board has found no occasion to change its original rulings in any material respect.

No demand has developed in the States for a change of the board's administrative interpretations of the act. The explanation of this general acceptance by the States of the board's ruling is very simple. No rulings by the board have been at any time arbitrarily imposed upon the States. As formulated in the original statement and as subsequently developed and modified, the administrative policies of the board represent specific provisions of the vocational education act, and since this act has been officially accepted by all of the States,

and has been thereby in effect made a part of the State laws, the policies defined in the act have been legally established in the States independently of Federal board rulings.

In the interpretation of these provisions the States themselves have participated freely, so that in a very real sense it is true that the administrative policies of the Federal board are in fact the administrative policies and interpretations of the State boards and their administrative staffs acting in cooperation with one another and with the Federal board under the vocational education act. With careful regard for the limits prescribed by Congress, the effort of the Federal board has been to set up such administrative policies as were most acceptable and advantageous to the States, and such as they themselves have favored and proposed.

This policy of cooperating with the States in the formulation of its administration rulings under the act is perhaps the most fundamental policy set up by the board for its own guidance and procedure. With respect to those discretionary powers specifically reserved to it under the act, the board has consistently refused to dictate arbitrarily to the States. In every detail of its rulings it has, on the contrary, proceeded in full and open cooperation with State administrative agencies, giving consideration singly to what was conceived to be in the best interests of the States themselves. At the same time, in so far as it has been able to do so, the board has contributed elements of guidance and leadership by promoting the development of our national program for public-school vocational education consistently with the accepted principles of education in a democracy, which require that such education shall be adapted to develop vocational efficiency as one important factor in good citizenship.

REPRESENTATIVE CHARACTER OF ADMINISTRATIVE AGENCIES.

A second fundamental policy set up in the vocational education act, and generally adopted voluntarily under that act in the States, is in line with the best efforts which have been made during the past decade in the field of education in this country and in foreign countries. Briefly stated, this policy is that public-school education shall be made a vital factor in the every-day affairs and interests of the communities which provide financial support for such education, and of the citizen taxpayers and their families, including the young and old of both sexes living in these communities. Under this policy education is not a thing apart, reserved for the comparatively few who may be provided with means and leisure for undertaking academic and university training. However great the educational value of secondary school instruction formulated to meet the

entrance requirements of our colleges and universities may be, such instruction is only one sort of education, and it is not necessarily the sort of education of greatest value to those who do not ultimately enter our higher educational institutions. To be a vital factor in our social life education must respond to the interests of every class of citizens. Vocational education particularly must, so far as possible, respond to the interests of every vocational class in the broad field of agriculture, industry, trade, commerce, and homemaking. It is, therefore, essential that these great classes shall be fairly represented in the administrative agencies directing and promoting the development of public-school education.

Consistently with this fundamental principle of education, the vocational education act provided specifically for representation of labor, agriculture, and manufactures in the membership of the Federal board. Each of these broadly defined interests is in fact given double representation on the board, once through the Secretaries of Labor, Agriculture, and Commerce—ex officio members of the board—and again through three members appointed by the President to represent labor, agriculture, and manufactures, respectively. Education in its broadest aspects also is given representation through membership ex officio of the Commissioner of Education. This membership is thus fairly devised to represent a wide range of practical interests of which public-school education, if it is to function effectively in a democracy such as ours, must take full account.

It is gratifying to note that the national pattern found in the Federal board membership has been followed in many of the States, and that these several interests have been given from year to year more adequate representation on local and State boards, official and advisory, which are directing educational development in the States and local communities. These interests, although they are in some respects special and separate, are, of course, in no respect conflicting. No single educational interest, either among those interests which relate to the advancement of science and art and of the higher technical and professional training, or among those which relate to more immediately practical forms of education, can be affected unfavorably by the provision of adequate vocational training in any line in our secondary schools, for those who have neither the means nor the leisure, and in many cases neither the special capacity nor the inclination to pursue any selected line of academic training. As the vocational requirements under our industrial system become more diversified, and at the same time more specialized and restricted, education itself must be correspondingly diversified, enriched, and developed to supply those elements of training and instruction which are under modern conditions no longer provided in the wage-earning employments themselves. It is now generally conceded that educa-

tion is not made in any sense less worth while by bringing into account these practical interests, or in any respect less really educational in the highest conception of education. On the contrary, education in every phase of it has become in recent years more vital and important precisely in proportion as these practical interests have been brought into the account.

SOCIAL VALUES DETERMINE PUBLIC-SCHOOL VOCATIONAL TRAINING.

A third fundamental policy of the board is one which also is clearly implied in the provisions of the vocational education act under which the board functions. *It was clearly the intention of Congress that every vocational education activity promoted under this act should be specifically vocational.* Education which is not inspired with a specifically vocational purpose, however great the value of such education may be, is not brought under the purview of the act. Equally it is true, however, that vocational training which is not essentially educational is properly a matter of private rather than of public concern. The Federal board, as an agency for promoting public-school vocational education, has insisted that such education shall not degenerate into a narrow and socially valueless job-training process where educational values are subordinated to private exploitations. The clearly expressed and implied intention of the vocational education act is that such education shall be consistently developed from the social point of view and shall regard singly the social welfare. Under this conception of vocational education it becomes necessary clearly to define the functions of our public school system in providing training which has vocational value. In general it may be said that it is the function of the school to provide that vocational training and instruction which can not be or is not advantageously and adequately provided in the shop or office, on the farm or in the home, independently of the school. In proportion as the old apprenticeship system of training has fallen out of joint with the industrial order, and in proportion as our industries have become incapable of providing adequate apprenticeship training such as will insure a high order of skill and a systematic development of vocational efficiency—and indirectly of industrial efficiency—the public school must assume responsibility for providing such training in full cooperation with employer and employee. This is merely an extension into the field of education of the principle of specialization of function which is characteristic of our economic and social development generally. In agriculture, also, the public school has a large task in bringing to the farmer boy and to the adult farmer the results of scientific research in the field of agriculture and in giving practical vocational interpretation to these results. Finally, in the field of

home making the public school must assume responsibilities of a socially vital character in bringing to the home makers, present and prospective, the results of scientific research in the field of child care, health, hygiene, and other home-making activities.

Thus public interest has inspired, and must in the future inspire, every development of vocational education under the vocational education act. The value of public-school vocational education, as of all public-school education, must be measured not in terms of private gains and profits but always in terms of present and of deferred public welfare—in terms of citizenship in its broadest aspects.

VOCATIONAL REHABILITATION SERVICES.

As regards the rehabilitation of persons disabled in industry or otherwise, in so far as it is promoted under the act of 1920, the single policy of the board is that it be specifically vocational. In the case of a person disabled, the purpose of vocational training, if such training is provided, must be the rendering of that person fit for remunerative employment. In individual cases, however, the most excellent vocational training may not do this, and in every case the training program must be adapted to the individual needs and capacity under the handicap of the given disability.

Vocational rehabilitation does not, in fact, necessarily involve in individual cases systematic vocational training of any sort. Frequently the most effective rehabilitation service is finding an employment adapted to the disabled person's capacity, and one in which his disability will not be a handicap, and actually establishing him in that employment under safeguards and with provision for such follow-up work to insure success as may be required in the given case. Many other different sorts of special services may be involved. Rehabilitation is thus in every instance an individual problem, involving in some but not all cases systematic vocational training, and in nearly every case a multitude of other services to render the person fit for and to establish him in remunerative employment.

EXTENSION OF PUBLIC-SCHOOL FUNCTIONS.

These larger aspects of educational policy as defined in the vocational education act and in the act providing for the vocational rehabilitation of persons disabled in industry or otherwise, imply an extension of the scope of public-school education to embrace the vocational interests of every class of our citizenship—the adult as well as the adolescent, and finally, in so far as the school can render service, the vocationally disabled as well as the vocationally fit. During its five years of administrative experience each year the Federal board has felt an increasing pressure originating in the States to

promote and direct this extension of secondary public-school functions. The demand on the part of our adult population for educational service is, of course, not restricted to the field of vocational training and instruction, but since the vocational interest is for the adult necessarily a principal and absorbing interest, it is largely effective in determining the character of the demand for adult education in the States. Naturally such education, if it is adapted to the interests of adults, must be in a large measure vocational. By making special provision for the promotion of part-time and evening school vocational instruction the vocational education act anticipated this demand. This act conceives public-school vocational education to embrace (1) education of the youth in all-day schools, and for a period after leaving these schools (2) in part-time classes, and finally (3) vocational instruction in evening and part-time classes for pupils of all ages.

