HED 9.3/1/res.



THE ADMINISTRATION OF

Vocational Education

Vocational Rehabilitation

State Plans

Governing Federal and State Aided Vocational Education
Activities Operating Under the
National and State Vocational Education Acts



ISSUED BY

THE STATE BOARD FOR VOCATIONAL EDUCATION

Capitol Building

DENVER, COLORADO

Vocational Education Bulletin No. 1, Revised COLORADO

1932-1937

NOTE-

Attention is called to the fact that this edition of the State plan covers the five-year period, July 1, 1932 to June 30, 1937. THERE-FORE, THIS COPY SHOULD BE FILED AND PRESERVED FOR FUTURE REFERENCE.



THE ADMINISTRATION OF

Vocational Education

Vocational Rehabilitation

State Plans

Governing Federal and State Aided Vocational Education
Activities Operating Under the
National and State Vocational Education Acts



ISSUED BY

THE STATE BOARD FOR VOCATIONAL EDUCATION

Capitol Building

DENVER, COLORADO

Vocational Education Bulletin No. 1, Revised
COLORADO
1932—1937

NOTE:—Attention is called to the fact that this edition of the State plan covers the five-year period, July 1, 1932 to June 30, 1937. THERE-FORE, THIS COPY SHOULD BE FILED AND PRESERVED FOR FUTURE REFERENCE.

TABLE OF CONTENTS

P	age	I	Page
State Administration and Super-		Character of Courses	41
vision	3	Methods of Instruction	43
General Conditions	6	Qualifications of Teachers	43
Agricultural Education	7	Part Time Schools (Trade	
State Supervision	7	Extension)	44
Local Supervision	8	Controlling Purpose and Re-	
The Day Vocational Agricul-		quirements	44
tural School	9	Age Requirements	45
Plant and Equipment	9	Equipment	45
Minimum for Maintenance	9	Maintenance	45
Course of Study	10	Courses of Study	45
Methods of instruction	11	Methods of Instruction	47
Qualifications of Teachers	14	Hours of Instruction Required	
Supervised Farm Practice	14	Qualifications of Teachers	
Evening Agricultural Schools	17	Part Time Schools (Trade	
Organization of Evening		Preparatory)	48
Schools	17	Controlling Purpose	48
Plant and Equipment	17	Age Requirements	49
Maintenance	18	Equipment	49
Course of Study	18	Minimum for Maintenance	49
Methods of Instruction	19	Course of Study	49
Qualifications of Teachers	20	Methods of Instruction	51
Supervised Farm Practice	20	Hours of Instruction Required	52
Part Time Schools	21	Qualifications of Teachers	52
Organization	21	Part Time Schools (General	0=
Plant and Equipment	23	Continuation)	52
Minimum for Maintenance	23	Controlling Purpose	52
Course of Study	24	Minimum Entrance Age	53
Methods of Instruction	26	Plant and Equipment	53
Qualifications of Teachers	27	Maintenance	53
Qualifications of Supervisors		Course of Study	53
of Farm Practice	27	Commercial Courses	54
Teacher Training	28	Methods of Instruction	56
Teacher Training Courses of	40	Size of Classes	56
of Study	29	Minimum Hours of Instruc-	90
Relation to Certification	33		57
Qualifications of Teacher	99	tionQualifications of Teachers	57
Trainers	36	-	94
	36	Part Time Schools (Cooper-	57
Trade and Industrial Education	37	ative)	
State Supervision		Controlling Purpose	57
Local Supervision	38	Minimum Age of Pupils	58
Kind of Classes Aided	39	Plant and Equipment	58
Evening Industrial Schools or	4.0	Courses of Study	58
Classes	40	Methods of Instruction	59
Purpose	40	Minimum Hours of Instruc-	
Minimum Age of Students	40	tion	59
Plant and Equipment	40	Division of Time Between	-
Maintenance	41	School and Employment	59

TABLE OF CONTENTS—(Continued)

P	age		Page
Qualifications of Teachers	60	Program II (George Reed)	100
Plan of Co-ordination	60	Program III (George Reed)	100
Teachers Eligbile for Reim-		Courses of Study	101
bursement	61	Methods of Instruction	. 105
Day Unit Trade Schools	61	Qualifications of Teachers	105
Purpose	61	Related Subjects Teachers	. 106
Age of Pupils	62	Part Time Home Economics	
Plant and Equipment	62	Schools	107
Maintenance	62	Purpose	107
Time Requirements	63	Minimum Entrance Age	107
Courses of Study	64	Length of Term	. 107
Methods of Instruction	67	Plant and Equipment	108
Time Standards	67	Maintenance	
Length of School Year	68	Course of Study	. 108
Qualifications of Teachers		Methods of Instruction	. 111
(Shop)	69	Qualifications of Teachers	. 111
Qualifications of Teachers		Evening Home Economics	
(Related Subject)	70	Classes	. 111
General Industrial Schools	71	Minimum Entrance Age of	
Purpose	71	Students	
Age Requirements	71	Plant and Equipment	. 112
Plant and Equipment	71	Maintenance	. 112
Maintenance	71	Course of Study	. 112
Course of Study	72	Methods of Instruction	117
Methods of Instruction	73	Qualifications of Teachers	
Time Standards	73	Teacher Training	. 118
Length of School Year	73	Qualifications of Teacher	
Qualifications of Teachers	74	Trainers	. 118
Teacher Training	74	Teacher Training Courses	120
Local Supervision Plan	75	Certification of Home Eco-	
Qualifications of Teacher		nomics Teachers	122
Trainers	78	Reimbursable Teacher Train-	
Teacher Training Courses	78	ing Courses	123
Certification of Trade Teachers	82	Training of Teachers in Serv-	
Training of Supervisors	86	ice	. 125
Table of Industrial Courses	88	Vocational Rehabilitation	127
Home Economics Education	90	State Administration and Su-	
State Administration and Su-		pervision	. 127
pervision	90	District Supervision	. 128
Local Supervision	93	Local Rehabilitation Agents	128
Distribution of Funds	95	Purpose and General Policies	130
Day Schools	95	Origin of Cases	132
Age of Pupils	95	Record Systems	133
Plant and equipment	95	Eligibility	133
Minimum for Maintenance	97	Susceptibility	
Length of School Year	98	Kinds of Rehabilitation	134
Hours of Instruction	98	Vocational Training	135
Type Programs	98	Physical Restoration	135

TABLE OF CONTENTS—(Continued)

Page	Page
Artificial Appliances 135	Appraisal of Program 139
Job Restoration 136	The State Vocational Education
Placement 136	Acceptance Act 139
Maintenance 136	Article VI Administrative Code_ 142
Case Procedure 136	Section 32 General Appropria-
Case Surveys 136	tion Act 143
Counsel and Advisement 136	The Smith Hughes Act 143
Job Objective 137	The George Reed Act 154
Placement 137	The National Vocational Re-
Follow-Up Service 137	habilitation Act 155
Budget 137	The State Rehabilitation Ac-
Case Cost 138	ceptance Act 159

VOCATIONAL EDUCATION

I. Administration and Supervision

A. General Direction—

The State Board for Vocational Education is designated as the State Board for carrying out the provisions of the acts of Congress relating to vocational education and vocational rehabilitation.

1. Personnel of State Board and Staff— E. J. Yetter, Chairman, Denver. Emily Griffith, Denver. Charles Mahl, Monte Vista.

> H. A. Tiemann, Executive Officer. Lois Hopkirk, Secretary.

Staff:

- H. A. Tiemann, State Director.
- L. R. Davies, State Supervisor of Agricultural Education.
- Walter Cooper, State Supervisor of Trade and Industrial Education.
- Mrs. Leonora H. Zimmerman, State Supervisor of Home Economics Education.
- Dorsey F. Richardson, State Supervisor of Civilian Rehabilitation.

The State Board for Vocational Education requests the Federal Board for Vocational Education to address all official communications pertaining to the administration of vocational education in Colorado to the State Director who is also the Executive Officer for the State Board.

- 2. Duties, Distribution of Time, and Qualifications of the State Director.
 - a. The director's time will be distributed equally among the agricultural education, home economics education, trade and industrial education, and vocational rehabilitation services.
 - b. Duties of State Director.
 - (1) To promote all lines of vocational education by visiting school boards, su-

perintendents, principals, and vocational teachers; by meeting with cooperative groups and organizations and by otherwise disseminating informational and publicity material.

- (2) To attend State Board meetings as executive officer of the Board and to attend professional improvement and administrative conferences called by the State or Federal Boards for Vocational Education.
- (3) To establish and maintain office policies and practices.
- (4) To see that office records and reports are made and maintained.
- (5) To budget and disburse vocational education funds.
- (6) To organize and maintain an efficient staff and to direct the activities of said staff.
- (7) To prepare state plans and reports for the State Board, the Governor and the Federal Board for Vocational Education.
- (8) To direct necessary research, investigations, or experimental work bearing on the problem of vocational education.
- (9) To secure legal interpretations on vocational education legislation and to enforce legislative measures pertaining to vocational education.
- (10) In general, to direct the affairs of the State Board for Vocational Education in accordance with the policies prescribed by the State Board and by this plan.

c. Qualifications of Director.

- Must hold a master's degree or its equivalent.
- (2) Must have at least three years of occupational experience in farming, industry, homemaking or commercial occupations.

- (3) At least two years experience in teaching vocational classes operating under the the national and state vocational education acts.
- (4) At least three years' experience in local or state supervision of vocational classes operating under the national and state vocational education acts.

B. Agricultural Education-

A state supervisor of agricultural education will be employed who will devote full time to the supervision of agricultural schools and classes. One-half his salary will be paid from the Federal fund for salaries of teachers, supervisors or directors of agricultural subjects, and one-half of his salary will be paid from State funds.

C. Trade and Industrial Education—

The state supervisor of trade and industrial education will devote full time to the supervision of trade and industrial schools and classes. One-half of his salary for supervision of trade and industrial education will be paid from Federal teacher-training funds and one-half from State funds.

D. Home Economics Education—

The state supervisor of home economics education will devote full-time to the supervision of vocational home economics schools and classes. Her salary will be paid, one-half from Federal teacher-training funds and one-half from State funds.

E. Vocational Rehabilitation—

A State Supervisor of Vocational Rehabilitation shall be employed who will devote full time to rehabilitation work. Additional staff members and clerical assistants may be employed as the growth of the work requires.

F. Teacher Training—

The Colorado Agricultural College is directed to prepare plans for the training of teachers of vocational subjects. (See Section 4, Colorado Acceptance Act). The same shall be carried out under the supervision of the State Board for Vocational Education. Such teacher training shall be given only to persons who have had adequate vocational experience and in classes under public supervision and control. The State Board for Vocational Education will establish minimum requirements as to the vocational experience and training for teachers, supervisors and directors of vocational subjects.

Not more than 60 per cent nor less than 20 per cent of the teacher-training moneys will be expended for the preparation of teachers in any one of the following lines: agriculture, home-making, or trade and industrial education.

II. General Conditions

The State Board agrees:

- A. That all schools and classes for which Federal reimbursement may be asked shall be under public supervision and control;
- B. That the controlling purpose of such education shall be to fit for useful employment;
- C. That these classes shall be of less than college grade except in the case of teacher training which may be of college grade;
- D. That the instruction offered shall be designed to meet the needs of persons over fourteen years of age;
- E. That every dollar of Federal money shall be matched by a dollar of State or local money or both;
- F. That the money shall be expended only for—
 - 1. Salaries of teachers, supervisors, and directors of agriculture.
 - 2. Salaries of teachers of trade, home economics and industrial subjects.
 - 3. Training for vocational teachers
 - a. Maintenance of teacher training for vocational teachers, maintenance not to include the items (buildings, etc.) prohibited under Section 17 of the Federal Act.
 - b. Fifty-five per cent of the available teacher training monies will be used for the prepara-

tion of teachers for service. One-third of the money available for this purpose will be budgeted for agricultural teacher training, one-third for trade and industrial teacher training, and one-third for home economics teacher training.

c. The State Board for Vocational Education will use forty-five per cent of the teacher training fund for the supervision of instruction in agricultural, trade and industrial, and home economics education. These monies for supervision will be used for salaries of supervisors, clerical service, travel, communication, printing, and supplies.

III. Agricultural Education

- A. State Supervisor of Agricultural Education.
 - 1. Qualifications of Supervisor.
 - a. Education:

The State Supervisor shall hold the master's degree in agricultural education, or have equivalent training.

b. Experience:

He shall have had the equivalent of two years experience in farm work after fourteen years of age and shall have had not less than three years of successful teaching experience in vocational agriculture.

c. General:

A supervisor shall be not less than 25 years of age and should be a man capable of performing supervisory or administrative duties. He should be acquainted with agricultural education and agricultural conditions in Colorado.

2. Duties of Supervisor

- a. Promotional
 - (1) Preparation of a state program of work.
 - (2) Assisting in organization of classes, selection of teachers, preparation and approval of courses of study, etc.
 - (3) Conducting investigations, surveys and

special studies and the preparation of State literature and dissemination of information on the same.

- (4) Preparation of reports for the State Director.
- (5) Cooperating with farm organizations or other groups interested in agricultural education.

b. Inspection

- (1) To visit and inspect all schools and classes receiving subsidy for Vocational Education from the State Board.
- (2) To visit and inspect the supervised practice work of the vocational students.
- (3) To supervise the training of teachers of agricultural subjects including selection and placement of candidates.
- (4) To secure necessary reports from the schools and to make reports required by the State Board.
- (5) To certify the vocational teachers.

c. Instruction

- (1) Assisting teachers to improve their methods of instruction by personal consultation, conferences, correspondence or through publications.
- (2) Conducting district or State conferences of teachers engaged in the teaching of agricultural subjects.

B. Local Supervision

1. The local supervisors of vocational agriculture shall possess the minimum qualifications required of a teacher of vocational agriculture.

2. Duties of Local Supervisors.

It shall be the duty of the local supervisors of vocational agriculture to assist in the supervision of the work done by the teachers of vocational agriculture, and the teacher-training of such teachers while in service.

C. Kind of Schools

The full time or all-day type of vocational agricultural school shall be organized as a department in the regular public high school, including county high school, union high school, consolidated rural high school, or high schools in districts of the first or second class.

a. Plant and Equipment

A room equipped primarily for work in agriculture should be provided. Such a room should have movable tables and chairs. There should be sufficient equipment to demonstrate farming practices which can be performed with a reasonable degree of effectiveness at the school. There should be suitable room for properly storing apparatus and to properly care for material gathered in the community such as grasses, grains, vegetables, small implements, animal feeds, etc. There should be a library of reference material including the best books dealing with each phase of farming in the community. There should be a carefully selected list of at least six farm papers and magazines devoted to agricultural subjects and bulletins published by Federal or State governments or other agencies. should be illustrative material including educational exhibits, samples or various farm products, etc., labeled, preserved and arranged so they are available for teaching. A separate room for farm mechics work is recommended. It should be adequate in size and contain equipment for teaching ordinary farm repair and construction work, machine repair and such adjustments as arise on the farms of the community. The initial cost of equipment, exclusive of land, buildings and stock used for demonstrations shall not be less than \$500.00, including such suitable apparatus which may already be provided.

b. Minimum for Maintenance

Boards of education of schools approved for vocational classes in agriculture should provide for the employment of a properly qualified teacher on a twelve-months' basis. This does not necessarily

mean that he is to be at the school the whole twelve months, but rather that his services will be available during the growing season when directed and supervised practice in agriculture by the pupils is under way, and that he be allowed a vacation of one month on pay which should be taken at a time when it will do least damage to his supervision of project work.

There shall be available not less than \$25.00 annually for the purchase of reference books, bulletins and periodicals. There should also be available funds from which the teacher of agriculture may secure such equipment and maintenance material as is necessary from time to time. Boards of education of schools approved for vocational classes in agriculture shall make provision for adequate conveyance for project supervision and field trips.

c. Course of Study

The course of study offered in vocational agriculture in the full time or all-day school shall be for not less than two years. The time for class instruction shall not be less than a unit of 90 minutes daily during the school year. The supervised practice shall extend over a period of not less than six months and preferably through a cycle of production and marketing. The agricultural instruction should be intimately associated with the practical work.

The following courses of study are offered as type courses required for approved vocational agricultural schools. The farm mechanics work, including shop work, farm machinery, motors, and tractor repairing should not occupy more than 40 per cent of the time devoted to school work in vocational agriculture.

The non-vocational subjects are suggestive only and may be changed to suit the student or the program of the school. The vocational work should be given as outlined, although alternation by years and consolidation of classes will be permitted. Livestock production and management may be offered the first year and crop production the second year.

First Year

Vocational work 90 to 180 minutes.

- 1. Livestock production and management
- 2. Farm Mechanics I
- 3. Projects and other forms of supervised practice

Second Year

Vocational work 90 to 180 minutes.

- 1. Crop production
- 2. Farm Mechanics II
- 3. Projects and other forms of supervised practice

Non-vocational electives: Non-vocational electives making the greatest development of effective citizenship include English, Physical and health education, Social Problems or Sociology, Civics, General Science, General Mathematics, Biology, Economics, World History, Chemistry, Physics, American History.

Third Year

Vocational work 90 to 180 minutes. 1. Intensive study of two or three important community enterprises. These enterprises may be in the field of livestock, crop or fruit production with special emphasis on the economic aspects including jobs pertaining to cooperative marketing, and with emphasis on individual instruction.

- 2. Farm Mechanics III
- Projects and other forms of supervised practice.

Fourth Year**

Vocational work 90 to 180 minutes.

I. Individual instruction in farm jobs which will help most in

establishing the students in a specific farming occupation.

- 2. Farm Mechanics IV.
- Projects and other forms of supervised practice.

Non-vocational electives: Non-vocational electives making the greatest development of effective citizenship include English, Physical and health education, Social Problems or sociology, Civics, General Science, General Mathematics, Biology, Economics, World History, Chemistry, Fhysics, American History.

**Schools providing for only three years of instruction in vocational agriculture should make this the third year's work. The content of vocational agricultural courses should vary according to the type of agricultural practices in the community and according to the supervised practice work of the pupils.

d. Methods of Instruction—

(1) The controlling factor in determining the subjects to be included must be the vocational needs of the persons who are to follow the occupation in farming for which they are being prepared. The methods of instruction should be such as to best prepare the pupils for the

occupation of farming.* Instruction shall be given on the farm job basis and shall consist of discussions, laboratory work, practical field work, project work and other forms of supervised practice work. The vocational work as indicated for each year should continue thruout the year. The order of presentation should depend upon the seasonal importance of the work and the needs of the boys in the class and not the order in a text. The aim in organizing the subject matter of the course should be to bring together in a usable form all that related information which the trainee must have and use in order to be successful with the particular crops or types of livestock in the community and which helps him most in his supervised practice work. Thus a study of a crop should include a study of the plant itself, its relation to the soil, methods of production, harvesting and marketing, and also a study of the weeds, insects, and plant diseases affecting the crop, as well as methods of control, and a study of the farm machinery used in producing and harvesting the crop. Trips shall be taken to inspect farms and information gained from these trips used as the basis for class discussion. Pupils should be required to use regularly, reference books, bulletins, and agricultural papers. Emphasis should be placed on crops or stock or types of agriculture best suited to. and most important in the community in which the school is located or which is related to the project work. That type of work should be studied first which will be most likely to arouse and fix the interest of the pupils. This will ordinarily be that which ties up intimately with the participating experiences of the boys. The farm mechanics work should be such as to train pupils to conduct the mechanical activities arising on farms in the community. The following outline is suggestive of the farm mechanics work to be offered by schools.

^{*}Recommended to encourage the development of a long time farm training program.

A Suggested Outline of Enterprises Grouped for a Four Year Course in Farm Mechanics First Year's Work

(In connection with a course in Animal Husbandry)

- 1. Making small wood appliances. Includes all kinds of needed wood appliances for the home, farm, project, shop and school.
- Farm sketching, drawing and estimating of material.
- Tool sharpening.
 - Includes all kinds of farm tools and saw fitting.
- Wood finishing
 - Includes painting, staining and other finishing.
- 5. Handle fitting.

- 6. Rope and tackle work.
- 7. Harness work.
- 8. Soldering and sheet metal work.
 - 9. Simple building repair work.

Includes such work as glazing and screening, window and door repair and other minor repair work.

- 10. General repair work.
- 11. Simple auto adjustments and repairs.
- 12. Tire repairs.

Second Year's Work

(In connection with a course in Crop Production)

- Farm blacksmithing.
 - Includes hot and cold metal work.
- Simple building construction.
 - Includes drawing plans, estimating materials, making out bills of material and hardware. painting and finishing, construction.
- 3. Concrete construction.
- 4. Simple farm machinery repair.

- 5. Belt work.
 - Includes lacing, belting engines, lagging pulleys and shaft work.
- 6. General repair work.
- 7. Farm motors.
 - Includes work with tractors, trucks, automobiles and stationary engines. Selection, care, operation, repair and overhauling.

Third Year's Work

(Including some classroom instruction)

- 1. Farm machinery.
 - Including selection, care, operation, repair, and overhauling. 5. General repair work.
- Farm electricity.
- 3. Simple farm plumbing, pipe fitting, pump repairing.
- 4. Farm motors.
 - (Same as No. 7 above.)

Fourth Year's Work

(Including considerable class and field instruction)

- 1. Farm surveying
- Farm fencing.
- Farm irrigation.
- 4. Farm drainage.
- 5. Farm structures.
- 6. Farm road building.
- 7. Farm water supply.

- 8. Farm sewage disposal.
- 9. Farm lighting and heating.
- 10. Farm explosives.
- 11. Farmstead planning.
- 12. General repair work.
- 13. Farm motors.
 - (Same as No 7 above)

e. Qualifications of Teachers

Teachers of agriculture in schools receiving aid under the National Vocational Education Act, shall before employment possess a Colorado Vocational Agriculture Teachers Certificate issued by the State Board for Vocational Education, and shall be qualified as follows:

(1) Age not less than 22 years.

(2) Education

The completion of a four-year agricultural course given in an approved agricultural college requiring 15 high school units for admission and 160 semester hours (or equivalent) for graduation. The college course shall be such as to give at least 40 per cent of the credit for instruction in technical agriculture.

Teachers shall present at least 20 semester hours of professional work in education including at least four semester hours in practice teaching in vocational agriculture, the same to be approved by the State Board for Vocational Education.

(3) Professional Improvement

Teachers of vocational agriculture are required to earn at least four credits in advanced agricultural education every three years.

(4) Experience

Not less than two years of actual farm experience in labor or management after the age of 14 years.

(5) Personality

In order to be approved, the applicant must have such personal qualifications as will fit him for leadership in the community and for directing the students in their school work and home projects.

f. Plan for at least six months supervised Farm Practice.

The most satisfactory practical work is that which is done on the home farm. It should offer ex-

perience in the occupation under the conditions of the occupation. There should be a close correlation between the practice and class room instruction.

Supervised practice may be secured by working on a farm other than the home farm under the direction of the teacher, or by working on the home farm under the supervision of the teacher who will secure the cooperation of the parents to make the supervision effective in the absence of the teacher.

Supervised practical work may consist of two parts: 1. The home project—an enterprise undertaken by the boy, with full responsibility on his part for both the financing of the project and the doing of the work, although he may not necessarily do all the work himself. It should be a business enterprise involving preparation of an approved plan, the keeping of books, taking of inventories, and making a final statement. 2. In addition to the project, certain additional farm jobs may be carried on as supervised farm practice such as testing of milk, treating of seed, making germination tests, machine repairs, etc.

It is the duty of the teacher to help the pupil plan the project, aid in obtaining necessary information and suggest ways and means of project improvement by the pupil. The teacher also agrees to visit the project frequently and when the work is properly done and reported, recommend that credit be allowed for the work by the school.

Students enrolled in the course in vocational agriculture shall be required to conduct a productive agricultural project for at least six months of the year. Students shall be supplied with sufficient land or animals or both to give opportunity for active practice and project work under conditions which shall conform as nearly as possible to farm conditions, in order that they may be fitted to farm successfully. Project work shall be under the supervision of teachers of agriculture. The work shall be definitely planned and an estimate made of the cost of the project, the amount of land, seed, time, tools, power, stock, building, and equipment to be used;

and both the student and parent should agree to furnish the required materials and to follow the directions of the teacher. An accurate account shall be kept by the pupil of the cost, receipts, and gain or loss, and he shall prepare a written report or record of the project work and its results. The results of the project work must be reported to the State Board for Vocational Education. The profits resulting from the project should be the property of the pupil.

Projects should be planned and organized to meet the minimum requirement of 270 man hours. This requirement should serve as a guide to the teacher in helping his boys to select their projects.

Conference

There will be one annual conference each year which all vocational teachers, both agriculture and shop, will be expected to attend. There will be one or more sectional conferences for each of the six sections of the state each year. Superintendents of schools and high school principals will also be invited to these conferences.

g. Attitude of local School Authorities and Patrons:

The work given in vocational agriculture is in the opinion of the State Board for Vocational Education, worth just as much school credit as the non-vocational school work given during an equal amount of school time. The matter of additional credit for project work is a matter to be determined by the local school authorities. It should be understood, however, that the project work is an essential part of the vocational work and that credit for vocational agriculture should not be allowed until the project is satisfactorily completed. Separate school credit should not be granted for class work and project work, nor separate credit or enrollment for farm shop work.

2. Evening Schools

a. Organization

The evening agricultural school or class is one established and maintained under public supervision and control for the purpose of giving instruction, supplemental to the day employment, to adult persons who have entered upon a particular farming occupation or agricultural pursuit. The members of this group know rather definitely their own needs and are attracted to the evening class because it comes at a time that does not interfere with regular farm work and usually promises to give returns for the amount of time required. The groups of farmers who should be reached by evening instruction are:

- (1) Farmers who are owners or renters and desire to extend their knowledge of farming that they may be more efficient in some particular phase of their vocation.
- (2) Those who either expect soon to own farms or are interested in preparing themselves for ownership responsibilities.

The term "evening class work" is considered to mean school work given to persons at hours other than those of actual farm work. The State Board will not approve evening classes which consist of less than ten meetings of 90 minutes each.

b. Plant and Equipment—

It is neither advisable nor possible to establish absolute standards for minimum plant and equipment. The State Board will hold the local school board responsible in every case for seeing that adequate facilities for carrying out the aims and purposes of the school are provided. In most cases the plant and equipment for the all-day department of agriculture will be ample for conducting evening classes. It is believed that the all-day department will supply the best place to hold evening classes. In

some cases it may be advisable to hold classes elsewhere in order to make the place of meeting more accessible to the farmers. In such cases it is important that proper facilities be made available for holding such classes. Such general equipment as charts, blackboards, tables and comfortable seats are essential. Also it is necessary that the class room be adequately supplied with light and heat.

c. Minimum for Maintenance-

In most cases the instructor of vocational agriculture in charge of the all-day class instruction is the logical person to handle the evening class work. When all-day class instructors handle evening class work outside of their regular teaching hours the State Board will approve additional reimbursement for such instruction. In some communities where the type of farming is highly specialized it may become advisable to secure an instructor other than the regular agricultural teacher. The State Board will approve reimbursement for instructors in such cases. The cost of supplies for evening class work will be small because in almost all unit courses teaching materials may be had gratis from members of the class or from the community. All incidental expenses connected with conducting evening classes must be borne by the local board of education. The more common of these items are publicity, supplies, janitor service, light, heat, and transportation for the instructor in doing promotional work and supervised practice.

d. Course of Study-

Experience in evening schools indicates conclusively that a short-unit course is the desirable basis of organization for such classes. The unit course in agriculture is one having a definite objective dealing with the whole or a part of a farm enterprise. A short-unit course should be based on an analysis of a particular enterprise or farm activity to be studied. Subject matter of the course should be based up-

on the jobs which a farmer must do in successfully conducting a farm enterprise or activity. The actual class instruction should be limited to the specific problems of the group which have arisen in connection with the particular farm job under discussion. Following is an outline of the jobs taught in a short-unit course in corn production:

Enterprise—Corn Production

- 1. Selecting and storing seed
- 2. Testing the seed
- 3. Improving the seed
- 4. Choosing the variety to grow
- 5. Fitting corn into the crop rotation
- 6. Irrigating
- 7. Cultivating
- 8. Determining the feeding value of corn
- 9. Selecting corn for exhibition

e. Methods of Instruction-

The teacher's success with evening class work depends both upon his ability to secure attendance by offering the farmers something that they want and his ability to hold them by handling his instruction in such a way that they feel they are getting it. While the aims of the different members of an evening class are similar their experiences vary from the man who is just beginning to farm as a tenant, with little managerial experience, to the farmer who has had many years in the management of a farm and household. Since there is such a wide variation in the abilities and experiences of the members of the class it is necessary that some method of instruction be used that will most efficiently supply to each member the information he needs. The best method of doing this is to base the instruction on the specific problems of the group. Experience has proved that the best method of instructing evening class groups is a combination of formal instruction and class discussion. The amount of each to be used will depend entirely upon the problem under discussion. The experiences of the more progressive farmers should constitute an important part of the teaching processes. The strictly lecture method is to be strongly condemned with evening class groups. The method of instructing evening class groups will vary greatly from the methods used in all-day class instruction because of the wide difference in the age and experience of the students enrolled.

f. Qualifications of Teachers for Evening Schools—

It is very important that teachers of evening schools and classes have practical experience, technical training in agriculture and professional training, although the term of such training may be reduced below that required of an all-day school teacher when approved by the State Supervisor of Agricultural Education. In most cases the all-day class teacher will also teach the evening class work in the school which he serves. However, an all-day class teacher should not attempt evening class work unless he has had sufficient practical and technical training to command the respect of the farmers of the community. Furthermore, it is equally important that he shall be familiar with the technique of teaching evening class groups. When teachers for evening classes other than all-day teachers are employed, the practical, technical and professional qualifications of such teachers should be adequate for teaching the specific enterprise which forms the basis of the course. Occasionally a man with successful farm experience may be secured who might be given adequate professional training for instructing evening classes in his specialty.

g. Plan for at Least Six Months Supervised Farm Practice—

All students enrolled in evening classes will be

expected to do at least six months supervised farm practice. The greatest degree of efficiency cannot be obtained from evening class instruction unless the teacher follows up on the farms of the class members the work undertaken as a result of the instruction. Evening class instruction is given as a supplement to daily employment; therefore, the directed or supervised practice on the farm should be specifically correlated with the instruction.

