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Rural War Production Training Program

Final Report

By

**The Staff of the Rural War
Production Training Program
under the direction of
W. T. SPANTON, Director.**

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Watson B. Miller, Administrator

U. S. Office of Education

John W. Studebaker, Commissioner

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FOREWORD

THE RURAL War Production Training Program was inaugurated at the beginning of the war primarily to provide training in elementary skills to farm youth not needed on farms, sufficient to enable them to secure employment in defense industries. Very shortly, however, this picture changed and the production of food crops throughout the Nation adequate to feed ourselves, our armed services, and our allies became the major objective of this training program.

Perhaps no other appropriations made by the Congress to stimulate increased food production contributed more to that end than did the appropriations made to the U. S. Office of Education for the Rural War Production Training Program. This was true because attainment of the objectives of the Rural War Production Training Program became the major concern of the more than 8,000 local departments of vocational agriculture located throughout the United States. These local departments of vocational agriculture, possessing the physical facilities and the trained leadership necessary for the development and operation of intensive short-unit courses, were in a strategic position to make a vital contribution to the production of increased food commodities during the war period.

Local departments of vocational agriculture made a second major contribution to the war effort by making available to the Rural War Production Training Program their facilities for farm shop instruction. It was through the use of these facilities that the Rural War Production Training Program was enabled to conduct a Nation-wide farm machinery repair training program that enrolled thousands of adult farmers. This farm machinery repair training program was especially popular because practically all manufacturers of harvesting machinery and farm implements became engaged in the manufacture of implements of war. Although practically no new farm machinery was to be had, farmers were asked to produce more of the critical food and fiber commodities than ever before. In addition, there was a shortage of farm labor, which in turn increased the demands for farm mechanization. This meant that farmers found it necessary to keep their old farm machinery functioning just as long as possible, and the farm machinery repair training courses conducted in farm shops of local departments of vocational agriculture proved to be one of the best answers to the need of farmers for keeping this old equipment in operating condition.

In addition to the farm machinery repair training program, production and conservation of food crops was greatly stimulated through specialized, intensive short-unit courses. These

courses resulted in the planned production of food crops adequate to farm family needs and in the development of school-community canneries for the conservation and processing of such food crops. These school-community canneries represented another type of facility which local departments of vocational agriculture used to the maximum in the interest of the Rural War Production Training Program. As a result, thousands of farm families were able to supply most of their own food needs, thereby releasing to the urban public, the armed forces, and our allies, greater quantities of commercially packed food crops.

Without the loyal and enthusiastic cooperation and support of State and local school personnel throughout the United States it would not have been possible for the Agriculture Education Service of the U. S. Office of Education and the several State boards for vocational education to have made the significant contribution to the war effort represented by the accomplishments of the Rural War Production Training Program. To them must go the major share of the credit for these accomplishments.

This bulletin has been prepared by Dr. R. W. Gregory, assistant director of the Rural War Production Training Program, and the staff of specialists who served with him on this program during the war. As a result of the experiences gained in the conduct of this program and with the increased availability of facilities for instruction, the States are in a better position than heretofore to extend and expand the opportunities for obtaining vocational training in agricultural education to more rural families.

W. T. SPANTON,

Director, Rural War Production Training.

PART I



Part I

PROGRAM UNDER THE NATIONAL DEFENSE TRAINING ACTS

October 9, 1940-June 30, 1945

PRELIMINARY DEVELOPMENT

WHEN HITLER sent his German armies into Poland in September 1939, many educational leaders of the United States realized that eventually vocational education would be called upon to aid in training men and women to build and operate a war machine including industry and agriculture that would enable the United States to cope with any situation that might arise.

In June 1940, the Seventy-Sixth Congress made available to the U. S. Office of Education the sum of \$15,000,000 with which to establish an industrial training program for defense workers. By the middle of July several thousand individuals had been enrolled. This program provided for the retraining of experienced workers for those industries in which there was greatest need and for supplementary training designed to upgrade workers already employed in industrial occupations. For the most part, the opportunity to participate in this training program was available only to those out-of-school persons living in or near the larger urban centers.

It was realized that there were many persons living in the rural areas of the United States who could benefit from this type of training and on October 9, 1940 the President approved Public Law 812, Seventy-Sixth Congress, Third session which appropriated \$10,000,000 for education and training programs for out-of-school rural and nonrural youth, between the ages of 17 and 24 inclusive. An expanded program was continued through annual appropriations to June 30, 1945.

The popular acceptance of this program was evidenced by the fact that there were more than 4 million enrollments in the several courses. During the beginning years large numbers of rural youth were given preliminary shop training and channeled into industry. Later, the emphasis was placed on aiding the American farmer to increase and conserve the Nation's food supply, through the organization of training courses for farmers in the production of critically essential commodities and for the production and conservation of food crops for family home consumption. An extensive training program in farm machinery repair was developed enabling farmers to maintain, repair, and construct millions of dollars worth of farm machinery and equipment which aided in the production and harvesting of the greatly needed record-breaking crops of the war years.

Before the program for rural youth could get under way, the Office of Education had to set up the structure within which the program would operate. The first step that was taken was a survey to determine what facilities were available which could be used for the conduct of the training courses.

FARM SHOP SURVEY

High school courses in vocational agriculture in a number of States have always included training in basic shop skills and the application of these skills to the maintenance, repair, and construction of farm machinery and equipment. To make possible such training many local schools provided farm shop buildings and equipment. Many of the shop buildings were adequate and well equipped while others were small and lacking in tools and equipment.

In order to determine definitely what facilities were available in the more than 8,000 departments of vocational agriculture which were suitable for giving the type of training needed by rural out-of-school youth during the war period, a survey form was submitted to the State on August 14, 1940 requesting information as to the size of the shops and the quality of equipment in each shop. The form also asked for an estimate of the funds needed to build new shops, remodel old shops, and to supply additional equipment for all such shops in each State. The survey contemplated that the following courses would be taught: Truck and tractor driving, horseshoeing, automobile trouble shooting, concrete construction, woodwork, and the use of ordinary shop tools and equipment. The results of this survey are summarized in table I.

NYA AIDS IN BUILDING SHOPS

The results of this survey stimulated a conference between officials of the U. S. Office of Education and the National Youth Administration with regard to construction of public school farm shops by the latter organization. A letter from the Administrator of the National Youth Administration was sent to all State NYA administrators on October 5, 1940, emphasizing the need for school farm shop construction and the desirability of such work projects for NYA enrollees. On October 12, 1940, the Commissioner of Education transmitted a letter to all executive officers of State boards for vocational education telling them of their responsibility in selecting the centers that would benefit from NYA assistance in the construction of school farm shops. A committee appointed by the U. S. Office of Education worked with the architects in developing floor plans and specifications for buildings meeting the needs of school farm shops.

As of February 18, 1941, the National Youth Administration had authorized the construction of 1,018 school farm shops and had, as of that date, specifically approved the construction of 345 such buildings.

Table I.—Summary of reports on farm shop facilities available in schools, 1940

Region ¹	Present facilities						Facilities and equipment needed							
	Size of shops			Quality of equipment ²			New shops needed	Additions to shops needed	Shops needing additional equipment	Estimated costs				
	2,000 square feet or more	1,000-1,999 square feet	999 square feet or less	No shop	Superior	Good				Fair	New shops	Additions	Additional equipment	Total
Total.....	464	2,115	3,024	2,295	611	2,064	2,984	2,637	1,422	6,011	86,593,275	\$1,574,300	\$3,773,810	\$11,941,385
North Atlantic.....	54	268	781	73	206	533	400	199	106	763	559,200	117,400	369,925	1,040,525
Southern (white).....	61	780	1,068	913	158	615	1,165	1,129	601	2,113	2,345,900	683,750	1,380,095	4,409,645
Southern (negro).....	3	68	325	365	7	49	376	310	212	624	544,100	178,300	347,475	1,069,875
Central.....	170	757	650	848	161	624	786	789	367	1,870	2,228,000	363,150	1,077,030	3,668,180
Pacific.....	156	242	200	96	79	243	237	211	136	641	916,175	211,700	599,285	1,727,160

¹44 States reported on 7,898 schools which represent 95% of all the schools in the United States with vocational agricultural departments (New Hampshire, Arizona and North Carolina reported on 20% of departments only.) Connecticut, Maryland, Massachusetts and Rhode Island sent in no reports. Georgia and New York did not report costs. Georgia (and New Jersey—1 dept.) did not report anything on the Negro departments.

²Based on estimate of State Supervisor.

DEVELOPMENT OF POLICY BULLETIN, MISC. 2600

On September 13 and 14, 1940 a general conference composed of representatives of the U. S. Office of Education, State directors of vocational education, and head State supervisors of vocational agricultural education was called by the Commissioner of Education to discuss questions and answers to be included in a general policy bulletin, as provided by law. Further development of the manuscript for the policy bulletin was made at subsequent conferences of the Office staff and selected State executive officers, State directors of vocational education, and State supervisors of vocational agriculture.

As hereinafter discussed the defense training programs, including the Rural War Production Training Program under its various titles, were authorized by Congress through five successive public laws. Each act provided that the program should be operated in accordance with regulations promulgated by the United States Commissioner of Education under the supervision and direction of the Federal Security Administrator and approved by the President. The policies of the U. S. Office of Education for the operation of the Rural War Production Training Program under the successive appropriating acts and the regulations for each were set forth in a series of questions and answers in a document designated as Misc. 2600. This document was revised annually in conformity with each act, the regulations promulgated pursuant thereto, and the changing needs for a training program. Thus, Misc. 2600 became the guide for representatives of the U. S. Office of Education and the State boards for vocational education in organizing and operating the courses.