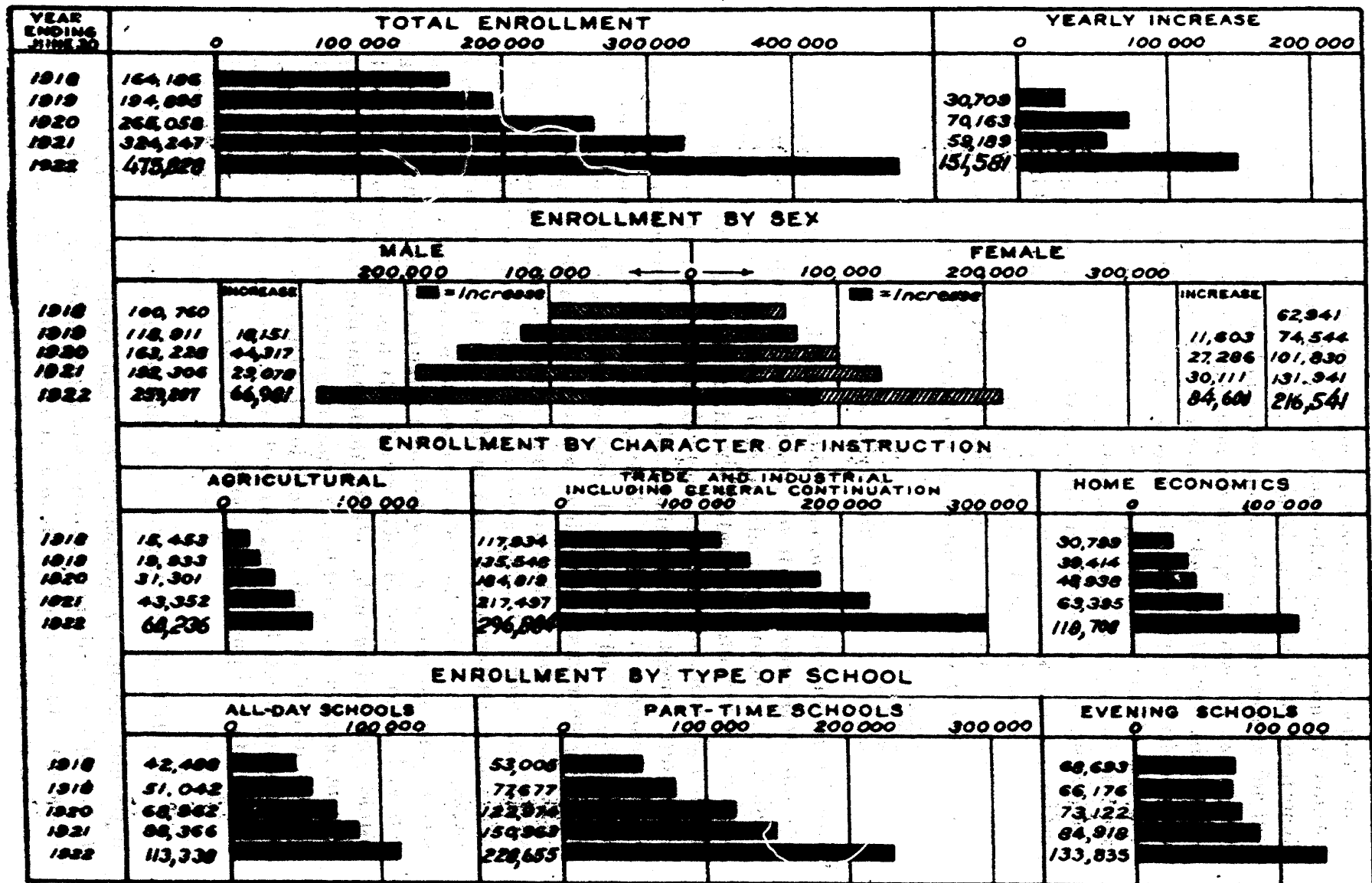
COOPERATION WITH THE STATES.

Under the two acts defining the functions of the Federal board cooperative activities in the field of vocational education and rehabilitation are indicated which imply the development of administrative machinery in each of the 48 States. Administrative control of these activities is centered for each State in the State board for vocational education, which is the administrative agency representing the State in its cooperation with the Federal Government. Official contact with the States is entirely through the State boards, which prepare State plans under which reimbursements out of Federal money allotted to the States are authorized. These plans are submitted to the Federal board for approval as being consistent with the provisions of the Federal acts appropriating money for allotment each year to the States, and when submitted and approved a State plan becomes virtually a contract of cooperation between the Federal Government and the State. The Federal board does not participate in the administration of the plan within any State. Each year State vouchers covering expenditures of Federal money within the State are examined and State accounts audited in accordance with the provisions of the Federal acts, and the reports made by the State boards to the Federal board are compiled and transmitted to Congress.

ADMINISTRATIVE SYSTEMS BUILT UP UNDER THE FEDERAL ACTS.

Each of the 48 States has been promoting vocational education under State plans submitted and approved annually for a period of five years, and a brief summary review of experience under the vocational education act of 1917, it is believed, will be of interest to Congress.

DIAGRAM I.—Enrollment in federally aided schools: 1918 to 1922.



This act proposed an agreement or contract for acceptance by the States in the promotion and support of public-school vocational education. Each of the 48 States within a few months after the act became effective accepted the proposal, and, having entered into agreement with the Federal Government, proceeded to develop its State program under the assurance of continuing and increasing annual grants from year to year. In the several years the number of State directors and supervisors for vocational education employed under control of the State boards has increased from 139 reported in 1917-18 to 226 for the year ended June 30, 1922.

In the local communities within the States programs of vocational instruction in the public schools have been set up also under the assurance of Federal grants in aid for reimbursement on account of salaries paid to vocational teachers. From year to year the number of schools of all types organized under approved State plans has increased from 1,741 in 1917-18 to 2,039, to 3,150, to 3,877, and to 4,945 in 1922.

Reimbursements on account of salaries have been paid each year to an increasing number of vocational teachers, the number of teachers in federally aided schools increasing from 5,257 in 1917-18 to 6,252, to 7,669, to 10,066, and in the last year to 12,280.

Pupils enrolled in vocational courses in the federally aided schools have increased in the same period from 164,186 to 194,895, to 265,058, to 324,247, and to 475,828. The increase of approximately 150,000 in enrollment in 1922, as compared with 1921, is nearly equal to the total enrollment reported for 1918. It is more than double the increase reported for any preceding year, and is in fact equal nearly to the total increase in enrollment in the three years from 1918 to 1921. The progressively accelerating growth in enrollment in schools and classes receiving joint reimbursements out of Federal, State, and local money and brought under State plans systematically formulated to insure compliance with accepted standards in vocational education is the best and most conclusive sort of evidence that the States have entered whole-heartedly into cooperation with the Federal Government. In round numbers, the annual increases in enrollment have been 30,000 in 1919 over 1918; 70,000 in 1920 over 1919; 59,000 in 1921 over 1920; and, as noted above, 150,000 in 1922 over 1921.

In addition, Federal grants have been distributed by State boards to teacher-training institutions, the number of such institutions reported for each year respectively being 94, 144, 135, 151, and 171. In these institutions the number of teachers of vocational teacher-training courses has increased from 524 to 829, to 1,062, to 1,143, and to 1,125; and the number of pupils enrolled in these courses—prospective secondary public-school vocational teachers—has increased from

6,589, to 7,364, to 12,456, to 16,824, and to 18,812. Summary totals for enrollment in federally-aided schools are given in Table 1, and are shown also in the accompanying graph.

TABLE 1.—Enrollment in federally aided schools (exclusive of teacher-training institutions), by sex, character of instruction, and type of school, for years ending June 30, 1918 to 1922.

TOTAL—EVENING, PART-TIME, AND ALL-DAY SCHOOLS.

Sex and year.	Enrollment.				
	Total.	Agricultural.	Trade or industrial.	Home economics.	General continuation part time.
Both sexes:					
1922.....	475,828	60,236	130,973	118,708	165,911
1921.....	394,247	43,852	97,843	63,395	119,657
1920.....	265,058	31,301	86,737	48,938	98,082
1919.....	184,885	19,333	84,765	39,414	50,783
1918.....	164,186	15,453	117,934	30,799	(¹)
Male:					
1922.....	250,267	57,278	115,880	18	86,111
1921.....	192,306	40,559	88,304	.....	63,358
1920.....	108,228	26,351	76,066	5	57,784
1919.....	118,911	16,959	74,481	147	27,324
1918.....	109,760	13,601	86,830	29	(²)
Female:					
1922.....	216,561	2,958	15,093	118,690	79,800
1921.....	131,941	2,793	9,449	63,395	56,304
1920.....	101,830	1,950	10,649	48,933	40,298
1919.....	74,544	1,534	10,284	39,267	23,459
1918.....	62,641	1,286	30,991	30,664	(³)

EVENING SCHOOLS.

1922.....	133,835	1,333	66,477	66,025	.....
1921.....	84,918	1,159	51,823	31,966	.....
1920.....	73,122	(⁴)	48,354	24,768	.....
1919.....	66,176	(⁴)	43,485	22,691	.....
1918.....	68,693	(⁴)	46,333	22,360	.....

PART-TIME SCHOOLS.

1922.....	228,656	5,942	33,106	23,696	165,911
1921.....	150,963	1,450	20,978	8,878	119,657
1920.....	123,974	(⁴)	17,189	7,733	98,082
1919.....	77,677	(⁴)	22,616	4,278	50,783
1918.....	53,005	(⁴)	53,005	(⁵)	(⁶)

ALL-DAY SCHOOLS.

1922.....	112,338	82,961	31,369	28,967	.....
1921.....	84,365	40,763	25,042	22,561	.....
1920.....	68,988	31,881	21,234	16,457	.....
1919.....	51,042	19,933	18,664	12,445	.....
1918.....	48,468	18,465	18,596	5,439	.....

¹ Includes 1,459 pupils not reported by sex.

² Pupils not reported separately, by sex, are included as follows: Total, 465; in agricultural schools, 266; in trade or industrial evening schools, 113; in home economics all-day schools, 100.

³ General continuation and home economics part-time school enrollment, not separately reported in 1918, was included in trade or industrial part-time school enrollment.

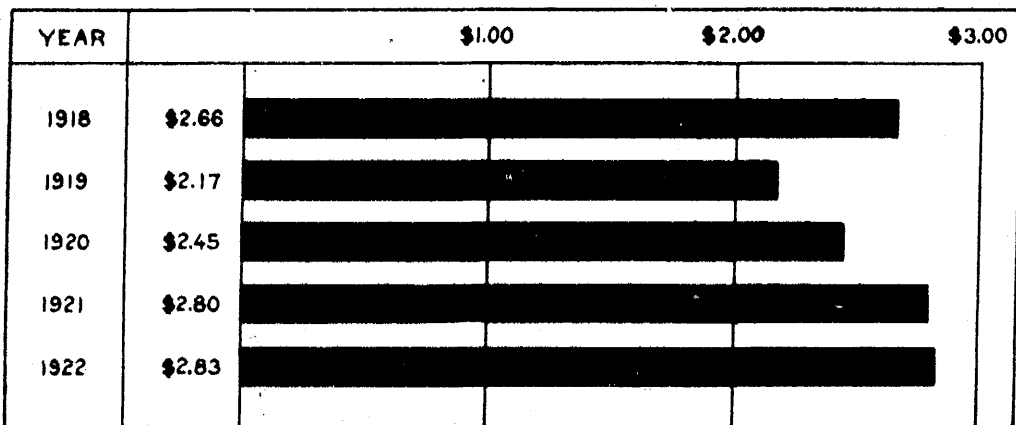
⁴ Not separately reported.

⁵ Includes all types of agricultural schools.