When instruction is put on a specific functioning basis with reference to actual farm jobs rather than merely dispensing information or dealing in generalities about farming there will be little difficulty in getting the farmers to undertake improved practices. In order to make the teacher's work more effective in following up the instruction, an understanding should be reached between each class member and the teacher concerning the supervision. The teacher should understand that such supervision does not mean that he is going to act as a foreman and dictate to the farmer the practices to be followed but it does mean that the farmer welcomes the cooperation of the teacher in improving the practice in connection with which he has received instruction either in the class room or at the time of the personal visit of the teacher. The teacher should keep a record on each individual enrolled in his evening classes. This record should show the number of visits by the instructor, the improved practices undertaken, the services rendered by the instructor and the increased earnings resulting from such improved practices.

3. Part-Time Schools

a. Organization

A part-time school or class in vocational agriculture may be said to be a public school or class in which persons who have entered upon the work of the farm return to school and pursue short-unit courses in technical agriculture and where feasible also in subjects which im-

prove their civic and vocational intelligence, and who do at least six months directed or supervised practice in agriculture. The instruction is designed to further fit persons over 14 years of age for practical work in the respective farming occupations in which they are engaged. Several assumptions are made stating the purpose of a part-time school or class, namely, that the persons who are to have the work have guit the all-day school and are engaged in a farm occupation or agricultural pursuit which has in it a content which can be given to advantage in an organized school or class; that the work is designed to further fit persons taking it for useful employment in their present occupation or in the farming occupations in which they are prepared to engage; that a farm boy may need instruction intended to increase his general vocational intelligence; that a good farmer must be a good citizen and that making him such is one legitimate end of part-time work if correlated with the agricultural instruction.

Pupils in attendance upon part-time schools will usually be between the ages of 14 and 21 years. Community surveys reveal the fact that there are a surprisingly large number of farm boys who are eligible for part-time instruction. Part-time schools and classes can be held most effectively during the winter months when the demands for the services of the boys on the farm are not so great. The most desirable length of courses, where classes meet every day, is from six weeks to three months.

Where it is impossible to set up a program in which classes can be held during the school day, it may be advisable for the instructor to meet the part-time group either evenings or on Saturdays. In such cases where the group gets together only once or twice a week it will probably be better to set the course up on the basis of individual instruction. In this way each student enrolled would make an organized study of the particular farm enterprise in which he is most interested and in which he

can secure the greatest amount of participation. In this way the instruction would be based primarily upon the supervised practice of the student. It is believed that this method of organization will offer a solution to the administrative difficulties associated with parttime work in many schools.

b. Plant and Equipment—

The equipment necessary for the part-time school or class depends entirely upon the group which is to receive instruction, the character of the course of study which has been determined upon and the methods of instruction adopted. Since part-time instruction will be given, in most instances, by the teacher of agriculture in the all-day school, the same type of equipment outlined under all-day schools should be required. In most cases the same equipment used for agricultural instruction in all-day schools will also be used for the parttime classes. Reference books on technical agriculture, such as are used for the all-day school, should be provided. Reference books for related courses in arithmetic, science and English should be selected with especial care since the ordinary high school text book in these subjects usually contain too much material for basic texts in part-time classes. Where laboratory work in related science is needed the general physics, chemistry or biology equipment of the high school may usually be used for part-time classes. A complete outline of the courses of study proposed to be given in a part-time class should be submitted to the State Board for Vocational Education for approval. From the nature of the instruction planned it will be possible to determine the adequacy of the plant and equipment to carry out the course.

c. Minimum for Maintenance-

Successful part-time school work depends largely upon the teacher. Usually all-day teachers will be called upon to do this work.

The part-time teacher must justify himself by rendering a concrete, measurable service for which the non-vocational teachers have not been responsible and must operate under conditions which would be considered impossible in the regular school day program. In order to encourage this very valuable type of vocational education the State Board will approve reimbursement for extra pay of teachers who conduct part-time classes outside of the regular school hours. The cost of supplies will be small because much of the teaching materials may be had gratis from members of the class or from the community. All incidental expenses connected with conducting part-time classes must be borne by the local board of education: the more common of these items are publicity, supplies, janitor service, light, heat, and transportation for the instructor in doing promotional work and supervised practice.

d. Course of Study-

It is very important to realize that the boys reached thru part-time classes differ considerably, both in experience and in needs from the boys in all-day classes. The time available for instruction is very limited and each teaching unit should be planned with very definite objectives in view. Among the benefits which may be conferred upon a farm boy who returns to school for part-time instruction are:

- 1. Additional skill and knowledge leading to establishment on a self-supporting basis in a particular farming occupation in which he is engaged.
- 2. Guidance in determining the particular farm occupation to follow if a change seems advisable.
- 3. Adjustment of his social relationships.
- 4. A continuation of his related education as needed in the intelligent and effective conduct of his occupation.

Since instruction here will be largely supplemental to the day employment it is evident that the course of study must be based upon an analysis of the farming occupations of the community and that the needs of the specific group to be instructed must be always borne in mind.

Part-time courses should be planned to cover a longer period than is usually devoted to evening classes. The sequence of courses may be arranged for succeeding years with considerable assurance that the group will be in attendance during the entire period.

In making up a course due regard should be given to the special requirement of two general types of work: (1) Directed or supervised farm practice growing out of instruction in actual farming enterprises and involving the keeping of books, the taking of inventories, and the making up of final statements; (2) instruction designed to improve "civic and vocational intelligence", including related science, mathematics, English and the like needed in the farming occupation in which the pupil is engaged. Care should be taken at every point to relate subjects of study with the daily life of the pupil.

Following is a type course of study in farm dairying with related courses in farm shop, farm business, practicums, and applied arithmetic.

SUGGESTED COURSE OF STUDY FOR PART-TIME CLASS Course planned to require one-half day each day for six weeks

MAJOR COURSE

	Enterprise: FARM DAIRYING				
Jobs	to be Days allotte	d			
cons	idered each				
1.	Determining the adaptability		8.	Housing dairy cows	1
	of farm dairying to the com-		9.	Weaning and feeding calves	2
	munity	2	10.	Developing dairy heifers	2
2.	Getting started in the dairy		11.	Providing succulence for the	
	business	2		ration	2
3.	Selecting the breed to use	1	12.	Improving the dairy herd	2
4.	Selecting milk cows	4	13.	Keeping dairy records	2
5.	Feeding for milk production	3	14.	Marketing milk and cream	2
6.	Handling milk and cream on		15.	Preventing and controlling	
	the farm	2		parasites and diseases	2
7.	Weighing and testing milk	1			

RELATED WORK

- 1. Farm Shop-
 - a. Soldering:
 - (1) Repairing dairy utensils
 - (2) Develop ability to fill seams and put on patches
 - b. Farm Motors as Related to Dairying:
 - (1) Ignition and wires
 - (2) Setting valves
 - (3) Timing
 - (4) Trouble shooting
- 2. Farm Business Practicums-
- a. Writing a business letter
 - b. Opening a bank account
 - c. Writing a check
 - d. Auditing a menthly bank statement
 - e. Drawing a note, and giving mortgage as collateral
 - f. Making an inventory or financial statement to file when asking for credit

- 3. Applied Arithmetic
 - a. Figuring dairy rations:
 - Addition, subtraction, multiplication, division and percentage.
 - b. Finding the capacity of bins and wagon boxes
 - e. Measuring hay in the stack or mow
 - d. Calculating the pounds of butter fat in quantity of milk from the percent test
 - e. Calculating the area of a field in acres from its length and breadth in feet and the quantity of seed needed to seed it at a given rate per acre
 - f. Locating a piece of land on a plot from its legal description

e. Methods of Instruction-

The methods of instruction for a part-time group should be a combination of all-day and evening class methods. Because the student will have had less practical farm experience than the evening class group, it will be necessary to use more formal instruction. Futhermore, since the farm experience of the part-time students is probably greater than that of the all-day class students there should be more discussion by the group of the jobs taught. All of the daily experiences of the farm and home must furnish the opportunity and occasion for the teacher to direct the activities of the pupil.

Since only a comparatively short time is spent in class room work and the greater part of the time is spent at work on the farm, the content of the course must be greatly reduced and only the most important farm jobs should be taught. Since as a group the pupils are interested in schooling mainly as a means of economic advancement, the instruction must be specific and adapted to individual needs so as to further develop the habit of initiative and independence of thought and work.

The activities and the specific vocational problems of the students should be made the basis of the instruction. Each teacher must work out his own program, modify it to meet the agricultural needs of his class and reshape it in the light of growing experience and adapt it to the individual needs of his pupils.

f. Qualifications of Teachers—

In part-time education the teacher's personal ability to influence for good, farm boys of rather mature age must be taken into careful consideration. The teacher should have had as much, or even more experience in farming than the teacher of an all-day class. In addition to this practical experience, he should possess more than average teaching ability if he is to hold a group under instruction. He must be able to analyze and reorganize material, as well as have a command of the best methods for the presentation of the work. The students in part-time classes are there for very definite help and will respect only a practical and competent teacher.

g. Qualifications of Supervisors or Directors of Farm Practice—

In practically every case the supervisor of farm practice for part-time students will be the instructor of the all-day class in vocational agriculture. The plan for supervision should not differ essentially from that of all-day class students. If occasion should arise where some other teacher than an all-day class teacher should be called upon to supervise the farm practice of part-time students such supervisor should possess the practical experience and the technical and professional training necessary to efficiently do the work.

h. Plans for at least Six Months Supervised Farm Practice—

In all cases part-time students will be required to do at least six months supervised farm practice. The farm practice will be supervised by

the teacher and in case of home practice, in cooperation with the parent or employer in order to make supervision effective in the absence of the teacher. School and home, parent and teacher are brought together in a closer relationship and understanding. This serves as a check on the instruction given by the teacher, making it practical and locally applicable. It should be a stimulant to higher farming ideals and better farming methods in the community. Final economic profit should be a definite aim of all directed or supervised practice, as it is the aim of any farming business. The ultimate aim with most part-time students should be to get them established in the business of farming for themselves.

D. Teacher Training

1. Percentage of teacher-training fund budgeted to agricultural education.

One third of the teacher training fund allotted by the State Board for the preparation of teachers in agricultural, trade and industrial, and home economics education will be used for the training of agriculture teachers, including salaries of teacher trainers, clerical service, communications, printing and supplies, and for travel when authorized by the State Board for Vocational Education.

2. Kinds of Schools and Classes—

The Colorado Agricultural College at Fort Collins has been designated the institution for the training of teachers of vocational agricultural subjects.

a. The State Supervisor of Agricultural Education will as a part of his duties give attention to the problem of improvement of teachers in service as indicated under III-A-2-c, all of which is covered in this document.

3. Length of Course—

a. The course of instruction for prospective teachers of vocational agriculture shall consist of four years of nine months each and shall lead to the bachelor of science degree with a major in any of the following courses:

- (1) Agronomy and vocational education
- (2) Animal Husbandry and vocational education
- (3) Horticulture and vocational education
- (4) Entomology and vocational education

In all these four distinct training courses the first two years' work is exactly the same. The outline of this work is on pages 23 and 24.

- b. One hundred sixty semester credits will be required for graduation. A credit is given for one hour of lecture or recitation work per week, or two hours of laboratory, or three hours of military science or gymnasium work carried satisfactorily thruout the semester.
- 4. Entrance Requirements—

Students in teacher-training classes in agriculture shall have had at least two years of satisfactory experience on a farm after the age of 14 years, and in addition thereto they shall present fifteen high school units for admission.

5. Courses of Study—

The course of study shall be at least a four-year course of a standard agricultural college. Not less than 40 percent of the course shall be given to technical subjects, and not less than $12\frac{1}{2}$ percent to professional subjects.

*These four distinct courses parallel four somewhat similar technical courses in the Division of Agriculture of the Colorado Agricultural college. Outlines of these courses occur on pages 31, 33 and 42 of the 1933-34 Colorado Agricultural College catalog.

DIVISION OF AGRICULTURE

Course of Study for First Two Years

The number before a subject refers to its description, the number after it refers to credits.

FRESHMAN YEAR

	FRESHJIA	1 15.	AR
	First Semester		Second Semester
AH1	Judging Market Types 3	В 3	General Botany 2
В 1	General Botany 2	B-4	General Botany Lab 2
B 2	General Botany Laboratory, 2	C = 3	Inorganic Chemistry 3
C 1	Inorganic Chemistry 3	C 4	Inorganic Laboratory 2
C 2	Inorganic Laboratory 2	EH3	English 3
EH2	English 3	M = 5	Mathematics 5
ME3	Forge and Welding 1		or
MT1	R. O. T. C 3	ME1	Wood Work 1
PE 1	Physical Education 1	M 10	College Algebra 5
		MT2	R. O. T. C 3
		PE 2	Physical Education 1
*The last	w from the Colone to A miterature 1	Callan	a antalog for the man 1000 toon

^{*}Taken from the Colorado Agricultural College catalog for the year 1932-1933.

SOPHOMORE YEAR

	First Semester		Second Scmester
Ag 1	Crop Production 3	Ag = 2	Soils 3
C 5	Organic Chemistry 3	AH 2	Judging Purebred Livestock
C 6	Organic Laboratory 2		or
EH51	English Literature 2	EZ 4	Elementary Entomology 3
EZ = 5	Introduction to Entomology 1	C 21	Organic and Biochemistry, 3
EZ 11	Zoology 3	C = 22	Organic Laboratory 2
EZ 12	Zoology Laboratory 2	EH26	Organic Laboratory 2
MT 3	R. O. T. C 3	H 1	General Horticulture 3
PE 3	Physical Education 1	MT - 4	R. O. T. C
		PE 4	Physical Education 1

Because of the demands upon teachers of vocational agriculture, it is strongly recommended that all trainees secure at least four semester hours credit in poultry husbandry and four semester hours credit in farm machinery and farm motor work.

	First Semester		Second Semester	
Ag 3	Crops Laboratory 3	Ag 4	Soils Laboratory	2
AH101	Feeds and Feeding 3	Ag 6	Irrigation Farming or'	
ES 5	General Economics 3	CE 25	Irrigation Engineering	3
EH 25	Public Speaking 2	VP 16	Bacteriology	3
ES 151	Rural Sociology 3	VP 17	Bacteriology Laboratory .	2
Ed 105	Gen. Educational	Ed 161	Methods in Home Projects	2
	Psychology 3		Electives	7
Ed 162	Methods in Farm			
	Shop Work 2			

SEMOR YEAR

	First Semester		Second Semester
Ag 101	Advanced Farm Crops 3	Ag 7	Plant Breeding 3
B 101	Plant Anatomy 1	ES 7	Farm Organization and
B 102	Plant Anatomy Lab 2		Management 3
B 103	Plant Diseases 3	*Ed 1	Student Teaching (Voc.
Ed 101	Principles of Secondary		Ag.) 4
	Education 3		Electives10
EH 6	Technical Writing 2	*Ed 160	Special Methods in
	Electives 3		Agriculture 3

^{*}Offered both semesters.

COURSE OF STUDY IN ANIMAL HUSBANDRY AND VOCATIONAL EDUCATION—JUNIOR YEAR

	First Semester			Second Semester	
AH 40	Farm Dairying	3	AH 12	Breeds of Livestock	3
AH101	Feeds and Feeding	3	*AH 14	Meats	2
*EH 25	Public Speaking	2	AH 18	Swine Husbandry	2
EZ 112	Genetics	2	AH 27	Sheep and Wool	3
VP 14	Bacteriology	3	*ES 5	General Economics	3
VP 15	Bacteriology Laboratory	2	EH 91	Commercial Law	2
Ed 105	Gen. Educational		Ed 161	Methods in Home	
	Psychology	3		Projects	2
Ed 162	Methods in Farm Shop		*ES 161	Rural Sociology	3
	Work	2			

SENIOR YEAR

	First Semester		Second Semester	
A .cm 2		A C	Irrigation Farming	2
Ag 3	Crops Laboratory 3	Ag 6		
AH105	Animal Breeding 2	AH 21	Livestock Practicums	
*ES 7	Farm Organization and	AH 24	Beef Production	
	Management 3	AH 48	Milk Production	
*Ed 101	Principles of Secondary	ES 8	Principles of Marketing	3
	Education 3	Ed 1	Student Teaching	
*Ed 160	Special Methods in Agri 3		(Voc. Ag.)	
	Electives 5		Electives	3
COUR	SE OF STUDY OF ENTOMOLOG	v avn	VOCATIONAL EDUCATION	
COLK	JUNIOR		VOCATIONAL EDUCATION	
		IEAR		
	First Semester		Second Semester	
B 101	Plant Anatomy 1	B 104	Plant Psychology	3
B 102	Plant Anatomy Lab 2	EZ 101	Biological Entomology	5
EH 25	Public Speaking 2	EZ~116	Insect Control	
EZ 14	Practical Entomology 5	VP 16	Bacteriology	
Ed 105	Gen. Educational	VP 17	Bacteriology Laboratory .	2
	Psychology 3	Ed 161	Methods in Home	
*ES 151	Rural Sociology 3		Projects	
	Electives 1		Electives	2
	SENIOR	T. T. A. I.		
		IEAR		
	First Semester		Second Semester	
B 103	Plant Diseases 3	*ES 7	Farm Organization and	
EZ~105	Insect Morphology 5		Management	
EZ 112	Genetics 2	EZ = 25	Fruit Insects	
*Ed 101	Principles of Secondary	EZ106	Systematic Entomology .	5
	Ed 3	Ed = 1	Student Teaching (Voc.	
*Ed 160	Special Methods in Agri 3		Ag.)	
	Electives 4		Electives	5
COUDSIA	OE STEDY IN HODDICELDS	**** A N T	ALCONO A CENTRO NEAR A TOTAL STATE A CENTRO	1.
COURSE	OF STUDY IN HORTICULTU		VOCATIONAL EDUCATIO	N
COURSE	JUNIOR			N
	JUNIOR First Semester	YEAR	Second Semester	
B 101	JUNIOR First Semester Plant Anatomy 1	YEAR B 104	Second Semester Plant Physiology	3
B 101 B 102	JUNIOR First Semester Plant Anatomy 1 Plant Anatomy Lab 2	YEAR B 104 H 5	Second Semester Plant Physiology Vegetable Crops	3 2
B 101 B 102 EH 25	JUNIOR First Semester Plant Anatomy	YEAR B 104 H 5 H 6	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab	3 2 1
B 101 B 102 EH 25 : EZ 14 :	First Semester Plant Anatomy	B 104 H 5 H 6 VP 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology	3 2 1 3
B 101 B 102 EH 25 : EZ 14 : H 7 S	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2	B 104 H 5 H 6 VP 16 VP 17	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory.	3 2 1 3
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1	B 104 H 5 H 6 VP 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home	3 2 1 3 2
B 101 B 102 EH 25 EZ 14 H 7 S H 8 S Ed 105	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Gen. Educational	B 104 H 5 H 6 VP 16 VP 17 Ed 161	Second Semester Plant Physiology Vegetable Crops Bacteriology Bacteriology Laboratory, Methods in Home Projects	3 2 1 3 2
B 101 B 102 EH 25 EZ 14 EX H 7 S H 8 S Ed 105 C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3	B 104 H 5 H 6 VP 16 VP 17	Second Semester Plant Physiology Vegetable Crops Lab Bacteriology Laboratory. Methods in Home Projects Rural Sociology	3 2 1 3 2 2 3
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop	B 104 H 5 H 6 VP 16 VP 17 Ed 161	Second Semester Plant Physiology Vegetable Crops Bacteriology Bacteriology Laboratory, Methods in Home Projects	3 2 1 3 2 2 3
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161	Second Semester Plant Physiology Vegetable Crops Lab Bacteriology Laboratory. Methods in Home Projects Rural Sociology	3 2 1 3 2 2 3
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2	B 104 H 5 H 6 VP 16 VP 17 Ed 161	Second Semester Plant Physiology Vegetable Crops Lab Bacteriology Laboratory. Methods in Home Projects Rural Sociology	3 2 1 3 2 2 3
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR	B 104 H 5 H 6 VP 16 VP 17 Ed 161	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home Projects Rural Sociology Electives	3 2 1 3 2 2 3
B 101 B 102 EH 25 :: EZ 14 :: H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Plublic Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory. Methods in Home Projects Rural Sociology Electives Second Semester	3 2 1 3 2 2 3 8
B 101 B 102 EH 25 : EZ 14 : H 7 S H 8 S Ed 105 (C	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Finall Fruits 2 Finall Fruits Laboratory 1 Final Fruits Laboratory 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 YEAR	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory. Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding	3 2 1 3 2 2 3 8 8
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11	First Semester Plant Anatomy 1 Plant Anatomy 2 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 YEAR Ag 7 EZ 116	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory. Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control	3 2 1 3 2 2 3 8 8
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Plant Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Fen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 2 Pomology Laboratory 1	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 YEAR	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and	3 2 1 3 2 2 3 8 8
B 101 B 102 EH 25 EZ 14 H 7 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Fen. Educational Psychology 3 Methods in Farm Shop Work 2 SEXIOR First Semester Plant Diseases 3 Pomology 3 Pomology Laboratory 1 Floriculture 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 YEAR Ag 7 EZ 116	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated	3 2 1 3 2 2 3 8 3 3
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Plant Description 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology Laboratory 1 Floriculture 3 Experimental Horticul-	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory. Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants	3 2 1 3 2 2 3 8 3 3
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14 H 15	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Plant Description 2 Practical Entomology 5 Finall Fruits 2 Finall Fruits Laboratory 1 Fine Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 3 Pomology Laboratory 1 Floriculture 3 Experimental Horticulture 2	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory. Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and	3 2 1 3 2 2 3 8 3 3
B 101 B 102 EH 25 EZ 14 H 7 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 3 Pomology Laboratory 1 Floriculture 5 Experimental Horticulture 2 Theory and Practice	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and Fruits	3 2 1 3 2 2 3 8 3 3
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14 H 15	First Semester Plant Anatomy 1 Plant Anatomy 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 2 Pomology Laboratory 1 Floriculture 3 Experimental Horticulture 2 Theory and Practice in Landscape Design 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and Fruits Student Teaching (Voc.	3 2 1 3 2 2 3 8 3 3 3 2 3
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14 H 15	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Fen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 3 Pomology Laboratory 1 Floriculture 3 Experimental Horticulture 2 Theory and Practice in Landscape Design 3 Principles of Secondary	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and Fruits Student Teaching (Voc. Ag.)	3 2 1 3 2 2 3 8 3 3 4
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14 H 15 H 20 *Ed 101	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Gen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology Laboratory 1 Floriculture 3 Experimental Horticulture 2 Theory and Practice in Landscape Design 3 Principles of Secondary Ed. 3	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and Fruits Student Teaching (Voc.	3 2 1 3 2 2 3 8 3 3 4
B 101 B 102 EH 25 EZ 14 H 7 8 H 8 8 Ed 105 Ed 162 B 103 H 11 H 12 H 14 H 15 H 20 *Ed 101	First Semester Plant Anatomy 1 Plant Anatomy Lab. 2 Public Speaking 2 Practical Entomology 5 Small Fruits 2 Small Fruits Laboratory 1 Fen. Educational Psychology 3 Methods in Farm Shop Work 2 SENIOR First Semester Plant Diseases 3 Pomology 3 Pomology Laboratory 1 Floriculture 3 Experimental Horticulture 2 Theory and Practice in Landscape Design 3 Principles of Secondary	B 104 H 5 H 6 VP 16 VP 17 Ed 161 *ES 151 *ES 151 *EZ 116 H 16	Second Semester Plant Physiology Vegetable Crops Vegetable Crops Lab. Bacteriology Bacteriology Laboratory, Methods in Home Projects Rural Sociology Electives Second Semester Plant Breeding Insect Control Plant Evolution and history of Cultivated Plants Forcing Vegetables and Fruits Student Teaching (Voc. Ag.)	3 2 1 3 2 2 3 8 3 3 4

a. Subjects upon which reimbursements from Federal funds is expected include:

*General Educational Psychology
Methods in Farm Shop Work
Methods in Home Projects
*Principles of Secondary Education
Special Methods in Agriculture
Student Teaching in Vocational Agriculture

*Provided that a majority of the students in the class are following the course of study prescribed for vocational teachers and provided that courses thus reimbursed shall not exceed in total credit hours 5 per cent of the total credit hours required for completion of the teacher-training course; and provided that if the number enrolled in any such course is so great as to require more than one section, reimbursement will be made only for the section composed of prospective vocational teachers.

- 6. Provisions for Observation and Practice Teaching
 - a. Practice Teaching:

The major portion of the practice teaching will be done in high schools near Fort Collins having well established and approved Departments of Vocational Agriculture. Students will spend one entire forenoon for a period of one school month as student teachers in this school. The work in the practice school, or schools, is so organized that the student teacher will have an opportunity to participate in all the activities of a regular vocational agricultural teacher.

The regularly employed teacher of vocational agriculture in the practice school will serve as the critic teacher of the student teachers in agriculture and shall be regarded as a member of the teacher training staff of the Colorado Agricultural College. The critic teacher (or teachers) shall be men who have made an outstanding success as teachers of vocational agriculture, who have at least three years of successful experience teaching voca-

tional agriculture and who have the maturity and personality to guide, to inspire and to help the student teachers so that their training will be most helpful.

The general supervision of the practice teaching in vocational agriculture shall be in direct charge of the teacher-trainer at the Colorado Agricultural College, who will devote two forenoons per week to the supervision of the student teaching in agriculture and who will in other ways render all the assistance possible to make the student teaching successful.

b. Observation:

The Departments of Vocational Agriculture of high schools in the vicinity of Fort Collins will be used for observation. Each man in the special methods class will have an opportunity to visit these departments at least once during his training period and will also have an opportunity to observe part-time and evening class work conducted in any of these schools. In addition to this, all the practice teachers will spend several days in observation before they actually start their student teaching.

7. Graduation Requirements—

To qualify as teachers of vocational agriculture, students must have a degree of bachelor of science in agriculture and shall have finished one of the four courses outlined on pages 29-31. In addition to this, students shall have had at least two years of satisfactory experience on a farm as set up in the entrance requirements. In all of these courses it is necessary for the student to have 20 semester hours work in professional education as outlined in the various courses and as required by the Colorado State law.

8. Relation to Certification—

In order to qualify for a state high school teacher's certificate a prospective teacher must comply with the state certification law that requires that "graduates from the four-year courses of standard

colleges situated within the State of Colorado give satisfactory evidence of good moral character and have included in their college work 20 semester hours of education distributed among at least three of the following groups of subjects, one of which shall be practice teaching under conditions approved by the state superintendent of public instruction:

- a. General and educational psychology
- b. Principles of education
- c. History of education
- d. Administration and supervision of education
- e. Practice teaching
- f. Special methods
- g. Philosophy, sociology, anthropology, and biology

Each of the four teacher-training courses outlined on pages 29-31 meet the requirements of the State certification law. The following professional courses are made requirements to qualify to teach vocational agriculture:

Educational Psychology	3 semester hours
Rural sociology	3 semester hours
Principles of education	3 semester hours
Special methods in agriculture	3 semester hours
Special methods in farm shop	2 semester hours
Special practices in home projects	2 semester hours
Practice, or student teaching in vocational agriculture	4 semester hours
Total professional work	20 semester hours

9. Special Teacher Training Courses—

The Colorado Agricultural College, particularly in its summer school, gives advanced work in agricultural education leading to a degree of master of science in vocational education, majoring in agricultural education. The following outline shows the content of this graduate course:

OUTLINE OF COURSES FOR THE DEGREE OF MASTER OF SCIENCE (Majoring in Agricultural Education)

Requirements: Forty semester credit hours of graduate work including a thesis. Not less than one-half of the time to be devoted to the major subject and the balance to one or two minors. A minimum of six credit hours constitute a minor.