PLANNING THROUGH COMMITTEES AND CONFERENCES

During September and October 1940, committees composed largely of members of the Agricultural Education Service of the U. S. Office of Education were appointed to plan for the development of the Rural War Production Training Program, then known as the Out-of-School Rural Youth Defense Training Program. These committees had the responsibility for preparing (1) an outline of abilities to be developed in the program, together with lists of equipment, supplies, and other materials needed; (2) an outline for the States to follow in submitting plans for cooperating with the U. S. Office of Education, (3) the plans for the administrative organization, and (4) the reporting forms to be used.

On October 4, 1940, Commissioner Studebaker appointed an Advisory Committee on Technical Problems of Agricultural Education made up of representatives of national and State organizations interested in vocational agriculture, to consider current and future problems having to do with agricultural education. This committee first met on October 11, 1940, at which time it reviewed the policies to be followed in the operation of the proposed program. At two subsequent meetings held in 1941 the committee considered (1) problems regarding the development and administration of

the program in the States, and (2) proposed legislation providing for a farm machinery repair program. The committee also made an inspection trip into the Southern States in order to gain first-hand information with respect to the organization and operation of the training program.

ADMINISTRATION OF THE PROGRAM

LEGAL AUTHORIZATION

The defense training programs were authorized and funds made available annually by the Congress through the successive Labor-Federal Security appropriations acts under "Title II - Federal Security Agency" and the heading "Education and Training, Defense Workers - National Defense)." The Rural War Production Training Program operated under the following acts:

Subdivision (4) Public Law 812, Seventy-Sixth Congress, Third session, fiscal year 1941.

Subdivision (4) Public Law 146, Seventy-Seventh Congress, First session, fiscal year 1942.

Subdivision (3) Public Law 647, Seventy-Seventh Congress, Second session, fiscal year 1943.

Subdivision (3) Public Law 135, Seventy-Eighth Congress, First session, fiscal year 1944.

Subdivision (3) Public Law 373, Seventy-Eighth Congress, Second session, fiscal year 1945.

Public Law 124, Seventy-Ninth Congress, First session, fiscal year 1946, provided funds only for the liquidation of the program.

The original defense training appropriation act, Public Law 812, referred to above, as it applies to the Rural War Production Training Program reads as follows:

For payment to States, subdivisions thereof, or other public authorities operating public educational facilities.

(4) For the cost, including the necessary equipment and supplies, of vocational courses and related or other necessary instruction provided by such agencies for out-of-school rural youth who have attained the age of seventeen and who file a registration card with a public employment office, and for non-rural youth who otherwise meet the above requirements whose training is not feasible under subdivisions (1) and (3) hereof, such courses and instruction to be provided pursuant to plans submitted by such agencies and approved by the Commissioner, \$10,000,000.

The Commissioner shall carry out the purposes of these appropriations under regulations promulgated by him and approved by the President.

The language of the successive acts was revised to meet the changing needs of national defense and the war effort.

Public Law 146 added "vocational schools which were exempt from taxation under Section 101 (6) of the Internal Revenue Code" to the agencies under Public Law 812, eligible to receive funds. In the original act no mention was made as to the amount of money that could be spent for equipment; however, Public Law 146 stipulated that not to exceed 30 percent of the funds would be available for purchase and rental of

equipment and the rental of space. It was stipulated that regulations were to be "promulgated by the United States Commissioner of Education under the supervision and direction of the Federal Security Administrator and approved by the President." The law carried an appropriation of \$15,000,000 for the Out-of-School Rural and Non-rural Youth.

Public Law 647, which provided for the defense training program during the fiscal year of 1943, removed the upper age limit and stated that all persons 17 years of age or over who, if unemployed, filed a registration card with a public employment office, were eligible to enroll in these courses. This law also provided for the cost of vocational courses in the production of farm commodities and in the repair, operation, and construction of farm machinery and equipment necessary to meet the needs of farmers in obtaining the production goals of those farm commodities designated by the Secretary of Agriculture. In order to have food commodities included in the list for which courses might be approved, it was necessary to have the sanction of the U. S. Commissioner of Education, the Chairman of the War Manpower Commission and the Secretary of Agriculture. Twenty percent of the \$15,000,000 allotted for Section 3 of Public Law 647 could be used for the purchase and rental of equipment and rental of space found necessary to carry out the program.

Public Law 135, passed by the Seventy-Eighth Congress, First session, for the fiscal year 1944, provided, "for the cost of vocational courses in food production and conservation, mechanics, farm-machinery repair, and farm-labor training of less than college grade designed to give general preemployment mechanical training and to assist in attaining the production goals for those farm commodities designated from time to time in the Food for Freedom program promulgated by the U. S. Department of Agriculture." No age limits were stipulated in the act, nor was it required that any of the enrollees register with the public employment office. Under this act, it was not necessary to secure approval of new courses from the Chairman of the War Manpower Commission or the Secretary of Agriculture. For this fiscal year Congress allowed 15 percent of the \$12,500,000 appropriated for this program to be used for the purchase and rental of equipment and rental of space.

There were no changes made in the wording of Public Law 373 for the operation of the program during the 1945 fiscal year as far as its administration was concerned. The act provided \$10,500,000, together with the unobligated balance of the appropriation made for the program for the fiscal year 1944. Twelve and one-half percent of the funds could be used for the purchase and rental of equipment and rental of space.

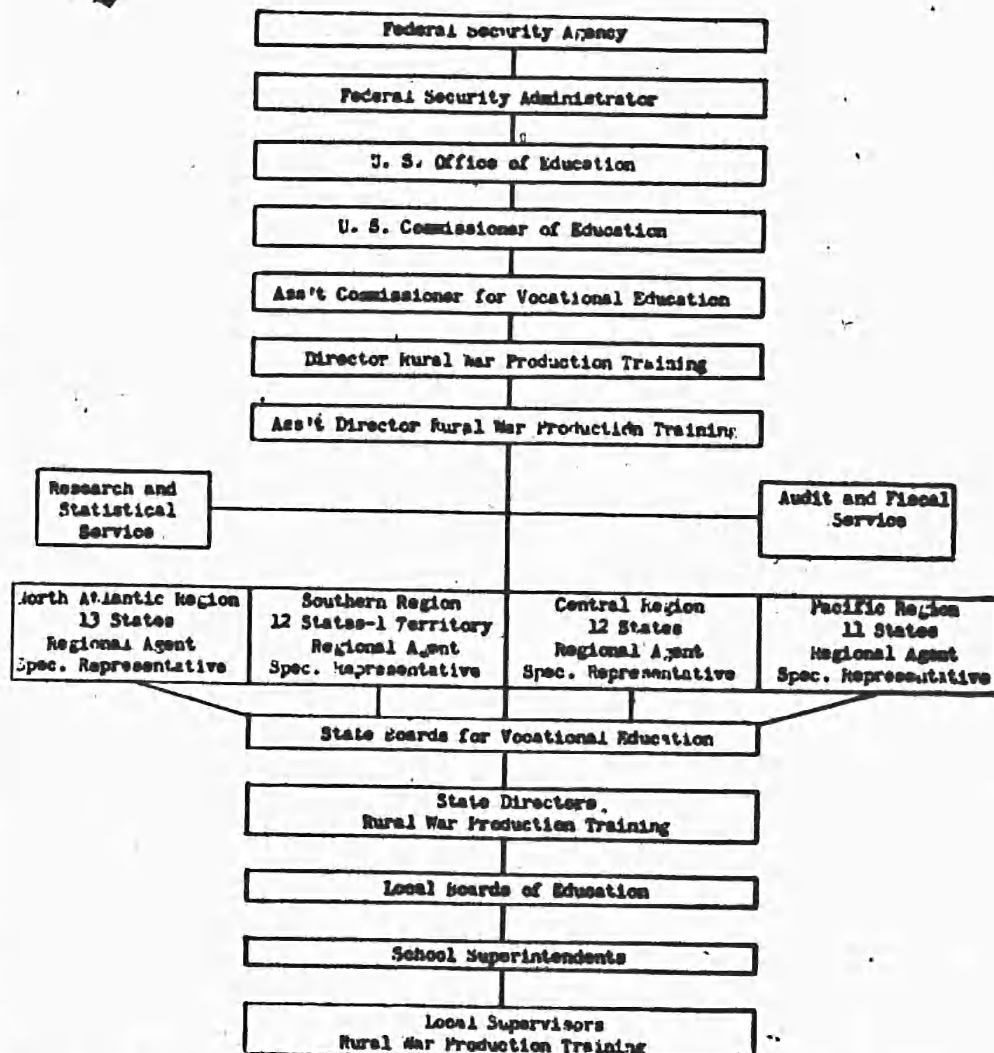
Public Law 124 for the fiscal year 1946, provided funds only for the maintenance of a staff in the U. S. Office of Education for the liquidation of the Rural War Production Training Program. The States were authorized to use unencumbered balances from Public Law 373 for the costs incidental to closing out the program.