Each year the States have reported expenditures of State and local money greatly in excess of the amount required under the Federal act to match the Federal grant in aid "for the same purpose." As reported for 1922 the total expenditure of Federal, State, and local money under the vocational education act amounted to \$4,020,306.85 for vocational agricultural education, the amount of Federal reimbursement being \$1,435,397.89 and the amount of State and local money matched against this reimbursement \$2,584,908.96, or approximately double the Federal grant. For vocational trade and industrial education, exclusive of part-time continuation school work, the corresponding figures were: Total expenditure, \$3,846,779.55; Federal reimbursement, \$785,270.03; expenditure of State and local money, \$3,061,509.52, or nearly four times the Federal grant. For home-economics education the corresponding figures are: Total expenditure, \$2,116,306.06; Federal reimbursement, \$246,628.97; expenditure of State and local money, \$1,869,677.09, or more than seven times the Federal grant. For part-time continuation schools the figures are, respectively, \$2,570,902.11, \$386,749.69, and \$2,184,152.42, nearly \$6 of State and local money being matched against \$1 of Federal reimbursement; and for vocational teacher training, \$2,215,848.08, \$1,000,523.67, and \$1,215,324.41. In 1922 a total of \$14,770,142.65 was expended in the States under State plans as provided in the vocational education act. Of this amount, \$3,854,570.25 represented Federal grants; \$4,514,148.04 was State, and \$6,401,424.36 was local money matched against the Federal grants—nearly \$3 being matched against each Federal dollar in the aggregate expenditure under the act.

Summary totals of expenditures in the past five years of Federal, State, and local money under the vocational education act are given

DIAGRAM II.—*Matching the Federal dollar under the vocational education act—Expenditure of State and local money per dollar of Federal money expended: 1918 to 1922.*



in Table 2. Under the act if a Federal dollar is used in a State it must be matched with a dollar of State or local money expended for

the same purpose. The States are, of course, free not to accept the Federal grant in whole or in any proportion for all purposes or for any particular purpose; they are free, having accepted the grant for any purpose, to restrict expenditure of State and local money to an amount equal in combination to the Federal grant for the same purpose. Being free to curtail and avoid expenditures of State and local money in any year, for any or for all purposes designated in the act, the States have chosen rather year after year to accept the Federal dollar and match it, not once only, but two or three, and in some cases seven or more times over.

TABLE 2.—Expenditures of Federal, State, and local money under the vocational education act, for years ended June 30, 1918 to 1922.
EXPENDITURES FOR ALL TYPES OF VOCATIONAL SCHOOLS, NOT INCLUDING TEACHER-TRAINING INSTITUTIONS.

Classification of expenditure.	Amount of expenditures.					Percentage of expenditures.				
	1922	1921	1920	1919	1918	1922	1921	1920	1919	1918
Total.....	\$12,554,294.57	\$10,507,197.90	\$6,888,501.76	\$3,970,607.12	\$2,610,920.71	100.00	100.0	100.0	100.0	100.0
From Federal money.....	2,854,046.58	2,391,088.94	1,745,299.28	1,135,823.79	638,430.47	22.7	22.8	25.3	28.6	24.5
From State money.....	3,594,285.95	3,122,828.92	2,008,305.44	1,166,405.31	833,493.06	28.6	29.7	29.2	29.4	31.9
From local money.....	6,106,962.04	4,993,280.04	3,134,897.04	1,668,378.02	1,138,997.81	48.6	47.5	45.5	42.0	43.6
Agricultural schools.....	4,020,306.85	3,393,068.21	2,437,286.06	1,413,938.49	739,933.27	100.0	100.0	100.0	100.0	100.0
From Federal money.....	1,435,397.89	1,192,131.17	889,886.29	528,679.13	273,282.08	35.7	35.1	36.5	37.4	36.9
From State money.....	1,038,032.32	968,674.13	678,824.43	399,982.90	220,713.98	25.8	28.5	27.8	28.3	29.8
From local money.....	1,546,876.64	1,232,262.88	868,575.34	485,276.56	245,937.21	38.5	36.3	35.6	34.3	33.2
Trade or industrial schools.....	3,846,779.55	3,336,218.30	2,408,919.48	1,628,327.02	1,189,039.06	100.0	100.0	100.0	100.0	100.0
From Federal money.....	785,270.03	685,821.79	509,385.27	426,192.84	252,939.54	20.4	20.5	21.1	26.2	26.3
From State money.....	1,125,024.31	1,074,180.48	786,567.92	536,718.56	402,045.90	29.2	32.3	32.7	33.0	33.8
From local money.....	1,936,485.21	1,576,236.03	1,112,966.29	665,415.62	534,053.62	50.3	47.2	46.2	40.9	44.9
Home-economics schools.....	2,118,306.06	1,822,347.97	1,054,489.05	554,195.42	334,548.49	100.0	100.0	100.0	100.0	100.0
From Federal money.....	246,628.97	192,387.21	155,768.24	115,952.01	57,773.82	11.7	10.6	14.8	20.9	17.3
From State money.....	668,382.76	595,326.04	329,633.53	155,536.88	114,790.60	31.6	32.7	31.2	28.1	34.3
From local money.....	1,201,294.33	1,034,634.72	569,087.28	282,706.53	161,983.98	56.8	56.8	54.0	51.0	48.4
Part-time general continuation schools.....	2,570,902.11	1,955,543.42	987,807.17	374,146.19	347,399.80	100.0	100.0	100.0	100.0	100.0
From Federal money.....	386,749.69	320,748.77	190,259.48	64,999.81	54,435.03	15.0	16.4	19.3	17.4	15.7
From State money.....	762,846.56	484,068.24	213,279.56	74,167.07	95,942.49	29.7	24.8	21.6	19.8	27.6
From local money.....	1,421,305.86	1,150,726.41	584,268.13	234,979.31	197,022.37	55.3	58.8	59.1	62.8	56.7

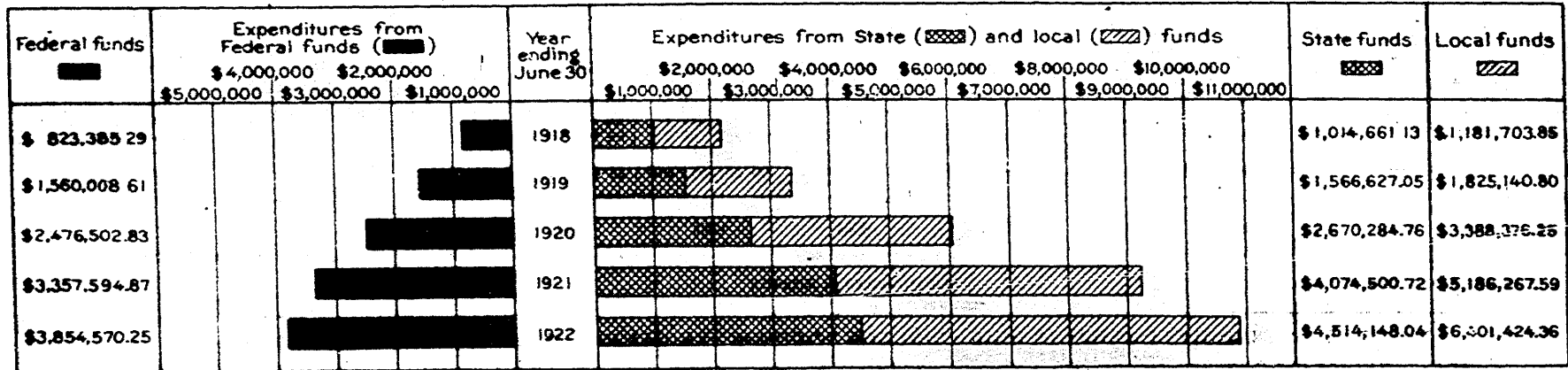
EXPENDITURES FOR TEACHER-TRAINING INSTITUTIONS.

Total.....	2,215,848.08	2,111,165.28	1,646,662.08	981,169.34	408,829.56	100.0	100.0	100.0	100.0	100.0
From Federal money.....	1,000,523.67	966,505.93	731,203.55	424,184.82	184,954.82	45.2	45.8	44.4	43.2	45.2
From State money.....	919,862.09	951,671.80	661,979.32	400,221.74	181,168.07	41.5	45.1	40.2	40.8	44.3
From local money.....	295,462.32	192,987.55	253,479.21	156,762.78	42,706.67	13.3	9.1	15.4	16.0	10.4

TABLE 2.—Expenditures of Federal, State, and local money under the vocational education act, for years ended June 30, 1918 to 1922—Continued.
EXPENDITURES FOR TEACHER-TRAINING INSTITUTIONS—Continued.