Graduate Courses (Only)

Graduate and Undergraduate Courses

*Seminar in Agricultural Education 2	*Special Methods in Agri 3-
*Advanced Agricultural Education 2	**Special Methods in Farm Shop. 2-3
*Supervision and Administration	*Special Methods in Home Proj 2-
of Vocational Education 2	Principles of Teaching 2-3
*Methods in part-time and evening	Educational Psychology 2-5
class instruction in Voc. Agri 2	Vocational Education 2-3
*Research in Vocational Ag. Ed., 2-5	Rural Sociology 2-
*Thesis5-10	Methods of Teaching Cooper-
Minors0-20	ative Marketing

Subjects marked (*) may be aided from Federal and State funds. **This course does not carry graduate credit.

MINORS

- Rural Economies and Sociology—Principles of Marketing 2; Cooperative Marketing 2; Agricultural Economics 2; Advanced Farm Cost Accounting 2; Rural Sociology 2; Research in Economics and Sociology 2 to 3; Psychology of Advertising and Selling 2; Social Psychology 2.
- Animal Husbandry—Animal Breeding 2; Animal Nutrition 3; Coaching Methods in Stock Judging 1; Livestock Practicums 1; Animal Husbandry Seminar 2 to 3; Principles of Scientific Investigation 2.
- Rural Education—Administration and Supervision 2; The School Curriculum 2; School Finance 2; Seminar in Rural Education 2; Social Psychology 2; Advanced Psychology 2; Rural Institutions and Education 2.
- Minor in Agronomy—Seminar in Agronomy 2; Plant Breeding 2; Advanced Farm Crop 2; Advanced Laboratory Technique 2; Soil Fertility 2; Methods in Agronomy Research 2.
- Horticulture—Seminar in Vegetable Production 2; High Altitude Horticulture 2; Orchard Management 2; Problems in Horticulture 2.
- Basic work in minor field would have to meet requirements of department heads in charge.

In order to complete the work for a master's degree in vocational education, one must have credit in all the subjects listed under the requirements. Any subject required for the advanced degree that has been taken as undergraduate work need not be repeated for graduate work, but no credit will be allowed for such work toward a master's degree unless it has been done in excess of the requirements required for a bachelor's degree and recorded in the institution where taken as graduate work. Some undergraduate subjects are made requirements for a master's degree in order that the candidates possess a broad and comprehensive knowledge of the field of agricultural education.

10. Qualifications of Teacher-Trainers—

The teacher-trainer shall be a graduate of a fouryear technical course in agriculture from a standard agricultural college. In addition to that he shall be a man who has had at least three years experience teaching vocational agriculture and one who has successfully put over all of the various important activities of a teacher of vocational agriculture which are as follows:

- a. Class room, laboratory and field instruction in vocational agriculture.
- b. Home project and other forms of supervised practice work.
- c. Farm mechanics work.
- d. Part-time work.
- e. Evening class work.

IV. Trade and Industrial Education

A. Tentative budget of Federal and State funds available for Trade and Industrial Education:

1.	For evening classes: Federal funds State funds	
2.	For Part-time Classes:	\$9,638.23
	Federal funds	\$6,831.66
	State funds	2,549.51
		\$9,381.17
3.	For Unit Trade Classes:	
	Federal funds	\$2,380.00
	State funds	2,380.00
		\$4,760.00
4.	For General Industrial Classe	es:
	(In cities of less than 10,000	population)
	Federal funds	\$1,923.00
	State funds	1,465.00

**Total State Funds 8,944.03

*Total Federal Funds

Total Federal and State Funds ____\$27,167.40

\$3,388.00

\$19,223.37

Based on 1934 Allottment of Federal Funds.

^{**} Based on appropriation provided by 29th General Assembly of Colo.

B. Supervision of Trade and Industrial Education

- 1. The State Supervisor of Trade and Industrial Education will devote full time to the supervision of trade and industrial education schools and classes.
 - a. Qualifications of Supervisor
 - (1) Trade experience—at least 5 years practical working experience as a wage earner in a trade or industrial occupation.
 - (2) Teaching—at least 2 years of successful experience with a minimum of 144 clock hours per year as a teacher of an approved trade class that meets the standards of the state plan.
 - (3) Supervisory experience—at least 3 years experience in a responsible administrative or supervisory position in the field of trade and industrial education of vocational grade.
 - (4) Professional training—the equivalent of 600 clock hours or 40 semester credits in approved education subjects including:
 - (a) Philosophy of vocational education
 - (b) Supervision and Administration of Vocational Education
 - (c) Making and utilizing trade and job analyses in training trade teachers and in curriculum construction
 - (d) Methods of training trade teachers
 - (5) General education—the bachelor of science degree in industrial education from a technical school or a college of recognized standing or its equivalent.

b. Duties of Supervisor:

- (1) Promotional
 - (a) To prepare a state program of work.
 - (b) To assist in the organization of classes.
 - (d) to assist in the selection of teachers.
 - (d) To conduct surveys, investigations and special studies and to disseminat information on the same.

- (e) To prepare reports for the State Director as called for.
- (f) To cooperate with industrial, trade and labor organizations or other groups interested in trade and industrial education.

(2) Inspectional

- (a) to visit and inspect all schools and classes receiving subsidy for vocational education from the State Board.
- (b) To supervise the training of teachers including the selection of candidates, their training and their placement in vocational schools.
- (c) To prepare and approve courses of study.
- (d) To secure the necessary reports from the qualified schools and to make reports required by the State Director.
- (e) To certify vocational teachers.

(3) Instructional

- (a) To assist teachers to improve their methods of instruction by personal consultations, conferences, correspondence or thru publications.
- (b) To assist teachers and supervisors in organization problems and in the improvement of courses of study.
- (c) To conduct district or state conferences of school administrators or teachers engaged in the teaching of trade and industrial subjects of vocational grade.
- (d) To conduct conferences with industrial leaders and other groups interested in industrial education.
- 2. Local Supervision of Trade and Industrial Education
 - a. The qualifications of local supervisors, directors, and teacher trainers shall be the same as those specified under B-1-a of this plan except for the professional training which may be the

equivalent of 225 clock hours or 15 semester hours in vocational education.

- b. The duties of the local director, supervisor or teacher-trainer will include:
 - (1) Promoting additional vocational classes including part-time, apprentice, evening and day trade schools and selecting and training teachers for these classes.
 - (2) Supervising classes shall be primarily for the purpose of discovering those points on which the local teachers need help and assistance. A considerable portion of the local director's time must be spent in class rooms conferring with teachers, making helpful suggestions and assisting them in working out their special problems.
 - (3) Training teachers shall constitute 75 per cent of the local director's work and particular attention will be given to the professional improvement of teachers in service. This will be accomplished thru informal specialized work with individual teachers and thru the organization of professional improvement conferences. The conference method will be utilized where time will be saved or where better results can be attained thru a group discussion of some problem of interest to more than one teacher. This method will be emphasized in all group training programs because the results attained will be of more value than the conclusions that might be reached by interviewing the individual teacher.
- C. Kind of Trade and Industrial Education which the State Board will aid thru Federal and State Vocational Education Funds
 - 1. Evening industrial or trade extension classes.
 - 2. Part-time schools or classes, including
 - a Trade extension part-time schools or classes.
 - b. Trade preparatory part-time schools or classes.
 - c. Cooperative apprentice schools or classes.

- d. General continuation part-time schools or classes.
- 3. Unit trade preparatory day schools or classes.
- 4. General industrial day trade preparatory schools or classes in towns and cities of less than 25,000 population.

D. Evening Industrial Schools or Classes

- 1. An evening industrial school or class is one established and maintained under public school supervision and control for the purpose of giving instruction supplemental to the daily employment of persons who have entered upon a particular trade or industrial pursuit. Such a class is usually established in the evening but instruction may be given in the day time for persons who are employed in the evening, the essential requirement being that the class is organized outside the regular hours of employment, and is attended on the worker's leisure time.
- 2. The minimum entrance age requirement is 16 years. No maximum age limit is prescribed.
- 3. Absolute state-wide standards for minimum plant and equipment will not be prescribed. Under Federal and State acts no portion of any moneys appropriated under the act may be applied directly or indirectly to the purchase, erection, preservation or repair of any building or equipment or for the purchase or rental of lands or for the support of any religious or privately owned or conducted school or college. The entire cost incident to the maintenance of evening schools must be borne by the local community. Classes may be held:
 - a. In the building which houses a day or part-time trade or industrial department, or in a regular class room where seating capacity is satisfactory for adults.
 - b. Industrial plants where cooperative agreements can be established providing for the use of equipment and supplies.
 - c. In rooms available in public libraries or in other public meeting places.

Special attention should be given to the lighting, ventilating and heating arrangements regardless of where the class is held. The State Board will base its approval for subsidy partly on condition that the equipment is sufficient in quality and variety to insure the proper instruction in the standard practice or related work of the occupation for which the school proposes to give instruction.

4. Minimum for Maintenance

The State Board recommends that a salary schedule should be established that will attract high grade experienced men from the occupations which are to be taught in the evening schools. The minimum for maintenance will take into account the materials and supplies necessary for successful work in an evening school. An evening class organized to teach the steel square to a group of carpenters might report as follows:

To instructor, 20 nights at \$3.00	\$60.00
To supplies, 15 men 20 nights at	
8c per man per night	24.00
Total	\$84.00

State aid may be claimed for instructors' salary only—in illustrative report.

5. Character and Content of Course of Study—
Short unit courses are best suited for evening class work. The following outline illustrates a type of short unit course:

Use of the steel square in roof framing, for journeyman and apprentice carpenters.

Unit I.

Parts of the square
Testing a square
Roof members
Run, rise and pitch
Common rafters
Hip rafters
Jack rafters
Reducing run and rise to inches
Hip and valley rafter cuts

Unit II.

The five-inch method for use on $\frac{1}{2}$ pitch roofs Roof framing from plan lines Jack rafters and roof boards for a hip or valley

roof

Purlins and roof boards
Seat cuts for hip or valley rafters
Preparing polygons for hexagonal hips, and so
forth.

All of the instruction and practice work should be done with full size building tools and materials. The various scales on the square should be explained as their use is occasioned in practice rafter cutting and roof framing.

- 6. Character of School Work Supplemental to Daily Employment
 - a. Evening instruction can be successfully given only in such subjects as will increase skill or knowledge of the occupation in which the worker is engaged, or as will lead to promotion or advancement in that work. As a rule the time available in an evening school is so snort that it is impossible to teach a skilled trade to anyone unless he is engaged in daily work affording him opportunity to apply the skill and knowledge gained in an evening class or unless the daily employment gives the experience which will enable the worker with the knowledge or skill acquired in an evening school to secure promotion in that occupation.
 - b. Supplemental instruction may be expected to confer upon the students one or more of the following benefits:
 - (1) The securing of additional knowledge or skill which will lead to better efficiency on the job or to promotion in the particular occupation.
 - (2) The securing of knowledge or skill which will lead to promotion along the line of the particular trade in which the student is now employed.

(3) The securing of knowledge or skill which will lead to increased remuneration for the work in which the student is now engaged.

7. Methods of Instruction—

The instruction must be shaped in accordance with the actual experience and the daily employment of the group taking the work. It must be direct, to the point and must include the "tricks of the trade." It must be presented in a masterful way so the students will be convinced that each evening's work gives them specific knowledge which will be of use in their daily employment. Adults will not hesitate to pass judgment upon the effectiveness of the instruction they are receiving. For this reason all evening school instructors must possess the ability to put over useful instruction in accordance with the very best teaching practice. The conference method will be used in evening classes where the subject matter deals with information supplementary to trade skills. Shop subjects or subjects intended to improve mechanical efficiency must be organized on the individual instruction plan.

8. Qualifications of Teachers—

a. Shop Teachers:

- (1) Trade experience—not less than 5 years in the trade or industrial occupation which the instructor is employed to teach.
- (2) Professional training—70 clock hours or 4 semester credits of professional training, including special methods of teaching trade and industrial subjects, job analysis, and philosophy of vocational education will be required of all evening trade teachers. A certificate to teach trade and industrial subjects will be issued to all evening school teachers completing the required course of study. In order to give the local communities the greatest latitude in recruiting desirable teachers, a temporary certificate will be issued authorizing a seemingly well qualified individual to teach before completing the instructor-training courses. The temporary

certificate is good for one year only and all instructors proposing to continue teaching evening classes will be required to complete the instructor-training course prescribed by the State Board for Vocational Education.

The State Board desires that all evening school teachers be thoroughly qualified, therefore the minimum training requirements and the certification plan named above have been established.

b. Related Subjects Teachers:

Qualifications for related subjects teachers in evening classes will be the same as those listed for shop teachers. In selecting related subjects teachers for evening schools it is essential that the prospective instructor have a thorough knowledge of the subject to be taught with its application to the trade to which the subject is related.

The State Board will reserve the right to approve or disapprove a teacher on the judgment of the state supervisor concerning the qualifications, character, attitude toward work, personality, honesty and prestige among fellow workers and evening school instructors.

E. Part-Time Schools or Classes

1. Trade Extension Part-Time Schools or Classes

- a. The controlling purpose of trade extension part-time classes shall be to improve the trade efficiency of employed youths in the given trade or industrial pursuits in which they are already employed. Trade extension part-time classes require:
 - (1) That the persons who are to take the work be employed in a trade or industrial pursuit which has a content that can be given to advantage in an organized school or class.
 - (2) That the persons employed in the trade or industrial pursuit are to be given oppor-

tunities for experience which will enable them to use to advantage the knowledge and skill acquired in the part-time school.

- (3) That opportunities are afforded in the trade or industrial pursuit for increased efficiency or for promotion and advancement.
- b. The age standard set up for part-time instruction is definite as regards minimum entrance age. Provisions of the act are as follows:

"That such education shall be of less than college grade and shall be designed to meet the needs of persons over 14 years of age who have entered upon the work of a trade or industrial pursuit."

It must be recognized that at the ages of 14 to 16 years, youths employed in trade and industrial pursuits are engaged largely in the so-called juvenile jobs in which the skill and related knowledge are limited, therefore, trade extension instruction for yourths of this age is in less demand than for the ages of 16 years and over. The State law restricts industrial employment to a minimum entrance age of 16 years.

- c. The equipment necessary for a part-time school or class depends entirely on the group which is to receive instruction. In many cases it will be possible to give instruction in the plant where the workers are regularly employed. Such instruction as is supplemental to the daily employment, including drawing, science and mathematics, may be given in any class room.
- d. In general the work in a part-time trade extension school is comparable to work in a trade and industrial evening school. The minimum for maintenance must provide instruction conditions similar to those obtaining in the industry itself and must provide teachers who are thoroughly prepared through an extended experience in the vocation which they are teaching as well in methods of teaching.
- e. All courses of study must be based on an an-

alysis of the trade and the needs of the specific group to be instructed. For example, a unit course in "shop sketching" for machinist apprentices might be set up to include the following objective:

- (1) To equip the youth to make an ordinary freehand or semi-freehand sketch where all necessary information as to materials, dimensions and shapes can be given by a single view with notations thereon.
- (2) To equip students to make an ordinary diagram showing the relation of important parts of mechanical devices.
- (3) To equip students to make an ordinary diagram showing the relation of views.
- (4) To equip students to make sketches indicating invisible edges or parts including the use of broken sections or cross section views.
- (5) To develop ability to make sketches indicating an object as it appears to the eye for the purpose of presenting three-dimensioned information on a one-view sketch.
- (6) To acquaint student with the relation of views on a sketch and to equip him to make ordinary working sketches or diagrams either conventional or pictorial indicating various objects and using standard representations and to develop ability in noting thereon such data as may be necessary to indicate how the work should be carried on.

Type trade extension part-time air valve course for railway apprentices:

Westinghouse triple valves
Plain triple valves
Functions of the triple valve in operating
the brake

Quick-action triple valves
Peculiarities and troubles of the quickaction triple valve

The type K triple valve

Another unit dealing with air pumps might cover the following topics:

Westinghouse air pumps
9½-inch pump
Westinghouse right and left-hand pumps
Westinghouse 11-inch pump
The 8½-inch course compound pump
The present standard SF-(4) pump governor

Apprentice courses are often carried on within the plant; where this is done the school authorities will be responsible for seeing to it that the proper equipment is provided. In the case of air brake instruction for apprentices, sectional valves, pumps, compressors and similar equipment, must be installed.

f. The methods of instruction will combine the best teaching procedure with the standard practices in the trade or industrial pursuit.

Since part-time trade extension instruction undertakes to provide a system of apprenticeship it becomes necessary to base all instruction on the standard commercial practice of the trade or industrial pursuit.

g. Part-time schools or classes must provide for not less than 144 hours of organized instruction per year. By hour is meant a period of 60 minutes. In practice many part-time schools will be organized to give instruction in excess of the minimum number of hours provided by law. A few arrangements of time schedules to cover the minimum 144 clock hours follow:

4 hours per week for 36 weeks per year 8 hours per week for 18 weeks a year 144 hours per year in any sequence as to number of hours per day or weeks per year

The dull season course where training may be carried on 6 or 8 hours a day for a period of 3 weeks during the slack season of a particular craft.

Where the minimum of 144 hours is exceeded the following cooperative schedules are possible:

Half a day in industry and half a day in school

The alternate day plan: Day in school and day in industry

The alternate week plan: Week in school and week in industry

Where cooperative arrangements are made two boys are usually employed for the same job, one being in school while the other is at work and viceversa.

h. Qualifications of Teachers:

(1) Shop Teachers—

The shop teacher in a trade extension part-time school should have not less than 5 years of successful experience as a journeyman in the trade he expects to teach. In addition 70 clock hours or 4 semester credits of professional training including special methods of teaching part-time education, job analysis and philosophy of vocational education will be required of all part-time school teachers.

(2) Related Subjects Teacher—

Qualifications for related subjects teachers in part-time schools will be the same as those listed for shop teachers. They must also have a thorough practical knowledge of related drawing, science and mathematics and their application to the trade. The teacher's ability to exert a wholesome influence upon boys and girls of rather immature age will be given consideration in approving schools and certifying teachers in all part-time schools.

2. Trade Preparatory Part-Time Schools or Classes

a. The controlling purpose of trade preparatory part-time school instruction is to give vocational training to immature workers who have left

school at an early age and who have entered unskilled types of employment. This type of part-time school recognizes that it is possible to organize trade preparatory schools which will fit such individuals for advantageous entrance into a skilled trade or industrial occupation.

- b. As in all other part-time classes no pupil under 14 years of age may be admitted.
- The equipment in a trade preparatory school c. must be more complete, and more nearly like that of the commercial shop than is the case in supplemental subjects part-time work. The shop work must be on a production basis for the reason that the pupil's day work does not supply contact with tools and machines comparable with that of trade extension students. At times it is possible to give the desired practical training by entering an agreement with the individual employer whereby pupils may be sent to a commercial shop or assigned to work with journeymen for a certain number of hours per week. This will be done wherever possible. The location of the school is important in the case of trade preparatory instruction since the pupils in this class must come to the school more often than do trade extension part-time pupils.
- d. The minimum for maintenance is covered under the heading for trade extension part-time classes. The State Board will assure itself that ample maintenance is provided before approving the work for reimbursement.
- e. The course of study must contain only subjects of greatest importance and value to the learner because of the limited time available. For example, a course organized to train for oxyacetylene welding might include a study of:
 - (1) Required apparatus
 Welding torch
 Oxygen supply
 Oxygen regulator
 Acetylene supply

Acetylene regulator

Hose connecting blow-pipe to oxygen and acetylene supplies

- (2) Connecting the apparatus
- (3) Preparing metal
- (4) Welding practice

In the example given above the object of the course would be to prepare the individual to do ordinary welding jobs in cast iron, malleable iron and steel and to develop enough ability to enable him to secure employment along this line. It will be recognized that the course is no-wise complete but it is expected that such students will continue to attend a trade extension part-time class after they are employed. In the trade extension course additional units of instruction dealing with the theory of welding and perhaps with the practice of welding difficult jobs would be offered. Thus in time, through employment in the occupation and attendance of part-time and evening schools the individual could be brought to a place where he would be an expert in his line of employment.

Employment conversion training for unemployed adults is sometimes effectively carried on in dull season part-time classes. A series of unit courses in gold mining follows:

SUGGESTED OUTLINE FOR MINING COURSE

I. Mining Laws

- a. Placer claims.
- b. Lode claims.
- c. Rights of farmers.
 - (1) Pollution of streams.
- d. Partnership, sale of property, etc.

20 hours

H. Prospecting and Geology

- a. Choice of outfit.
- b. General geology.
- c. Economic geology.
- d. Knowledge of common ores.

e. Nonmetallics.

40 hours

III. Placer Mining

a. Use of hand pan.

- b. Use of special equipment.
- c. Amalgamation.
- d. Cleanup.
- e. Sale of product.
- f. Construction of special equipment.
- g. Drainage and water problems. 50 hours

IV. Lode Mining

- a. Shaft work.
- b. Opening a drift.
- c. Simple timbering.
- d. Explosives.
- e. General problems.

40 hours

V. Milling—(Old mine dumps or mined ore)

- a. Crushing.
- b. Grinding.
- c. Amalgamation.
- d. Table concentration
- e. Flotation.
- f. Cyanidation.
- g. Sampling.

40 hours

VI. Mineralogy and Blowpiping

- a. Sight determination of minerals
- b. Use of blowpipe apparatus.
- c. Field testing.

40 hours

VII. Assaying

- a. Preparing sample.
- b. Operation of furnace.
- c. Fluxes and types of ore.
- d. Fusion.
- e. Cupelling.
- f. Parting and weighing.
- g. Simple wet tests.

40 hours

VIII. Follow-up Training

- a. Instruction on the job.
- b. Settle difficulties.
- c. Suggest new fields. 2 or 3 months in summer
 - f. The methods of instruction must be practical and efficient. It must be remembered that the majority of part-time students leave school because formal school work does not appeal to them. They must be approached thru motiva-

tion and thru their interest in advancement. The students are ambitious and adult-minded, and quick to judge teaching efficiency and grasp instruction that is properly given.

g. Not less than 144 hours of instruction must be given per year. In the trade preparatory part-time school it is desirable to have the course continue over a longer period than the required minimum. Also attention is called to the fact that when a student spends more time in school during the year than he spends actually working in industry he cannot be considered a part-time student.

h. Qualifications of Teachers:

- (1) The trade preparatory part-time shop teacher should be the highest type of teacher obtainable for the work. He must have had at least five years of trade experience plus the minimum teacher-training requirements set up for evening school and trade extension part-time school teachers. In general his trade experience must be such as to enable him to practice the trade, to teach it and to command the trade respect of fellow workmen. He must also possess the ability to analyze his trade for teaching purposes and to manage a school shop according to the trade school standards set up in this plan.
- (2) The related subjects teacher should have the same qualifications as those set up for shop teachers. All part-time teachers must have the special ability to inspire interest in students. They must possess a willingness to visit and study industrial plants, assist in placing students and must fully appreciate the problems and ambitions of the working youth.

3. General Continuation Part-time Schools or Classes—

a. The controlling purpose shall be to enlarge the civic and vocational intelligence of workers over 14 years of age, including:

- (1) Improvement in the knowledge of regular subjects which the wage worker did not complete in school
- (2) Increased civic intelligence
- (3) Increased vocational intelligence
- b. The minimum entrance age is 14 years.
- The plant and equipment for general continuac. tion part-time work may be the same as the class rooms and shops regularly used in public schools. Since public school buildings are well distributed in a majority of our communities it is generally possible to locate classes near the place of employment. It is possible, too, that school rooms can be equipped in stores, factories or other places where a large number of juvenile workers are employed, thus making it possible for students to attend these classes with the least possible expense of time and money. In general the equipment will consist of tables suitable for round table discussion, blackboards and wall space for charts or maps, reference and text books and general equipment as found in the public school.
- d. Adequate maintenance must be provided by the local community. In some instances equipment not provided in the regular public schools may be necessary such as shop cards, time clock cards, illustrations of tools and other equipment for practical demonstrations. Often such materials can be borrowed or purchased at slight cost from manufacturing plants. Aside from this, laboratory work in the related sciences, including chemistry, physics or mechanics can be taught in the regularly equipped high school departments.
- e. Character and Content of Course of Study-

The general continuation class is established on the assumption that the pupil in his efforts to succeed in any occupation is handicapped by limited general education and occupational information as well as lack of employment supervision. The Federal and State Acts recognize that it is the duty of the public schools to provide opportunity for such education as a means of overcoming these handicaps.

While vocational efficiency is a major factor in good citizenship there are also certain social and civic duties for which instruction may be given in part-time general continuation schools. While the courses of study may have the same titles as those used in the elementary or high school they should nevertheless be taught with different aims and more careful selection of topics must be made and special care must be taken to relate the subjects of study to the daily lives of the pupils. For example, a course of study for junior workers in the telegraph service might include:

The social and economic importance of the telegraph

The telegraph in business
The obligations of an employee
The obligations of an employer
Delivering a telegram
Giving additional service
How to enter a business office
How to make a report
How to take a message
Summary of duties
Promotional opportunities

From the above outline it is obvious that English, mathematics, civics, spelling, personal conduct and perhaps other subjects must be taught in giving full consideration to each of the topics named. The detailed course should be organized to conform with the very best practice of motivated instruction.

General continuation courses given for the express purpose of training commercial workers will be organized on a basis suitable for pupils between 14 and 18 years of age. The standards and requirements set up in Federal Board, Misc., No. 161 Revised, will be adhered to in organizing continuation courses for commercial workers. General continuation commercial schools may be established:

For employed boys and girls who wish to study vocational commercial subjects in a general continuation part-time school.

For boys and girls who have entered upon employment in store position or commercial offices on a cooperative basis between store or office and school.

In cooperative classes 51 percent of the student's time between 8 a.m. and 6 p.m. must be devoted to employment in office or store work thruout the school term.

Where commercial extension courses are organized the enrollment should be made up entirely of office and store employees. While commercial classes organized on a part-time basis may be classified as general continuation schools it is nevertheless true that the philosophy pertaining to the organization of trade extension classes should be used in the organization of commercial classes.

Training for positions more advanced in character than can be successfully held by pupils in training may not be included, thus instruction in shorthand may not be given to 14- or 15-year-old pupils nor salesmanship to students not employed in stores.

A suggestive unit commercial course follows:

Business topics and store problems for discussion in classes composed of retail department store sales girls

Analysis of details pertaining to making a sale:

Making change readily

Making out legible sales slips

Analysis of duties of cashiers, bundle girls, floor boys

Qualities which make for efficiency such as quickness, accuracy, folding or

packing suits, dresses, skirts or waists

Service to customers

A second unit of instruction which might be offered during the second year of the part-time school includes:

Store organization
Store system
Truthfulness in business
Store directory
Store courtesy
Dignity and responsibility of work
Relation of employees to each other and to
employer
Care of stock
Customer approach
Demonstration sales

f. The conference or discussion method of instruction will be found useful in part-time general continuation class work. The instruction should deal with live problems of interest to the students enrolled. Pupils should be organized in groups wherever possible according to capacity, present educational attainment, employment and the vocational aims of the individual pupils. Because of the diversities of ability and schooling it will be found unwise to carry the classification or grouping of pupils too far. At the same time it is necessary to arrive at some grouping of students on the basis of factors indicated above.

The teacher should not be held responsible for more than 100 different pupils in general continuation classes. Effective teaching of the adolescent involves an appeal to the interest; the utilization of the pupil's experience, knowledge of the individuality of youth and an appreciation of the "gang spirit." A heavier schedule of class room work precludes the possibility of effective follow-up work by the teacher which is considered a necessary and important part of the continuation school teacher's program. Each teacher must work

- out his own program, modifying it to meet the occupational needs of his class and adapt it to the individual needs of the pupils.
- g. The minimum term is 144 hours per year and the maximum is 49 percent of the working day prorated as explained under trade preparatory work. The same flexibility of time distribution between days, weeks and months of the year as previously stated applies to this class.
- h. General continuation school teachers may be divided into two general types—the vocational teacher of subjects given to enlarge civic and vocational intelligence and the teacher of general education subjects.
 - (1) The vocational teacher should have occupational experience equivalent to those set up for trade preparatory and trade extension part-time teachers.
 - (2) The qualifications of teachers of general education subjects may be the same as those required of secondary school teachers by the Colorado State Department of Education, plus the completion of approved teacher-training courses designed to prepare teachers of part-time schools. In all cases the educational experience of the instructor should be supplemented by practical experience in industry or commercial establishment. Permanent certification will not be granted until a parttime teacher has proven his or her efficiency in this work. Required courses of study for part-time teachers will include occupational analysis, community surveys, analysis of part-time educational problems, objectives in part-time education, vocational guidance and placement problems, coordination responsibilities and special methods of teaching part-time classes.
- 4. Cooperative Occupational Classes.
 - a. The controlling purpose shall be to enlarge the civic and vocational intelligence of workers over 14 years of age who are regularly employ-

ed in divers occupations in smaller cities and towns by providing vocational training of a preparatory type, in various local occupations through cooperation between the schools and local employers.