ADMINISTRATIVE STRUCTURE

Federal.—The successive appropriating acts provided that the funds should be certified and the program operated in accordance with regulations promulgated by the U. S. Commissioner of Education under the supervision and direction of the Federal Security Administrator and approved by the President. Consequently the successive appropriating acts and the regulations promulgated pursuant to each act together with the annual revisions of Misc. 2600 became the basis for the operation of the program.

The administration of this training program, successively known as Out-of-School Youth (OSY), Out-of-School Youth and Adults (OSYA), Rural War Production Training (RWPT) and Food Production War Training (FPWT) Program¹ was organized as indicated in the accompanying chart.² The administrative personnel making up this organization are included in appendix A.

ADMINISTRATIVE ORGANIZATIONAL CHART
RURAL WAR PRODUCTION TRAINING PROGRAM



¹The program, in whole or in part, will be referred to herein as the Rural War Production Training Program.

²References to the Pacific Region should include one territory.

With the beginning of the program under Public Law 812, in October 1940, it was realized that the regular employees of the Agricultural Education Service of the Office of Education could not handle all of the details, and that additional personnel would be needed in order properly to inaugurate and develop the program. Special representatives were therefore appointed to each of the four regions—North Atlantic, Southern, Central, and Pacific—to act in an advisory capacity and generally to assist with the program.

State.—State boards for vocational education were made responsible for the operation of the program in the respective States. Each State board was required to designate a State director with complete authority to administer the program within the State. These directors were full-time employees of the respective State boards, qualified in the field of vocational education, and subject to the approval of the Director of Rural War Production Training in the U. S. Office of Education. With a few exceptions State boards for vocational education designated as director either the State director of vocational education or the State supervisor of agricultural education. In most instances the program was administered through the State supervisor of agricultural education and his staff with the assistance of additional supervisors and technical assistants paid from defense training funds.

Local.—State boards for vocational education were authorized to operate the program (1) through local boards of education, (2) directly, or (3) through other public agencies operating public educational facilities. For the most part the program was operated through local boards of education, and the OSY forms 2 (see appendix B) signed by the local superintendent of schools or other individual designated by the local board became the operating agreement between the boards. The local supervisors were regular employees of the local board of education, and included superintendents, principals, and teachers. Teachers of vocational agriculture where available served almost universally as local supervisors. Perhaps the one reason that the program developed so rapidly was the fact that the local teachers of vocational agriculture located in over 8,000 rural centers throughout the Nation were in charge of the program at the local level. Without these men, trained in agriculture and having a keen insight into the needs and desires of their patrons for a practical vocational training program, the Rural War Production Training Program could not have achieved the degree of success that it attained. This group of men carried the major responsibility for practically all of the details of developing each local program. It was their job to recruit the class, select the teachers, make out applications for courses, purchase equipment, purchase supplies, make out reports, and perform the many other tasks required in organizing and administering such a program on the local level. They rendered a fine service to their country and are entitled to a large share of the credit for the success of this program.

▶ RELATIONS WITH OUTSIDE ORGANIZATIONS

State and local advisory committees.—With the inauguration of the program under Public Law 812, the State board for vocational education was given the responsibility within each State for determining and approving the courses to be given under subdivision (4) of the act. Each State board for vocational education was expected to locate these courses with the advice and counsel of the State or local representative advisory committee.

The State and local advisory committees were composed of an equal number of representatives from agriculture and from industry. Industry was to be represented equally by employees and employers. Representatives from other groups such as schools, CCC, NYA and others interested in out-of-school youth served as consultants on these advisory committees. State advisory committees were selected by the State boards for vocational education from individuals recommended by organizations or groups that were interested in the program. Agricultural representatives were selected from groups such as farm organizations, land-grant colleges and State boards of agriculture. On the local level, the advisory committees were usually appointed by the superintendent of schools or chairman of the school board. The State plans submitted by the various States under Public Laws 146 and 647 carried provisions for State and local advisory committees. However, with the advent of the program operated under Public Laws 135 and 373, provisions for the use of advisory committees were eliminated from the State plans.

Public employment offices.—The original act, Public Law 812 under subdivision (4), required that all enrollees must file a registration card with a public employment office. This was natural since at that time the primary purpose of the training program was to furnish a supply of labor for industrial plants. This provision in the act was interpreted to mean that each enrollee would have to register with a public employment office before the completion of the training. The same regulations were carried under Public Laws 146 and 647. However, under Public Law 647 it was stated that only unemployed persons would be required to file a registration card with a public employment office. This made it unnecessary for farmers who were attending the commodity courses to file registration cards. Beginning with Public Law 135, which was for the fiscal year ending June 30, 1944, the requirement for registration with a public employment agency was eliminated.

OPERATION OF THE PROGRAM

OBJECTIVES OF THE PROGRAM

It is interesting to note how the objectives for the training of the out-of-school rural youth and adults changed as the needs of the times changed. Under Public Law 812 programs of training were approved if their objectives were to train for those industries or occupations which had been approved by the Advisory Commission to the Council of National De-

fense. In October of 1940, the approved industries or occupations were as follows: Aircraft, machine tools, shipbuilding, automotive, electrical, forging, boiler and heavy steel plate, foundry, light manufacturing, sheet metal, woodworking, chemicals, ammunition, and ordnance. No mention was made of any of the agricultural occupations at this time.

After considerable discussion with the Advisory Commission an agreement was reached that general preemployment courses which provided basic vocational instruction, were also to be offered. These latter courses were continued on the approved list of courses during the life of the program.

The offering of this type of course was logical when it is considered that the first defense training program, VE-ND No. 1, was concerned primarily with training experienced workers. The content of the courses in the first 2 years of the rural program was influenced by the content of the VE-ND No. 1 courses.

By the end of the fiscal year of 1941 it was becoming apparent that a large number of our rural youth had been drawn into industrial employment and into the armed forces. This situation indicated the problem of maintaining an adequate supply of workers on our farms and so under Public Law 146 under the objectives of the training program a provision was added as follows: "To better qualify youth to serve agriculture as it becomes increasingly mechanized." However, the primary purpose was still to create a reservoir of youth with preliminary training who would go into national defense industrial employment as the occasion demanded. The program was also used as a device for the selection and guidance of youth into advanced or specific training courses.

With the continuation of the program under Public Law 647 a number of food production courses were added and it is noted that the objectives of the training program included, in addition to those mentioned above, the following; "To train farmers in methods of achieving production goals of those farm commodities designated by the Secretary of Agriculture," and "To train farmers in the repair, operation, and construction of farm machinery and equipment."

The objectives as established under Public Laws 135 and 373 do not mention the idea of training rural people for employment in industry. The objectives during these last 2 years of the program were stated as follows:

1. To train farmers and other persons in methods of achieving production goals of those farm commodities designated by the United States Department of Agriculture.
2. To train farmers and other persons in the repair, operation, and construction of farm machinery and equipment.
3. To better qualify persons to serve agriculture through the maintenance and repair of facilities which will increase farming efficiency.
4. To provide necessary farm labor training to meet the increased production demands.
5. To provide training in the production, processing, and conservation of food for family use.

COURSES OFFERED

Types of courses.—During the first year of the program operated under Public Law 812 two types of courses were offered as follows:

Type A, General preemployment courses, which offered basic vocational instruction:

1. Operation, care and repair of tractors, trucks, and automobiles (including both gas and Diesel engines).
2. Metalwork, including simple welds, tempering, drilling, shaping, and machinery repairs.
3. Woodworking.
4. Elementary electricity, including operation, care, and repair of electrical equipment.

Type B, Specific preemployment preparatory courses, which provided training for specific jobs.

1. Riveting.
2. Welding.
3. Machine shop occupations, such as lathe work, drill press operation, and bench work.
4. Aircraft sheet metal work.
5. Radio service and repair.

It was recommended by the U. S. Office of Education that the State supervision of the (A) or general preemployment courses be under the direction of the State supervisor of agricultural education, and that the (B) type, or specific preemployment preparatory courses be under the direct supervision of the State supervisor of trade and industrial education.

In the second year, under Public Law 146, the type (B) courses were eliminated from the course of study. However, the general preemployment courses, 1-4, were continued without any change in their content except for the woodworking course, which specified that furniture making, cabinet work or model making were not to be included. As has been indicated previously, the primary objective of this training program was to create a reservoir of persons with preliminary training, who would go into war production industrial employment, as the occasion demanded.

At the beginning of the third year of the program, as it was operated under Public Law 647, a number of courses in the production of various food commodities in agriculture were added to the four courses offered during the second year. The additional courses were the following:

5. Repair, operation, and construction of farm machinery and equipment.
6. Increasing milk production.
7. Increasing poultry production (meats).
8. Increasing egg production.
9. Increasing pork production.
10. Increasing beef production.
11. Increasing mutton, lamb, and wool production.
12. Increasing soybean production.
13. Increasing peanut production.
14. Increasing vegetable production (commercial).

On September 26, 1942, the Chairman of the War Manpower Commission approved four additional courses in the Rural War Production Training Program:

15. Production, conservation, and processing of food for farm families.
16. Increasing sugar production.
17. Increasing field and vegetable seed production.
18. Increasing hemp production.

The need for farm workers was acute at this time and on November 25, 1942 the Chairman of the War Manpower Commission approved Course No. 19, training of farm workers.