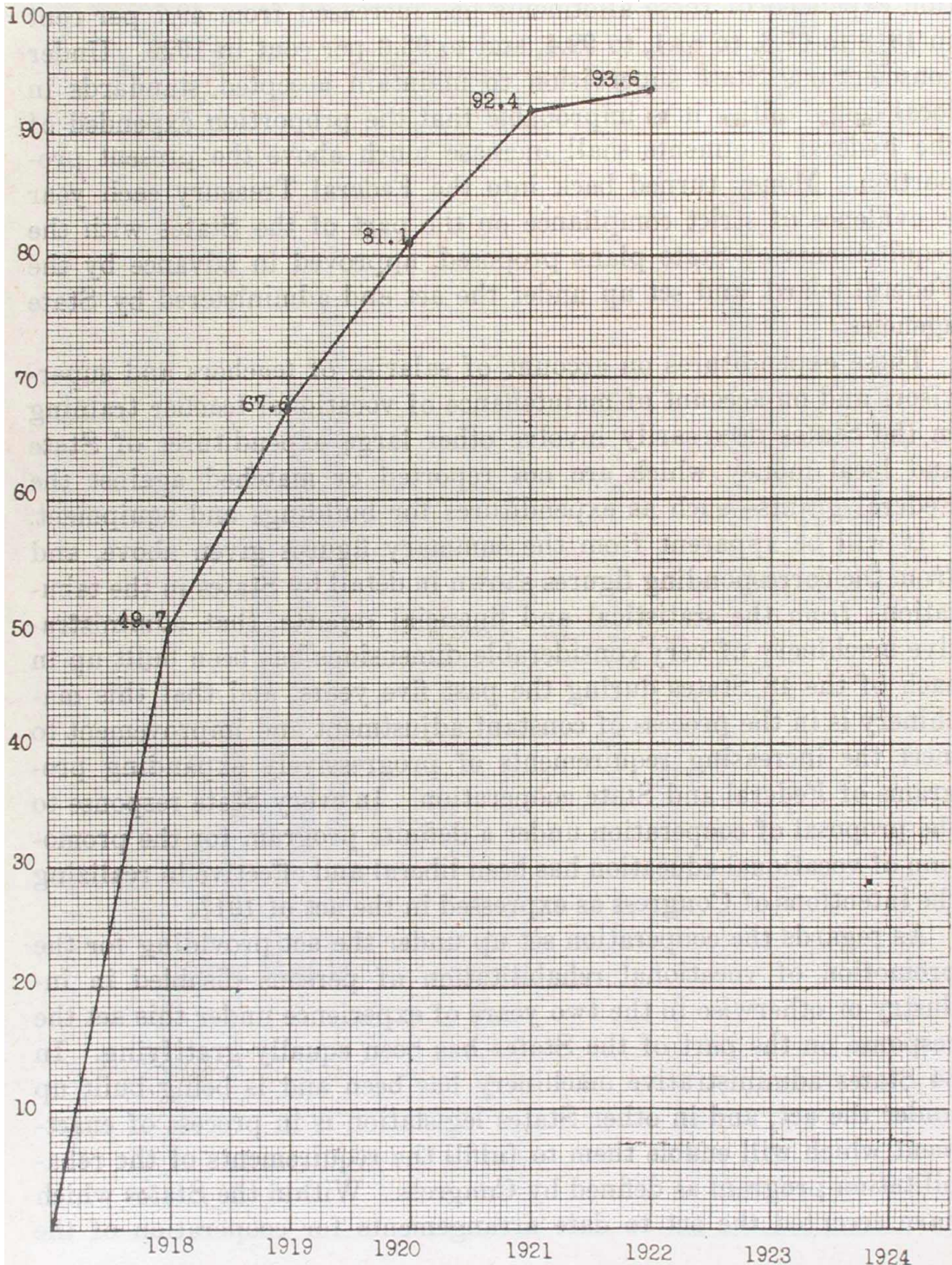
Classification of expenditure.	Amount of expenditures.					Percentage of expenditures.				
	1922	1921	1920	1919	1918	1922	1921	1920	1919	1918
Training teachers of agriculture.....	\$736,092.90	\$703,855.12	\$556,580.32	\$308,895.47	\$121,244.10	100.0	100.0	100.0	100.0	100.0
From Federal money.....	338,543.59	329,298.06	250,835.31	131,884.59	56,642.57	46.0	46.8	45.1	42.9	46.7
From State money.....	304,193.72	324,990.48	232,013.23	126,227.34	53,023.21	41.3	46.2	41.7	41.1	43.7
From local money.....	93,355.59	49,611.56	73,731.78	48,783.54	11,578.32	12.7	7.0	13.2	15.9	9.5
Training teachers of trade or industrial subjects.....	700,147.38	657,112.75	490,654.69	262,007.47	81,785.30	100.0	100.0	100.0	100.0	100.0
From Federal money.....	324,143.36	304,168.10	226,784.66	116,281.43	38,998.91	46.3	46.3	46.2	44.4	47.7
From State money.....	316,345.84	315,328.82	210,199.28	111,281.57	36,258.67	45.2	48.0	42.6	42.5	44.3
From local money.....	59,658.18	37,615.83	53,670.75	34,444.47	6,532.82	8.5	5.7	10.9	13.2	8.0
Training teachers of home economics.....	779,607.80	750,197.41	599,427.07	412,266.40	205,800.16	100.0	100.0	100.0	100.0	100.0
From Federal money.....	337,536.72	333,044.75	253,608.58	176,018.80	89,313.44	43.3	44.4	42.3	42.7	43.4
From State money.....	299,322.53	311,382.50	219,796.81	162,732.83	91,891.16	38.4	41.5	36.7	39.5	44.7
From local money.....	142,748.55	105,770.16	126,021.68	73,514.77	24,595.55	18.3	14.1	21.0	17.8	11.9

DIAGRAM III.—Expenditures from Federal, State, and local funds: 1918 to 1922.



From year to year by free acceptance on the part of the States the amount of expenditures under the act has increased from \$3,019,750.27 in 1918, to \$4,951,776.46, to \$8,535,163.84, to \$12,618,363.18, and in the last year, as noted above, to \$14,770,142.65. In this increasing aggregate the proportion of State and local money—overmatching the Federal grants each year in excess of the requirements of the act—has increased from year to year, indicating that the

DIAGRAM IV.—Percentage expended of Federal grants under the vocational education act: 1918 to 1922.



States have found cooperation under the act to be of advantage to them.

As additional evidence that the States are finding cooperation under the act advantageous it may be noted that each year, as shown in the accompanying graph, the States have more completely utilized the Federal grants for reimbursement on account of salaries in the fields of agriculture, trade or industrial, and home-economics education. In 1918, the initial year of organization under the act, the States expended approximately one-half of the Federal money available in the allotments for that year. From year to year the proportion expended of these allotments has increased from 49.7 per cent in 1918 to 67.6, to 81.1, to 92.4, and to 93.6 per cent in 1922. Under conscientious State supervision to maintain accepted standards in local communities it is improbable that the proportion expended of the Federal allotments shall increase much above the present proportion. Money turned back into the Federal Treasury each year is evidence of strict compliance on the part of the States with the requirements of State plans proposed, approved in advance by the Federal board, and set up under the act and administered by State agencies.

These expenditures on account of salaries of teachers and supervisors and on account of maintenance of vocational teacher training in the States necessarily involve other large expenditures of State and local money which are not reported or matched against the Federal grants—such as expenditures for buildings and equipment.

It will be apparent from the summary figures given above, and from the corresponding figures shown in detail by States in the tabulations from the statistical and financial reports, that administrative machinery of very considerable dimensions has been built up in each of the 48 States during the past five years, and that this machinery is in the process of constant adjustment and improvement to meet the increasing requirements of progressively expanding programs of Federal and State cooperation. In every State response to the proposal of cooperation under a definite program for the promotion of vocational education has been liberal and effective in realizing the intentions of Congress as expressed in the act of 1917.

As regards the cooperation set up under the act providing for the promotion of vocational rehabilitation of persons disabled in industry or otherwise in the two years of experience under this act the response on the part of the States has been equally gratifying. In 34 States administrative machinery has been and is being built up under the act, and in other States legislation is in process of enactment which will enable them to fulfill the requirements of the rehabilitation program as defined by Congress. Within the States which have accepted the act to date arrangements for cooperation of the

DIAGRAM V.—Federal grants for the promotion of vocational education and amount expended and unexpended by years.

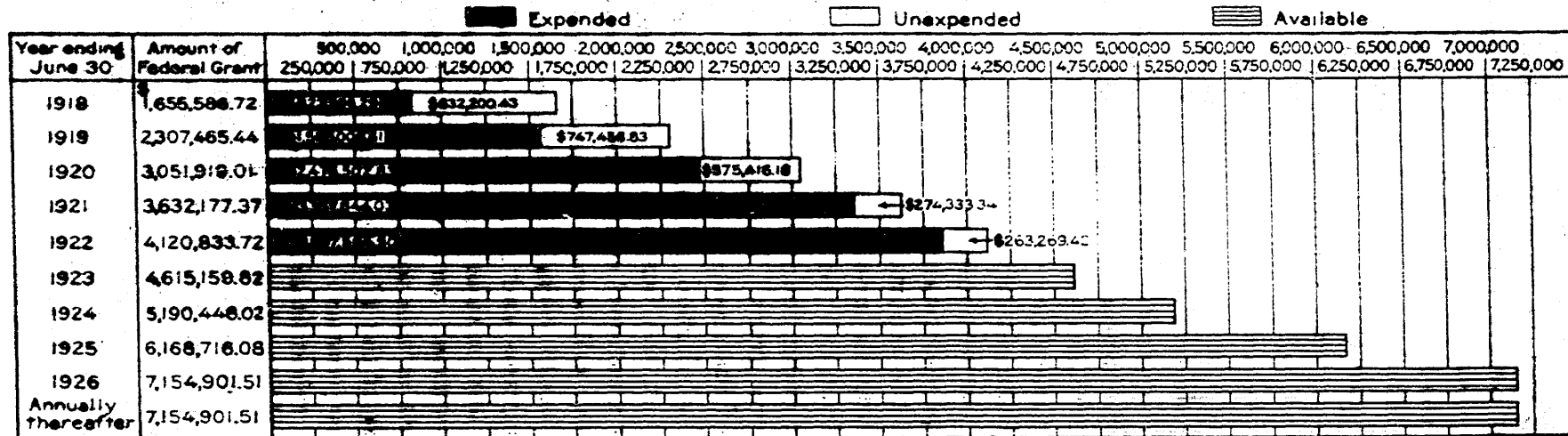
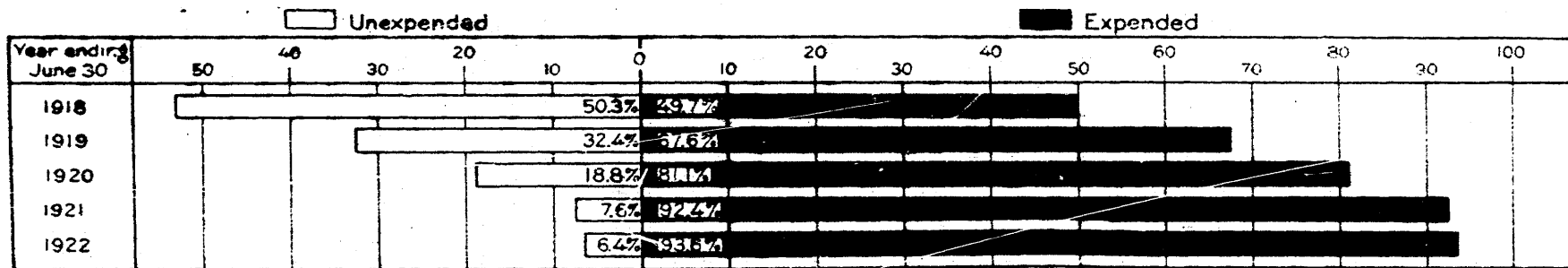


DIAGRAM VI.—Percentage unexpended and expended of total Federal grants: 1918 to 1922.