- b. The minimum age of pupils shall be 14 years.
- c. A satisfactory classroom equipped with tables, chairs, blackboards, and supplementary teaching material will be provided. Where occupational instruction is to be given in the school, equipment similar to that used in the occupations will be provided.
- d. Character and content of course of study.
 - (1) One school period per day, equal in length to other regular school periods, will be provided for the group of pupils who are enrolled in this type of work. These pupils will be handled in a segregated class with the coodinator in charge. The work given to the members of this group will be such as will help to prepare them for employment and may include instruction in industrial relations and problems of employment, occupational instruction given to individuals or to occupational groups, supervised occupational study, and individual conferences.
 - (2) In addition to the one period each day given to the segregated group, occupational instruction equivalent to at least one regular school period per day will be provided for each pupil. This instruction, to be arranged for by the coordinator, will be provided through special segregated classes, through available high school classes, or on the job.
 - (3) For each student an outline or analysis of his present and future needs for occupational training will be prepared by the coordinator, working with the employer, and this will be used as the basis for the training to be given.

(4) An agreement, before the pupils enter the class, will be made whereby the employer agrees to make the work educational as far as possible under the conditions of employment.

e. Methods of instruction.

All instruction must be suited to the needs of workers over 14 years of age. Since workers from a variety of occupations will be enrolled, the instruction will be very largely on an individual basis. The coordinator will have available at least two regular school periods each day which will be used in coordinating school instruction to employment. The information thus secured will be used in adjusting the instruction given to the working needs of the pupils.

- f. Minimum time of classroom instruction.

 Not less than one regular school period each school day and not less than 144 hours per year.
- g. Division of time between school and employment.
 - (1) The pupils will be legally employed for at least 20 hours per week throughout the school year.
 - (2) The time at work will equal or exceed the time in clock hours per week devoted to school instruction throughout the year. A student who spends more time in school during the school year than he spends actually at work under regular employment conditions can not be considered a part-time student.
 - (3) The arrangement of time schedule under this cooperative plan of half time in school and half time in employment will be a half day in school, followed or preceded by a half day in employment.
- h. Kind of employment.

 This may be regular employment in any occu-

pation which offers an opportunity for advance ment and possibilities for training.

i. Qualifications of teachers.

- Coordinators will meet qualifications similar to those set up for shop teachers of part-time trade extension or trade preparatory classes, except that a variety of occupational experience may be substituted for the trade experience required of such teachers.
- (2) The teacher of segregated classes, when he is other than the coordinator, will meet the qualifications of the State plan for part-time teachers of the specific subjects taught.

j. Plan of coordination.

A coordinator will be employed throughout the school year who shall have available, free from other school duties, at least three regular school periods each day for work with pupils enrolled under this plan. Of these periods, one each day will be given to instruction, in a segregated class composed of these students, and at least two each day will be given to the duties of coordinating school instruction to employment. The work of coordination will include visits to place of employment and to the homes of pupils, conferences with parents, employers, and teachers, and the keeping of records and reports of the pupils employed under this plan. Where the number of pupils employed is more than 30 the time given to coordination will be increased.

k. Distribution of coordinator's time.

In schools were the number of pupils enrolled under this plan is not more than 30 the time of the coordinator will be distributed approximately as follows:

- (1) Teaching regular high school classes—one-half of school day.
- (2) Teaching segregated class which includes

all part-time pupils enrolled under this plan—4 hours per week.

- (3) Office records and reports—2 hours per week.
- (4) Visiting places of employment and consulting with employers—8 hours per week.
- (5) Conferences with other teachers, planning outlines of occupational study, and conferences with pupils—6 hours per week.

The duties listed above will require one hour of time beyond the usual length of school day. In determining reimbursement this additional time will be considered as a part of the school day for the coordinator.

- 1. Teachers for whom reimbursement will be asked.
 - (1) Coordinators who devote at least two regular school periods per day to the duties of coordinating school instruction to employment and who, in addition, teach in a segregated class for one period per day, all pupils enrolled under this plan.
 - (2) Teachers or other segregated classes, arranged for by the coordinator and organized to give training for the specific occupations of part-time pupils enrolled under this plan.

F. Day Unit Trade Schools or Classes—

The controlling purpose of the unit trade school is to prepare the individual for effective entrance into a particular trade or industrial pursuit. Work designed to fit individuals for a particular trade or industrial pursuit implies that selection of a specific vocation has been made by the pupil. Such work cannot be given to persons who have not made a choice of a vocation or trade. A course in plumbing has value only for pupils who have elected plumbing as a trade and in which they propose to earn a livelihood. It should be noted that this sort of education is not intended for backward, deficient, incorrigible or otherwise subnormal individuals. education commands the best efforts of normal boys and girls. Experience indicates that pupils failing to make normal progress in regular school work

rarely do satisfactory work in industrial classes. Ability to do the work of the unit trade class should be the determination test after admission and a probationary period of attendance will commonly be required to determine those students who are capable of carrying on the work.

- 2. Day unit preparatory trade schools or classes shall be designed to meet the needs of persons over 14 years of age who are preparing for a trade or industrial pursuit.
- 3. Required or Minimum Plant and Equipment—
 The plant and equipment for a unit trade school requires careful selection, space for installation, and ample funds for purchase of supplies to enable the work to be put on a production basis. The State Board will assure itself that plant and equipment are adequate before granting subsidy to any trade preparatory school. Experience indicates that three types of buildings are suitable:

New buildings especially designed for trade and industrial education.

Old school buildings converted or adapted to vocational school requirements.

Unoccupied factory buildings.

The equipment in nearly all trades must duplicate the commercial equipment of the trade being taught. Absolute compliance with every provision of the industrial laws relating to safety and equipment must be made. Before installing special equipment the local communities should ascertain the views of both employers and employees concerning what is adequate for the particular trade, what particular machines should be used, their method of installation and the proper housing of the equipment.

Such general equipment as books and apparatus necessary for teachers of related science, charts. blackboards and desks may be provided.

Minimum for Maintenance:

It is impossible to specify a minimum maintenance standard for unit trade classes in all communities.

Salaries paid to regular elementary or second-

ary school teachers cannot be taken as a standard upon which to base a schedule for teachers in unit trade schools. Invariably trade teachers must be paid a higher salary. This is due to the fact that there is competition with industry and only a limited number of individuals possess the trade standing to qualify as teachers in a trade school and these individuals are usually on a high salaried schedule. The responsibilities and duties that must be assumed by the trade teacher exceed in amount and importance, the duties of the secondary school teacher which in itself is justification for the salaries paid. Thru the use of Federal and State funds, however, the burden of high salary cost is in part lifted from the local community, making possible higher salary schedules.

Other forms of maintenance will include machinery and equipment upkeep or maintenance, supplies which must be provided in quantities, power, heat and light. To compensate for the relatively high cost of maintenance in comparison with manual training shop work, it is pointed out that the total cost and net cost are very different things and that the funds obtained by the sale of products manufactured in the trade school must be credited in determining the net cost, while the prime purpose is to give instruction and the making of the saleable product is secondary it is nevertheless true that some day trade schools are so efficient that maintenance is provided from the sale of the productive products that are turned out. This is particularly true of certain trades such as the trade school of printing where all school printing may be done, a trade school of carpentry where houses are built each year and sold with enough profit to provide for the maintenance of the school, and trade schools of machine shop practice where tools, automobile parts and other equipment is manufactured and sold either thru jobbing houses or at retail to provide maintenance for the school.

5. Both Federal and State Acts require that a specified proportion of the instructing time in day schools shall be devoted to practical work. Experience during the past fifteen years has demonstrated that the minimum standards of instruction set up in these acts have been none too high. Many efficient trade schools exceed in time requirements the minimum prescribed in this plan. These minimum requirements follow:

At least one-half of the time to practical work on a useful or productive basis.

From 30 to 35 percent of the time to related studies, such as mathematics, drawing or science.

The remainder of the time, 15 to 20 percent. to such subjects as English, civics, hygiene and history.

In formulating a course for any unit trade or industrial school which is to receive subsidy, the local community must regard the conditions set up in Federal and State acts, namely: That the course shall be one intended for persons 14 years of age or over who are preparing to enter upon a particular trade or industrial pursuit and that the work shall be of less than college grade; that one-half the time shall be given to work on a useful or productive basis and that provisions shall be made for instruction that is supplemental to shop work and for subjects which go to make up a well-rounded course of study. The State Board wishes to leave to local authorities the greatest possible latitude as to the division of time but it firmly believes that a larger percentage than 50 percent of the school day should be given to shop work. A type unit trade course in auto mechanics follow:

Removing, cleaning and replacing of front wheels
Adjusting brakes
Removing engine from frame
Cleaning the engine
Testing the cylinder compression
Inspection of crank case
Cleaning carbon from engine
Lapping the cylinders
Repairing of cracked water jacket
Inspection of crank shaft
Fitting crank shaft and connecting rod bearings

Straightening a crank shaft Adjusting connecting rods Inspecting connecting rods Removing and fitting piston rings Replacing piston pins Inspection of valves and push rods Adjusting valves Grinding valves Replacing valves Timing valves Fitting valve guides Straightening valve stem Curing excess lubrication Cleaning oil and gasoline tubes Inspection of cooling system Fitting gaskets Adjusting and fitting fan and fan belt Testing a repair job Trouble shooting

Any trade course is expected to conform to the requirements of the act, namely, that the work be conducted on a production basis. It is impossible therefore, in a course of study to outline in detail all of the production problems that will come to a school shop. They will be the same as the problems confronting any commercial shop and the above practical outline is only suggestive of the type of work that must be covered. A related science course in automotive electricity follows:

Unit I. Starting and Lighting Systems

Principles of generation
Parts of the generator
Alternating and direct current
Series-wound generator
Shunt-wound generator
Compound-wound generator
Regulating the charging rate
The third brush system
Thermostat control
Single unit systems

Unit II. Lighting Systems

One-wire type

Two-wire type
Lighting switch
Fuses
Lamps
Lamp bulbs
Dimming
Spot lights

Unit III. Ignition

Ignition systems
Primary circuits
Secondary circuits
Spark coils
Safety spark gap
Condensers
Distributors
Timers
Automatic spark control
Ignition timing

Unit IV. Automobile Batteries

Dry cells
Lead-acid storage batteries
Separators
Battery jars
Electrolyte
Cell arrangement
Chemical action in lead-acid storage
Electrochemical reaction
Chemical symbols
The Nickel-Iron or Edison battery
Recharging batteries
Motor generating sets

Unit V. Electricity as Applied to the Automobile

Magnetic lines of force Laws of magnetism Principles of electricity Ohm's law Electric circuits Watts Resistance Voltage consumption Electromagnetism Ammeter Volmeter Voltage tests Polarity of circuits, and so forth

The electric units might be set up as one or two years work in related science for those enrolled in auto trade classes. Gases and the gas engine, lubrication, cooling systems, and mechanics might be set up as additional units of the related science course.

- 6. The methods of instruction should provide a sequence of experiences which will enable the pupil to acquire as rapidly as possible manual skill and dexterity in the various operations of the trade plus thinking ability along the line of the industrial pursuit for which he is preparing. The following principles must be followed:
 - All instruction must deal with practical production experiences.
 - Instruction should proceed from the concrete to the abstract.
 - The work should be organized on a progressive training basis. Job analysis used with correct methods of instruction will determine the order of experiences so that the progressive development of the pupil will be assured.
 - All mechanical methods must be based on standard practices used in the particular trade or industrial pursuit being taught.
 - Graphs, charts, diagrams, lantern slides, commercial catalogs and current trade literature should be provided for related instruction in the class rooms.
 - Visits to commercial shops and reports on such visits should be required.
- 7. Not less than 15 clock hours, or 60 minutes each a week must be set aside for practical work. The 15 hours of practical shop work may be given for 3 hours a day, 6 hours a day on alternate days or by any other distribution of time suitable to a school

district proposing to establish a day trade class. This time standard is not optional but is a mandatory requirement of both Federal and State laws. Generally where a trade or industrial pursuit is of such character that the related theoretical work can be given in the shop it is advisable to lengthen the time required for shop work; 30 to 35 percent of the school day must be devoted to related subject instruction, such as mathematics, science or plan reading and sketching.

The guiding principle in unit-trade school organization may be stated as follows: "If the school is to instruct boys efficiently in the principles of shop organization and management it must duplicate actual shop organization using the individual method of production only where it is used in industry and the group method where it is commonly used."

8. Instruction must extend over a minimum period of 9 months per year. Several day industrial schools are organized for 44 weeks of instruction. While a 9 month or 36 week school year is established as a minimum, more than that time may be given by any school. At times it is highly desirable to organize summer work for trade classes. This is of value in assisting the students to make contact with industrial life outside of the school shop. Experience indicates that a longer school day than is required for the regular secondary school is essential for an industrial school. The State Board wishes to call to the attention of the local communities the possibilities of a lengthened school day.

Since the pupils are preparing to enter a trade the hours they give to work in the schools should approach the hours they will be required to give to work in a trade.

Home study methods and assigned lessons cannot be used to advantage in trade schools. The school work requires the presence of an instructor in order that it may be carried on effectively, hence there is little opportunity or need for home study but there is need for a maximum amount of time in laboratory or shop work. In practice a majority of

our secondary schools have adopted a six-nour day for five days a week. For this reason the requirement of 3 hours per day is the minimum standard fixed by law.

It is possible, however, to have a school organized for six days a week, five hours each day, or for four days a week of seven and one-half hours a day. The minimum time requirements then are as follows: Three hours (of 60 minutes each) must be devoted to shop work on a practical and productive basis. From 30 to 35 percent of the school day (assuming a six-hour (60 minutes each) school day) must be devoted to related subject work. From 15 to 25 prcent of the time may be devoted to general education subjects. The shop instruction covers 30 hours per week and must extend over not less than nine months per year.

10. Qualifications of Teachers—

a. Shop Teachers:

Not less than five years of successful trade experience will be required of all shop teachers. Mechanical skill and ability to use technical knowledge in a practical way will also be required. In addition to the trade experience and mechanical ability, 70 clock hours or four semester credits of professional training including: Special methods of teaching trade and industrial education, job analysis, vocational guidance and placement problems and philosophy of vocational education will be required of all unit trade school teachers. In order to give the local communities the greatest latitude in recruiting desirable teachers temporary certificates may be issued authorizing a well qualified individual to teach before completing the instructor-training course. A temporary certificate is good for one year only and all instructors proposing to continue in the teaching profession will be required to complete the instructor-training courses prescribed above. A certificate to teach trade and industrial subjects will be issued by the State Board for Vocational Education to all unit trade school

teachers completing the required course of study. All newly employed teachers should register with the State Board for Vocational Education as soon as employed by the local school board.

b. Related Subjects Teachers:

Related subjects teachers must have had not less than three years experience in a trade or industrial pursuit plus the minimum professional training named for unit trade shop teachers. It is essential that related subject teachers have a thorough grasp of the subject to be taught with its application to the trade to which the subject is related. Related subject teachers must be certificated by the State Board for Vocational Education, if subsidy is expected for the work done. The State Board is anxious to have unit trade teachers as thoroughly qualified as possible. Therefore, the minimum training requirements and the certification plan have been established.

c. Non-Vocational Subjects Teachers:

Since the local school districts are required to bear the entire salary expense of non-vocational subjects teachers, the State Board does not attempt to fix standards. In such cases it will approve the standard established by the local school district or by the state department of public instruction for non-vocational teachers. The State Board urges teachers of non-vocational subjects to secure sufficient contact with industrial and business activities to give them an appreciation of the conditions and problems of industry and a layman's knowledge of the more common industrial methods and processes. As a rule teachers who have had the most successful experiences in the regular secondary schools will prove successful as teachers of vocational classes dealing with non-vocational subjects. Ordinarily the State Board will not certificate trade and industrial teachers who are under 25 years or over 45 years of age at the time of employment. It reserves the right to approve or

disapprove a teacher on its judgment based upon trade qualifications, education, and upon the more indefinite qualifications, among which may be mentioned age, character, attitude toward work, liking for young people, and personality.

- G. General Industrial Schools for Cities and Towns of Less than 25,000 Population—
 - The controlling purpose of the general industrial school shall be to fit for useful employment within a group of related trades. Among such trade groups may be mentioned the metal trades, building trades, mine mechanical occupations and the printing trades. Within the metal trades there are such wellorganized subdivisions as the machinists. smiths and welders. Among the building trades are plumbing, steam fitting and sheet metal or electric wiring and carpentry, or brick laying and concrete work, or painting, decorating and paperhanging. In many smaller communities having a predominant industry, unit trade classes will best meet the industrial education needs, but in order to meet the particular needs of the small cities and towns where it is not of advantage to organize unit trade schools because of employment conditions the general industrial school is suggested. The same consideration must be given to the supply and demand of labor in deciding upon the establishment of schools or classes as would be given in the organization of any trade school and the trades must be taught in small related groups as suggested above.
 - 2. The age requirement for the general industrial school is identical with that for the unit trade school, the minimum age of entrance being 14 years with no specific upper age limit.
 - 3. All that has been said regarding buildings for the unit trade school should be carefully read by those contemplating the establishment of general industrial schools. While the unit trade school is thoroughly equipped for a specific trade, the general industrial school must provide a variety of equipment based on the mechanical occupations of the community.
 - 4. Maintenance must be adequate to carry on the necessary activities to fulfill the purposes of the

school. The State Board will assure itself that maintenance is adequate before it certifies the school for

approval.

The course of study for a general industrial school will be built up on the same procedure that is used in shaping a course of study for a unit trade school, that is, the occupations which the school will serve must be grouped and analyzed and the courses set up on a basis of such analyses. The classes will be made up of students who have decided to enter industrial work and have made their choice within the group of occupations in which the school gives instruction. In measuring the effectiveness of general industrial schools, the State Board will be guided by:

The age of the pupil.

Whether or not the students have determined upon a vocation that they expect to pursue.

Extent to which the course of study is taken from the activities of the selected group of occupations and is taught as practiced in industry.

Whether or not the course is of such a nature as to guarantee advantageous entrance into the vocation selected.

After the school has been organized for several years its success will be measured by the number of persons completing the course who have actually entered upon industrial occupations for which they were prepared.

TYPE COURSE OF STUDY FOR GENERAL INDUSTRIAL SCHOOL IN MINING MECHANICS FOR COAL-MINE COMMUNITIES

Shop Work

Making repair parts for mine cars, including bearings, parts of running gear, etc.

Splicing ropes

Splicing cables

Making trolley wheels and small parts for electric locomotives

Repairing mine motors

Making small repair parts for mining machines

Key cutting Tempering tools Acetylene welding Babbitting bearings Repairing pumps Pipe work

Related Subjects Work

Mechanics First aid State mining laws Mine gases Mine fires Mining methods Haulage Coal and its uses Safety lamps Elementary geology Map reading Assaying

Mine timbering

It is a well-known fact that the machinists, electricians, blacksmiths and those employed on other mechanical trades in and around the mines are "all around" men and not specialists like the mechanics in specialized manufacturing plants. In large mining communities there is need for well-trained mine mechanics. The advantages of such schools are many. Production work can be carried on thus giving the student a measure of job ability. The class will be made up of a higher average grade of students than are generally employed around the mines. Higher standards of workmanship can be attained. Such schools can be organized in strategic centers and can meet the demands of the number of smaller mining properties. In communities where mining is the only occupation open to the boys, it would seem that a two-year course covering the junior and senior years of the high school could be established to advantage.

- 6. The methods of instruction will be the same as those recommended for unit trade schools. It may be necessary to vary the method to some extent since some pupils of the general industrial school may be grouped around one division of the trade while other groups will be engaged in different work. In such cases the instructor will be required to divide his time between the different groups. All work, however, should be planned on a project basis and the problems relating to the several specific trades should be dealt with.
- 7. At least 60 percent of a five-hour school day and 66 2-3 percent of a six-hour school day must be devoted to practical shop work on a useful and productive basis. The related subjects instruction in a general industrial school may be taught by the shop teacher incidental to the shop instruction and without any formal organization of related subject classes.
- 8. The instruction will extend over a period of nine months per year. The minimum time requirements for the five and six-hour school days follow:
 - a. Three clock hours per day for shop and related subjects in general industrial schools where

the program is organized on the basis of a fivehour school day.

b. Four clock hours per day of shop and related subjects work where the program is based on a six-hour school day.

The State Board believes that it would be of advantage to have at least a minimum six-hour school day even in smaller communities.

General industrial school teachers must possess the same qualifications as have been set up for unit trade school teachers, except that a teacher may have had extended experience in one of the trades (not less than five years) and in addition intimate contact with the others that are to be taught. In addition to the practical experience the required professional training will include methods of teaching industrial subjects, trade analysis, instructional management and philosophy of vocational education. As in the case with unit trade teachers, general industrial school teachers may be temporarily certified to teach for one year in an approved school. Following this they will be required to complete the necessary professional training prescribed for unit trade teachers in order to receive a permanent certificate to teach approved trade and industrial classes.

H. Teacher-Training

- 1. Forty per cent of the maximum amount of teacher-training money available for supervision will be budgeted to the supervision of trade and industrial education, and 33½ per cent of the minimum amount available for teacher-training purposes will be devoted to organized teacher-training.
- 2. One third of the teacher training fund allotted by the State Board for the preparation of teachers in agricultural, trade and industrial, and home economics education will be used for the training of trade and industrial teachers, including salaries of teacher trainers, clerical service, communications, printing and supplies, and for travel when authorized by the State Board for Vocational Education.
 - (a) State Supervisors will give particular attention

to the professional improvement of teachers in service as they regularly visit vocational schools.

(b) The Colorado Agricultural College, located at Fort Collins, is the designated institution for the training of trade and industrial teachers.

(c) Local Boards of Education-

The following plan of supervision is proposed for all cities of the state with a population of 15,000 or more where there is a definite need for local supervision and teacher-training service.

I. General Plan:

- 1. The board of education of school district No.____in the city and county of _____will create a department of vocational education of the_____public schools, and will employ a director of vocational education to supervise and direct all vocational education activities meeting the requirements of the Colorado State Plan for Vocational Education.
- 2. The board of education of district No.

 ----will appoint the director of vocational education, subject to approval of the State Board for Vocational Education. Such approval to be on the condition that Sections II and III of this agreement are complied with.
- 3. The State Board for Vocational Education will reimburse school district No._____ of the city and county of ______ to the extent of 50 per cent of the salary of the director for the time devoted to teacher-training and promotional duties listed under II-1-a and c, of this plan. The maximum reimbursement allowed to any school district to be \$2,500.00.

II. Duties of the Local Director:

The director will devote 75 per cent of his time to professional preparation and professional improvement teachers in service, 10 per cent of his time to administrative and 15 per cent of his time to promotional problems. (By professional improvement of teachers in service is meant informal specialized help and assistance to the individual teachers on points where they are having difficulty, particularly as they affect the teaching efficiency. This means that the local director must spend a considerable portion of his time in the classroom with the individual teacher and must make helpful suggestions as the need may indicate. It is also true that much valuable professional improvement work with teachers in service may be rendered thru group training conferences; such conference work refers to the meeting of the teachers with a director, where a certain teaching problem common to all is discussed freely by all present in order to arrive at a common agreement or decision.)

a. Teacher Training—

The teacher-training activities will constitute the major portion of the local director's work and particular attention shall be given to the professional improvement of teachers in service. The inspection activities under this plan shall be primarily for the purpose of discovering those points in which teachers are weak and need help. Other teacher-training duties will include selecting and training teachers for new classes i n professional preparatory groups or on the job, transferring teachers and training them in their new duties, and recommending teachers for employment or dismissal with a view of improving the teaching efficiency.

b. Administrative Duties—

The administrative duties will include school organization problems, selection and maintenance of equipment, recommending teachers for employment and maintaining adequate record and reporting systems of the work of the department.

c. Promotional Duties-

The promotional duties shall be devoted to the establishment of additional vocational classes in the field of part-time, evening and day vocational schools.

3. The director of vocational education will be responsible directly to the superintendent of schools and all his duties will be discharged as an assistant, to the superintendent of schools, in charge of vocational education.

III. Qualifications of Local Director:

1. Experience—

a. Trade:

At least five years of successful experience as a wage earner in a trade or industrial occupation.

- b. At least two years of successful experience as a teacher of approved vocational classes that meet the standard of the State Plan.
- c. At least two years of successful experience as a director or supervisor of industrial education.

2. Education—

a. Professional:

The equivalent of 180 clock hours in approved educational subjects under a qualified teacher-trainer, including:

- (1) Supervision and administration of trade and industrial schools.
- (2) Making and utilization of trade and job analyses for training trade teachers and organization of content for trade courses.
- (3) Methods of training trade teachers.

b. General:

The State Board believes that the foregoing experiences and special training are necessary and essential qualifications. In addition the local directors should have a bachelor of science degree in industrial education, plus 15 hours of graduate work in the field of supervision and administration of industrial education.

- 2. Qualifications of teacher-trainers must be the same as the qualifications of the state supervisor of trade and industrial education as listed on page 31 B-1-a.
- 3. Teacher-training courses to be offered by the State Board, the Colorado Agricultural College or the designated local school districts.

a. Shop Teachers:

(1) Entrance requirements include high school graduation or its equivalent. Not less than five years experience in a trade or industrial occupation which the instructor proposes to teach, and satisfactory personal qualifications including character,

attitude toward work, personality, prestige among fellow workers and teaching ability.

(2) Length of Course:

- (a) Seventy-two clock hours or four semester credits for completion of course leading to temporary certification by State Board for Vocational Education, or
- (b) A four-year course or total of 160 semester credits leading to the bachelor of science degree from the Colorado Agricultural College and a permanent teaching certificate.

(3) Plan of Training:

- (a) Resident courses will be offered in the summer session of the Colorado Agricultural College. They may be offered during the regular college year at any time a group of properly qualified prospective teachers want this service.
- (b) Extension courses will be offered by the teacher trainer of industrial education in the different centers of the state where there is a demand or need for this work.
- (c) Itinerant teacher training will be carried on by the state supervisor and by designated local directors of vocational education. Particular attention will be given to the professional improvement of teachers in service in an informal way when inspecting classes.
- (d) Methods of teaching, job analysis, occupational studies or similar subjects may be offered at any time either on the campus of the Colorado Agricultural College or in various centers thruout the state where trade and industrial education is being carried on,

whenever there is a recognized need or request for short unit courses.

(4) Teacher Training Courses—

- (a) Seventy clock hours or four semester credits of professional training, including special methods of teaching trade and industrial subjects, job analysis, and philosophy of vocational education, will be required of all trade preparatory and trade extension teachers. The completion of these subjects whether carried on by the Colorado Agricultural College or under designated local directors of vocational education will entitle the trade teacher to a certificate from the State Board for Vocational Education.
- (b) A complete course of study for those desiring the Bachelor of Education Degree in industrial education follows:

UNDERGRADUATE WORK LEADING TOWARD THE DEGREE OF BACHELOR OF EDUCATION WITH A MAJOR IN INDUSTRIAL EDUCATION.

Persons who have had or are willing to acquire a minimum of five years experience in trade or industrial occupations who desire to secure a degree with a major in industrial education may begin their work after completing the work (or equivalent work) regularly required in the Junior year.

Students coming with credits from other colleges or universities or with verified trade experience may have equivalent preparation or experience accepted in lieu of the courses, including major and minor work required at the Colorado Agricultural College, and may be permitted to do other work instead.

For graduation the student must complete 160 semester hours 40 of which must be in residence.

CURRICIALM FOR TRADE AND INDUSTRIAL STADENTS LEADING TO THE BACHELOR'S DEGREE

Required Courses in General College Subjects			
Credits	Credits		
English 4	General Education 4		
Mathematics 4	(Psychology, History of Edu-		
Social Science 4	cation, Principles of Education,		
Science 1	Philosophy of Education)		

Candidates for degrees who already hold sufficient credits in any of these subjects may be excused from further work in them. It is expected that every student select each year at least one course from the above group.