During the next year, when the program was operating under Public 135, three additional courses in farm production were added. They were:

20. Increasing the production of fruits and nuts.
21. Home vegetable gardening.
22. Soil and water conservation and use.

Course No. 23, production and conservation of feed for livestock, was added to the list of courses available under the Rural War Production Training Program under date of July 25, 1944, Public Law 373.

A review of the 1945 farm production goals promulgated by the United States Department of Agriculture indicated a need for a change of emphasis in the Rural War Production Training Program. Consequently three changes were made in the policy as to the approval of courses.

1. The following three courses were deleted from the approved list:

17. Field and vegetable seed production.
18. Hemp production.
20. The production of fruits and nuts.

2. Five additional courses were approved:

24. Legume and other hay seed production.
25. Cover crop seed production.
26. Flaxseed production.
27. Dry bean production.
28. Potato production.

3. Each State was authorized to approve only those production courses dealing with farm commodities declared critical in the State by the United States Department of Agriculture. Also, the States were urged to increase the number of commodity production courses in order to reach more people.

Number of courses.—Table II shows that the courses were offered in many of the counties in the United States.

Table II.—Number of courses and number of counties and centers in which courses were conducted, by fiscal year, 1941-45

Years	Number of courses	Number of —	
		Counties	Centers
1941 (Public Law 812).....	12,941		
1942 (Public Law 146).....	21,912	2,262	5,670
1943 (Public Law 647).....	65,906	2,592	10,769
1944 (Public Law 135).....	49,487	2,263	8,752
1945 (Public Law 373).....	44,881	2,251	8,409

ENROLLMENTS

Eligibility for enrollment.—For the first 2 years of the program all youth between the ages of 17 and 24 inclusive were eligible to enroll. A number of courses were established for the CCC enrollees and, in most cases, they studied under type (B) or specific preemployment preparatory courses during the time those courses were offered. NYA project workers were eligible for enrollment and a number of this group enrolled in courses organized under Subdivision (4) of Public Laws 812 and 146. There was a great demand made by people over 26 years of age in the rural areas that they be allowed to take advantage of the courses that were being offered in their respective communities. With the inauguration of Public Law 647 the upper age limit was removed so that all out-of-school people over 17 years of age could take advantage of the instruction.

At the start of the program operating under Public Law 135 for the fiscal year 1944, the age limits were further adjusted so that persons over 14 years might be enrolled. In-school youth were allowed to enroll in the training of farm workers and home vegetable gardening courses without exception. High school seniors could enroll in the mechanical courses 1 to 5 if the courses were organized and maintained primarily for out-of-school persons. Course No. 5, farm machinery repair, was restricted insofar as in-school youths were concerned, to those residing in areas that did not maintain a department of vocational agriculture.

Under Public Law 373, course 15, production, conservation and processing of food for family use was added to those courses which high-school seniors could attend if the course was organized and maintained for out-of-school persons. Out-of-school persons could enroll in all courses and discharged service-men and women were recognized as potential enrollees in all courses authorized under this program.

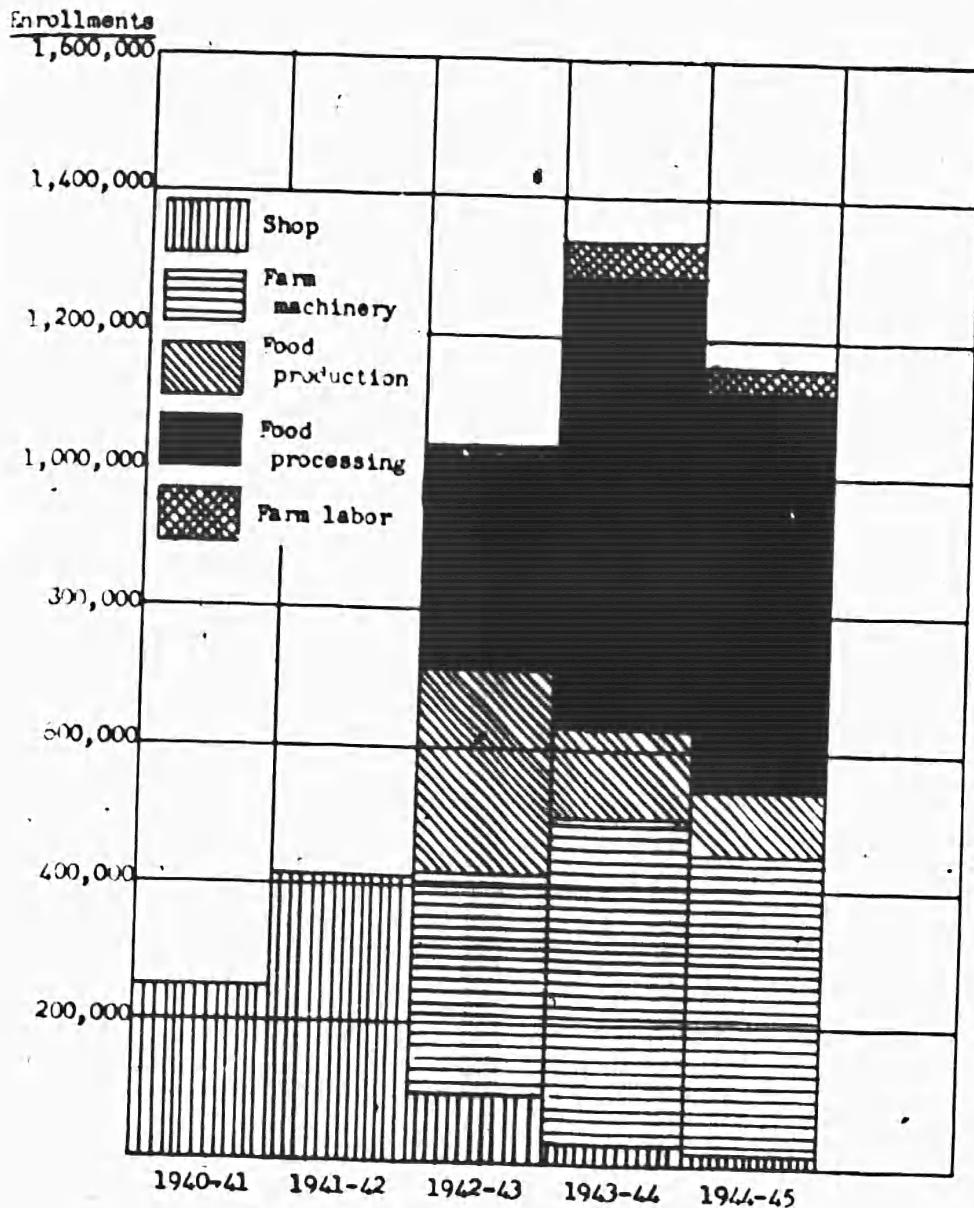
Enrollments by types of courses.—During the first 2 years the program was in operation the percent of enrollments in the four mechanical courses, or general preemployment courses, was as follows: auto mechanics course, 30 percent; metal working, 30 percent; woodworking course, 23 percent; and elementary electricity, 10 percent. The type B, specific preemployment preparatory courses which were offered only during the first year of the program, had an enrollment which was 7 percent of the 2-year total. Beginning with the fiscal year 1943, the several courses were grouped according to type. Table III and graph A show the distribution of enrollments for the five types of courses. The farm commodity courses are grouped under "Food Production," while "Food Conservation" refers only to Course 15, production, conservation, and processing of food for farm families.



Table III.—Enrollments in rural war production training programs by region and by type of course, 5-year period 1940-45

	Total enrollment		Shop courses		Farm machinery		Food production		Food conservation		Training farm workers	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1940-41												
United States	254,511	100.0	254,511	100.0								
North Atlantic	33,079	13.0	33,079	13.0								
Southern	143,882	56.5	143,882	56.5								
Central	57,562	22.6	57,562	22.6								
Pacific	19,958	7.9	19,958	7.9								
1941-42												
United States	409,733	100.0	409,733	100.0								
North Atlantic	55,504	13.6	55,504	13.6								
Southern	261,474	63.8	261,474	63.8								
Central	66,047	16.1	66,047	16.1								
Pacific	26,708	6.5	26,708	6.5								
1942-43												
United States	1,030,436	100.0	99,764	9.7	313,116	30.4	297,630	28.9	304,990	29.6	14,936	1.4
North Atlantic	61,844	6.0	11,008	11.0	32,545	10.4	9,131	3.1	6,349	2.1	2,811	18.8
Southern	708,969	68.9	58,301	58.4	210,932	67.4	204,098	68.6	234,784	77.0	1,854	12.4
Central	179,079	17.4	23,063	23.1	47,996	15.3	70,874	23.8	33,089	10.8	4,057	27.2
Pacific	79,544	7.7	7,392	7.4	21,643	6.9	13,527	4.3	30,768	10.1	6,214	41.6
1943-44												
United States	1,840,886	100.0	35,321	2.6	472,056	35.2	135,762	10.1	644,752	48.1	52,995	4.0
North Atlantic	101,907	7.6	3,105	8.8	58,979	12.5	8,725	6.4	24,845	3.8	6,253	11.8
Southern	825,986	61.6	19,883	56.3	282,318	59.8	83,694	61.6	423,802	65.7	16,289	30.7
Central	301,699	22.5	8,760	24.8	95,705	20.3	35,282	26.0	132,287	23.6	9,705	19.3
Pacific	111,294	8.3	3,573	10.1	35,054	7.4	8,081	6.0	43,838	6.8	20,748	39.1
1944-45												
United States	1,152,966	100.0	20,729	1.8	430,767	37.4	100,746	8.7	564,351	48.9	36,393	3.2
North Atlantic	74,113	6.4	1,275	6.2	38,488	8.9	6,160	6.1	24,403	4.3	3,787	10.4
Southern	671,332	58.2	14,359	69.3	268,261	62.3	55,371	56.0	330,022	58.1	3,319	9.1
Central	269,138	23.4	2,622	12.6	89,860	20.9	27,658	27.4	143,774	25.5	5,294	14.5
Pacific	188,403	12.0	2,473	11.9	34,128	7.9	11,657	11.5	66,152	11.7	23,993	66.0