State boards with compensation and other State agencies have been put on a practical working basis, and the experience of these States is amply justifying the Federal program of cooperation with the States for the promotion of this socially and economically important undertaking. In this field, as in the field of vocational education, the States have been assisted in the development of working programs on a basis of national welfare. Under the Federal act State administrative agencies for rehabilitation and compensation have been brought into close association and fellowship from State to State, and thus the embarrassments of separation and isolated procedure which might tend to hinder State administrative systems have been in large measure avoided. For effective development of a national program in this field especially cooperation and mutual understanding among the States is absolutely essential. Persons disabled in one State are found resident in other States, so that differences in State laws and in interpretations of these laws frequently develop procedures which require careful adjustment on an equitable basis. Cooperation under the Federal act has provided precisely the medium of adjustment on a basis of mutual understanding that is essential.

In this field also, as shown in the reports made by States, State expenditures are greatly exceeding in amount the Federal grant in aid, and the benefits derived from the cooperation of the Federal Government with the States are being found to be out of all proportion to the amount of the Federal grant. The value of these benefits is in fact quite independent of the amount of the Federal grant. Primarily it is an intangible value of good will and administrative adjustment from State to State in the business of vocational rehabilitation of the disabled under a national social working program. The advantages of this arrangement will become apparent to one who considers the difficulties which would certainly be encountered in perfecting 48 separate State programs and in adjusting these programs to one another without any national agency of interstate administrative guidance or cooperation. In the absence of participation of the Federal Government in this work each State must set up working agreements with each of the 47 other States with which it must on occasion be brought into contact. It is inconceivable that 48 programs for the vocational rehabilitation of persons disabled in industry or otherwise could be developed independently under uncoordinated State laws so as to insure equity from State to State, and a perfect understanding in the assumption by the several States of their financial and social responsibilities. Assuming that each State developed a well-rounded and adequate program independently of other States, the need for interstate adjustment of State programs would still be unavoidable, and it is believed that Federal participa-

DIAGRAM VII.—Amount of Federal grants for agriculture, for trade, industry, and home economics, and for teacher training, and amount expended and unexpended, by years.

1926
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22
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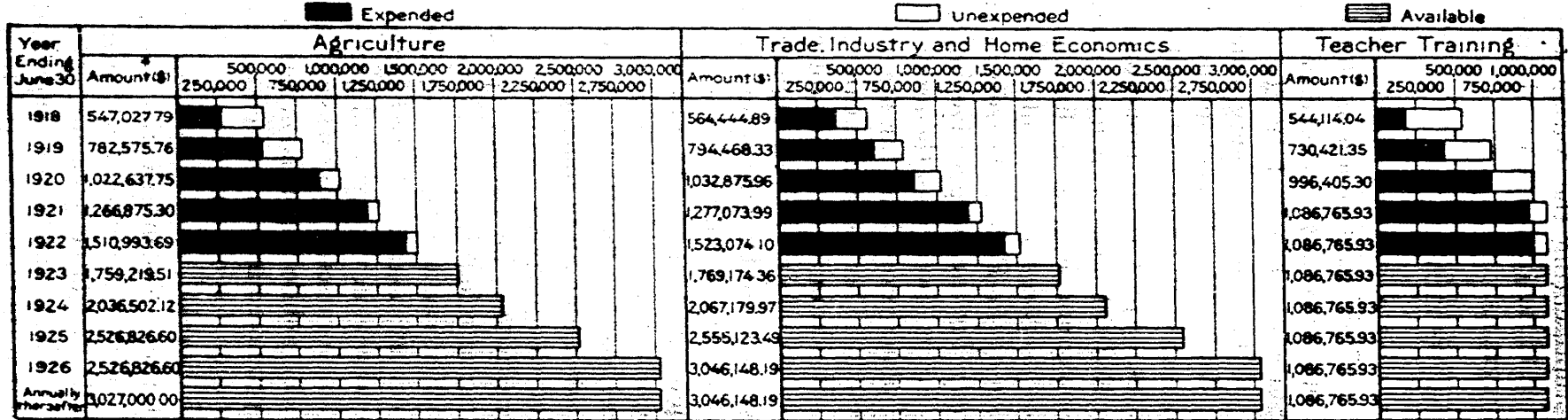
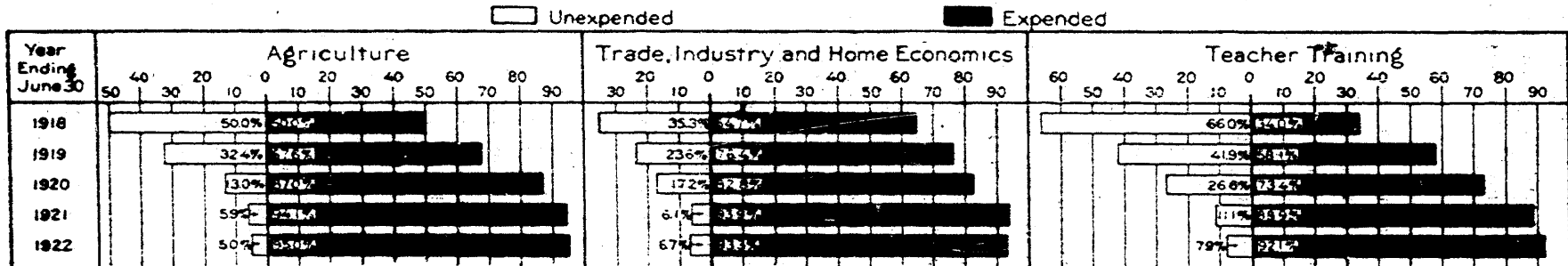


DIAGRAM VIII.—Percentage unexpended and expended of Federal grants for agriculture, for trade, industry, and home economics, and for teacher training, by years: 1918 to 1922.



tion, as a cooperating agency representing the Nation as a whole, gives precisely the means required to facilitate the rapid development and smooth working of State programs.

PLANS FOR THE FUTURE.

In its five years of administrative experience the Federal board has functioned principally as an administrative agency for bringing the several State administrations into close association with one another, to the end that each State may benefit from the experience of other States and may, out of its own experience, contribute to advancement in other States. Any adequate account of plans for the immediate future must take account of present conditions and plans in each of the several States. Apart from these working plans as developed in the States the Federal board can have no separate program for the future. Its program necessarily finds expression from year to year in the plans prepared in and submitted by the several States. It is the function of the Federal board to work with the States collectively and singly for the progressive improvement of their plans, but only in so far as the States themselves propose or accept and write into their plans provisions for the future, can a national program be perfected. The Federal board has never presumed to exercise any sort of administrative control within the States. Such control is entirely an affair of State legislation. Acceptance of the Federal act does not confer any administrative authority upon agents of the Federal board within State jurisdictions. Federal agents may observe and report upon administration within the States in so far as this administration involves expenditure of Federal money, and the Federal board is required to determine that such expenditures have been made under State control in conformity with the provisions of and for the purposes contemplated by the Federal acts. Under these conditions the national programs for vocational education and vocational rehabilitation are the programs formulated by Congress in the Federal acts themselves, being in no respect prescribed by the Federal board. These programs are properly expressed in the Federal acts in very general terms. Essentially the national program for vocational education is that such education shall be provided under public supervision and control in the States, and that it shall be promoted and improved in accordance with the highest ideals of education for citizenship. In the field of vocational rehabilitation of the disabled, also, the national program is expressed in very general terms. Essentially the Federal Government's participation in this field represents a national effort to avoid the appalling and generally avoidable economic waste of vocational disability as a result of accident, disease, or congenital defect. It is not essential or even desirable that plans for the future in this

work shall be uniform from State to State, and it would certainly be unwise for the Federal Government to undertake to impose upon the States any single scheme of procedure. It is essential only that plans in the States shall be in accord with national interests, and that the work shall be initiated and promoted under State control in response to the needs of each State.

While the board feels that much has been accomplished during the five years past under the vocational education act, it feels at the same time that what has been achieved is considerable only in comparison with conditions prior to the passage of the Federal act. It is impressed with the dimensions of the problems confronting educational authorities in the States in every line of vocational education. These problems are clearly of national concern, and in comparison with present and future needs the achievements of the past five years are largely in the nature of experimental beginnings. Only a bare beginning has been made in the States in providing adequate vocational instruction for the boys and girls of our farming population to fit them to take up the important work of producing the Nation's raw materials for food and clothing. In the fields of manufactures and commerce only a beginning has been made in providing public-school instruction that will develop vocational efficiency and skill. In the broad field of home making the unsolved problems confronting the public school are out of all proportion greater than those which have been solved—if, in fact, any of those problems may be said to be solved. In each of these fields social and economic conditions are changing rapidly, and the solution of to-day becomes a problem for new adjustment to-morrow. In each of these fields also the extension of the public-school functions to embrace the vocational interests of the adult population opens up wide ranges of needs which have not yet been provided for.

Some account in detail of plans for the future and of the needs in the different fields brought within the administrative interest of the Federal board will be found in the statements covering the work of the several services of the board. In general it is true of these services that programs for the future, in so far as these have been written into State plans, involve in each case continuous expansion of State facilities for vocational-teacher training and for vocational instruction in all-day, part-time, and evening schools.

SCHOOL MORTALITY AND PART-TIME EDUCATION FOR EMPLOYED BOYS AND GIRLS.

Under the provision of the act which reserves one-third of the allotment for trade, industrial, and home economics education for reimbursements on account of salaries of part-time school-teachers, special provision is made in the vocational education act for the promotion of part-time education for employed boys and girls.

DIAGRAM IX.—*Boys and girls in school and not in school: 1920.*
 [Number attending school and population data supplied by Bureau of Census.]