JUNIOR YEAR

(Required Subjects)

	(Itequirea	Bubjects	,		
Ed 78	Trade and Industrial Analysis of Excess Asset Content	*Ed 86	Selection of Procedures, Methods and Devices Analysis of Learning	60	
Ed 79	Conference Process 2	Ed 81	Difficulties	2	
Ed 80	Job Analysis 2	Ed 90	Analysis of Teaching		
*Ed 81	Instructing Process 2		Responsibilities	2	
Ed 82	Analysis of Tech-		1100poile		
Ed 85	nical Content	*Ed108	Related Subjects Philosophy of Voc. Ed	2	
RECOMMENDED ELECTIVES					
	Trade and Industrial	Ed101	Principles of Secondary		
Ed 88	Financial Accounting		Education		
	in School Shop 2	*Ed103	History of Modern Ed	2	
Ed182	Org. for Individual In-	*Ed105	General Ed. Psychology	2	
	struction and Progression, 2	Ed106	Experimental Ed. Psy-		
Ed 99	Student Records and		chology	2	
	Reports 2	Ed187	Human-Relations Prob-		
Ed177	Objectives in Continu-	E20124			
110111	ation Education 2		lems in Voc. Ed.		
Ed184		Ed191	Develop, of Voc. Ed.		
Eulot			in U. S	2	
	time Education 2	Ed204	Objectives in Education		
	Related Subjects	ES 1	Elementary Economics		
Shon	Subjects10		Safety and First Aid		
ыюр	Bubjects	ES 55	Elementary Sociology		
	Related Subjects	Ph 15	Applied Physics		
*Ed 10		1 11 10	Trade History		
SENIOR YEAR (Required Subjects)					
)		
	(Required)		
) Credit	s	
Ed 77	(Required		Credit Vocational Placement and		
Ed 77 Ed 84	(Required Trade and Industrial Credits	Subjects	Credit Vocational Placement and		
	(Required Trade and Industrial Credits Securing Production Work, 2	Subjects	Credit Vocational Placement and Adjustment	2	
	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the	Subjects Ed 97 Ed185	Credit Vocational Placement and Adjustment Training in Industry	2	
Ed 84	(Required Trade and Industrial Credits Securing Production Work, 2 Special Problems of the Part-time School Teacher, 2 Seminar for Trade	Subjects Ed 97	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in	2 2	
Ed 84 Ed 91	(Required Trade and Industrial Credits Securing Production Work, 2 Special Problems of the Part-time School Teacher, 2 Seminar for Trade Teachers, 2	Subjects Ed 97 Ed185	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education	2 2	
Ed 84 Ed 91 Ed 92	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects	2 2	
Ed 84 Ed 91	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Subjects Ed 97 Ed185	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization	2 2 2	
Ed 84 Ed 91 Ed 92	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers 2 Shop Management 2 Problems in Apprentice Training 2 Securing and Installing	Ed 97 Ed185 Ed193	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers 2 Shop Management 2 Problems in Apprentice Training 2 Securing and Installing	Ed 97 Ed185 Ed193 IA 101 EH 79	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S.	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC	Credit Vocational Placement and Adjustment	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94	(Required Trade and Industrial Credits Securing Production Work, 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79	Credit Vocational Placement and Adjustment	2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1.	2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers . 2 Shop Management . 2 Problems in Apprentice Training . 2 Securing and Installing Equipment . 2 RECOMMENDE Trade and Industrial Organization of Day Trade Schools . 2	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools	2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC	Credit Vocational Placement and Adjustment	2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers . 2 Shop Management . 2 Problems in Apprentice Training . 2 Securing and Installing Equipment . 2 RECOMMENDE Trade and Industrial Organization of Day Trade Schools . 2	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools	2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188	Credit Vocational Placement and Adjustment	2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96 Ed 96	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools Administration of T. & I. Evening Classes Shop Practice Courses1	2 2 2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 84 Ed 83 Ed 96 Ed102 Ed103	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188 Ed189	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools Administration of T. & I. Evening Classes Shop Practice Courses 1 Public Speaking	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96 Ed102 Ed103 Ed176	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188 Ed189	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools Administration of T. & I. Evening Classes Shop Practice Courses1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96 Ed102 Ed103 Ed176 Ed181	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188 Ed189	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools Administration of T. & I. Evening Classes Shop Practice Courses 1 Public Speaking Rel. Science Curri-	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Ed 84 Ed 91 Ed 92 Ed 93 Ed 94 Ed 83 Ed 96 Ed102 Ed103 Ed176	(Required Trade and Industrial Credits Securing Production Work. 2 Special Problems of the Part-time School Teacher . 2 Seminar for Trade Teachers	Ed 97 Ed185 Ed193 IA 101 EH 79 D ELEC Ed188 Ed189	Credit Vocational Placement and Adjustment Training in Industry Personnel Problems in Vocational Education Related Subjects Principles of Industrial Organization Industrial History of U. S. TIVES Financial Org. and Management of T. & 1. Schools Administration of T. & I. Evening Classes Shop Practice Courses Public Speaking Report Writing	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

culum Studies	2		Studies		2
Rel. Drawing Curri-		ES111	Industrial	Economics	2
culum Studies	2	ES184	Industrial	Sociology	2
Rel. Math. Curriculum		M 3	Slide Rul-	e	2

* Courses marked (*) are recommended to the student interested in receiving a Colorado State Teacher's Certificate. Experience in teaching (three years or more) may be accepted in lieu of practice teaching.

In addition to the subjects listed, a prospective instructor may take the technical work offered by any department of the college, provided he has the necessary prerequisites. In all cases, the technical work selected should relate to the trade which the student proposes to teach.

- (5) Provisions for observation and practice teaching are amply covered in the course entitled "Selection of Procedures, Methods and Devices." This is an experimental teaching course operated on the conference plan. Successful completion of the course guarantees that the instructor knows and can use the correct teaching methods for a given instructing job.
- (6) Graduation requirements are listed under 3-a (1) and (4) above.
- (7) Relation to Certification—

A certificate to teach trade and industrial shop subjects will be issued to all teachers successfully completing the course of study listed under 3-a-(2)-(a). If, in addition, the instructor desires a college degree and a certificate from the state department of education he must complete the course outlined under 3-a-(2)-(b). The state board realizes that it will often be necessary to employ shop instructors before they have had the opportunity to secure professional training and for this reason a temporary certificate will be issued to instructors as soon as they register with and are approved by the State Board for Vocational Education. A temporary certificate is good for one year only and all instructors proposing to continue in the teaching profession will be required to complete the instructor fraining course prescribed under H-3-a-(4)-(a) of this outline.

b. Related Subjects Teachers—

- (1) Related subjects teachers must comply with the requirements listed for shop teachers under 3-a above.
- c. General Continuation Part-time School Teachers:
 - (1) Entrance requirements for general parttime continuation school teachers.
 - (a) Mastery of the subject matter or content of instruction whether mechanical or technical.
 - (b) Enough experience as a wage earner to give an understanding and appreciation of the problems which confront working children.
 - (c) Understanding of fundamental social and economic principles underlying the institutions of our society.
 - (d) A thorough understanding of boys and girls with a desire to help them meet their problems.
 - (e) The usual personal standards required of all public school teachers.

(2) Length of Course—

(a) One year of 12 semester hours credit.

(3) Plan for giving training—

Courses for general continuation school teachers will be offered at the summer session of the Colorado Agricultural College and by designated local directors of vocational education. All instruction will be offered in short unit courses.

(4) Courses of Study—

Unit L

Aims, purposes, and problems of part-time education, 15 hours, giving one semester hour of credit.

Unit II.

Analysis of continuation school problems, 30 hours, two semester hours of credit.

Unit III.

Occupational analysis and organization of instructional material suited to selected aims and training objectives in the part-time school, 30 hours, giving two semester hours of credit.

Unit IV.

Methods of teaching and instructional management as applied to parttime school teaching, 30 hours two semester hours of credit.

Unit V.

Vocational, social, moral and educational guidance including occupational placement in the part-time school, 30 hours two semester hours of credit.

Unit VI.

Coordination activities of the parttime teacher and coordinator, 15 hours, one semester hour of credit.

Unit VII.

Community surveys—30 hours, two semester hours credit.

- (5) Observation and practice teaching is covered in the course entitled "Methods of teaching and instructional management with special adaption to part-time school problems."
- (6) Persons completing the courses named above and meeting the entrance requirements listed under C-(1) will be granted a certificate by the State Board for Vocational Education.
- (7) Continuation school teachers desiring to

qualify for the state teaching certificate must pursue the four year standard college course and must have included in their college work 20 college semester hours of education distributed among at least three of the following groups of subjects, four hours of which shall be practice teaching and special methods of teaching part-time education.

Educational psychology
Principles of education
History of education
Administration and supervision
Practice teaching
Special methods
Philosophy, sociology, biology, and so forth.

- d. Teachers of commercial subjects in general continuation schools. The course of study for teachers of commercial subjects in general continuation schools will be the same as is listed for general continuation part-time school teachers; continuation school teachers of commercial subjects must have had a minimum of five years of successful experience in the particular commercial subject that they are employed to teach.
- 4. The State Supervisor of Industrial Education will be responsible for the supervision of all trade and industrial teacher training classes, for which state or federal aid is to be used.
- 5. Leaders of foremanship conferences will be trained thru special unit courses that may be organized as the work demands. This course includes a study of conference planning, preparation and distribution of informational material and the relation of instruction to conference work.
- 6. Research and investigation activities of the State Board for Vocational Education, the Colorado Agricultural College, or designated local teacher-training districts, will be limited to the furtherance of the industrial education or teacher-training programs.

The State Board interprets the important and legitimate purpose for which research may be carried on to the following:

- (a) Methods of coordinating the industrial education program with industry.
- (b) Methods of procedure by which teachers may secure functioning subject matter for courses of study.
- (c) Methods of securing information pertaining to employment opportunities and employment requirements to the end that such information will be useful in advisement, placement and follow-up work.
- 7. Training supervisors and school administrators.

Since 1920 the Colorado Agricultural College has offered graduate courses leading toward the master of science degree in industrial education. These courses are intended to give preparatory and supplemental training for the following executive positions common to the industrial education program:

School superintendents

Assistant superintendents of schools in charge of vocational education

Directors of industrial education

Supervisors of industrial education subjects

Supervisors of industrial teacher training subjects

Principals of evening classes

Principals of part-time schools

Coordinator of part-time schools

Heads of departments of industrial education in our high schools

Principals of high schools

(1) Entrance Requirements—

School administrators or trade and industrial teachers meeting the requirements named under H-1-a-(3) C III who have been promoted to minor executive positions, and who now hold a bachelor of science degree, may enroll in the department of rural and vocational education of the Colorado Agricultural College for the degree of master of science in vocational

education, majorng in trade and industrial education,

- (2) Length of Course— Forty semester credit hours including the thesis. The resident requirement may be fulfilled in three summer sessions.
- (3) Plan for Giving Training—
 Graduate courses are offered as resident summer session courses on the campus of the Colorado Agricultural College.

OUTLINE OF WORK FOR THE MASTER'S DEGREE IN VOCATIONAL EDUCATION, MAJORING IN TRADE AND INDUSTRIAL EDUCATION

Scholastic attainment (B.E., B.S., or A.B. degree) and in addition not less than five years of trade experience, and at least two years of successful experience (with a minimum of 144 clock hours per year) as a teacher of approved trade and industrial classes, or at least two years of successful teaching experience in approved trade and industrial schools, and a minimum of three years' experience in supervision or administration of trade and industrial education classes of vocational grade.

Requirements—Forty semester credit hours of graduate work including the thesis. At least twenty-four credits including the thesis must be earned in the major subject. The remaining credits may consist of one or two minors.

REQUIRED MAJOR SUBJECTS					
	Credits		Credits		
Ed186	Personnel Management 2	Ed298	Research Methods in		
Ed188	Financial Organization		Vocational Education 2		
	and Management of	Ed212	Advanced Philosophy of		
	T. and I. Schools 2		Vocational Education 2		
Ed190	Methods of Leading	Ed283	Supervision of Trade and		
	Foremanship Conferences , 2		Industrial Education 2		
Ed205	Survey Methods in Ed 2		Thesis pertaining to		
Ed206	Administration of Voca-		Industrial Education, 4 to 10		
	tional Education 2				
RECOMMENDED ELECTIVES					

Majors Minors Ed102 Educational Tests and Ed180 Curriculum Construction in Industrial Ed. 2 Measurements 2 Ed181 Special Methods in Ed104 Vocational Guidance and Evening Trade and Adjustment 2 Industrial Schools 2 Ed106 Experimental Educa-Apprentice Training 2 tional Psychology 2 Ed182 Ed108 Philosophy of Voca-Ed184 Coordination and Supervision of Part-time Ed.... 2 tional Education 2 Ed185 Training in Industry 2 Ed204 Objectives in Education... 2 Ed282 Efficiency in Vocational Ed191 Seminar in T. & I. Ed. 2 Analysis of Related Ed192 Education 2 Economics and Sociology Subject Content 2 Personnel Problems in ES111 Industrial Economics 2 Ed193 ES184 Industrial Sociology Vocational Education 2 Ed290 Methods of Training Mechanical Engineering IA 101 Principles of Industrial Foremanship Conference Leaders 2 Organization 2

In order to complete the work for the master's degree in Vocational Education, majoring in trade and industrial education, one must have credit in all the subjects under "required courses."

Prerequisite undergraduate subjects include courses: Ed80-81-90-108 or equivalent training.

TYPE TRADE AND INDUSTRIAL COURSES

The following table suggests type courses that may be offered in evening school classes, part-time classes, all day trade classes, under the direction of the local Board of Education and in cooperation with Colorado industries and the Colorado State Board for Vocational Education. The list of subjects was taken from statistical reports submitted to the State and Federal Boards for Vocational Education. It is by no means complete, but it suggests the variety of subjects that may be offered to meet the demands of industrial workers in all sections of the State.

AUTO REPAIRING

Auto Mechanics Tire Repairing and Vulcanizing Battery Repair Service Upholstering Painting Vulcanizing.

BUILDING TRADES

Blueprint Reading Plumbing Brick Laying Roof Framing Electric Wiring Setting Cut Stone and Terra-Cotta Estimating trim Making Plans Tile Setting Paper Hanging and Decorating Use of Steel Square

Plastering

COAL MINING

Coal Mine Gases Mine Electricity Coal Mine Timbering Mine Mechanics First Aid Mine Ventilation Foremanship Training Safety Lamps Methods of Mining

COMMERCIAL OCCUPATIONS

(In Part-Time Schools Only)

Accounting Office Management Advertising Retail Selling Banking Salesmanship Bookkeeping Secretarial Work Commercial Teaching Showcard Writing Foreign Trade Service Stenography General Clerical Work Telegraphy and Wireless Operating

Life Insurance Salesmanship

Starting and Lighting Repair

ELECTRICAL MANUFACTURING INDUSTRIES

Assembling Engineering and Drafting Coil Winding and Taping Inspection and Repairing Coil Impregnating and Painting Testing Coil Placing and Connecting Armature Winding

ELECTRICAL CONSTRICTION, MAINTENANCE AND REPAIR OCCUPATIONS

Electrical Automobile Work Work in Storage Battery Service Electrical Contracting and Repairing Stations Electrical Inspection

Plant and Factory Electrical

Maintenance

FACTORY WOODWORKING TRADES

Cabinet Makers Finishers Planing-Mill Operators

FORESTRY AND LUMBER

Log Scaling Lumber Grading Tree Surgery
Methods of Sawing

JEWELRY TRADE

Designing
Die Making
Engraving

Modeling
Pressing and Stamping
Stone Cutting

METAL MINING

Assaying
First Aid
Geology
Hoisting and Haulage
Mining Electricity
Mineralogy

Melting and Rolling

Mine Mechanics Mine Rescue Work Mine Timbering Mine Ventilation Pumps and Drainage

OH, REFINING

Boiler Making (tank instruction)
Chemistry of Oil
Construction Work
Foremanship Training

Geology
Machine Shop Practice
Pipe Fitting
Welding

PRINTING TRADES

Bindery Workers
Copy Writers
Cost Clerks
Estimators
Foremen and Managers
Hand Compositors
Layout Men

Linotype Operators and Machinists Monotype Operators and Machinists Proof Readers and Copyholders Salesmen Stockmen

Stockmen and Paper Cutters

Stonemen

PUBLIC SERVICE INDUSTRIES

Electric Wiring
First Aid
Foremanship Training
Plan Reading

Public Relations

Power Plant Electricity

Wire Splicing (and other subjects listed under electrical manufacturing industries).

QUARRYING

Stone Cutting

Stone Carving

RAILAVAY OCCUPATIONS

Airbrake Operation
Car Inspection
Electric Welding
Locomotive Engineering
Machanical Drawing for

Oxyacetylene Welding
Painting and Varnishing
Safety Appliance
Shop Mathematics

Mechanical Drawing for Apprentices

SMELTING AND REFINING INDUSTRIES

Blue Print Reading Chemistry Electricity First Aid Foremanship Training Machine Shop Practice Mechanical Drawing Metallurgy Shop Sketching Shop Mathematics

SUGAR INDUSTRY

Blue Print Reading and Shop

Sketching First Aid

Foremanship Training

Mechanics

Methods of Instructing Men

Operating Problems Sugar Technology Sugar Chemistry

MISCELLANEOUS OCCUPATIONS

Baking Barbering

Commercial Designing

Drafting (Mechanical Drawing)

Dental Mechanics

Dyeing, Cleaning and Pressing Foremanship Training Foundry Practice Garment Making Janitor Service

Jewelry Repairing and Manufacturing

Lock and Gun Smithing Machine Shop Practice

Meter Repairing (Gas and Electric)

Rug Weaving

Mimeographing Pattern Making Photography

Piano Tuning and Repairing

Sheet Metal Work Shoe Repairing Sign Painting Tailoring Teaching Telegraphy

Typewriter Repairing

Upholstering-Railway Coach,

Furniture Welding Horology

MISCELLANEOUS OCCUPATIONS FOR WOMEN

Barbering Beauty Culture Bookkeeping Canning

Cleaning and Pressing Dressmaking Librarian Manicuring

Millinery Mimeographing Music Photography Printing

Retail Salesmanship

Stenography Tailoring Teaching

Telegraph Operating

Upholstering Cosmetology

V. Home Economics Education.

A. Use of Federal Funds

- Not more than twenty per cent of the money appropriated under the Smith-Hughs Act for the payment of salaries of teachers of trade, home economics and industrial subjects, for any year, shall be expended for the salaries of teachers of home economics subjects.
- 2. Funds made available under the George-Reed Act shall be used for the salaries of teachers, supervisors or directors of home economics subjects, according to standards set up in this Plan.
- B. Supervision of home economics education.

Teacher training funds appropriated under the Smith-Hughes Act and funds provided under the George-Reed Act will be used for maintenance of supervision of home economics education. (See II-F-3-c)

1. State supervisors and assistants

a. Qualifications

(1) Education

- (a) Professional—At least 20 semester credit hours in education, including—
 - 1. The philosophy of vocational education.
 - 2. Special methods and supervised teaching in vocational schools and classes in home economics that meet the minimum standards provided in the State Plan.
 - 3. Analyses of the content of home economics units and organization of the same on a teaching basis, in accordance with the needs of the group.
 - 4. Methods of training home economics teachers. (Beyond this it is desirable that some graduate work, including an investigation or research in home economics education, be completed.)
- (b) Technical and general education.—
 This shall be equivalent to and preferably exceed the minimum qualifications required of all teachers under her supervision as set up in this Plan.

(2) Experience

- (a) Practical working experience. Equivalent to two years' successful home-making experience, part of which shall have been acquired in the actual management of a home.
- (b) Teaching experience.—From three to five years' successful teaching experience, the major part of which shall have been in vocational schools, in-

cluding both day and evening classes, meeting the minimum standards provided in the State Plan.

- (c) Administrative.—In lieu of part of the required teaching experience, or in addition to it, she shall have had administrative experience.
- (3) General.—She must be a woman of at least 25 years of age, possessing tact, broad sympathy, and keen interests. She must be a leader capable of promoting the program and a person of sound judgment who will win the support of business men and women and home makers.

b. Duties

- (1) Improvement of teachers in service:
 - (a) Assisting teachers to improve their methods of instruction by personal consultation, conferences, correspondence, or through publications.
 - (b) Conducting district or State conferences of teachers engaged in vocational home-making subjects.

(2) Promotion of new work:

- (a) Preparation of State program of work.
- (b) Assisting in the organization of classes, selection of teachers, preparation and approval of courses of study, etc.
- (c) Conducting investigations, surveys and special studies, and the preparation of literature or dissemination of information on the same.
- (d) Preparation of reports for the State Director.
- (e) Cooperating with women's clubs, mothers' clubs or other home making organizations interested in vocational home-making education.

(3) Inspection of work:

- (a) To visit and inspect all schools and classes receiving subsidy for vocational home-making education from the State Board.
- (b) To visit and inspect the supervised practice work of vocational homemaking students.
- (c) To supervise the training of teachers of home-making.
- (d) To secure necessary reports from the schools and to make reports required by the State Board.
- 2. Local Supervisors.—By agreement and where conditions warrant it, the State Board for Vocational Education may grant aid to the local school district on the salary of a supervisor of home economics education.
 - a. Qualifications of supervisor for local community or city.

(1) Experience

- (a) Practical working experience.— Equivalent of two years' home-making experience, part of which shall have been acquired in the actual management of a home. It is also desirable that such local supervisor shall have had adequate occupational experience or contact in wage-earning fields outside of teaching.
- (b) Teaching experience.—From two to three years' experience in vocational schools, including both day and evening classes meeting at least minimum standards set up by the State Board and approved by the Federal Board.

(2) Education

(a) Professional.—Equivalent of 20 semester credit hours in education, including—

- 1. Philosophy of vocational education.
- 2. Special methods and supervised teaching in vocational schools and classes in home economics that meet the minimum standards provided in the State Plan.
- Making analyses of teaching content in home economics and organizing the same on a teaching basis, in accordance with the needs of selected groups.
- 4. Methods of training home economics teachers.
- (b) Technical and general education.—
 The minimum technical and general education of these local supervisors should exceed the minimum qualifications provided in the State Plan, for those teachers for whose professional improvement in service they are most largely responsible.

b. Duties

(1) Teacher Training

Teacher-training activities shall constitute the major portion of the local supervisor's work, and particular attention shall be given to the professional improvement of teachers in service.

(2) Promotional

The promotional activities of local supervisors shall be devoted to the establishment of additional vocational classes for the improvement of the vocational program where the local conditions justify it, particularly in the field of part-time and evening schools in home economics, and in the selecting and training of teachers in service for these classes.

(3) Inspectional

The inspectional activites of local super-

visors shall be primarily for the purpose of discovering those points on which the local teachers under their supervision need help and assistance.

C. Distribution of Funds

The State Board for Vocational Education proposes to distribute the Federal and State funds in the following manner, among the different types of home economics education classes.

- 1. Day schools or classes in:
 - a. Rural consolidated schools
 - b. County high schools
 - c. City schools

Not less than one-half of the funds allotted to home economics shall be spent for the above type of work.

2. Part-time classes

One-third of the funds allotted to home economics shall be devoted to part-time home-making classes for either minors or adults.

- 3. Evening homemaking schools or classes in:
 - a. Rural consolidated schools
 - b. County high schools
 - c. City schools

This type of work will be given not less than one sixth of the Federal money allotted to homemaking work.

D. Day Schools

- 1. Age of pupils
 - a. Pupils must be at least 14 years of age.
- 2. Required or minimum plant and equipment
 - a. The plant and equipment essential for adequate instruction in vocational subjects must include provision for instruction and practical work in all of the home activities which are taught within the school, such as selection, preparation and serving of food; selection, construc-

tion, care and repair of clothing; laundry, home management; care of the sick in the home; and the care and training of children. Careful selection and arrangement of equipment are more important factors than the amount of money expended.

(1) The foods equipment must be adequate to provide for individual work in cooking, opportunity for group work and facilities for group instruction and recitation. Two types of laboratory equipment designed to provide these facilities are the unit laboratory desk equipment and the unit kitchen. In the best of those of the first type, each pupil has a table with a work surface of 2'x2'x6', utensils of moderate size, adequate stove and oven space and convenience of a sink. In the second type, the floor space is divided into small kitchens or units equipped as average size family kitchens, in which two to five students work. Unit kitchens more nearly approximate home conditions. One or more unit kitchens in each laboratory are used so that each student may have opportunity to work independently in a kitchen.

(2) Serving of Meals

The equipment consists of tables, chairs, table linen, table silver and dishes. While it adds to the interest and value of the work when a separate dining room is available, the serving of meals may be taught in the school kitchen if space is provided where a table and chairs can be placed or in the clothing laboratory if conveniently located.

(3) Clothing

Essentials are sufficient floor area, ample storage, good lighting, ample work table space, drawers or lockers for materials, comfortable chairs, sewing machines (one for four pupils), paper roll, large mirror,

provision for fitting garments as screens or fitting room, small supplies as yardstick, tapelines, large shears and the like.

(4) Home Nursing

Equipment necessary is portable including bed and bedding and sick-room supplies which may be used in rooms. Such equipment may be borrowed from local hospital or shops which handle such articles.

(5) Reference Material

Reference material must include a few of the best books dealing with each phase or all phases of home-making, a carefully selected list of magazines devoted to home economics subjects and free bulletins issued by Federal and State governments and other agencies. Twenty-five dollars per year should be allowed for new reference material in each home economics department. Illustrative material should include educational exhibits and samples of various products so selected to be of value to students. Adequate storage space must be provided for this material.

(6) The rooms must have adequate space, light, ventilation, control of temperature and suitable location in relation to other rooms of the building. Basement rooms should not be used unless they provide essentials of healthy conditions for work. A concrete floor should be covered to protect students from strain standing upon the hard surface. For more detailed description of plant and equipment, see Bulletin No. 124, Federal Board for Vocational Education.

3. Minimum for Maintenance

a. Each cooperating school shall be required to provide an appropriation sufficient to employ a vocationally trained and approved teacher, to purchase supplies and equipment as may be

necessary to properly conduct these classes and to provide funds for supervision of Home Projects. No fees may be charged to the student for maintenance.

- 4. Minimum length of school year
 - a. The length of the school year shall be not less than nine months in all cities and towns where Smith-Hughes and George-Reed funds are used.
- 5. Hours of instruction per week
 - a. The hours of instruction per week shall not be less than thirty in towns of over twenty-five thousand.
 - b. In towns under twenty-five thousand, the hours may be twenty-five.
- 6. Types of programs to be maintained

PROGRAM I

- Number of hours of school week given to vocational work
 - (1) In the 6 hour day, 15 hours per week or 180 minutes daily must be devoted to instruction either in (a) home economics subjects or (b) in home economics subjects and related subjects. If (b) is used, 120 minutes must be devoted to home economics subjects and 60 minutes to related subjects daily.
 - (2) In the 5 hour day, 12½ hours per week or 150 minutes daily must be devoted to instruction either in home economics subjects or combination of home economics subjects and related subjects. If the program includes both home economics and related subjects, not less than 90 minutes of the half day shall be devoted to instruction in home economics subjects and the remainder of the half day to related subjects.

These subjects have been grouped as home economics subjects which include such subjects as textiles and clothing selection, construction, care and repair; foods and cooking; ventilation, laundry, home management and finances, home planning and furnishing, home nursing, care and training of children, and family relationships. Related subjects such as drawing and design when applied to clothing and the home, and chemistry, physics, biology, physiology and bacteriology when applied to the household.

b. Home Projects

- (1) Whenever home projects can be undertaken under the supervision of the home-making teacher, they may become a part of the vocational half-day provided that not more than one-fifth of the vocational half-day be allotted to this work and that this time be distributed or cumulative according to the demands of the projects.
- (2) A home project should involve a real problem, should provide for the repetition of previous practice and the application of knowledge gained to a more extended problem under conditions of lesser supervision and instruction, and hence should increase skill and independence. The home project work should be supervised by the home-making teacher and she should be allowed sufficient time for this home supervision and receive adequate compensation for it if it is not included as a legitimate part of her daily school program.

(3) Type Projects

All projects shall be a normal unit of work as found in the household. The following is suggestive of suitable types of home projects:

- (a) Getting underclothes ready for the winter or summer.
- (b) Doing the family baking for three Saturdays.
- (c) Keeping of the household accounts for a month.

- (d) Planning and preparing the evening meal in thirty minutes every night for a week.
- (e) Training a small brother or sister to eat or taste all of the fresh vegetables put on the family table.
- (f) Doing the family mending for two weeks.

PROGRAM II (George Reed)

- a. Number of hours per week devoted to vocational work shall be 11 1/4, including home practice and home project work.
 - (1) There shall be two consecutive years of work provided in which at least 120 minutes daily shall be given to home economics subjects and related subjects, with a minimum of 60 minutes daily to home economics subjects, and the remainder of the time to related subjects in segregated classes.

b. Home Projects

- (1) In the first year of the course an average of at least 15 minutes daily (1¼ hours per week—45 hours per year in a 9 months' school) be allotted to home practice and in the second year the same amount of time be given to a minimum of two properly planned and supervised home projects carried to completion in two phases of home economics.
- (2) Provision and amount of time. The teacher should be allowed at least three school periods during the week for the planning, supervision and checking up of home practice and home projects.