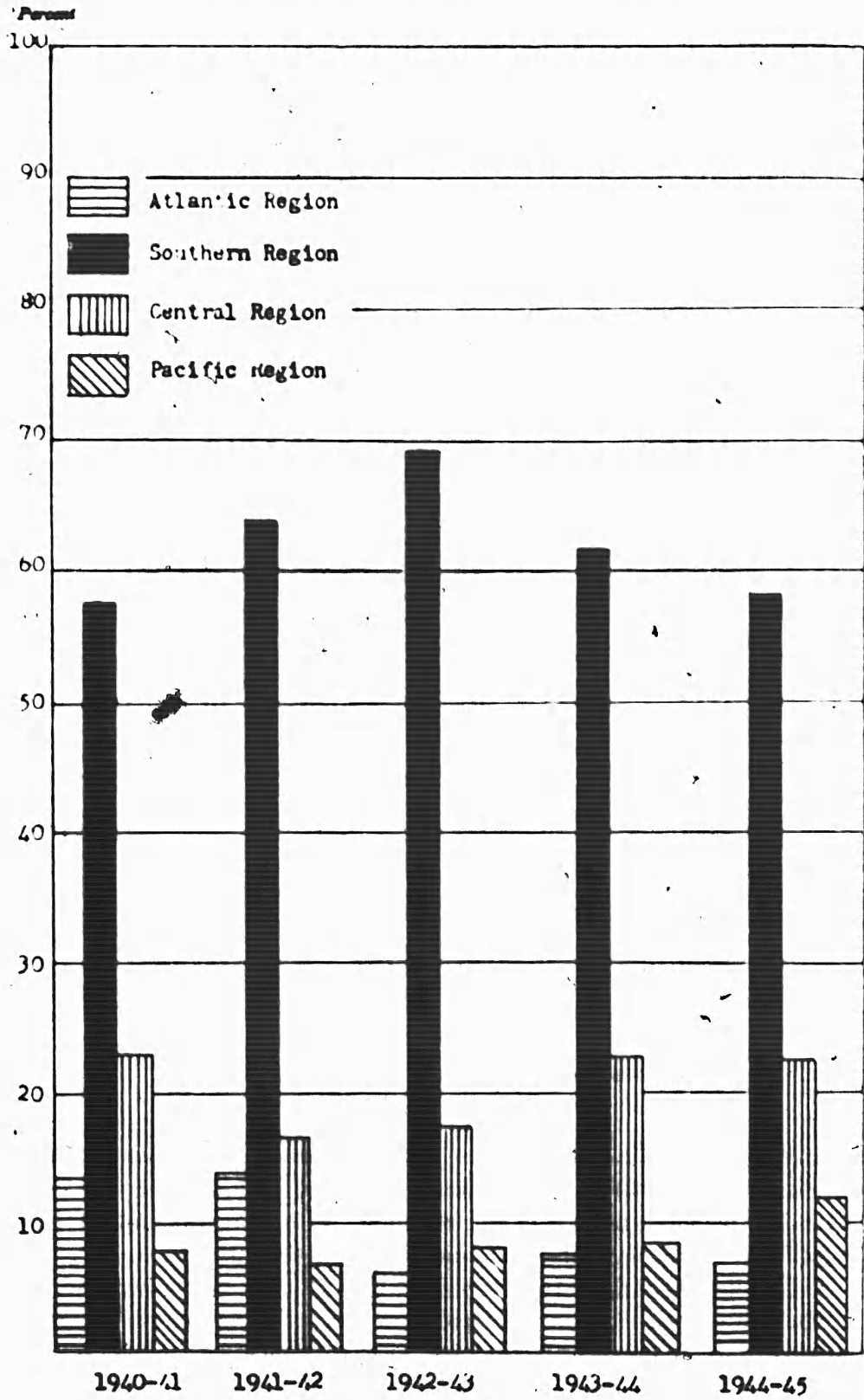
Includes 34,352 enrolled in "specific" courses and 505 enrolled in "combination" courses.



Graph A.—Enrollments by course and year

Area distribution of enrollments.—From the time the program got under way in December 1940, until it was terminated in June 1945, a total of 4,188,552 persons enrolled in the program. As is shown in table III the enrollment in the program was greatest during the 1944 fiscal year.

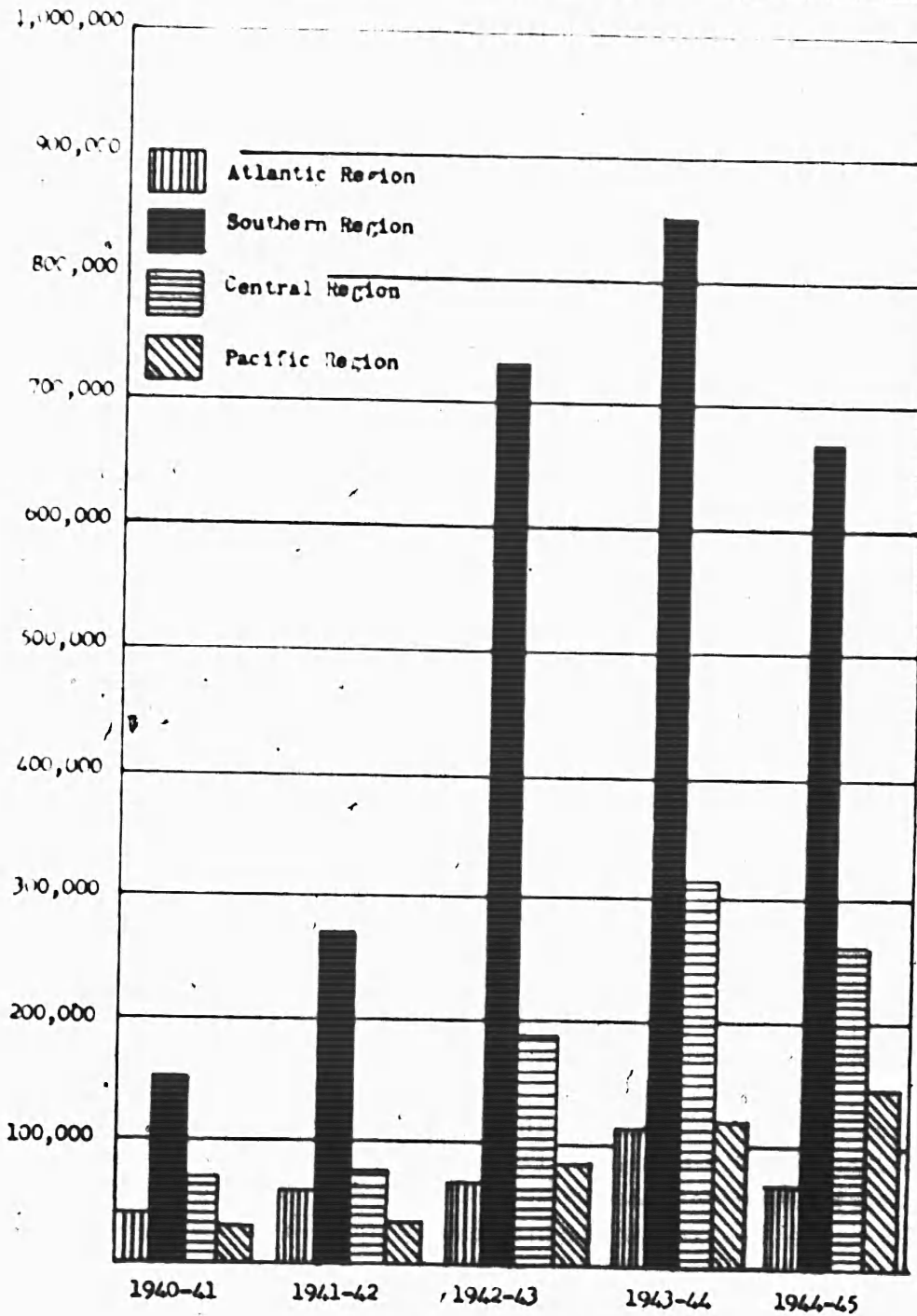
As is indicated in table III and graphs B and C, the Southern region had by far the largest enrollment during the entire history of the program, ranging from 56.5 percent in the fiscal year 1941 to a peak of 68.9 percent in 1943. It will be noted from a review of table IV that the enrollment in any region has a marked relationship to the farm population found in that region.