NUMBER IN SCHOOL				AGE	NUMBER NOT IN SCHOOL			
2,000,000	1,500,000	1,000,000	500,000		500,000	1,000,000	1,500,000	2,000,000
441,411				5 Yrs.				1,906,428
1,430,714				6 Yrs.				857,601
1,905,404				7 Yrs.				382,285
2,010,004				8 Yrs.				262,386
1,944,314				9 Yrs.				206,718
2,077,905				10 Yrs.				155,739
1,970,255				11 Yrs.				127,527
2,002,740				12 Yrs.				152,010
1,577,429				13 Yrs.				151,198
1,706,784				14 Yrs.				270,461
1,357,345				15 Yrs.				594,100
1,001,701				16 Yrs.				971,257
642,300				17 Yrs.				1,212,831
413,619				18 Yrs.				1,406,427
252,000				19 Yrs.				1,578,254
148,352				20 Yrs.				1,632,790
344,780				21 Yrs. and over				60,541,731

States may spend more for part-time work, but at least one-third of this allotment, if expended at all, must be expended for part-time school reimbursements. Details of expenditures under this provision are shown in the tabulations of this report. The provision itself is evidence that Congress as early as 1917 appreciated the need for making more adequate provision in our public-school systems for boys and girls who drop out of school prematurely to enter into wage-earning employment.

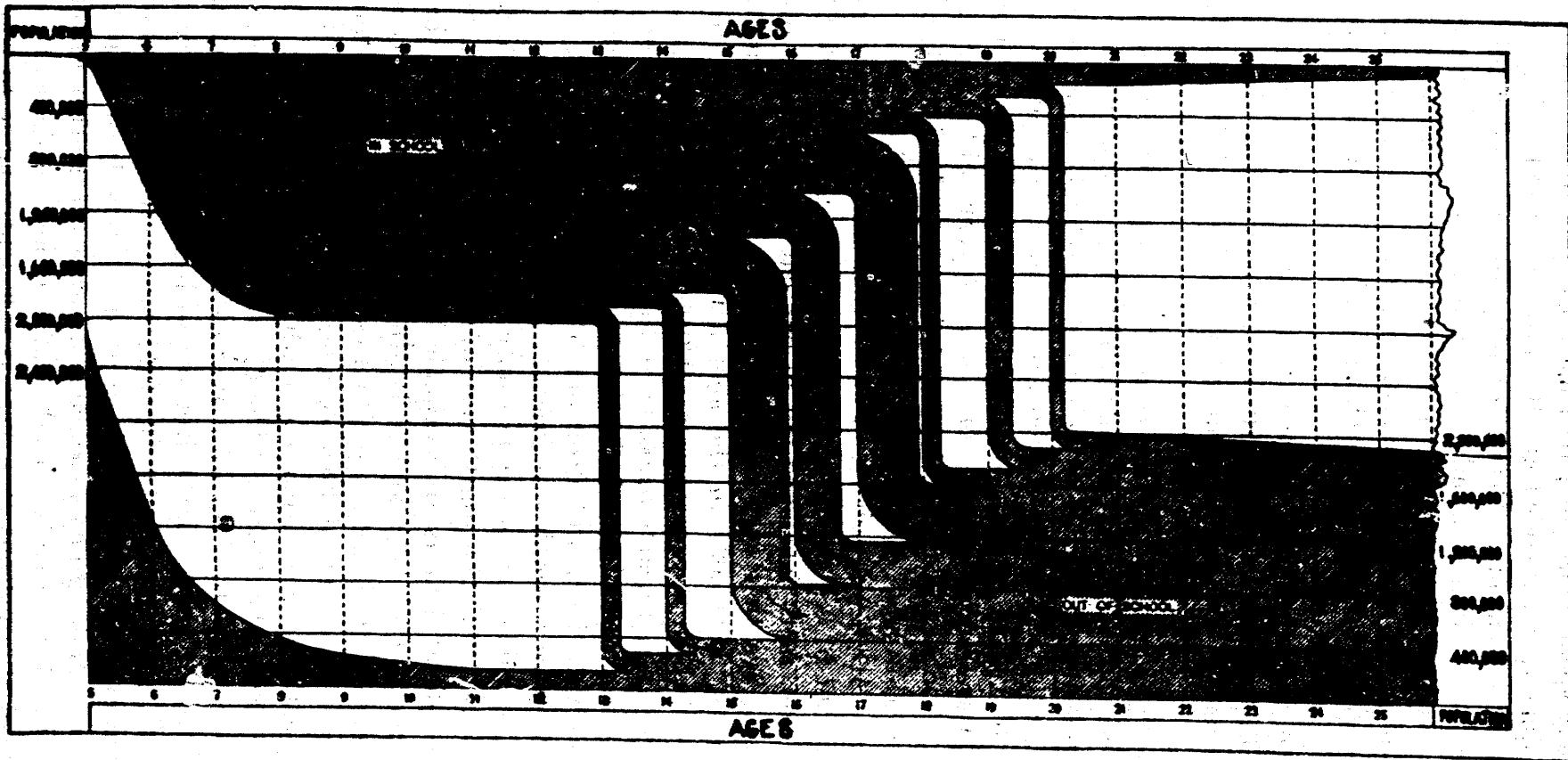
In the accompanying diagram the not-in-school population is shown for the school ages 5 to 20 years, in comparison with the number in school at each age as returned at the Federal decennial census of 1920.

In 1920, as returned by the census, the population of school age numbered 33,250,870. Of these, 21,373,975 were returned as attending school and 11,876,894 as being out of school. For the ages 14 and 15 combined the out-of-school boys and girls numbered, according to the census returns, 783,581. Of 16-year-old boys and girls, 971,257 were out of school. Of those 17 years old, 1,212,831 were out of school—approximately two being out of school for one in school in this age. Of those 18 years old, 1,496,427 were out of school and 413,619 in school. For those 19 and 20 years of age, the numbers out of school were respectively 1,578,254 and 1,632,750.

The large facts developed out of our national statistics of school attendance are that as a constantly obtaining social condition we have nearly 12,000,000 in the ages 5 to 20 years who are not in school, of whom approximately 3,000,000 are in the ages 14, 15, 16, and 17 years and nearly 5,000,000 in the ages 18, 19, and 20.

This out-of-school population is recruited year after year by those who graduate from and drop out of school at different stages in their progress through the grades. Approximately it is true that of 1,000 pupils entering grade 1 only 580 survive in school to grade 8 and only 140 to the fourth year of the high school. On the basis of such official data as are available it may be estimated that every year some 600,000 boys and girls drop out of school on completion of the eighth grade. To these figures must be added the number of those who drop out of lower grades—approximately 140,000 from the seventh, 350,000 from the sixth, 350,000 from the fifth, and 300,000 from the fourth. These estimated eliminations annually from Grades IV to VIII total over 1,700,000. In addition, it would appear that nearly 500,000 drop out of high school each year before completing the four-year course; giving an estimated total of school eliminations each year for those grades probably well in excess of 2,000,000. Making any reasonable allowance for error in these estimates based upon such official figures as are available, the number of school eliminations each year is sufficiently large to constitute a

DIAGRAM X.—From school to work.





problem of large dimensions in the field of part-time education. On the accompanying chart, based upon the 1920 Federal census data, the ages of maximum school mortality are apparent in the width of the columns representing the flow of the school population from school to work.

These 2,000,000 boys and girls who annually drop out of school have, of course, the same legal right as has every other boy or girl in the community to remain in school on full-time instruction at public expense to the completion of the high-school course. If they should determine to exercise this right every community would find it necessary greatly to increase its school facilities. While no accurate estimate can be made of the cost of providing education full time or part time for these out-of-school boys and girls, if they came back to school, some approximation can be made to the probable cost figured on the cost per pupil in school as shown for all-day schools in official statistics, and as estimated for part-time school pupils from survey reports. So figured, it may be roughly estimated that, if the 279,000 boys and girls aged 14 not in school were to reenter school for a year their education full time for one year would cost \$20,000,000; if the 500,000 15-year-old boys and girls out of school should come back into school they would necessitate additional expenditures of over \$40,000,000 a year; the 971,000 not in school in the age of 16 years would add \$80,000,000, and the 1,212,000 in the age of 17 years \$100,000,000 to the public-school budget of expenditures each year. Approximately to provide full-time schooling for the boys and girls aged 14, 15, 16, and 17 years who are not now attending school would cost the community \$240,000,000 a year. No one questions the legal right of these groups to require additional expenditures in these amounts if they choose to come back to school.

No State program contemplates gathering in this out-of-school population in the ages 14 to 17 years for full-time instruction, nor has any near approach been made in these programs to a condition where part-time instruction for a few hours a week would be provided generally in these ages. Enrollments of all ages in federally aided part-time schools as reported to the Federal board for the year 1921--22 totaled 228,655, or less than one-tenth of the boys and girls 14 to 17 reported by the census in 1920 as not attending school of any kind. Of the vast majority of our boys and girls who drop out of the grades and the high schools it is true that they are left to drift into employment and to make their adjustments to a wage-earning status unaided by the public school.

At a conservative estimate, the earnings of 14 to 17 year old boys and girls not in school exceed total expenditures in the country for all types of education, public and private, from kindergarten to university. These boys and girls are contributing in this vast amount to the economic well-being of society, instead of requiring of society an expenditure running into hundreds of millions which they might require for full-time schooling. Total expenditures of Federal money in 1922 for part-time school reimbursements amounted in round numbers to \$564,000, or approximately 19 cents for each boy or girl in the ages 14 to 17 not in school. The most liberal match-

DIAGRAM XI.—*Number not in school in the ages 14, 15, 16, and 17 years and number of all ages enrolled in federally aided part-time schools.*

Boys and girls 14, 15, 16, and 17 years old not in school—1920.	}..... 2,967,651	
Enrollment in Federally aided part-time schools, all ages—1921-22.	}..... 228,655	

ing and overmatching of the Federal grant in the States certainly will not overfinance our part-time program. Although under the stimulus of the Federal act and in direct response to an obvious social need, the States have made rapid progress during the past five years in developing part-time vocational education under State legislation, it is recognized generally that work in this field is still in the initial experimental stages, and that the educational needs of the out-of-school boy and girl far exceed the provisions which have as yet been made for those needs.