PROGRAM III (George Reed)

- a. Number of hours per week given to vocational work shall be 10 hours first year, 111/4 hours the second year, which includes home projects.
 - (1) There shall be two consecutive years of work provided in which a double period

with a minimum of 90 minutes daily shall be given to home economics subjects, and in addition a minimum average of 30 minutes daily (21/2 hours per week or 90 hours per year in a 9 months' school) in the first year of the course, to at least three properly planned and supervised home projects carried to completion in three phases of home economics, and in the second year of the course a minimum average of 45 minutes daily (33/4 hours per week or 135 hours per year in a 9 months' school) to at least four properly planned and supervised home projects carried to completion in not less than three phases of home economics.

- b. Provision for teaching related subjects.
 - (1) It is strongly recommended that science and art preceding, paralleling, or following the home economics course be taught in as close correlation to that field as possible.
- c. Home Project
 - (1) The teacher should be allowed at least five school periods a week for planning, supervising and checking up home projects and should be employed for one or two months longer than the regular school year for special direction and supervision of projects.
- 7. Character and Content of Courses of Study

PROGRAM Ia

- a. First Year
 - (1) Vocational Subjects.

Combination of units selected from—

Textiles and clothing selection and construction

Simple meal preparation and service Laundry

Care of the house

Total hours per week, 15.

(2) General and Related Subjects.

Combination of units selected from-

Literature

Mathematics

History

Citizenship

English

Music

Physical training

General science applied to the home

Design applied to clothing and the home

Sanitation and hygiene

Total hours per week, 15.

b. Second Year

(1) Vocational Subjects.

Combination of units selected from-

Food selection, planning and serving

Nutrition

House planning and furnishing

Clothing and textiles

Home Management

Child care and training

Home nursing

Total hours per week, 15.

(2) General and Related Subjects.

Combination of units selected from—

Literature

History

Mathematics

Elementary social science

English

Music

Physiology and hygiene

Physical training

Household chemistry

Applied design

Total hours per week, 15.

PROGRAM Ib

a. Course of study for a 5 hour day in which half the time is devoted to home economics and related art and science.

- (1) A one, two, three, or four year vocational course may be offered in which one-half of each day, or 150 minutes, must be devoted to practical work, of which at least 90 minutes must be devoted to home economics subjects. To supplement this, 60 minutes a day, or 300 minutes a week, must be devoted to related science and art.
- (2) The same general plan as given above for a course of study for a 6 hour school day in which half the time is devoted to home economics and related art and science should be followed. As less time will be available, the course must necessarily be a little less intensive, although it should cover the same range of subjects.

PROGRAM II

Course of study for two consecutive years in which 120 minutes are devoted daily to home economics and related subjects with a minimum of 60 minutes daily to home economics subjects and the remainder of the time to related subjects in segregated classes.

a. First Year

(1) Vocational Subjects.

Combination of units selected from— Elementary food study and meal preparation

Elementary clothing and textiles Home management Family relationships Child care

(2) General and Related Subjects.

Combination of units selected from— General science applied to the household Drawing and design, or both

(3) Home Practice—1¼ hours per week.

Total hours per week, 11¼.

b. Second Year

(1) Vocational Subjects.

Combination of units selected from—

Advanced food study and preparation Nutrition Advanced clothing and textiles House planning and furnishing Child care and training Home nursing and home management

(2) General and Related Subjects.

Combination of units selected from—
Application of principles of science or
art to both the individual and the
home.

(3) Home Projects—11/4 hours per week Total hours per week, 111/4.

PROGRAM III

Course of study for two consecutive years of work in which a minimum of 90 minutes daily must be given to home economics subjects.

- a. First Year
 - (1) Vocational Subjects. See Program II
 - (2) Home Projects

 Minimum of 3 projects in three phases of home economics—30 minutes daily

 Total hours per week, 10.
- b. Second Year
 - (1) Vocational Subjects. See Program II
 - (2) Home Projects Minimum of 4 projects in not less than three phases of home economics — 45 minutes daily.

Total hours per week, 1114.

(3) Content or related work which should precede, parallel or follow the home economics course, same as in Program II.

In small high schools where there are less than ten girls enrolled in a class in homemaking, the schedule may be rotating; i. e., the first year, the first year of the home-making course is offered; the second year, second year work is offered; the third year offer again the work of the first year. In this way the freshmen and sophomore girls will be together in one homemaking class one year and the sophomore and juniors another year, thus two years of home-making can be offered at a minimum of expense in even the smallest of high schools.

- 8. Methods of Instruction.
 - The work will take the form of practical problems in so far as possible. The class periods will not be divided into laboratory and recitation periods, but should include laboratory work based on project method, special drill lessons in developing technique, recitation and discussion, field trips, observation and report on projects, supervised study, conferences, supervised home projects in so far as each fits into the course.
- 9. Qualifications of Teachers.
 - a. Home Economics Teachers.
 - (1) Education, including professional and technical training.—They shall be graduates of a four-year course in home economics with a major in home economics from a college of standard grade approved by the State Board for Vocational Education or they shall have equivalent training. They shall hold a Colorado State Teachers Certificate.
 - (a) The following professional subjects must be included in the required 20 hours in educational credit:

1.	Psychology 5
2.	Organization of Home Economics
	Education 2
3.	Special Methods in Home Economics
	Education 3
4.	Student Teaching in Vocational
	Class in High School 4-10
5.	Methods in Related Subjects 2
6.	Electives in Education 4
Εđ	ucation courses must include:
1.	Student Teaching in a Vocational
	High school 4-10
2.	Courses in Methods of Related
	Subjects and Training of Teachers
	for Adult Classes 2-4
Re	commended electives:
1.	Principles of Education 3
2.	The Family and Social Legislation 3

- (b) Technical courses must include: 6 full weeks of Home Management House, Child Care and Training, with laboratory observation of small children. For remaining courses see 3.
- (c) Before a teacher can be vocationally approved she must have an average rating of C or 1.0 point in scholarship and student teaching.

(2) Experience

- (a) They shall have had not less than two years of adequate vocational experience in the home including a reasonable period of actual management of the home.
- (b) They must exemplify their homemaking training by having good health and following the rules of good health, by neatness and attractiveness of clothing and by courtesy of manner.

b. Related Subjects Teachers.

- (1) Qualifications.—When the related science subjects are not taught by the home economics teacher, such teachers shall meet the following requirements:
 - (a) They shall be graduates of a fouryear scientific course from an approved college of standard grade and shall have had at least twelve weeks' experience in practice teaching or its equivalent, together with courses in special methods dealing with related science problems. They shall hold a Colorado State Teacher's Certificate.
 - (b) They shall be sufficiently acquainted with and interested in home problems that they can and will make the science subjects "truly related" to the home economics subjects that they parallel.

- (2) Qualifications of teachers of related art.
 - (a) When the art is not taught by the home making teachers they shall meet the educational requirements demanded of high school teachers.
 - (b) They shall have a major in art subjects and sufficient knowledge of home-making to apply the principles of art to home-making problems, together with courses in special methods and student teaching dealing with related art subjects.

E. Part-Time Home Economics Schools and Classes.

- of students who are engaged 50 percent or more of the time in home-making. The remainder of the time may be spent on related subjects or general education subjects, depending upon the needs of the group. All instruction offered in a home economics part-time class will be supplemental to the daily employment of home-making. This does not exclude girls and women employed outside the home, since it may be safely assumed that practically every girl or woman has household duties of one kind or another for which she is responsible.
 - a. One-third of the twenty per cent of the Federal funds allotted to home economics shall be devoted to part-time home-making classes for either minors or adults. The Federal funds appropriated under Smith-Hughes Act and George Reed Act will be used.
 - b. Minimum entrance age requirement.

 Part-time classes are open to women and girls over 14 years of age, provided the instruction given is designed for workers over 14 and less than 18 years of age and is suitable to enlarge their civic or vocational knowledge and to enable them to discharge more successfully their responsibilities as home-makers.
 - c. Length of term.
 - (1) Smith-Hughes Funds.—At least 144 hours per year, four hours or more per week.

The entire course might be so planned as to coincide with a dull, or off-season, in which case it might be more convenient to use an entire half-day or half-day on alternate days in school.

- (2) George Reed Funds.—Part-time classes may be conducted under the same standards as those set up under Smith-Hughes law except that the minimum length of term shall be 16 hours with at least 4 hours per week.
- d. Required or minimum plant and equipment.
 - (1) The same type of equipment outlined under all-day schools should be required. In most cases the same equipment used for home-making classes in all-day schools will also be used for the part-time classes. Where the group is small, a practice house or home would provide the best arrangement.
- e. Minimum for maintenance.
 - (1) Each cooperating school shall be required to provide an appropriation sufficient to employ a trained and capable teacher and to purchase supplies as may be necessary to properly conduct these classes.
- f. Character and content of course of study.
 - (1) The home-making instruction should be designed to increase knowledge and efficiency in the activities of the home. Time available for instruction is very limited and as the group is constantly shifting, each lesson must be planned so that it is complete in itself and offered with definite objectives in view.
 - (2) Suggested units for Home Economics part-time classes.

Fruits and Vegetables

Lesson 1 —Value of fruits and vegetables in the diet; ways of using fresh fruit. Lesson 2 —Preparation of dried fruits and use in diet.

Lesson 3 —Ways of cooking potatoes.

Lesson 4 —Cooking green vegetables.

Lesson 5 —Vegetables as conservers of other food.

Lesson 6 —The vegetable dinner.

How to Provide Adequate Food for a Day

Lessons 1-3—How to estimate the food needs of the body.

Lesson 4 —Proper division of the food requirement into meals.

Lesson 5 — The cost of food for a day.

Lesson 6 —Planning the menu for a day.

Maintaining Physical Fitness

Lesson 1 —Recreation and rest.

Lesson 2 —Exercise.

Lesson 3 —Baths, care of skin; use of cosmetics.

Lesson 4 —Shampooing, dandruff, tonics and massage.

Lesson 5 —Feeding in constipation.

Lesson 6 —Care of feet; care of nails.

Lesson 7 —Clothing in relation to health and fashion.

Lesson 8 —Sanitation and health.

Care of Clothing

Lesson 1 —Care and renovation of silks and wool.

Lessons 2-5—Remodeling garments.

Lesson 6 —Repair of underclothing.

Lesson 7 —Repair of outer clothing and household linen.

Selection and Purchase of Clothing

Lesson 1 —Selection and care of hosiery.

Lesson 2 —Selection of appropriate and artistic hats.

Lesson 3 —Selection of shoes.

Lesson 4 —How to choose becoming colors and styles in dresses.

Lesson 5 —How to budget wages so as to provide for appropriate clothes.

Choice and Care of Home Furnishings

- Lesson 1 —Color, its use and harmonious combination.
- Lesson 2 —How to secure daintiness and attractiveness at moderate cost.
- Lesson 3 —Making the living room reflect the ideals of home.
- Lesson 4 —How to select wallpaper, draperies and rugs.
- Lesson 5 —Appropriate color combinaations with reference to exposure of the rooms.
- Lesson 6 —Selection of simple, artistic, and moderate priced furniture.

Care and Training of Children

- Lesson 1 —The heritage of the child.
- Lesson 2 —Relation of the girl's habits of living to successful motherhood.
- Lesson 3— Importance of establishing early childhood proper food, clothing, rest and recreation habits.
- Lesson 4 —Mental development and training of children.
- Lesson 5 —Social development and training of children.
- Lesson 6 —Moral development and training of children.

Social Uses

- Lesson 1 —Courtesy in the home.
- Lesson 2 —Courtesy in school, on the street, and in other public places.
- Lesson 3 —Genuine hospitality.
- Lessons 4-5—Inexpensive parties in the home. (One of the two lessons a laboratory one).
- Lesson 6 —Social forms such as invitations, acceptance letters, notes, holiday greetings, and the like.

- g. Methods of Instruction.
 - (1) The methods of instruction will be through individual projects with a combination of laboratory and discussion and will be dependent upon the social, intellectual and physical development of the members of the class.
- h. Provision for follow-up work.
 - (1) As far as possible this work shall be followed by personal visits and by letters and printed material to see if there has been improved practices.
- i. Qualifications of home economics teachers.
 - (1) Education.—A minimum of two years' training in home economics from an approved school will be required. (Note: This requirement may be waived in case of a person especially well qualified to handle one particular line of work.) Such teachers shall have completed enough work in education to entitle them to valid certificates to teach in Colorado and shall have demonstrated their ability to teach.
 - (2) Experience.—Not less than two years of practical experience along the line to be taught will be required.
 - (3) General.—There is recognition of the need for especial attention to personal qualities that appeal, as well as adequate technical and academic training, in the selection of the teacher for a part-time class.
- F. Evening Home Economics Schools and Classes.
 - 1. Source of Federal funds.

Reimbursement for evening classes is paid out of the same portion of the trade, home economics and industrial fund as for the day schools or classes in home economics. Not less than one-sixth of the 20 per cent of Federal money allotted to home-making shall be used for evening classes.

2. Minimum entrance age requirement.

Pupils must be at least sixteen years of age.

3. Required or minimum plant or equipment.

Plant and equipment must be sufficient for the type of work attempted. A well-equipped home economics laboratory or a housekeeping center where opportunity is given to carry out the manipulative processes is desirable. Rooms should be well-lighted and heated.

4. Minimum for maintenance.

Each cooperating school shall be required to provide an appropriation sufficient to employ a trained and capable teacher and to purchase such supplies and llustrative and reference material as may be necessary to properly conduct these classes.

5. Character and content of the course of study.

The "short unit" course is the desirable basis of organization for such classes. Organization on the short unit basis will not only meet the interest needs but provide for the admission of new registrants with the introduction of each new unit. The units should be organized in orderly sequence so that there can be promotion as skill and knowledge are gained. The content should grow out of the needs of the pupils enrolled and be of definite aid toward home-making.

The following is suggestive for groups of units from which selection may be made for instruction in evening classes:

CLOTHING FOR THE FAMILY

Wool Dress

(Approximately 10-12 lessons)

- a. Factors to be considered in the selection of material and pattern for wool dress.
- b. Testing and altering pattern.
- c. Cutting, basting, and fitting of garment.
- d. Bound buttonholes and set-in pockets.
- e. Consideration of finishes:
 - (1) seams
 - (2) neck
 - (3) sleeve
 - (4) hem
- f. Pressing of wool materials.

- g. Class criticism of garment and comparison with commercial product.
- h. Appropriate accessories.
- i. Care and cleaning of the wool dress.

Afternoon or Party Dress

(Approximately 10-12 lessons)

- Factors to be considered in the selection of silk fabrics.
- b. Selection of silk fabric suitable to pattern and to individual.
- c. Testing and altering pattern.
- d. Cutting, basting, and fitting garment.
- e. Consideration of finishes appropriate to silk garment:
 - (1) seams
 - (2) neck
 - (3) sleeve or arms' eye
 - (4) bottom of dress
- f. Appropriate trimming or decoration.
- g. Care in handling in pressing of silk fabrics.
- h. Class criticism of garment and comparison with commercial product.
- i. Appropriate accessories.

Infants' and Children's Clothing

(Approximately 10-12 Lessons)

- a. The layette:
 - (1) Consideration of garments to be included.
 - (2) Points to be considered in the selection of knitted garments as vests, stockings, and the like.
 - (3) The Gertrude slip-
 - (a) Selection of material
 - (b) Contruction
 - (4) The dresses—
 - (a) Selection of materials and pattern
 - (b) Construction
- b. Children's clothing:
 - (1) Consideration of types of garments suited to children's needs—
 - (a) Importance of simplicity
 - (b) Appropriate fastening
 - (c) Freedom from restriction
 - (d) Easily laundered

- (2) Construction of bloomer dress or boy's suit—
 - (a) Selection of material and pattern
 - (b) Testing pattern, cutting and basting
 - (c) Finishes-
 - 1. Seams
 - 2. Facings
 - 3. Collars
 - 4. Sleeves
 - 5. Plackets
 - 6. Set-in pockets
 - 7. Buttonholes.
 - (d) Comparison with commercial product.

FOOD FOR THE FAMILY

The Housekeeper and the Food Problems

(Approximately 8-10 lessons)

- a. Discussion of the food problems of the housewife.
- b. Home production of food.
- c. Fuel and time saving in food preparation.
- d. Simplifying standards of living.
- e. Economy in buying of foodstuffs.
- f. Community kitchens.

What to Have for Three Meals a Day

(Approximately 6-8 lessons)

- a. Simple breakfast dishes.
- b. Leftovers and luncheon dishes.
- c. How to estimate the food needs of the body.
- d. Planning the menu for the day.
- e. Marketing and cooking of meats.
- f. Cost of food for a day.

The Physical Development and Feeding of the Child (Approximately 6-8 lessons)

- a. Growth and physical development of the average healthy child.
- b. Food required in infancy.
- c. Care and feeding of the child of preschool age.
- d. Nutrition of the older child.
- e. Puberty and adolescence.
- f. Educational hygiene.

Home Care of the Sick

(Approximately 6-8 lessons)

- a. The sick room and how to make it attractive.
- b. General care of the invalid.
- c. Food for the sick.
- d. Symptoms of disease.
- e. How to give home treatments.
- f. Giving of medicine; following doctor's orders.

CHILD CARE AND TRAINING

The Preschool Child

(Approxmately 8-10 lessons)

- a. The rights of the child:
 - (1) A good inheritance.—The influence of hereditary factors on the developing organism
 - (2) A wholesome environment.—The influence of environment factors on the development of the child.
 - (a) Physical standards; indicators of good health.
 - (b) Food, developing desirable food habits.
 - (c) Rest and sleep, influence of mental attitudes.
 - (d) Exercise and recreation, the part of play in the life of the child—
 - 1. For physical development.
 - 2. For the building of character traits.
 - 3. As a socializing influence.
 - (e) Elimination, and its attending problems—
 - 1. Enuresis
 - 2. Constipation
 - (3) Obedience as a means of self control—
 - (a) Guidance in infancy.
 - (b) Responsibility for decisions in child-hood.
 - (c) Formation of important habits.

The Child from 6 to 12 Years

(Approximately 8-10 lessons)

a. Physical development of the growing child:

- (1) Factors which are indicative of positive health.
- (2) Factors which are indicative of departure from the normal.
- (3) Protection against disease.
- b. The parent-child relationship:
 - (1) The effect of parental attitudes on the developing personality.
 - (2) The importance of the early psychological weaning of the child.
- c. Helping the child to meet his problems:
 - (1) Freedom and discipline.
 - (2) Anger.
 - (3) Fear.
 - (4) Jealousy.
 - (5) Inferiority.
- d. Answering children's questions (sex education)

The Adolescent

(Approximately 10-12 lessons)

- a. The importance of preadolescent training as a basis for meeting adolescent problems.
- b. Physical changes during adolescence:
 - (1) Sudden growth in bodily structure beginning with adolescent period.
 - (2) Growth and functioning of glandular system.
 - (3) Chemical changes affecting appetite, fatigue, hunger, and immunity to disease.
- c. Effects in conduct:
 - (1) Awkwardness in movement.
 - (2) Changes in posture and gait.
 - (3) Marked irritability.
 - (4) Finicky appetite and digestive disturbance.
- d. Regimen for special needs.
 - (1) Outlet for energy, as vigorous games.
 - (2) Compensation for energy—
 - (a) Abundance of food.
 - (b) Abundance of sleep.
- e. The home's contribution to the changing needs of the adolescent:

- (1) Sympathetic understanding of adolescent problems on the part of parents.
- (2) Responsibility of home for providing normal social activities for boys and girls.
- (3) Interpreting life to the adolescent (wholesome human-relations education).
- (4) Guidance in the establishment of moral standards.
- (5) Guidance in the development of independence.
- (6) Guidance in the choice of a vocation.
- (7) Guidance in forms of self-expression.
- (8) Maintaining health and happiness through wholesome mental attitudes.

EXPENDITURE OF INCOME

(Approximately 8-10 lessons)

- a. Study of individual and family needs of members of class in terms of food, clothing, shelter, recreation, and the like.
- b. Approximate present apportionment of income to meet individual and family needs.
- c. Study of deficiencies in present apportionment of the various expenditures.
- d. Adjustments that will better satisfy all needs.
- e. Special study outlined for improving expenditures within any one of these needs, as food, clothing, and the like. (extend to additional units, if desired).
- 6. Character of the school work.

In the short unit, any home-making problem worthy of group consideration may be discussed.

7. Methods of Instruction.

Women in adult home-making classes should be grouped for instruction according to their individual needs and the plans made for meeting those needs. The individual project method of teaching shall be used, supplemented by illustrations, lectures, demonstration laboratory work, class discussion, field trips, or any other method that best fits the needs of the individual group or their particular problems.

8. Qualifications of home economics teachers.

a. Education.—Including professional and technical training.

The teacher shall be graduated from a recognized four year high school or its equivalent. She must have a command of methods of teaching which will enable her to effectively present her material to a class of given type. She must know phase of home-making she is to teach and must command "occupational respect."

b. Experience,—Including home-making and teaching.

At least two years of adequate practical experience in the management of a home and practice in line to be taught.

General,—Including personal fitness and general contacts.

She must be possessed of abundant physical vigor, must like people and must be interested in evening school work.

G. Teacher Training.

- 1. One third of the teacher training fund alloted by the State Board for the preparation of teachers of agricultural, trade and industrial, and home economics education will be used for the maintenance of courses for the training of teachers of home economics subjects, including salaries of teacher trainers, clerical service, communications, printing and supplies, and for travel when authorized by the State Board for Vocational Education.
- 2. Qualifications of teacher trainers.
 - a. Experience:
 - (1) Practical working experience.—Equivalent to two years' successful home-making experience, part of which shall have been acquired in the actual management of a home.
 - (2) Teaching experience.—At least three years' successful experience in vocational schools, including both day and evening classes, meeting the minimum standards provided in the State Plan. In the case of assistants in the department of teacher

training in home economics the minimum may be two years.

(3) Supervisory or administrative experience. —At least two years of some type of supervisory or administrative experience, except in the case of assistants in the department of teacher training in home economics.

b. Education:

- (1) Professional.—Twenty-five semester credit hours in education, 10 of which parallel or follow the teaching experience including—
 - (a) Philosophy of vocational education.
 - (b) Special methods and supervised teaching in vocational schools and classes in home economics that meet the minimum standards provided in the State Plan.
 - (c) Making analyses of teaching content in home economics and organizing the same on a teaching basis, in accordance with the needs of selected groups.
 - (d) Methods of training home economics teachers. In the case of assistants in the teacher training department the above may be modified to include 20 hours in philosophy and special methods (a and b above).
- (2) Technical and general education.—Graduation from a standard four years' course in home economics in an institution approved for training teachers of home economics or the equivalent. She should have graduate work in home economics and education beyond graduation from college and a Master's Degree is preferred.
- 3. Preparation of teachers of day schools.
 - a. Standards for training home economics teachers

- (1) Entrance requirements—The Colorado Agricultural College has been approved for teacher training in vocational home economics. Entrance requires graduation from a recognized 4 year high school requiring not less than 15 credits for graduation.
- (2) Length of course
 - (a) In years—4
 - (b) In semester credit hours—160
- (3) Content of course

The distribution of the time in the course shall be as follows:

Home economics subjects—25-35 per cent of the total semester hours.

Related subjects—20-25 per cent Educational subjects—12½ per cent General academic subjects—28-45 per cent

(4) Provision and amount of time for supervised teaching.

Provision will be made for observation and supervised teaching. At least 4 semester credit hours or its equivalent of supervised practice teaching in vocational home economics will be required of each student.

(5) Provision and amount of time for home management residence.

Provision will be made for six weeks of home management residence and will be required of each student.

(6) Graduation requirements, including vocational experience.

FRESHMAN YEAR

		First Semester			Second Semester
(1	1	Inorganic Chemistry	3	C 3	Inorganic Chemistry 3
$C_{\mathbf{I}}$	2	Inorganic Laboratory	2	C 4	Inorganic Laboratory 2
EH	2	English	3	EH = 3	English 3
EH	51	Literature	2	EH 52	Literature 2
$_{\mathrm{HE}}$	1	Color Essentials	2	EZ 11	Zoology 2
$_{\mathrm{HE}}$	16	Clothing 1	2	EZ = 3	Physiology 3
*M	1	Mathematics or		HE = 2	Applied Design 2
*M	10	Mathematics	5	HE 50	Home Hygiene and
PE	25	Physical Education	1		care of the Sick 2
				PE 26	Physical Education 1

Second Semester

SOPHOMORE YEAR C 5 Organic Chemistry 3 B 3 Botany 4

First Semester

C 6 Organic Laboratory 2	C 7 Organic Chemistry 3				
HE 30 Selection and Prepara-	C 8 Organic Laboratory 2				
tion of Food 4	HE 17 Clothing II 3				
L 1-L 19 Modern Language 5	L 2-L 20 Modern Language 5				
PE 27 Physical Education 1	PE 28 Physical Education 1				
Ph 2 Physics 3	EH 25 Public Speaking 2				
Ph 2 Physics Laboratory 2					
JUNIOR	JUNIOR YEAR				
First Semester	Second Semester				
HE 32 Nutrition 3	ES 5 General Economics 3				
HE 33 Dietary Studies 2	HE 18 Textiles				
PE 29 Physical Education 1	HE 31 Investigation in				
Ed 10 Psychology 3	Cookery 3				
Ed 12 Experimental Psychology . 2	PE 30 Physical Education 1				
VP 14 Bacteriology 3	Ed 107 Psychology of Childhood . 2				
VP 15 Bacteriology Laboratory 2	Electives 7				
Electives 4	ES Elements of Sociology 2				
	or				
	ES151 Rural Sociology 3				
SEXIOR	VEAR				
SENIOR					
First Semester	Second Semester				
	Second Semester EZ 18 Eugenics				
First Semester ES 161 Family and Social Legislation	Second Semester EZ 18 Eugenics				
### First Semester ES 161 Family and Social Legislation	Second Semester EZ 18 Eugenics				
### First Semester ES 161	EZ 18 Eugenics				
### First Semester ES 161 Family and Social Legislation	Second Semester EZ 18 Eugenics				
### First Semester ES 161	EZ 18 Eugenics				
### First Semester ES 161 Family and Social Legislation	EZ 18 Eugenics				
### First Semester ES 161	EZ 18 Eugenics				
### First Semester ES 161	EZ 18 Eugenics				

- *Students offering advanced algebra and trigonometry upon entrance are excused from College course in mathematics.
- **Students will elect HE71, Home Practice and Student Teaching, the same semester, both to be offered each semester,

The following profssional subjects must also be included in the required 20 hours in educational credit:

> PsychologyFive hours Organization of Home Economics Education Two hours Special Methods in Home EconomicsThree hours Supervised Teaching in Home Economics .. Four to ten hours Methods in Related Subjects Two hours Electives in EducationFour hours

(b) Vocational experience

They shall have had not less than two years of adequate vocational experience in the home including a reasonable period of actual management of the home.

H 2 Home Gardening 2

(7) Relation to certification—

(a) State certification law of Colorado requires that graduates from the four year courses of standard colleges situated within the state of Colorado give satisfactory evidence of good moral character and have included in their college work 20 semester hours of education, distributed among at least three of the following groups of subjects; one of which shall be practice teaching under conditions approved by the state superintendent of public instruction.

General and educational psychology
Principles of education
History of education
Administration and supervision of
education
Practice teaching

Special methods Philosophy, sociology, anthropology, and biology.

- (b) A temporary certificate of vocational approval may be issued by the State Board for Vocational Education when the qualifications satisfy the requirements listed on page 87, 9-a-(1)-a. This temporary certificate shall be renewed every three years only when applicant has shown her ability as a successful teacher during that time and has attended school at least one summer or earned 4 credits in major subject in the three years.
- b. Related subjects teachers—
 - (1) Standards for training—
 - (a) Entrance requirements—same as for home economics teachers.
 - (b) Length of course—
 - 1. In years—4
 - 2. In semester hours—160
 - (c) Content of course will vary with the

related work taught but at least 15 per cent of the four year college course shall be in the subjects which are to be taught for related work and at least 12½ per cent of the four year college course shall be in professional subjects, including practice teaching.

- (d) The amount of practice teaching will vary with the related subjects but at least 4 semester hours of supervised practice teaching will be required.
- (c) Graduation requirements—
 - 1. Completion of a four year collegiate curriculum for teacher-training in the subject taught.
 - 2. Satisfactory evidence of teaching ability.
- (f) Relation to certification. Same as above (7)-(a).
- c. Name and location of each institution or center approved—

The State Board for Vocational Education has designated the Colorado Agricultural College at Fort Collins as the teacher training center for Colorado.

(1) Full course of study for a teacher of homemaking has been given under G-3-a-(6). Subjects for which reimbursement from Federal funds will be made:

Organization of Home Economics_2 credits Special Methods in Home Economics Education _____2 credits Methods of Related Subjects ____2 credits Supervision of Student Teaching in a

Vocational High School_4-10 credits Courses in Training for Teachers

of Adult Work _____2 credits
Courses in Training for Home

Projects _____? credits
Itinerant Teacher Training of Adult

Classes _____2 credits
Principles of Education _____2 credits
Psychology _____2 credits

These subjects will be reimbursed when a majority of the students in the class are following the course of study prescribed for vocational teachers.