Graph B.—Percent of enrollments, by region

Table IV.—Farm and rural population by regions, 1940 Census

Region	Farm population		Rural population	
	Number	Percent	Number	Percent
United States.....	31,780,314	100.0	58,707,570	100.0
North Atlantic.....	3,235,370	10.2	10,644,340	18.1
Southern.....	15,398,385	48.4	23,446,368	39.9
Central.....	10,610,037	33.4	18,702,149	31.9
Pacific.....	2,536,722	8.0	5,914,713	10.1



Graph C.—Enrollment, by region

During the first fiscal year ending June 30, 1941, the following States led in the numbers of persons enrolled: Texas, North Carolina, Mississippi, Tennessee, Georgia, Kentucky, Alabama, South Carolina, Oklahoma, and Arkansas. It will be noted that 9 of these 10 States were in the Southern region. In the Central region other States besides Kentucky that had substantial enrollments were Wisconsin, Missouri, Illinois, Indiana, and Michigan. In the North Atlantic region, Pennsylvania, West Virginia, and Ohio had the largest enrollments. In the Pacific region, California, Colorado, Oregon, and Montana led this group of States.

For the fiscal year ending June 30, 1942, the Southern region continued to have the greatest number of States listed in the top 10. They were Texas, Mississippi, Alabama, Georgia, Oklahoma, North Carolina, Arkansas, and Tennessee. In the Central region Kentucky, Missouri, Wisconsin, Michigan, and Kansas led this group of States. In the North Atlantic region Ohio, Pennsylvania, West Virginia, and New York continued to lead this area; while California, Washington, Montana, Colorado, and Arizona had the largest enrollments in the Pacific region.

Under Public Law 647, for the fiscal year ending June 30, 1943, Mississippi replaced Texas as the State with the largest number of enrollments. These two States were followed by Louisiana, Arkansas, North Carolina, Georgia, Tennessee, Alabama, Oklahoma, and Florida. In the Central region for this year Kentucky, Illinois, Missouri, and Minnesota had large enrollments. In the North Atlantic region New York, Pennsylvania, and West Virginia led; while in the Pacific region California had, approximately, one-third of the entire enrollment for the region, followed by Washington, Utah, and Oregon.

Under Public Law 135 for the fiscal year 1944, Texas again led, followed by Mississippi, Kentucky, Louisiana, Georgia, South Carolina, North Carolina, Arkansas, Missouri, and Alabama. In the Central region, in addition to Kentucky and Missouri mentioned in the first 10 leading States, Illinois, Kansas, Minnesota, and Wisconsin had large enrollments. New York continued to lead in the North Atlantic region followed by Pennsylvania, West Virginia, and Maryland. In the Pacific region California continued to have a large part of the total enrollment in that area, followed by Oregon, Montana, Washington, and Idaho.

Under Public Law 373 for the fiscal year 1945, Texas led in the number of people enrolled in the various courses, followed by Mississippi, Kentucky, California, North Carolina, Georgia, South Carolina, Missouri, Arkansas, and Virginia. In the North Atlantic region New York was followed by West Virginia, Pennsylvania, and Maryland. The Central region was led by Kentucky followed by Missouri, Illinois, and Minnesota. In the Pacific region the leading States were California, Idaho, Washington, and Oregon.

Enrollments by population types.—As is indicated in table V the people enrolling in these courses were predominantly rural. The percentage of

rural enrollees increased each year, starting with 79.5 percent in 1941 and running up to 94.5 percent in 1945

Table V.—Distribution of enrollments, by population type

Population type	Enrollments									
	1940-41		1941-42		1942-43		1943-44		1944-45	
	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent
	2	3	4	5	6	7	8	9	10	11
Total	254,511	100.0	409,733	100.0	1,030,436	100.0	1,340,896	100.0	1,152,986	100.0
Rural	202,354	79.5	343,206	83.8	924,067	89.7	1,226,901	91.5	1,089,910	94.5
Urban	52,157	20.5	66,527	16.2	106,369	10.3	113,985	8.5	63,076	5.5
Female	1,039	0.4	3,846	0.9	315,006	30.6	559,415	41.7	487,264	42.3
Negro	34,718	13.6	82,472	20.1	264,684	25.7	235,145	17.5	154,186	13.4
CCC	43,186	17.0	78,724	19.2						
NYA	9,489	3.7	4,587	1.1						
In-school							48,706	3.6	36,529	3.2

There were a number of courses organized for boys enrolled in the CCC Camps during the first 2 years the program was in operation. During the first year 17 percent of the enrollment was found among this group; during the second year this increased to 18.2 percent.

For the fiscal year ending June 30, 1941, 3.7 percent of the enrollment was made up of NYA students and during the last year the NYA program was in existence 1.1 percent of the enrollment was composed of this group of boys.

It is interesting to note the growth in the number of women enrolled. For the fiscal years ending June 30, 1941 and June 30, 1942 only 0.4 percent and 0.9 percent, respectively, of the total enrollment fell into this category. With the introduction of the food conservation courses in 1943 the enrollment of women increased to 30.6 percent. For the year ending June 30, 1944, 41.7 percent of the entire enrollment was made up of women, and this increased to 42.3 percent in 1945. Most of the women enrolled in this program studied the various phases of Course 15, production, conservation and processing of food for family use.

Under Public Law 812, 13.6 percent of the entire enrollment was made up of Negro students. This group supplied 20.1 percent of the enrollment for the next fiscal year and for the fiscal year ending June 30, 1943, 25.7 percent. The enrollment of this group decreased to 17.5 in 1944, and was further decreased to 13.4 percent in 1945.

Prior to the inauguration of Public Law 135 enrollments of in-school persons were not permitted. Under Public Law 135, 3.6 percent of the entire enrollment was made up of in-school persons. This figure remained approximately the same for the final year of the program, 3.2 percent. For the most part, most of this group were found in the Farm Labor Training Program, Course 19.

TIME REQUIREMENTS

During the first year of the program it was required that each course be operated for 15 hours per week with a minimum of 3 hours per session for 8 weeks, except for type (B) or specific preemployment preparatory courses which required 30 hours of instruction per week. Courses could be extended by making arrangements with the U. S. Office of Education, particularly with respect to budgetary items.

Under Public Law 146 the extension of courses was limited to 30 percent of the original time budgeted. Each course was held 3 hours per session and operated for a minimum of 120 hours, to be distributed within a period of 6 to 10 weeks. It was mandatory that 15 hours per week be devoted to instruction. These time requirements for the first four courses were in effect during the remaining years of the program.

For the food production courses 10 sessions of 2 hours each, spread over a minimum of 2 weeks time, were required. For the farm machinery repair course a minimum of 3 hours per class session for a total of 36 hours was required.

The Farm Labor Training Program inaugurated during the fiscal year 1944 required a minimum of 2 hours of instruction per class session for a total of not less than 10 hours. For 1945 the minimum of 10 hours for this course was continued, but the length of class sessions was reduced to 1 clock hour, or, for in-school youth trainees, to 1 class period. This change in the regulations was due to the large number of in-school youth being trained as farm workers. Under the job instruction training phase of the Farm Labor Training Program a minimum of 10 hours was required for each course.

The maintenance of a minimum enrollment of 10 persons was expected for all courses during the entire period that the program was in operation, except for job instruction training for which a minimum enrollment of 5 individuals was required.

EMPLOYMENT OF TRAINEES

Industry.—In spite of the fact that the instruction offered in the out-of-school youth program during the first 2 years it was in operation was general in character, a large number of the youth taking advantage of this training were employed in defense industries at the conclusion of their training program. A number of the youths who were so trained filled the places made vacant by the migration of the local mechanics in the rural areas to centers offering employment in the defense industries. A large number of the boys were also inducted into the armed forces where this type of training was advantageous to them, since the World War II war machine called for men trained in mechanical lines. The following quotation from a letter received by one of the State supervisors in charge of the program in 1941 illustrates what was happening in many sections of the country:

In the two previous classes, 26 boys completed the course and 19 of them are now employed by the Glenn Martin Airplane Factory and Bethlehem Shipyards. The other boys remained on the farm. In our previous program we conducted six metal working classes. A large percentage completing the course are now employed in shipyards and airplane factories.

Farm labor.—When Course No. 19, training farm labor, was added to the program under Public Law 647, a number of persons inexperienced in working on American farms were trained under this program.

A large number of Mexican Nationals who were brought into California were given training under the Rural War Production Training Program. The Mexicans enrolled were more than satisfied as is evidenced by the fact that the Mexican State Department stated in writing that the educational opportunities given the men while working in California were decisive factors in their decision to continue the labor program in 1943. A similar program was carried on in Louisiana for the Nationals who were brought in from Jamaica.

German prisoners of war were trained in California during 1944 to perform specific farm skills. This State followed the general plan it had used for training the Mexican Nationals.

Large numbers of in-school youth were trained to work on farms under this course. For the most part the trainees were recruited in the larger urban centers and before they were assigned to a farmer they were given an orientation course in farm work which was followed by work experience on a practice farm. Minnesota and New York were quite active in the development of this program.

PERSONNEL EMPLOYED

Since the majority of the courses of instruction in the rural defense training programs were organized in public secondary school districts located in the rural areas of the United States, it was necessary to locate competent teachers to handle the mechanical courses. Local mechanics, including electricians and carpenters were used as teachers in most of the mechanical courses. The problem of supervision on the local level was handled in most cases by the teachers of vocational agriculture. The vocational agriculture teacher and the local craftsman worked together as a team, one qualified in the technique of farm shop instruction and the other qualified in the skills of his trade. Those in charge of the training program realized that the qualifications of the teachers of the defense classes should emphasize their skills as mechanics in their particular trades.