RECOMMENDATIONS TO CONGRESS.

It is very generally felt in the States that our public schools should provide more liberally for the vocational needs of home makers. In numbers employed the vocation of home making equals or exceeds all other vocations combined, and as the vocation directly concerned with home conditions, the care of children in the home, and in general with the daily conduct of the household as the center of family life, this vocation perhaps more nearly than any other involves social welfare and deserves public support. The Federal board feels impelled to direct attention to the growing demand for more adequate provision than is made in the vocational education act of 1917 for promoting home-making education in the public schools.

Provision is made in the vocational education act for making studies, investigations, and reports relating to vocational education for commercial pursuits, but this act did not provide for reimbursements on account of the salaries of teachers of commercial subjects

as in the case of teachers of agricultural and of trade, home economics, and industrial subjects. In the section of this report dealing with developments in the field of vocational education for commercial employments an account is given of conditions which explain this omission of appropriations from the act of 1917. It is felt that vocational education in this broad field should be placed more nearly on an equality with other types of vocational education, and that in this field particularly under present conditions the stimulus of a national grant in aid would be of great value in developing practical courses of instruction, and in widening the scope of such instruction to embrace something more than the traditional bookkeeping, stenography, and typewriting. A larger and truer conception of commercial education would seem to justify the demand for Federal grants to cover reimbursements in this field.

In the field of vocational rehabilitation of persons disabled in industry or otherwise, although the act providing for participation of the Federal Government in this work contemplated a permanent program, it provided funds for four years only. The board has now entered upon the third year under this program, and it will be necessary for Congress in the near future to take under consideration provision for continuing the funds beyond the initial period. Any uncertainty as to continuance or amount of the Federal grant in aid to the States will embarrass the administration during the year 1923-24. Already in certain States where appropriations to match Federal money are made biennially, legislation providing for the fiscal year 1924-25 is under consideration, and State plans generally contemplate expenditures and administrative arrangements at least one or two years in advance.

This rounding out of our national program of education and rehabilitation in every line of vocational endeavor, having regard singly to the public interests in providing for the educational needs of every class of our citizenship of both sexes and of all ages in the home, on the farm, and in the shop, factory, or office, is in line with our traditional policy of extending freely to all equal opportunities so that each may benefit according to his or her capacities. In this effort to keep public-school education in line with the requirements of our democracy the Nation as a whole has a vital interest which can not be divided into 48 separate interests and devolved upon the States. In the several States education is partly an affair of the local community and partly an affair of the State, and in the Nation as a whole it is partly an affair of the Federal Government, which within its prescribed limits must participate and cooperate with the States. Ample evidence is presented in this report that the States themselves are in full accord with the Federal program. Such evidence is found each year in the reports of the States covering developments from

year to year under the Federal acts. The following paragraph taken from one State report expresses fairly the principle underlying our national program as a whole, a principle which is recognized in the States generally. This State report, having noted the failure of the Federal Government as yet to provide for commercial education, comments as follows on the general program for vocational education:

Under our Constitution it is the evident intent of the people that all individuals shall have equal educational privileges and that all shall receive a reasonable degree of educational training. The first quarter of the twentieth century will be noted in the history of education as a period of rapid development of vocational education as a part of our public educational system. If we have a constitutional right to appropriate public money for the training of teachers, doctors, lawyers, and engineers, there is no question about the validity of our right and power to appropriate public money for the training of farmers, housewives, and mechanics.

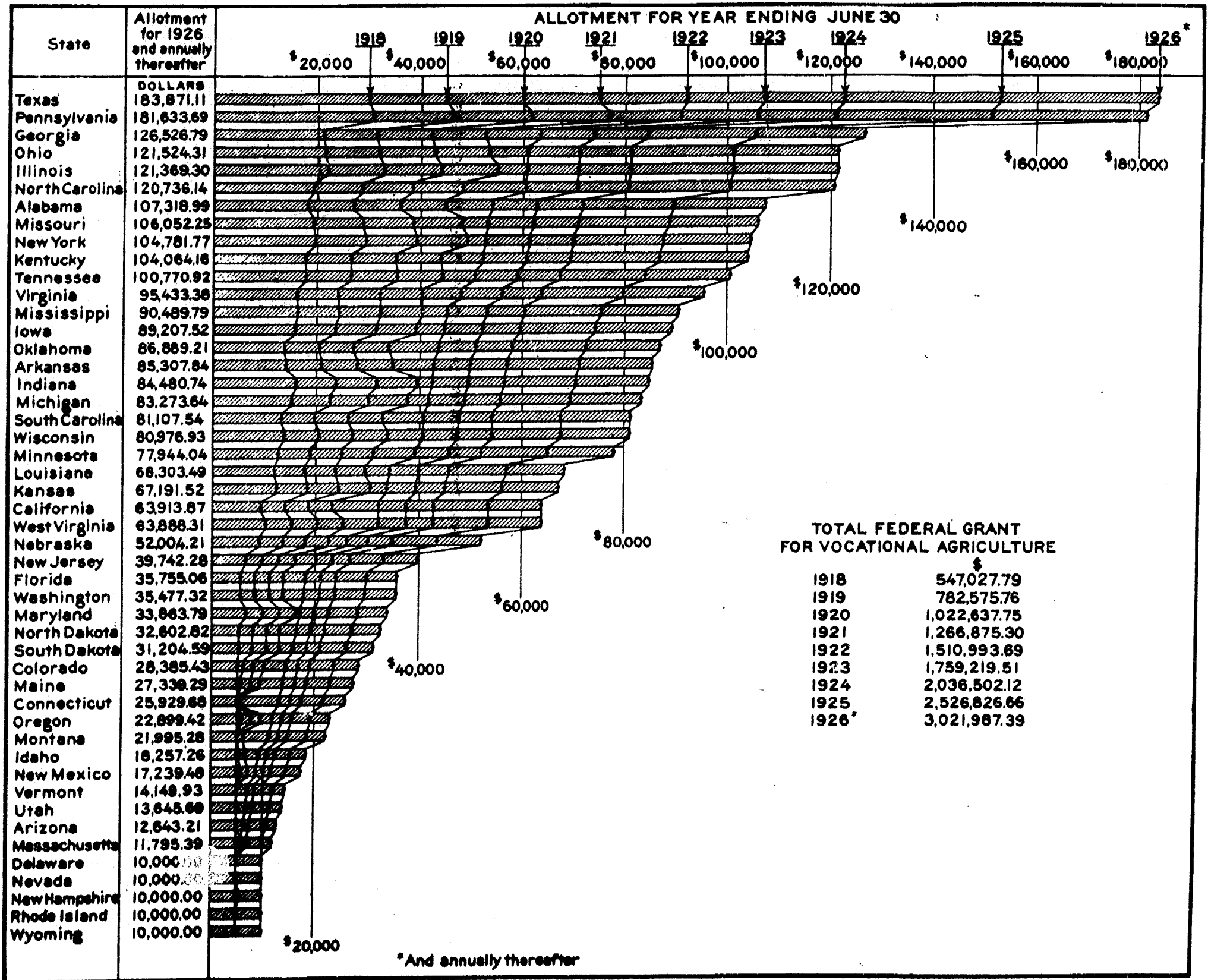
Our National and State programs of long standing for promoting education in our colleges and higher technical schools clearly imply an extension of educational facilities freely to meet the needs of the commoner vocations generally; and in providing for continuance and expansion of the programs of cooperation with the States set up in the vocational education act of 1917 and the act providing for the vocational rehabilitation of persons disabled in industry or otherwise, Congress will be acting consistently with this fundamental principle in education.

SECTION II.

VOCATIONAL EDUCATION SERVICE.

- Part I. Agricultural Education.
 - Part II. Trade and Industrial Education.
 - Part III. Home Economics Education.
 - Part IV. Commercial Education.
 - Part V. Publications in 1922.
 - Part VI. Summary of Progress by States.
 - Part VII. Statistical Report.
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DIAGRAM XII.—State allotments of Federal grants in aid for salaries of teachers and supervisors of vocational agriculture, by years.



PART I.
AGRICULTURAL EDUCATION.

GENERAL SURVEY OF PROGRESS: 1917 TO 1922.

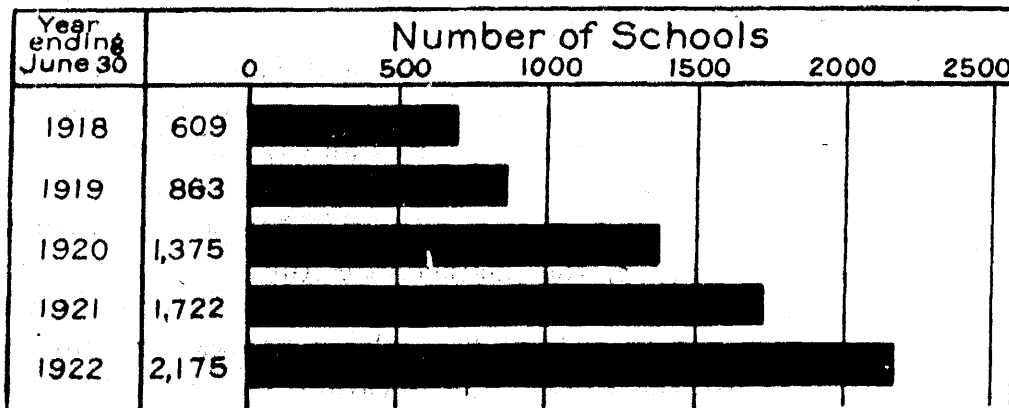
In education as in other such enterprises it is felt worth while occasionally to take account of the general trend or direction of developments and of the mass achievement in any given line to date.

The question is asked now: "Has the promotion of vocational education in agriculture during the past five years under the Federal vocational education act been so considerable as to be susceptible of accurate measurement; and if so, what specific achievements can be written down to the credit of the national policy defined in that act in this brief initial period of organization, preparation, planning, and legislation in the 48 States?"

Briefly stated, the conclusion of the whole matter is that vocational education in agriculture in the United States has been, as a direct consequence of the policy defined in the Federal act of 1917, generally introduced as a branch of the regular high-school curriculum; has been made to function on the farm; and the character of the teaching force has been markedly improved by the development of sound teacher-training programs.