General education courses such as Principles of Education, Psychology, etc., will receive reimbursement if they do not exceed in total credit hours five per cent of the total credit hours required for completion of the teacher training course, and provided that, if the number enrolled in any such class is so great as to require more than one section, reimbursement will be made only for the section or sections composed of prospective vocational teachers.

- (a) Provision will be made for a Home Management House and a check will be made of vocational experience.
- (b) Supervised teaching—
 Provision will be made for observation and supervised teaching in a vocational high school. At least a period of 4 semester credits work or its equivalent of supervised practice teaching in homemaking or homemaking and related subject class will be required of each student.
- (c) Supervised home management.

 Each girl is required to live in the home management house six full weeks and provision will be made for a home management house under supervision of a competent instructor.
- (d) In addition to class room work, one home project in any phase of homemaking must be carried on in the teacher training course in junior or senior years under supervision of the teacher trainer of home economics.
- (2) Provision for checking up on vocational experience Provision shall

be made for checking up and recording the practical experience in household management and home-making activities by the person in charge of teacher training in home economics.

(3) Provision for training in conduct of home projects shall be made in Methods courses under supervision of teacher trainer. Opportunity shall be given student teachers to assist with supervision of home projects in training centers.

4. Training of Teachers in Service.

a. Agencies responsible for training:

The State Board for Vocational Education working with the teacher training department of the Colorado Agricultural College, with the superintendents and principals of the various schools, county superintendents, and other educational agencies is responsible for the training of teacher in service.

Official title and qualifications of person in charge:
 State supervisor of home economics education.
 For qualifications see B-1-a.

c. Character of work:

State, group or individual conferences are called whenever necessary. Teachers are advised as to correspondence courses, summer school work, school visiting, trade experience, homemaking activities, etc. The placing of teachers is an important part of this service.

(1) Day School teachers—

A state conference is held annually at the Colorado Agricultural College and all vocational teachers are expected to attend. District conferences are called at intervals during the school year in a place convenient as to location for teachers in that district.

(2) Part-time school teachers—
Individual conferences are held when

necessary. Attendance at the annual state conference is expected.

(3) Evening School teachers—
Schools and institutions to suit the individual needs of the teachers are selected for this training. Subjects offered vary with the needs of the teachers.

d. Teacher training classes—

Time devoted to the work varies with the kind of training given and the needs of the teachers. Approximately one-third of the state supervisor's time is devoted to this type of work.

e. The Colorado Agricultural College, particularly in its summer school, gives advanced work in home economics education leading to a degree of master of science in vocational education, majoring in home economics education. The following outline shows the content of this graduate course:

Requirements.—Forty semester credit hours of graduate work including the thesis. A minimum of twenty-four credits including the thesis must be earned in the major subject. The remaining sixteen credits may consist of one or two minors.

Candidates must hold a bachelor's degree with a major in home economics and show evidence of having completed the following: Special Methods in Home Economics, Student Teaching or successful experience in teaching home economics, sufficient education courses to qualify for a state teacher's certificate in Colorado.

MAJORS

Required Courses Credits		Require	ed Courses	Credits		
	Ed 250	Philosophy and Develment of Homemaking Education		Ed 142	Organization and Supvision of Adult Education in Home Econom	a -
	Ed 246	Research in Home Economics Education Thesis	2	Ed 240	Problems and Project Teaching in Home Ec nomics	0=
Minimum of Eight Credits Selected From:		Ed 241	Methods in Teaching Care and Family Relationships			
	12d 140	Methods in Related Subjects		Ed 242	Home Projects and Extra-Curricular Dut	ies. 2
	Ed 143 Ed 144	Methods in Related . Methods in Science I		Ed 244	Personality Developm for Home Economics	nent
	Ed 141	lated to the Home		Ed 245	Teachers	
		Homemaking	2		nomics Education	2

Required Courses	Credits	Require	ed Courses Credits
Ed 247 Supervision of Stu- Teaching in Home	lent	Ed 202	Public-School Curri- culum 2
Economics	2	Ed 204	Objectives in Education. 2
Ed 248 Administration an	đ	Ed 206	Administration of Voca-
Supervision of Ho	me		tional Education 2
Economics Educati	on 2	Ed 208	Conference Leading
Ed 249 Study of the Curri	eu-		Methods 2
lum in Home Econ	omics. 2	Ed 108	Philosophy of Vocation-
Electives:			al Education 2
Ed 106 Experimental Edu	eation-	Ed 109	Promotiona! Methods in
al Psychology	2		Vocational Education 2
Ed 187 Human-Relations		Ed 212	Advanced Philosophy of
lems in Vocational	Edu-		Vocational Education 2
eation	2		

MINORS

The following minors are available for candidates who have had the necessary prerequisites:

Home 1	Economics	ES	Advanced Economics
HE211	Child Nutrition		Industrial Economics
HE150	Child Development and Child Care	ES158 ES ES	Educational Sociology Seminar in Sociology Seminar in the Study of
HE151	Child Development and Training	12.5	the Family and Related Problems
HE203	Tests for Pre-school Children	ES	Economics of the Family
HE204	Nursery School	Rural a	and General
Ed 107	Psychology of Childhood	Educat	ion
HE230.	Seminar in Nutrition	Ed 200	Organization and Admin-
HE117	Clothing Economics		istration of Secondary
HE221	Economics of Household		Schools
	Textiles	$\rm Ed~103$	History of Modern Education
HE104	Problems in Art	Ed 102	Educational Tests and
HE232	Home Management Problems		Measurements
HE210	Seminar in Art	Ed 202	Public-School Curriculum
Econon	nies and Sociology	Ed 105	General Educational
ES	Social Legislation and		Psychology
	the Family	Ed 106	Experimental Educational
ES163	Marriage and the Family		Psychology
ES160	Leadership	Ed 107	Psychology of Childhood
ES151	Rural Sociology	Ed 214	Educational Statistics

VI. Vocational Rehabilitation

- A. The State Supervisor of Vocational Rehabilitation and Staff.
 - 1. Qualifications of State Supervisor of Rehabilitation
 - a. Personal Qualifications:

The following qualifications are required: Social mindedness; ability to organize, coordinate, and supervise the work of others; a broad knowledge of conditions of employment, job requirements and opportunities; and of training methods and facilities.

b. Experience:

Demonstrated leadership ability in supervision or administration in one or more of the following fields, totaling at least five years:

- (1) Vocational rehabilitation: Case work, supervision or administration.
- (2) Education: Supervision or administration of vocational, special, or general education.
- (3) Personal management: Supervision or administration of vocational guidance, employment, or industrial studies.
- (4) Social Welfare: Supervision or administration of social case work in public welfare or public health.
- (5) Industrial or commercial: Supervision.

c. Education:

Graduation from a recognized institution of college grade.

2. District Supervisor of Rehabilitation

a. Personal Qualifications:

Any district supervisors who may be employed shall have essentially the same personal qualifications as prescribed for the State Supervisor of Vocational Rehabilitation, page 7, III-C-1-a.

b. Experience:

Successful experience in one or more of the following fields, totaling at least three years:

- (1) Vocational rehabilitation: Case work.
- (2) Education: Teaching or supervision in vocational, special or general education.
- (3) Personal management: Vocational guidance, employment, or industrial studies.
- (4) Social Welfare: Case work in public welfare or public health.
- (5) Industrial or commercial: Supervision.

c. Education:

The completion of at least three years training of college grade or its equivalent shall be required.

3. Rehabilitation Agent

(This designation has reference to the person who

is essentially a case worker in a designated city or locality in the State)

a. Personal Qualifications:

This position requires a person who is resourceful, adaptable, and physically capable, and who is tactful in dealing with others.

b. Experience:

Successful experience in one or more of the following fields, totaling at least two years:

- (1) Vocational rehabilitation: Case work.
- (2) Education: Teaching or supervision in vocational, special, or general education.
- (3) Personal management: Vocational guidance, employment, or industrial studies.
- (4) Social welfare: Case work in public welfare or public health fields.
- (5) Industrial or commercial; Industrial or commercial experience or supervision.

c. Education:

The completion of two years of training of college grade, or its equivalent is required.

B. Duties of Staff

- 1. State Supervisor of Rehabilitation
 - a. To locate and survey cases
 - b. To recommend and establish training programs for rehabilitants
 - c. To locate job possibilities
 - d. To supervise training
 - e. To place rehabilitants in remunerative employment
 - f. To follow up cases
 - g. To keep record of work accomplished
 - h. To submit reports to State Director as required
 - To establish cooperative relationships between the Rehabilitation Service and other agencies in similar work, including other State departments, social, professional, and industrial organizations.
 - To recommend policies for administration to the State Director.
 - k. To promote State program through general publicity, bulletins, reports, talks, or other desirable means.

l. To establish and maintain statistical and accounting record systems.

2. District Supervisor

District supervisor to perform such of the duties listed under D-l as may be assigned by the State Director of Vocational Education.

3. Rehabilitation Agent

Rehabilitation agent to perform such of the duties listed under D-1 as may be assigned by the State Supervisor of Vocational Rehabilitation.

C. Training of Personnel

The State Board will provide for the training of its rehabilitation personnel by having them attend regional and national conferences on rehabilitation called by the Federal Board; by consulting with Federal agents and State personnel in adjoining states, and by establishing training courses for rehabilitation supervisors, instructors and cooperative workers, or urging the personnel of its staff to attend courses established elsewhere which are designated for the improvement of its members.

I. PURPOSE

The purpose of the State Rehabilitation Service is to provide for the vocational rehabilitation of persons disabled in industry or othervise, and their return to remunerative employment.

II. GENERAL POLICIES

A. Determination of Rehabilitation

It will be the policy of the State Board to determine eligibility on the basis of employability. It will be the policy also to consider that a vocationally experienced handicapped person is rehabilitated when fitted for and placed in employment of at least the same status as the job held prior to becoming vocationally handicapped, or in employment and near as such job as the physical disability will permit. A vocationally disabled person without vocational experience will be considered rehabilitated when fitted for and placed in employment which is consistent with the individual's physical disability.

B. Rehabilitation Available to Civil Employees of United States

All programs of rehabilitation offered by the State Board will be given under its control and supervision and all such programs offered will be available to any eligible civil employee of the United States disabled while in the performance of his duties, if a resident of Colorado.

C. Cooperative Agreements with Agencies

The State Board for Vocational Education reserves the right and privilege to make cooperative agreements with other agencies for the purpose of more effectively carrying out a complete rehabilitation program; federal funds expended under such agreements to receive approval of the Federal Board.

D. Matching Federal Funds

For each dollar of Federal money expended by the State of Colorado for purposes permitted under the Federal Act, there will be expended under the control and supervision of the State Board for Vocational Education at least an equal amount of State money for the same purpose.

- E. Expenditures in State Institutions for Handicapped No portion of the State or Federal funds allotted for rehabilitation purposes will be used in an institution for the handicapped except for special training of individuals in accordance with the policies of the Federal Board.
- F. Expenditures for Permanent Equipment
 No portion of Federal funds or State matching funds
 allotted to Colorado for rehabilitation purposes will be
 applied either directly or indirectly to the purchase,
 preservation, erection, or repair of any building or
 equipment or to the purchase or rental of land.

G. Acceptance of Gifts or Donations

The State Board is empowered by Section 5 of the Acceptance Act, Chapter 156, Session Laws of 1925, passed by the Twenty-fifth General Assembly, to accept gifts or donations from either public or private sources. All money received as gifts or donations shall be paid to the State treasury and shall constitute a permanent fund to be called "The Vocational Rehabilitation Cash Fund," to be used under the direction of the State Board for purposes set forth in the Federal Rehabilitation Act.

H. Expansion of the Program
State or matched funds may be used to develop the pro-

gram of rehabilitation in the State in ways that meet the approval of State and Federal Board for the interests of the trainee. The program is to be made elastic enough to cover individual needs as they arise.

I. Annual Reports

The State Board will make an annual report to the Federal Board on or before the first day of September of every year covering the work done in the State during the previous fiscal year, July 1 to June 30, showing the receipt of expenditures of monies under the provision of the Federal Act and such other information as may be requested, classified and arranged in a form acceptable to the Federal Board.

If cooperating with some other agency in using Federal or State funds to match funds expended by the agency, the State Board will include in its report a report from the cooperating agency.

J. Publicity

The State Board will supply, free of charge, copies of Federal Board bulletins and publications prepared by the State service.

K. Printing

The State Board will issue bulletins, pamphlets, or statements as information pertaining to the problems of rehabilitation arises.

L. Right to Amend Plan

The State Board reserves the right to offer amendments to this plan at any time such amendments become necessary.

IV. ORIGIN OF CASES

A. Industrial Commission

In accordance with its written agreement, the Industrial Commission of Colorado will report to the State Board all cases receiving major physical disabilities while in employment.

B. Social Agencies

Cooperating social agencies will report to the State Board cases coming to their attention which are eligible for rehabilitation.

C. Supervisors in Department of Vocational Education Supervisors of the State Board for Vocational Education will report to the State Supervisor of Vocational Rehabilitation cases of disabled persons eligible for rehabilitation with whom they come in contact.

D. County Superintendents of Schools

An effort will be made to have each County Superintendent of Education feel a responsibility for the welfare of disabled persons in his county and report them to the State Board.

E. Supervisors of Rehabilitation

Supervisors of Rehabilitation and rehabilitation agents will make use of hospital records, clipping bureaus, newspaper articles, and will contact individuals, organizations, and disabled persons themselves in an effort to locate cases eligible for rehabilitation.

V. RECORD SYSTEMS

A. Case Records

A case record system of the rehabilitation service will show in detail the various steps in the rehabilitation program so that a complete history of each case is available.

B. General Administration

The financial and statistical recording systems of the rehabilitation service of the State Board for Vocational Education will be so organized as to give adequately and with facility, volume, character, and cost analysis of the service rendered to all cases.

VI. CASE POLICIES

A. Eligibility

The State Board will consider as eligible for the rehabilitation service only those persons 16 years of age or over, who are residents of Colorado, and who because of a permanent physical disability are vocationally handicapped.

The State Board will consider a permanently physically disabled person who has had vocational experience, vocationally handicapped, and therefore eligible for the rehabilitation service when the physical disability is of such character as to make it impossible to follow the job held prior to the time of disablement.

If a permanently physically disabled person has

never worked and the physical disability is a major one and lessens the normal opportunity for employment, this person will be considered vocationally handicapped and therefore eligible for rehabilitation.

B. Susceptibility

For the purpose of this plan "non-susceptible" shall mean that persons so designated will not be considered suitable prospects for rehabilitation service. The limitations as to the use of the funds and the extent of the demands on them make it necessary for the Board to use its discretionary powers to select such cases as experience indicates can take successful advantage of the opportunity. Some of the determining factors are:

1. Mental capacity

The applicant must be mentally capable to carry on the work necessary to complete the training which is to be given and to successfully hold a position when training has been completed.

2. Physical capacity

The applicant must be physically capable of carrying on the training necessary to prepare for work outlined and physically capable to successfully hold a position when training has been completed.

3. Mental attitude

The applicant must be in the right attitude of mind to successfully carry on the work in cooperation with others and must show evidence of the possibility of becoming successfully rehabilitated.

4. Age limits

The applicant must not have reached such advanced age that productive employment in competition with others will be impracticable.

In general, the Board reserves the right to refuse service where the probable earning capacity of the individual after service is completed does not appear to be justified by the expense involved.

C. Kinds of Rehabilitation

The State Board, realizing that individuals even though possessing the same handicap will require different methods of treatment, will endeavor to rehabilitate its cases by one of the following processes:

1. Specific Vocational Training

The State Board feels that the most lasting form of rehabilitation is accomplished through preparation for a specific job, so will give vocational training wherever feasible. Only training facilities with good reputation and character, whether schools or industrial establishments, will be used for training the disabled. All people in training will be under the jurisdiction of the State Board. It is the purpose to train each person in the shortest possible time consistent with best rehabilitation practice. It will not be the general policy of the Board to offer professional courses of three or four years duration, or to consider training agencies outside of Colorado, unless suitable facilities are not available for specific training within the State. Facilities closest to the trainee's home will be utilized whenever adequate to meet the needs of the individual as determined by the Job Objective.

2. Physical Restoration

The State Board feels that it is highly desirable to remove the physical disability so far as possible before any vocational training is undertaken. The financing of this restoration shall be cared for by private or public organizations or individuals. The Board is interested in the hospitals and clinics giving this service and will cooperate as far as permissible under the Federal Act.

3. Artificial Appliances

The State Board will not furnish artificial appliances or pay any part of their purchase price unless it is absolutely necessary for the individuals to have these appliances—which cannot otherwise be financed—before they can be completely rehabilitated, and only then when the applicants are definitely established in some vocational training, or where artificial appliance is the limiting factor in the successful rehabilitation through placement or job restoration. The State Board will as far as possible interest outside agencies in the purchase of artificial appliances.

4. Assistance in the Establishment in Business Because of physical conditions, home and environmental factors, or other circumstances, it is often advisable for the rehabilitant to establish a private business. All possible assistance will be considered a part of the service to be performed by the Board.

5. Job Restoration

Where a person has become so physically disabled while gainfully employed that the worker is robbed of the opportunity of making a livelihood, it is often possible to restore this individual to the former place of usefulness by means of special training, the use of artificial appliances or special machine attachments. This will be considered good rehabilitation.

6. Placement

The State Board considers placement an integral part of every rehabilitation, and will cooperate with all training agencies, employment agencies, person or persons to secure jobs for rehabilitants that will enable them to become self-supporting.

D. Maintenance

A disabled person receiving vocational training under the direction of the State Board cannot receive financial aid for maintenance under the National and State Vocational Education Acts.

VII. CASE PROCEDURE

A. Survey

A complete survey of every case will be made for the purpose of furnishing information on which to base eligibility and susceptibility, and on which to determine the character and extent of the rehabilitation service to be rendered.

All surveys will be made in person by either the State Supervisor or some person designated by the State Supervisor.

B. Counsel, Advisement and Determination of Job Objective

Counsel and advisement will be given in each case and a conscientious endeavor will be made to direct the interest of the disabled person to the occupation for which, in the light of ability and personal resources, the individual is best equipped. This is considered one of the most important phases of the rehabilitation program.

Before making a rehabilitation plan for any disabled person a definite occupational objective will be decided upon as a result of the advisement and counsel given.

C. Preparation for Job Objective

After a job objective is determined for any case it will be the purpose of the State Board to select the best facilities of those available for preparing the person for the chosen objective. The State Board proposes to supervise all cases regularly, at least once in sixty days, and through these supervisory visits and written reports from the training agency it proposes to check the functioning of the training and the interest and cooperation of the disabled person.

D. Placement

The State Board considers placement an integral part of every vocational rehabilitation program, and considers no case rehabilitated until successfully placed in remunerative employment.

E. Follow-Up

After placement and prior to rehabilitation each case will be supervised on the job by the State Board until satisfactory permanent employment is assured.

VIII. DEVELOPMENT OF JOB OPPORTUNITIES

It will be the purpose of the State Board to develop job opportunities for the disabled by acquainting employers in the State with the work and by making surveys of various occupations for the purpose of ascertaining the jobs at which disabled persons can work.

IX. COOPERATION

The State Board will cooperate with the Industrial Commission of Colorado State and Federal Employment Agencies, and with agencies and individuals interested in the welfare of disabled persons.

X. SCOPE OF PROGRAM

A. Budget

The budget of available Federal, State and local funds will be distributed under the following classification of expenditures in accordance with the requirements of the Federal Board.

1. Administration

- a. Salary of supervisor
- b. Salaries of clerical assistants
- c. Travel of supervisor (Not on case production service)
- d. Communication
- e. Printing
- f. Supplies—administrative
- g. Rent, light and heat
- h. Miscellaneous-general

2. Case Cost

- a. Salaries of supervisor and rehabilitation case workers
- b. Travel of supervisor and rehabilitation case workers
- c. Tuition, educational institutions
- d. Tuition, commercial and industrial establishments
- e. Tuition, correspondence
- f. Tuition, tutorial
- g. Instructional supplies and equipment
- h. Travel of trainees
- i. Artificial appliances
- j. Physical examinations
- k. Other case production expenditures
- 3. Expenditures not covered by rehabilitation act (such as administrative equipment)

The budget will necessarily have to be made annually and in accordance with the development and extension of the program. Inasmuch as this plan is to cover a period of four years, from July 1, 1933, to June 30, 1937, it is not deemed advisable at this time to specify the amounts to be expended for the full period. The Twenty-ninth General Assembly provided the following funds annually for the biennium ending June 30, 1935:

Vocational Rehabilitation (Case service) _____ 4,450.00

Supervisory, travel, stenographic and office expenses are also provided for in the General Administration Budget.

B. Method of Determining Need for the Vocational Rehabilitation Service

Local and county surveys will be made wherever pos-

sible to determine the needs for rehabilitation service. Organizations and individuals will be encouraged to report rehabilitation prospects to the State office. This will be brought about in so far as it is possible to do so through cooperation with service clubs, American Legion, welfare organizations, labor unions, newspaper editors, church societies, city and county superintendents of schools, and county officers.

XI. LEGISLATIVE

The State Board will sponsor legislation as deemed advisable for carrying out a successful program during the period of this plan.

XII. APPRAISAL OF PROGRAM

The State Board deems it advisable that the program be evaluated at least annually. The appraisal of the program will be made in the form of an annual descriptive report covering a complete review of the rehabilitation records and comparison made between the rehabilitated group, service rendered to this group, service being rendered to the live roll cases and the study of non-rehabilitation closures. Through this method of appraisal it is hoped to determine the value of the work accomplished and the improvements that may be made in the service.

ACT OF ACCEPTANCE

Passed by the Twenty-first General Assembly of Colorado Accepting the Terms of the Smith-Hughes Act.

By an act of the Twenty-first General Assembly, passed April 10, 1917, the State of Colorado accepted the provisions of the Smith-Hughes act and designated the State Board of Agriculture as the State Board for Vocational Education in Colorado.

AN ACT

By Senators West and Riddle.

"TO ACCEPT AND COMPLY WITH THE PROVISIONS OF AN ACT OF CONGRESS ENTITLED 'AN ACT TO PROVIDE FOR THE PROMOTION OF VOCATIONAL EDUCATION; TO PROVIDE FOR CO-OPERATION WITH THE STATES IN THE PROMOTION OF SUCH EDUCATION IN AGRICULTURE AND THE TRADES AND INDUSTRIES; TO PROVIDE FOR CO-OPERATION WITH THE STATES IN THE PREPARATION OF TEACHERS OF VOCATIONAL

SUBJECTS; AND TO APPROPRIATE MONEY AND REGULATE ITS EXPENDITURE', AND TO PROVIDE FOR THE ADMINISTRATION OF THESE PROVISIONS BY THE STATE BOARD OF AGRICULTURE, AND FOR THE APPROPRIATION OF NECESSARY FUNDS.

"BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF COLORADO:

"Section 1.—That full and complete acceptance and assent is hereby made and given by the State of Colorado to the provisions, terms and conditions made and prescribed by the act of Congress of the United States entitled "An Act to provide for the promotion of vocational education, to provide for co-operation with the states in the promotion of such education in agriculture and the trades and industries, to provide for co-operation with the states in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure.

"Section 2.—The governing board of the State Agricultural College, officially known as the State Board of Agriculture, is hereby designated as the state board for carrying out the provisions of the aforesaid act of Congress. In addition to its present powers and duties, the State Board of Agriculture is hereby vested with all the powers and duties, the State Board of Agriculture is hereby vested with all the powers required to comply with the provisions of said Act of Congress.

"Section 3.—The State Board of Agriculture is hereby directed and empowered to prepare plans for vocational education as required by the aforesaid act of Congress, and when said plans shall have been found to comply with the provisions of said act by the Federal Board for Vocational Education, the State Board of Agriculture is hereby authorized and empowered to carry the same into effect in insitutions now operated under its direction and in other state institutions, and, by entering into agreement and contract with the boards of education of first, second and third class school districts, and with county high school and district boards; and said boards of education and county high school and distrct boards are hereby authorized and empowered to enter into such agreement and contract with the State Board of Agriculture and they are hereby granted the right to use and expend a part of the revenues of their respective districts for such purpose.

"Section 4.—The State Board of Agriculture is hereby authorized, empowered and directed to prepare plans for the training of teachers of vocational subjects as required by aforesaid act of Congress, and to put these plans into effect. For the purpose of making available to the State of Colorado the appropriations provided in Section 4 of said Act of Congress, the State Board of Agriculture is hereby authorized, empowered and directed to meet said appropriations with moneys on a dollar for dollar basis, to be paid out of funds appropriated for the maintenance and support of the institutions under its control.

"Section 5.—The State Treasurer is hereby appointed custodian of the funds due and payable to the State of Colorado by the aforesaid act of Congress, and is hereby authorized and directed to pay out of such funds on warrants drawn by the Auditor of State on the order of the State Board of Agriculture, signed by its president, and countersigned by its secretary.

"Section 6.—The State Board of Agriculture is hereby authorized to use funds appropriated for the maintenance and support of institutions and schools under its control, for defraying the costs of administration under this act and said act of Congress.

"Section 7.—Should Section 1 of Article IX of the Constitution of Colorado be hereafter amended so as to provide for an appointive board of education, then such board shall, on the first day of July following such amendment, supersede the State Board of Agriculture in relation to all its powers and duties under this act. The State Board of Agriculture is designated as the state board for carrying out the provisions of the aforesaid act of Congress as a temporary measure until said Section 1 of Article IX of the Constitution is so amended or until a more suitable agency shall be established.

"Section 8.—In the opinion of the General Assembly, this act is necessary for the immediate preservation of the public peace, health and safety.

"Section 9.—In the opinion of the General Assembly, an emergency exists; therefore, this act shall take effect and be in force from and after its passage.

James A. Pulliam, President of the Senate.

Boon Best,

Speaker of the House of Representatives. Approved April 10, 1917, at 5:30 o'clock P. M.

Julius C. Gunter, Governor of the State of Colorado."

Note:—According to Section 3 above, boards of education

in all classes of school districts are empowered to use district funds to meet state and federal funds in conducting vocational schools and classes.

AN ACT RELATING TO THE ADMINISTRATION OF THE STATE GOVERNMENT

By the Twenty-ninth General Assembly of the State of Colorado, 1933.

ARTICLE VI. DEPARTMENT OF EDUCATION

SECTION 14. Organization, Powers and Duties.

The Department of Education shall consist of the following offices, boards, divisions and agencies:

- 1. Division of Administration, the head of which shall be the Superintendent of Public Instruction. This Division shall include the office of the Superintendent of Public Instruction, which, except as otherwise expressly provided in this Act, shall continue as now organized and existing;
 - 2. The State Board of Examiners (teachers)
- 3. The State Historical Society of Colorado. This Society shall continue as now organized and existing except as otherwise expressly provided in this Act.
- 4. The State Library, which shall exercise all the rights and powers and perform all the duties vested and imposed by law in and upon the Colorado Library Commission.
 - 5. Child Welfare Bureau.
- 9. The State Board for Vocational Education, which is hereby created and is hereby designated as the State Board for carrying out the provisions of the Acts of Congress relating to vocational education and vocational rehabilitation. The State Board for Vocational Education shall consist of three (3) citizens of the State of Colorado to be appointed by the Governor. In the first instance, one member shall be appointed for two (2) years, one for four (4) years and one for six (6) years and thereafter for six (6) years each. The Board shall elect annually one of its members as chairman. The members of the Board shall serve without compensation but shall be allowed their necessary expenses incurred while on the business of the Board. The State Board for Vocational Education shall exercise all the rights and powers and perform all the duties vested

and imposed by law in and upon the present State Board of Agriculture acting in its temporary capacity as the State Board for Vocational Education.

SECTION 32 CHAPTER 9 OF THE GENERAL APPROPRIA-TION ACT—VOCATIONAL EDUCATION

Enacted by the 29th General Assembly As approved June 8, 1933

	1934	1935	Biennium
State Director\$	4,000.00	\$ 4,000.00	\$ 8,000.00
(less any amount received from the U. S. of America,			
it being the intention that the total salary of said di-			
rector shall not exceed \$4,000.00 per year.)			
State Supervisor of Agri-			
cultural Education	1,520.00	1,520.00	*3,040.00
State Supervisor of Rehab-			
ilitation Education	1,400.00	1,400.00	*2,800.00
State Supervisor of Home-			
making Education	1,330.00	1,330.00	*2,660.00
Chief Clerk	750.00	750.00	*1,500.00
Stenographer	600.00	600.00	*1,200.00
Salaries of Teachers and (Salaries marked thus (*) are match-			
Supervisors and Teach- ed by an equal amount from Federal			
er Trainers in School		funds.)	
Districts 3	0,200.00	30,200.00	60,4000.00
Maintenance and Operation			
Office Expenses	1.000.00	1.000.00	2.000.00
(including supplies, stationery, postage, rent, telephone,			
telegraph, express, freight, drayage, printing, reports,			
and reserve.)			•
Travel and Subsistence	2,500.00	2,500.00	5,000.00
For Ed. Rehabilitation			•
Subsidies	4,450.00	4,450.00	8,900.00

Total for State Board for Vocational Education__\$98,200.00

SMITH-HUGHES LAW (PUBLIC—No. 347—64th CONGRESS) (S. 703.)