Many farmers, farmers' wives, agricultural specialists, teachers of agriculture and home economics were employed as teachers of the commodity production and food conservation courses. The home economics teachers were active in assisting with the teaching of Course 15 and in a few instances this group served as local supervisors in those centers not employing a teacher of vocational agriculture.

It was not permissible to use funds made available under Public Law 812 to pay teachers of vocational agriculture for supervising local programs. Many of the State administrators were of the opinion that this service should be considered part of their regular work since it was in adult education. An equal number of supervisors of vocational agriculture in the various States were of the opinion that these teachers of vocational agriculture were entitled to some pay for this extra supervision. Therefore, in 1942 under Public Law 146, provision was made for the teacher of vocational agriculture to be paid for specific services rendered in the defense training program. Janitors, school mechanics, and clerical workers employed by the operating agencies could be paid from these funds for services in defense training in addition to, and on time not covered by, their regular contractual commitments.

Under Public Law 647, and with the inauguration of the commodity courses, it became apparent that there would be demands made for the teachers of vocational agriculture to be teachers of these commodity courses. Under this program qualified teachers of vocational agriculture, whose contractual commitments did not conflict, could be paid from these funds for teaching not to exceed two of the approved courses in the production of farm commodities and/or in the repair, operation and construction of farm machinery and equipment. Qualified teachers of vocational agriculture were also allowed to be paid from these funds for supervising any or all of the approved courses in the Rural War Production Training Program. The amount that the teachers could be paid for the supervision could amount to 25 percent of the salary paid to the special teacher of any course in the production of farm commodities. Under Public Laws 135 and 373, an amount equal to 25 percent of the salary paid to a special teacher of any course in farm machinery repair or in the production of farm commodities, or in farm labor training, could be paid for the organization, coordination, supervision, clerical service, and follow-up service with the individuals receiving the instruction. An amount not to exceed 10 percent of the salary paid to a special teacher could be paid for supervision of any of the shop or mechanical courses. Under these two Public Laws no teacher of vocational agriculture or other regular employee of the operating agency could receive funds for services rendered in excess of 25 percent of his total yearly contractual salary.

An administrative ruling prohibited the use of Rural War Production Training funds for the employment of full-time instructors of vocational agriculture and home economics as teachers of courses between the hours 8 a. m. to 5 p. m., Monday through Friday and from 8 a. m. to 12 noon on Saturday.

FACILITIES USED

Housing.—During the first year the program was in operation, most of the out-of-school youth courses in defense training were held in the public

high school farm shops. A few of the courses during this period were held in garages or implement shops located in the various communities but this later practice was not prevalent during the first year since funds appropriated for this program could not be used for rental-of-building costs. In a few instances, large farm shops owned by farmers were used as training centers. The National Youth Administration, in cooperation with local school districts, aided in the construction of school farm shops during this period. The local school districts furnished the material and the NYA youth furnished the labor for the construction of these buildings. According to the data available, there were about 1,000 buildings of this type constructed under this program.

Following the passage of Public Law 146, which permitted the payment of rent for the use of shop space, many of the courses were held in garages and implement shops. This was due to the fact that many of the farm shops in the public schools were becoming overcrowded as the instruction for all-day students was also emphasizing repair of farm machinery and the construction of labor-saving devices. Many school boards, seeing the need for improving their shop facilities for their departments of vocational agriculture, provided for the construction of new farm shops.

Many of the commodity courses which were authorized under Public Law 647 in 1942, were held in rural churches, Grange halls, country stores, country schools and, in some cases, in the home of one of the trainees or the teacher. Much of the training of inexperienced persons to work on farms was held on farms where the farm skills could be taught on the job.

A number of school-community cannery buildings were constructed by the local schools to house the equipment needed to teach the conservation and processing phases of food production. Other communities established their canneries in home economics rooms, school lunch kitchens, abandoned creameries, and Grange halls.

Equipment.—As has been indicated, it was realized by the U. S. Office of Education that many of the farm shops in the United States were not well enough equipped to handle the type of training that was needed. Under Public Law 812 provision was made for the purchase by the States of equipment for the trainees enrolled in the National Defense Training Program. A list of the items of equipment that would be approved for purchase was prepared by the Office of Education for the use of State boards for vocational education, and included in Misc. 2603, which suggested that a school or local center making application for a program of training be required to submit to the State board a complete and detailed inventory of all the equipment that the school had available for teaching the specific course indicated in the application. It was expected that the State boards for vocational education would use this inventory list and the suggested equipment list that was supplied to determine the additional equipment that should be purchased to provide for an effective training course. The list of equipment that was supplied by the U. S. Office of

Education took care of only the hand tools. However, during the year many requests were made to purchase some of the heavier types of equipment such as welders, lathes, and power saws, which requests were given special consideration by the U. S. Office of Education. Each State board for vocational education was expected to have an identifying mark placed on each tool or piece of equipment which was furnished to local communities from these training funds, so as to avoid any misunderstanding concerning ownership when tools were recalled or sent to another school upon completion of a particular course.

Before the start of the program under Public Law 146, Misc. 2603 was revised to provide new procedures for obtaining approval for the purchase and rental of tools and equipment. Under this revision the lists of tools and equipment and the procedures for obtaining them were divided into three categories. Part A was for tools and equipment the purchase of which had general prior approval of the U. S. Office of Education. In general, those listed in part A, included hand tools such as hammers, pliers, wrenches, and screwdrivers. State boards for vocational education were permitted to purchase this type of equipment at their discretion. Part B contained a list of the heavier pieces of equipment such as electric drills, electric grinders, valve refacers and grinders, air compressors, and acetylene torches. Before a State might purchase this type of equipment it was necessary to submit a request on Form E (appendix B) to the U. S. Office of Education for its approval. Part C included all other tools not listed in parts A or B. In order for a State to make any purchases from part C it was necessary to supply a Form E for the equipment and in addition submit a letter of justification for the purchase of this particular piece of equipment. Misc. 2603 was revised again in 1942 but in the main this revision was merely a refinement, the general principles followed in obtaining approval for the purchase of equipment remaining the same.

In 1943 Misc. 2675 was issued by the Office of Education to replace Misc. 2603. This document grouped all of the tools under part A that had general prior approval by the U. S. Office of Education. Any other tools not listed in this miscellany were considered as part B and in order for a State to purchase them it was necessary for that State to write to the U. S. Office of Education and secure special prior approval from the Director of the Rural War Production Training Program. The tools listed provided for the first four mechanical courses that were originally operated under Public Law 812 and subsequent acts. Equipment that would be needed in farm machinery repair courses was listed. A list was also given of equipment that might be purchased from these funds for teaching the conservation phase of Course 15, production, conservation and processing of food for family use. Included were meat grinders, knives, retorts, baskets, exhaust boxes, sealers and similar food processing equipment.

Much of the equipment purchased under this program was obtained by the local centers offering the training. A local supplier would furnish the

equipment to the schools and the supplier would be paid direct by the State board for vocational education or by the local school which would be reimbursed by the State board. In a few States the State boards for vocational education purchased all equipment and then distributed the equipment to the various operating centers which were in need of the articles. This practice was more common with the purchase of the heavier pieces of equipment such as welding machines, presses, lathes, grinders, drills, etc.

The use of warehouses to store equipment while it was not being used by centers was a common practice throughout the country particularly during the latter part of the program. Equipment was scarce during this period and centralized storage was the only means by which equipment could be used to its fullest capacity. Also this practice gave the State boards for vocational education an opportunity to repair and maintain the equipment that was being used in the State.

NATIONAL AND REGIONAL CONFERENCES

Administration of the program.—During each year that the program was in operation, except for the fiscal year ending June 30, 1945, regional or national conferences were held by the U. S. Office of Education, with representatives from the States, to explain and discuss policies and administrative problems regarding the development of the program. In addition to the special conferences, time was often allotted to problems of the Rural War Production Training Program during the regional conferences held for supervisors and teacher-trainers of agricultural education; at the annual meetings of the American Vocational Association; and at the National Convention of the Future Farmers of America held in Kansas City each year.

In 1941 special conferences were held in New York City, January 13-15; Chicago, January 16-18; Memphis, January 26-30; and Salt Lake City, February 3-5. At this series of meetings the topics listed on the agenda included the following: Allotment of funds to the States; Responsibility for the supervision and development of the program; Purposes for which funds may be used; Approval of training programs; Operation of the training programs, and Methods to be used to refine the programs.

The special conferences in 1942 were held in New Orleans on August 3-4; New York City, August 7-8; Chicago, August 10-11; and in Salt Lake City, August 13-14. The purpose of these conferences was to develop a common understanding in regard to the administrative details of the Rural War Production Training Program in view of the fact that the scope of the program now included courses in farm machinery repair and the production of farm commodities.

A national conference was held at Cincinnati in August 1943 to discuss the Rural War Production Training Program after it had operated the expanded program for 1 year. At this meeting copies of a proposed revision of *Miscellany 2600* were discussed and reviewed by the State directors and supervisors of the Rural War Production Training Program.

No national meetings were called to review the operation of the program for the 1945 fiscal year since very few changes had been made in administrative procedure during the year.