Two features of the program of vocational education in agriculture are of inestimable importance and are being carried out by State boards for vocational education to an extent and with a thoroughness which must win universal commendation. In the first place, teachers of vocational education in agriculture are effectively pro-

DIAGRAM XIII.—*Agricultural schools federally aided, by years: 1918 to 1922.*



moting the diffusion of scientific methods of agriculture, which is the indispensable basis of better farming. This they have been able to accomplish through their affiliation with trained State supervisors of agriculture, itinerant instructors, and State agricultural colleges and experiment stations. Secondly, teachers are rightly insisting that agricultural cooperative enterprises are the key to financial success in the business of farming. The vocational program in agriculture, then, is laying the foundation among American farmers: (1) For better farming and (2) for better business; and these two, combined with the social and educational forces, are making toward the goal toward which our efforts are ultimately directed, namely, better living on the farm.

GROWTH IN ENROLLMENT IN FEDERALLY AIDED SCHOOLS AND CLASSES.

Agriculture was being taught for one semester or for a year in many States before the passage of the Federal act of 1917, but in only a few States—Indiana, Pennsylvania, New York, Massachusetts, Minnesota, Wisconsin, Michigan, and California—was agriculture given for one-fourth to one-half day for four years. Several States—including Massachusetts, Mississippi, and Wisconsin—had established special vocational agricultural schools with their county systems; New York with its State agricultural schools; New Jersey with its scheme of county vocational schools; Georgia and Alabama with their congressional agricultural schools; Arkansas with its four independent agricultural schools; Michigan with its two county schools; and Minnesota with its three schools of agriculture. It is important to note here that the organization of such vocational schools has not grown with the establishment of a national system of vocational education in agriculture of less than college grade.

Under the direction of the Federal Board for Vocational Education, in cooperation with State boards for vocational education, vocational agriculture has found a place in the public schools of each State, and the present scheme of school instruction with directed or supervised practice in agriculture on the home farm is indeed a big advance over the one-semester idea of a few years ago.

Before the passage of the Federal vocational education act there was a tendency to judge the progress in agricultural education by the number of institutions offering courses and the number of students taking the work. While much of the superficial teaching which went under the name of agricultural instruction has been eliminated and real progress made in the character of the work given, the apparent decline in interest shown in the following statistics is due largely to a more careful inquiry into work reported as agriculture. In the spring of 1916 the Bureau of Education, Department of the Interior, attempted to gather complete and definite information con-

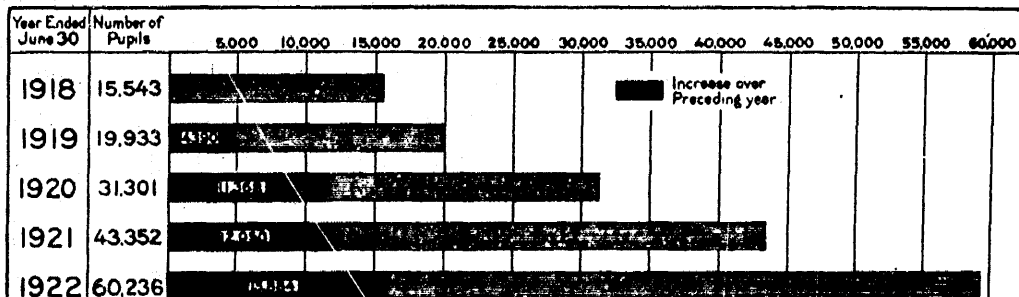
cerning the teaching of agriculture in the high schools, and especially agricultural schools of secondary grade. The following is a brief summary of the schools reported :

Agriculture in secondary schools, 1915-16.

Number of public high schools reporting teaching agriculture.....	2,175
Reporting teaching agriculture primarily :	
As informational subject.....	1,521
As vocational subject.....	566
Number of students of secondary grade studying agriculture :	
Boys.....	24,743
Girls.....	16,812

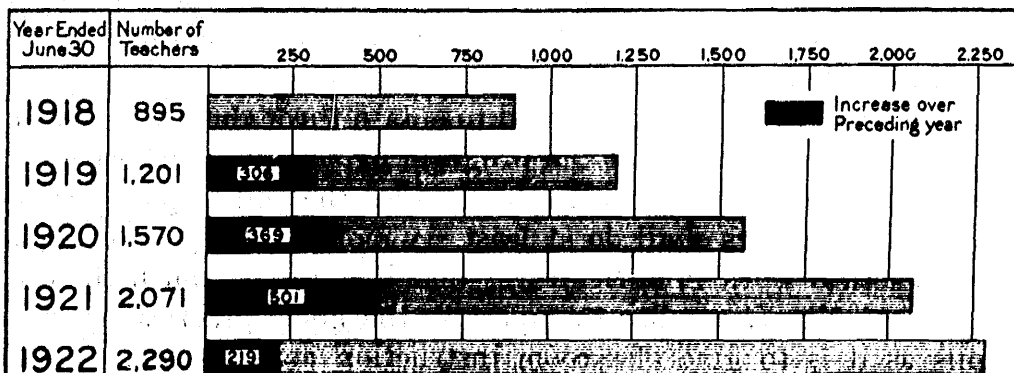
At the close of the first year's work under the Federal vocational act the 48 States reported 609 schools which had received Federal aid for salaries of teachers of agriculture, while in the year 1921-22 the 48 States reported 1,937 all-day schools which had received aid

DIAGRAM XIV.—*Vocational pupils in agricultural schools federally aided, by years: 1918 to 1922.*



and in addition 238 evening and part-time schools, giving a total of 2,175 agricultural schools of all types. Reports of agents of this board show that the figure 609 includes practically only all-day schools. In fact, little had been done in any of the 48 States in the promotion of part-time and evening classes before the year 1921. There was, therefore, an increase in the number of schools receiving aid, including all-day, part-time, and evening, during the first five-year period of the administration of the Federal vocational educational act of 257 per cent, the number of schools in 1922 being more than three and a half times the number in 1918.

DIAGRAM XV.—*Vocational teachers in agricultural schools federally aided, by years: 1918 to 1922.*



The State reports for the year ending 1918 show only 15,453 pupils enrolled in vocational classes in agriculture, while at the close of the year 1922, the end of the first five-year period, the States report a total enrollment of 59,276, which is an increase during the past five years of 284 per cent, the number of pupils in 1922 being nearly four times the number in 1918.

At the outset each State designated the land-grant college as the institution to train agricultural teachers. This continued through the five-year period with rather phenomenal developments in teacher-training programs.

CHARACTER OF COURSES AIDED.

In the study made by the Bureau of Education, Department of the Interior, as to the nature of the agricultural instruction in the high schools in the country in 1916 the schools were asked to indicate whether they were teaching agriculture as definite preparation with a vocational aim for farming, as information about agriculture, or for general cultural purposes. As many of the schools reported that they were teaching agriculture for two or all three reasons, it is evident that they did not have a distinct purpose in their instruction. Although 25 per cent of the schools reported the chief aim as being vocational, the character of the work indicates that many of the teachers had little conception of the meaning of vocational education in agriculture. The instruction in many cases was confined to classroom only or supplemented with some laboratory work. Some teachers thought their textbook instruction was vocational, as their students lived on farms. The summary of replies shows that 20 per cent of the schools confined their instruction to classroom work, 50 per cent supplemented the classroom instruction with laboratory exercises and trips to farms, and only 30 per cent combined classroom instruction and laboratory work with practical farm work. Three hundred and thirty-seven were using the home-project plan, although in only 261 schools was the home work given supervision by the instructor in agriculture. The schools reported, however, did not include many of the State-aided schools which were using this plan. Eighteen per cent of the schools reported school land for agricultural purposes. Of these schools 134, or about one-third of the number, had less than 2 acres.

In contrast to the situation found to obtain throughout the country in 1916, it is to be said that the program of vocational education in agriculture under the Federal act provides that all pupils enrolled in vocational classes shall do at least six months' directed or supervised practical work in agriculture; that it is just as much the duty of the agricultural teacher to supervise the home practical work of pupils as it is to give classroom instruction and laboratory work.

The two are inseparable in the vocational program. It is to be noted further that, with the coming of the vocational program in the high schools of the country, agriculture as an informational subject or as a subject for general cultural purposes only has almost entirely disappeared from the curriculum of the rural high schools.

There are a comparatively few of the vocational teachers of agriculture engaged in the attempt to teach agriculture on a vocational basis who do not look more largely to the communities in which they are teaching for a determination of the content of courses they are offering than to some cut-and-dried outline prepared by some State official or to outlines such as may be found in textbooks. At present, textbooks, bulletins, general outlines, and college courses play a small part in determining what is taught. The teacher who is desirous of attaining a considerable measure of success in vocational agriculture is learning fast to look to the farms and the needs of the farm boys in the vicinity of his school when he is giving consideration to a determination of what should be taught. It is to be understood, however, that textbooks, bulletins, and college lectures have not been discarded, but instead of being the determining factors in the selection and organization of subject matter they are becoming aids to the solution of the problems the teacher has found as a result of a study of the farming of his community. In other words, progress in connection with the use of courses of study during the five-year period just passed is marked by the fact that a majority of States are now adapting courses to local conditions instead of requiring rather formal and basically uniform courses for a whole State, as was the case in many instances formerly.

This adaptation indicates a shift from a subject matter viewpoint to a vocational viewpoint in the selection and organization of content of instruction. The futility of trying to "cover" the whole field of agricultural subject matter in a topical way with a view to giving the pupil a broad general knowledge which will function in farming has become apparent. Instead, attention has been directed toward those farming enterprises which are important in the respective local communities and, on the basis of these concrete studies and experiences, to the building of those broader generalizations and to the tracing of those essential relationships which will bring the specific instruction to a larger fruition. Furthermore, from a practical viewpoint such enterprises not only furnish the necessary objective teaching material but also the facilities for the most desirable type of supervised practice.

The methods of adaptation commonly used are: The survey of farm enterprises of the community, the organization of courses on the basis of farm enterprise, the formulation of courses of study by