An Act To provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditures.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby annually appropriated, out of any money in the Treasury not otherwise appropriated, the sums provided in sections two, three, and four of this Act, to be paid to the respective States for the purpose of cooperating with the States in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and teachers of trade, home economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home economics subjects; and the sum provided for in section seven for the use of the Federal Board for Vocational Education for the administration of this Act and for the purpose of making studies, investigations, and reports to aid in the organization and conduct of vocational education, which sums shall be expended as hereinafter provided.

Sec. 2. That for the purpose of cooperating with the State in paying the salaries of teachers, supervisors, or directors of agricultural subjects there is hereby appropriated for the use of the States, subject to the provisions of this Act, for the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$500,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$750,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$1,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, the sum of \$1,250,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-two, the sum of \$1,500,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-three, the sum of \$1,750,-000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-four, the sum of \$2,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-five, the sum of \$2,500,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-six, and annually thereafter, the sum of \$3,000,000. Said sums shall be allotted to the States in the proportion which their rural population bears to the total rural popvlation in the United States, not including outlying possessions, according to the last preceding United States census; Provided, That the allotment of funds to any State shall be not less than a minimum of \$5,000 for any fiscal year prior to and including the fiscal year ending June thirtieth, nineteen hundred and twenty-three, nor less than \$10,000 for any fiscal year thereafter, and there is hereby appropriated the following sums or so much thereof as may be necessary, which shall be used for the purpose of providing the minimum allotment to the States provided for in this section: For the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$48,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$34,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$24,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, the sum of \$18,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-two, the sum of \$14,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-three, the sum of \$11,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-four, the sum of \$9,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-five, the sum of \$34,000; and annually thereafter the sum of \$27,000.

That for the purpose of cooperating with the States in paying the salaries of teachers of trade, home economics, and industrial subjects there is hereby appropriated for the use of the State, for the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$500,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$750,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty the sum of \$1,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, the sum of \$1,250,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-two, the sum of \$1,500,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-three, the sum of \$1,750,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-four, the sum of \$2,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-five, the sum of \$2,500,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-six, the sum of \$3,000,000; and annually thereafter the sum of \$3,000,000. Said sums shall be allotted to the States in the proportion which their urban population bears to the total urban population in the United States, not including outlying possessions, according to the last preceding United States census: Provided, That the allotment of funds to any State shall be not less than a minimum of \$5,000 for any fiscal year prior to and including the fiscal year ending June thirtieth, nineteen hundred and twenty-three, nor less than \$10,000 for any fiscal year thereafter, and there is hereby appropriated the following sums, or so much thereof as may be needed, which shall be used for the purpose of providing the minimum allotment to the State provided for in this section: For the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$66,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$46,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$34,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-two, the sum of \$25,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-three, the sum of \$22,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-four, the sum of \$19,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-five, the sum of \$56,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-six, and annually thereafter, the sum of \$50,000.

That not more than twenty per centum of the money appropriated under this Act for the payment of salaries of teachers of trade, home economics and industrial subjects, for any year, shall be expended for the salaries of teachers of home economics subjects.

Sec. 4. That for the purpose of cooperating with the States in preparing teachers, supervisors, and directors of agricultural subjects and teachers of trade and industrial and home economics subjects there is hereby appropriated for the use of the States for the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$500,000; for the fiscal year ending June thirtieth, nineteen hundred nineteen, the sum of \$700,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$900,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, and annually thereafter, the sum of \$1,000,000. Said sums shall be allotted to the State in the proportion which their population bears to the total population of the United States, not including outlying possessions, according to the last preceding United States census: Provided, That the allotment of funds to any State shall be not less than a minimum of \$5,000 for any fiscal year prior to and including the fiscal year ending June thirtieth, nineteen hundred and nineteen, nor less than \$10,000 for any fiscal year thereafter. And there is hereby appropriated the following sums, or so much thereof as may be needed, which shall be used for the purpose of providing the minimum allotment provided for in this section: tor the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$46,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$32,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$24,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, and annually thereafter, the sum of \$90,000.

Sec. 5. That in order to secure the benefits of the appropriations provided for in sections two, three, and four of this Act, any State shall, through the legislative authority thereof, accept the provisions of this Act and designate or create a State Board, consisting of not less than three members, and having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of this Act. The State Board of Education, or other board having charge of the administration of public education in the State, or any State board having charge of the administration of any kind of vocational education in the State may, if the State so elect, be designated as the State board for the purpose of this Act.

In any State the legislature of which does not meet in nineteen hundred and seventeeen, if the governor of that State, so far as he is authorized to do so shall accept the provisions of this Act and designate or create a State board of not less than three members to act in cooperation with the Federal Board for Vocational Education, the Federal board shall recognize such local board for the purposes of this Act until the legislature of such State meets in due course and has been in session sixty days.

Any State may accept the benefits of any one or more of the respective funds herein appropriated, and it may defer the acceptance of the benefits of any one or more of such funds, and shall be required to meet only the conditions relative to the fund or funds the benefits of which it has accepted: Provided, That after June thirtieth, nineteen hundred and twenty, no State shall receive any appropriation for salaries of teachers, supervisors, or directors of agricultural subjects, until it shall have taken advantage of at least the minimum amount appropriated for the training of teachers, supervisors of directors of agricultural subjects, as provided for in this Act, and that after said date no State shall receive any appropriation for the salaries of teachers of trade, home economics, and industrial subjects until it shall have taken advantage of at least the minimum amount appropriated for the training of teachers of trade, home economics, and industrial subjects, as provided for in this Act.

Sec. 6. That a Federal Board for Vocational Education is hereby created, to consist of the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the United States Commissioner of Education, and three citizens of the United States to be appointed by the President, by and with the

advice and consent of the Senate. One of said three citizens shall be a representative of the manufacturing and commercial interests, one a representative of the agricultural interests, and one a representative of labor. The board shall elect annually one of its members as chairman. In the first instance, one of the citizen members shall be appointed for one year, one for two years, and one for three years, and thereafter for three years each. The members of the board other than the members of the cabinet and the United States Commissioner of Education shall receive a salary of \$5,000 per annum.

The board shall have power to cooperate with State boards in carrying out the provisions of this Act. It shall be the duty of the Federal Board for Vocational Education to make, or cause to have made studies, investigations, and reports, with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics. Such studies, investigations, and reports shall include agriculture and agricultural processes and requirements upon agricultural workers; trades, industries, and apprenticeships, trade and industrial requirements upon industrial workers, and classification of industrial processes and pursuits; commerce and commercial pursuits and requirements upon commercial workers; home management, domestic science, and the study of related facts and principles; and problems of administration of vocational schools and of courses of study and instruction in vocational subjects.

When the board deems it advisable such studies, investigations, and reports concerning agriculture, for the purpose of agricultural education, may be made in cooperation with or through the Department of Agriculture; such studies, investigations, and reports concerning trades and industries, for the purposes of trade and industrial education, may be made in cooperation with or through the Department of Labor; such studies, investigations, and reports concerning commerce and commercial pursuits, for the purposes of commercial education, may be made in cooperation with or through the Department of Commerce; such studies, investigations, and reports concerning the administration of vocational schools, courses of study and instruction in vocational subjects, may be made in cooperation with or through the Bureau of Education.

The Commissioner of Education may make such recommendations to the board relative to the administration of this Act

as he may from time to time deem advisable. It shall be the duty of the chairman of the board to carry out the rules, regulations, and decisions which the board may adopt. The Federal Board for Vocational Education shall have power to employ such assistants as may be necessary to carry out the provisions of this act.

- Sec. 7. That there is hereby appropriated to the Federal Board for Vocational Education the sum of \$200,000 annually, to be available from and after the passage of this Act, for the purpose of making or cooperating in making the studies, investigations, and reports provided for in section six of this Act, and for the purpose of paying the salaries of the officers, the assistants, and such office and other expenses as the board may deem necessary to the execution and administration of this Act.
- Sec. 8. That in order to secure the benefits of the appropriation for any purpose specified in this Act, the State board shall prepare plans, showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education, as provided for in section ten. Such plans shall be submitted by the State board to the Federal Board for Vocational Education, and if the Federal board finds the same to be in conformity with the provisions and purposes of this Act, the same shall be approved. The State board shall make an annual report to the Federal Board for Vocational Education, on or before September first of each year, on the work done in the State and the receipts and expenditures of money under the provisions of this Act.
- Sec. 9 That the appropriation for the salaries of teachers, supervisors, or directors of agricultural subjects and of teachers of trade, home economics, and industrial subjects shall be devoted exclusively to the payment of salaries of such teachers, supervisors, or directors having the minimum qualifications set up for the State by the State board, with the approval of the Federal Board for Vocational Education. The cost of instruction supplementary to the instruction in agricultural and in trade, home economics, and industrial subjects provided for in this Act, necessary to build a well-rounded course of training, shall be borne by the State and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made. The moneys expended under the provisions of this Act, in cooperation with the States, for the salaries of teachers, supervisors,

or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects, shall be conditioned that for each dollar of Federal money expended for such salaries the State or local community, or both, shall expend an equal amount for such salaries; and that appropriations for the training of teachers of vocational subjects, as herein provided, shall be conditioned that such money be expended for maintenance of such training and that for each dollar of Federal money so expended for maintenance, the State or local community, or both, shall expend and equal amount for the maintenance of such training.

Sec. 10. That any State may use the appropriation for agricultural purposes, or any part thereof allotted to it, under the provisions of this Act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes or for the salaries of supervisors or directors of such subjects under a plan of supervision for the State to be set up by the State Board, with the approval of the Federal Board for Vocational Education. That in order to receive the benefits of such appropriation for the salaries of teachers, supervisors, or directors of agricultural subjects the State Board of any State shall provide in its plan for egricultural education that such education shall be that which is under public supervision or control; that the controlling purpose of which education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home; that the State or local community, or both, shall provide the necessary plant and equipment determined upon by the State board, with the approval of the Federal Board for Vocational Education, as the minimum requirement for such education in schools and classes in the State; that the amount expended for the maintenance of such education in any school or class receiving the benefit of such appropriation shall be not less annually than the amount fixed by the State board, with the approval of the Federal board as the minimum for such schools or classes in the State; that such schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year; that the teachers, supervisors, or directors of agricultural subjects shall have at least the minimum qualifications determined for the State by the State board, with the approval of the Federal Board for Vocational education.

Sec. 11. That in order to receive the benefits of the appropriation for the salaries of teachers of trade, home economics, and industrial subjects the State board of any State shall provide in its plan for trade, home economics, and industrial education that such education shall be given in schools or classes under public supervision or control; that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and shall be designed to meet the needs of persons over fourteen years of age who are preparing for a trade or industrial pursuit, or who have entered upon the work of a trade or industrial pursuit; that the State or local community, or both, shall provide the necessary plant and equipment determined upon by the State board, with the approval of the Federal Board for Vocational Education, as the minimum requirement in such State for education for any given trade or industrial pursuit; that the total amount expended for the maintenance of such education in any school or class receiving the benefit of such appropriation shall be not less annually than the amount fixed by the State board, with the approval of the Federal board, as the minimum for such schools or classes in the State; that such schools or classes giving instruction to persons who have not entered upon employment shall require that at least half of the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than thirty hours per week; that at least one-third of the sum appropriated to any State for the salaries of teachers of trade, home economics, and industrial subjects shall, if expended, be applied to part-time schools or classes for workers over fourteen years of age who have entered upon employment, and such subjects in a part-time school or class may mean any subject given to enlarge the civic or vocational intelligence of such workers over fourteen and less than eighteen years of age; that such part-time schools of classes shall provide for not less than one hundred and forty-four hours of classroom instruction per year; that evening industrial schools shall fix the age of sixteen years as a minimum entrance requirement and shall confine instruction to that which is supplemental to the daily employment; that the teachers of any trade or industrial subject in any State shall have at least the minimum qualifications for teachers of such subject determined upon for such State by the State board, with the approval of the Federal Board for Vocational Education: Provided. That for cities and towns of less than twenty-five thousand population, according to the last preceding United States census, the State board, with the approval of the Federal Board for Vocational Education, may modify the conditions as to

the length of course and hours of instruction per week for schools and classes giving instruction to those who have not entered upon employment, in order to meet the particular needs of such cities and towns.

- That in order for any State to receive the benefits of the appropriation in this Act for the training of teachers, supervisors, or directors of agricultural subjects, or of teachers of trade, industrial or home economics subjects, the State board of such State shall provide in its plan for such training that the same shall be carried out under the supervision of the State board; that such training shall be given in schools of classes under public supervision or control; that such training shall be given only to persons who have had adequate vocational experience or contact in the line of work for which they are preparing themselves as teachers, supervisors, or directors, or who are acquiring such experience or contact as a part of their training; and that the State board, with the approval of the Federal board, shall establish minimum requirements for such experience or contact for teachers, supervisors, or directors of agricultural subjects and for teachers of trade, industrial, and home economics subjects; that not more than sixty per centum nor less than twenty per centum of the money appropriated under this Act for the training of teachers of vocational subjects to any State for any year shall be expended for any one of the following purposes: For the preparation of teachers, supervisors, or directors of agricultural subjects, or the preparation of teachers of trade and industrial subjects, or the preparation of teachers of home economics subjects.
- Sec. 13. That in order to secure the benefits of the appropriations for the salaries of teachers, supervisors, or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects, or for the training of teachers as herein provided, any State shall, through the legislative authority thereof, appoint as custodian for said appropriations its State trasurer, who shall receive and provide for the proper custody and disbursements of all money paid to the State from said appropriations.
- Sec. 14. That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this Act. On or before the first day of January of each year the Federal Board for Vocational Education shall certify to the Secretary of the Treasury each State which has accepted the provisions of this Act and complied there-

with, certifying the amounts which each State is entitled to receive under the provisions of this Act. Upon such certification the Secretary of the Treasury shall pay quarterly to the custodian for vocational education of each State the moneys to which it is entitled under the provisions of this Act. The moneys so received by the custodian for vocational education for any State shall be paid out on the requisition of the State board as reimbursement for expenditures already incurred to such schools as are approved by said State board and are entitled to receive such moneys under the provisions of this Act.

- Sec. 15. That whenever any portion of the fund annually allotted to any State has not been expended for the purpose provided for in this Act, a sum equal to such portion shall be deducted by the Federal board from the next succeeding annual allotment from such fund to such state.
- Sec. 16. That the Federal Board for Vocational Education may withhold the allotment of moneys to any State whenever it shall be determined that the moneys are not being expended for the purposes and under the conditions of this act.

If any allotment is withheld from any State, the State board of such State may appeal to the Congress of the United States, and if the Congress shall not direct such sum to be paid it shall be covered into the Treasury.

- Sec. 17. That if any portion of the moneys received by the custodian for vocational education of any State under this Act, for any given purpose named in this Act, shall, by any action or contingency, be diminished or lost, it shall be replaced by such State, and until so replaced no subsequent appropriation for such education shall be paid to such State. No portion of any moneys appropriated under this Act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings or equipment or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or college.
- Sec. 18. That the Federal Board for Vocational Education shall make an annual report to Congress, on or before December first, on the administration of this Act and shall include in such report the reports made by the State boards on the administration of this Act by each State and the expenditure of the money allotted to each State.

GEORGE REED ACT (PUBLIC—NO. 702—70TH CONGRESS) (S. 1731)

An Act To provide for the further development of vocational education in the several States and Territories.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That for the purpose of providing for the further development of vocational education in the several States and Territories there is hereby authorized to be appointed for the fiscal year ending June 30, 1930, the sum of \$500,000, and for each year thereafter, for four years, a sum exceeding by \$500,000 the sum appropriated for each preceding year. One-half of such sums shall be allotted to the States and Territories in the proportion that their farm population bears to the total farm population of the United States, exclusive of the insular possessions, according to the United States census last preceding the end of the fiscal year in which any such allotment is to be made, and shall be used for the salaries of teachers, supervisors, and directors of agricultural subjects in such States and Territories. The remaining half of such sums shall be allotted to the States and Territories in the proportion that their rural population bears to the total rural population of the United States, exclusive of the insular possessions, according to the United States census last preceding the end of the fiscal year in which any such allotment is to be made, and shall be used for the salaries of teachers, supervisors, and directors, development and improvement of home economics subjects in such State and Territories.

- Sec. 2. For the purpose of carrying out the provisions of this Act there is hereby authorized to be appropriated to the Federal Board for vocational Education out of any money in the Treasury not otherwise appropriated, the sum of \$100,000 annually to be expended for the same purposes and in the same manner as provided in section 7 of the Act approved February 23, 1917, as amended October 6, 1917.
- Sec. 3. The appropriations made by this Act shall be in addition to, and shall be subject to the same conditions and limitations as, the appropriations made by the Act entitled "An Act to provide for the promotion of vocational education; to provide cooperation with the States in the promotion of such education in agriculture and in the trades and industries; to provide cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its ex-

penditures," approved February 23, 1917, except that the appropriation made by this Act for home economics shall be subject to the conditions and limitations applicable to the appropriation for agricultural purposes under such Act of February 23, 1917, with the exception of that part of section 10 thereof which requires directed or supervised practice for at least six months per year, and that the appropriations available to the Federal Board for Vocational Education for salaries and expenses shall be available for expenses of attendance at meetings of educational associations and other organizations, which, in the opinion of the board are necessary for the efficient discharge of its responsibilities.

Approved, February 5, 1929.

VOCATIONAL REHABILITATION ACT

An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment.

(Public No. 236, Sixty-eixth Congress (H. R. 4438), as amended by Public No. 200, Sixty-eighth Congress (H. R. 5478), as amended by Public No. 317, Seventy-first Congress (H. R. 10175), as amended by Public No. 222, Seventy-second Congress (H. R. 4743.))

Be it enacted by the Senate and House of Representatives of the United State of America in Congress assembled, That the first section of the Act entitled "An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment," approved June 2, 1930, as amended (U. S. C., title 29, secs. 31 and 32), is hereby amended to read as follows:

"Section. 1. That in order to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their placement in employment, there is hereby authorized to be appropriated for the use of the States, subject to the provisions of this Act, for the fiscal year ending June 30, 1934, the sum of \$1,000,000, for the fiscal year ending June 30, 1935, the sum of \$1,000,000; for the fiscal year ending June 30, 1936, the sum of \$1,000,000; and for the fiscal year ending June 30, 1937, the sum of \$1,000,000. Said sums shall be allotted to the States in the proportion which their populations bear to the total population in the United States, not including Territories, outlying possessions, and the District of Columbia, according to the last preceding United States census: Provided, That the allotments of funds to any State shall not be less than a mini-

mum of \$10,000 for any fiscal year: Provided further, That such portions of the sums allotted that will not be used in any fiscal year may be allotted in that year proportionately to the States which are prepared through available State funds to use the additional Federal funds. And there is hereby authorized to be appropriated for each of the fiscal years ending June 30, 1934, June 30, 1935, June 30, 1936, and June 30, 1937, the sum of \$97,000, or so much thereof as may be needed, which shall be used for the purpose of providing the minimum allotments to the States provided for in this section.

"All money expended under the provisions of this Act from appropriations authorized by Section 1 shall be upon the condition (1) that for each dollar of Federal money expended there shall be expended in the state under the supervison and control of the State board at least an equal amount for the same purpose: Provided, That no portion of the appropriations authorized by this Act shall be used by any institution for handicapped persons except for vocational rehabilitation or such individuals entitled to the benefits of this Act as shall be determined by the Federal Board: (2) that the State board shall annually submit to the Federal Board for approval plans showing (a) the plan of administration and supervision of the work; (b) the qualifications of directors, supervisors, and other employees; and (c) the policies and methods of carrying on the work; (3) that the State board shall make an annual report to the Federal Board on or before September 1 of each year on the work done in the State and on the receipts and expenditures of money under the provisions of this Act; (4) that no portion of any money authorized to be appropriated by this Act for the benefit of the States shall be applied, directly or indirectly, to the purchase, preservation, erection, or repair of any building or buildings or equipment, or for the purchase or rental of any lands; (5) that all vocational rehabilitation service given under the supervision and control of the State board shall be available, under such rules and regulations as the Federal Board shall prescribe, to any civil employee of the United States disabled while in the performance of his duty."

"Section 2. That for the purpose of this Act the term 'persons disabled' shall be construed to mean any person who, by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is, or may be expected to be, totally or partially incapacitated for remunerative occupation; the term 'rehabilitation' shall be construed to mean the rendering of a person disabled fit to engage in a remunerative occupation."

"Section 3. That in order to secure the benefits of the appropriations authorized by Section 1 any State shall, through the legislative authority thereof, (1) accept the provisions of this Act: (2) empower and direct the Board designated or created as the State board for vocational education to cooperate in the administration of the provisions of the Vocational Education Act, approved February 23, 1917 (U. S. C., title 20, ch. 2), to cooperate as herein provided with the Federal Board for Vocational education in the administration of the provisions of this Act; (3) in those States where a State workmen's compensation board, or other State board, department, or agency exists, charged with the administration of the State workmen's compensation or liability laws, the legislature shall provide that a plan of cooperation be formulated between such State board, department, or agency and the State board charged with the administration of this Act; (5) appoint as custodian for said appropriations its State treasurer, who shall receive and provide for the proper custody and disbursement of all money paid to the State from said appropriations: Provided, That any State which, prior to June 30, 1933, has accepted and otherwise compiled with the provisions of the Act of June 2, 1920, as amended June 5, 1924, as amended June 9, 1930, shall be deemed to have accepted and complied with the provisions of this amendment to said Act."

Section 4. That the Federal Board for Vocational Education shall have power to cooperate with State board in carrying out the purposes and provisions of this Act, and is hereby authorized to make and establish such rules and regulations as may be necessary or appropriate to carry into effect the provisions of this Act in order to provide for the vocational rehabilitation of disabled persons and their placement in employment; and to cooperate, for the purpose of carrying out the provisions of this Act, with such public and private agencies as it may deem advisable. It shall be the duty of said Board (1) to examine plans submitted by the State boards and approve the same if believed to be feasible and found to be in conformity with the provisions and purposes of this Act; (2) to ascertain annually whether the several States are using or are prepared to use the money received by them in accordance with the provisions of this Act; (3) to certify on or before the 1st day of January of each year to the Secretary of the Treasury each State which has accepted the provisions of this Act and complied therewith. together with the amount which each State is entitled to receive under the provisions of this Act; (4) to deduct from the next succeeding allotment to any State whenever any portion of the fund annually allotted has not been expended for the purpose

provided for in this Act as a sum equal to such portion: (5) to withhold the allotment of moneys to any State whenever it shall be determined that moneys allotted are not being expended for the purposes and conditions of this Act; and (6) to require the replacement by withholding subsequent allotments of any portion of the moneys received by the custodian of any State under this Act that by any action or contingency is diminished or lost: Provided, That if any allotment is withheld from any State the State board of such State may appeal to the Congress of the United States; and if the Congress shall not, within one year from the time of said appeal, direct such sum to be paid, it shall be covered into the Treasury."

"Section 5. That the Secretary of the Treasury, upon the certification of the Federal Board as provided in this Act, shall pay in equal semiannual payments, on the 1st day of July and January of each year, to the custodian of each State appointed as herein provided the moneys to which it is entitled under the provisions of this Act. The money so received by the custodian for any State shall be paid out on the requisition of the State board as reimbursement for services already rendered or expenditures already incurred and approved by said State board. The Federal Board for Vocational Education shall make an annual report to the Congress on or before December 1 on the administration of this Act by each State and the expenditure of the money allotted to each State."

"Section 6. That there is hereby authorized to be appropriated to the Federal Board for Vocational Education the sum of \$80,000 annually for a period of four years, commencing July 1, 1933, for the purpose of making studies, investigations, and reports regarding the vocational rehabilitation of disabled persons and their placements in suitable or gainful occupations, and for the administrative expenses of said Board incident to performing the duties imposed by this Act, including salaries of such assistants, experts, clerks, and other employees, in the District of Columbia or elsewhere as the Board may deem necessary, actual trabeling and other necessary expenses incurred by the members of the Board and by its employees, under its orders, including attendance at meetings of educational associations and other erganizations, rent and equipment of offices in the District of Columbia and elsewhere, purchase of books of reference, law books, and periodicals, stationery, typewriters and exchange thereof, miscellaneous supplies, postage on foreign mail, printing and binding to be done at the Government Printing Office, and all other necessary expenses."

"Section 7. That the Federal Board for Vocational Education is hereby authorized and empowered to receive such gifts and donations from either public or private sources as may be offered unconditionally. All moneys received as gifts or donations shall be paid into the Treasury of the United States, and shall constitute a permanent fund, to be called the 'Special fund for vocational rehabilitation of disabled persons,' to be used under the direction of the said Board to defray the expenses of providing and maintaining courses of vocational rehabilitation in special cases, including the payment of necessary expenses of persons undergoing training. A full report of all gifts and donations offered and accepted, together with the names of the donors and the respective amounts contributed by each, and all cisbursements therefrom shall be submitted annually to Congress by said board: Provided, That no discrimination shall be made or permitted for or against any person or persons who are entitled to the benefits of this Act because of membership or nonmembership in any industrial, fraternal or private organization of any kind under a penalty of \$200 for every violation thereof.

Approved June 3, 1920. Approved June 5, 1924. Approved June 9, 1930. Approved June 30, 1932.

THE STATE VOCATIONAL REHABILITATION ACCEPTANCE ACT

Chapter 156 Session Laws 1925

TO PROVIDE FOR THE VOCATIONAL REHABILITATION AND PLACEMENT OF PHYSICALLY DISABLED PERSONS AND MAKING AN APPRO-PRIATION THEREFOR

Be it enacted by the General Assembly of the State of Colorado:

Section 1. That in order to provide for the vocational rehabilitation of physically disabled persons, there is hereby established under the direction and control of the State Board of Agriculture, a Division for the vocational rehabilitation and placement in remunerative employment of persons whose capacity to earn a living is or has been destroyed or impaired.

Section 2. That for the purposes of this Act the term "physically disabled person" means any person who, by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury or disease, is or may be expected to be, totally or partially incapacitated for remunerative occupation; the term "vocational rehabilitation" means the rendering of a disabled person fit to engage in a remunerative occupation.

To be eligible for rehabilitation a person must be vocationally handicapped, and must be susceptible of rehabilitation.

Section 3. For the purposes of this Act, the State Board of Agriculture is hereby declared to be the State Board of Vocational Education and is hereby authorized and directed (1) to disburse all funds provided for the rehabilitation of disabled persons; (2) to appoint and fix the compensations of the personnel necessary to administer this Act; (3) to vocationally reliabilitate, and place in remunerative occupations persons eligible for the benefits of this Act; (4) to make such rules and regulations as may be necessary for the administration of this Act; (5) and to report annually to the Governor of the State on the administration of this Act.

Section 4. The State Board of Agriculture and the Industrial Commission of Colorado are hereby empowered and directed to cooperate in the administration of this Act, and to formulate a plan of cooperation, to become effective when approved by the Governor of the State.

Section 5. The State Board for Vocational Education is hereby authorized and empowered to receive such gifts and donations from either public or private sources as may be offered unconditionally or under such conditions as in the judgment of said State Board are proper and consistent with the provisions of this Act. All moneys received as gifts or donations shall be deposited in the State Treasury, and shall constitute a permanent special fund to be used by the State Board in carrying out the purposes of this Act. A report of all gifts and donations received, and all disbursements made therefrom, shall be submitted annually to the Governor of the State.

Section 6. The State of Colorado does hereby (1) accept the provision and benefits of the Act of Congress entitled "An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or other wise and their return to civil employment," approved June 2, 1920, as amended June 5, 1924: (2) designate the State Treasurer as custodian of all moneys received by the State from appropriations made by the Congress of the United States for vocational rehabilitation of persons disabled in industry or otherwise, and authorize the State Treasurer to make disbursements therefrom upon the order of the State Board for Vocational Education; (3) compower and direct the State Board for Vocational Education to cooperate with the Federal Board for Vocational Education in carrying out the provisions of the Federal Civilian Vocational Rehabilitation Act.

Section 7. There is hereby appropriated out of any funds in the State Treasury, not otherwise appropriated, the sum of Three Thousand Dollars (\$3,000) for the purposes as provided in this Act.

NOTE: State Acts of the 29th General Assembly of 1933 pertaining to the governing board and to appropriations now prevail. These acts give all powers and duties formerly discharged by the State Board of Agriculture, acting in its temporary capacity as the State Board for Vocational Education, to the State Board for Vocational Education.



RECEIVED

APR 0 9 1997

STATE PUBLICATIONS
Colorado State Library