Auditing and statistical reporting procedures.—It was realized early in the program that the States were having varying degrees of difficulty in establishing auditing and statistical services within the State boards for vocational education. With this in mind the U. S. Office of Education held a series of conferences for those persons who had the immediate responsibility for all auditing and statistical records in the States. These meetings were held in January 1942 at New York City, Memphis, Chicago, and Salt Lake City. As a result of these conferences State personnel were able to prepare much more accurate information regarding the program.

Food conservation and processing.—When Course 15 was added to the list of approved courses in 1943 many schools developed school-community canning centers. It was soon realized by the U. S. Office of Education that the States were in need of training in the operation and management of the large processing equipment found in a community cannery. The Office of Distribution, War Food Administration, was also interested in this problem so it was decided that the two agencies hold cooperatively a workshop devoted to community canning.

The Office of Education invited State vocational home economics and agricultural representatives from two States in each of the four regions to attend the meeting held at Peoria, Ill., January 17-28, 1944. States represented by vocational education workers at this workshop were Vermont, West Virginia, Michigan, Wisconsin, Louisiana, Oklahoma, California, and Montana. The U. S. Office of Education was represented by three members. The 2 weeks were devoted to learning the skills and processes basic to the successful operation of a school community cannery and to a study of common management problems. Those connected with vocational education devoted time to the problem of making the school-community cannery activities educational in character.

In order that State supervisors and teacher trainers of Agriculture and Home Economics might have the opportunity to have training in food conservation and processing, subregional workshops, under the direction of the U. S. Office of Education, were held in Michigan, Minnesota, Missouri, New Hampshire, New Mexico, Oregon, Vermont, and West Virginia. In addition, workshops of a similar nature were conducted on a State basis in 11 States. A total of 364 supervisors of agriculture and 384 supervisors of home economics were enrolled in national, subregional, and State workshops.

The States in turn held a number of workshops for the vocational teachers and lay teachers who were in direct charge of the school-community canneries in their respective communities.

Job instruction training.—Seven regional conferences, to acquaint State staff members with the job instruction procedure for training farm

workers, were conducted during the fiscal year ending June 30, 1944.

The locations, dates and representation for these conferences are shown in the following table:

Location	Date	Number of—	
		Men	States
Clayton, Ga.: Alabama, Florida.....	Sept. 6-Sept. 10, 1943	10	3
Chicago Heights, Ill.: Illinois, Iowa, Minnesota, Nebraska, North Dakota, South Dakota.....	Apr. 17-Apr. 21, 1944	6	6
Phoenix, Ariz.: Arizona, California, Idaho, Montana, New Mexico, Oregon, Utah, Washington, Wyoming..	Apr. 28-May 3, 1944	9	9
Athens, Ga.: Georgia, North Carolina, South Carolina, Virginia.....	May 1-May 5, 1944	8	4
Conway, Ark.: Arkansas, Louisiana, Mississippi, Texas, Oklahoma.....	May 8-May 12, 1944	8	5
Hershey, Pa.: Maryland, New Hampshire, New Jersey, Massachusetts, New York, Ohio, Rhode Island, Pennsylvania, Vermont, West Virginia.....	May 15-May 19, 1944	11	10
Petersburg, Va.: (Negro) Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, North Caro- lina, South Carolina, Oklahoma, Virginia, Dis- trict of Columbia.....	July 31-Aug. 2, 1944	13	11
Total representation, 36 States and the District of Columbia.....		65	

The conference at Clayton, Ga., was conducted following the manuals and procedures formulated by Training Within Industry Section of the War Manpower Commission. The other six conferences followed manuals supplied by the U. S. Office of Education on job instruction for farm workers. The Petersburg, Va., conference was for Negro staff members.

During the fall of 1944 reports were secured from the participating States regarding experiences with job instruction in the training of farm workers and plans for the development of such a program. This information showed the extent of participation by various States in job instruction training.

COSTS PAID UNDER THE ACTS

CHARGES ALLOWABLE AND UNALLOWABLE

All of the acts for the training of defense workers under this program provided for the following items: "For the costs, including the necessary equipment and supplies, of vocational courses and related or other necessary instruction provided by such agencies for. . ." Under Public Law 812, and in the acts passed since that time, the following items were paid for from these funds: (1) Salaries of additional personnel essential to the conduct of the program. This included State and county salaries in addition to salaries of those people locally employed as teachers, supervisors, clerks, stenographers, janitors and other necessary employees. (2) Necessary travel essential to the conduct of the program when expense was incurred in accordance with the provisions of the approved State plan. (3) Consumable supplies actually consumed in the course of training. (4) Necessary additional light, heat and power used in servicing the rooms

or buildings in which the courses were held. (5) Communication and transportation expenses including charges for such items as postage, telephone, express, and freight service. (6) Maintenance and repair of machinery and equipment made necessary by the operation of this program. (7) Necessary printing, duplicating, mimeographing, blueprinting, and office and janitorial supplies. (8) Books or other instructional material including visual aids, if it was shown that such material was absolutely necessary, and prior approval was obtained by the State board for the purchase of these items.

Costs of the regular vocational program operating under the Smith-Hughes and George-Deen Acts could not be paid from these funds.

Under Public Law 146 it was permissible to pay for compensation insurance charges for the training program, where such insurance was considered as a part of the cost of operation, and was required by State or local laws, rules, or regulations.

Since the study made in 1940 indicated that many of the vocational agriculture shops were not fully equipped to give the proper type of training required for the defense workers, funds were allowed for the purchase of equipment. Forty percent of the Public Law 812 funds that were allotted for this particular defense training program were allowed to be used for the purchase or rental of equipment. This meant that the States and local communities could obtain, either by purchase or rental, additional equipment, machinery and tools that were necessary for efficient instruction under this program. The proportion of the funds allowed for the purchase or rental of equipment and rental of space was reduced in 1942 to 30 percent, to 20 percent in 1943, 15 percent in 1944, and 12½ percent for the fiscal year ending June 30, 1945. This reduction was due to the understanding that most of the farm shops were becoming much better equipped and it was the opinion of the Office of Education that a larger share of the funds should be allowed for the actual instruction costs.

During the first year the program was in operation the rental, alteration or construction of buildings was not allowed; however, beginning with the fiscal year 1942 the rental of space was considered a legitimate expense. For the farm commodity courses, however, inaugurated under Public Law 647 it was not permissible to pay for the rental of space and the purchase and rental of equipment. It was presumed by the Office of Education that the vocational agriculture departments were well equipped and did have the space available for this type of instruction.

Because of differences in interpretations among the States and local communities as to items which might be included as charges against the program, with the consequent inclusion in their statements of certain items which could not be allowed, it was found necessary in 1943 to list specifically items for which payment could not be made from these funds. Excluded were such things as the depreciation on publicly owned property or equipment; insurance premiums on property or equipment; member-

ship dues in clubs, organizations or associations; newspaper subscriptions; cost of publicity or the cost of advertising for trainees; premiums on surety bonds for State or local personnel; State sales tax, unless the State attorney general had ruled such taxes were payable, and if other divisions of the State Government or local subdivisions thereof were also required to pay such taxes; costs for audits made by State or local agencies or private firms, which were not required by the director; Federal taxes, unless the State and local subdivisions were also legally required to pay such taxes.

BASES FOR MAKING ALLOTMENTS

"The first 2 years the program was in operation the following factors were considered in the allotment of funds: First, the number of individuals to be trained; second, the need for training; and third, the ability of States to train. This meant that funds appropriated for costs of this program were allotted to the States according to the ratio of the rural youth population within that State to the total rural youth population in the United States. In 1943 and 1944, when the upper age limit had been removed under Public Laws 647 and 135, the allotment of funds to the States was based on the ratio of the total rural population within a State to the total rural population in the United States.

For the 1945 fiscal year Congress provided under Public Law 373 that the unexpended balance of funds appropriated under Public Law 135 was to be added to the appropriation of \$10,500,000. Upon the advice of a group of State Directors of Rural War Production Training it was decided that instruction and supervision funds for the 1945 fiscal year would be divided according to the following formula: Each State would be allotted an amount equal to one-half of the amount expended under Public Law 647 plus a sum equal to all of the amount expended under Public Law 135. This formula did not obligate the total amount available under Public Law 373 and made it possible to allot funds to those States that could prove they were in need of more money for instruction and supervision. Funds for the purchase or rental of equipment and the rental of space were distributed for 1945 on the basis of the ratio of the average of the farm and rural population in the States to the average of the total farm and rural population in the United States.

METHODS USED IN PAYMENTS TO STATES

Before a State could be paid any funds under any of the Acts it was necessary that it submit a State plan which included a stipulation as to how the funds were to be used.

Under Public Law 812 for the fiscal year 1941, one-half of the amount allotted to an individual State was forwarded to the State Treasurer as soon as the State plan was approved. The remainder of its allotment was paid to the State when the need was shown by reports submitted to the U. S. Office of Education or by audits made by representatives of the Federal Office.

Under Public Law 146, 25 percent of the amount allotted to a State for the training program was transferred to that State at the beginning of the fiscal year 1942 for the purchase and rental of equipment. The other 5 percent to which each State was entitled for this purpose was paid to the State when its need was shown. Seventeen and one-half percent of the amount allotted to a State was sent to that State at the beginning of the fiscal year for the cost of instruction and supervision. For the States to obtain additional certifications it was necessary for them to submit to the U. S. Office of Education monthly financial reports covering the expenditures made for the program for the previous months together with completed copies of OSY Form 2 and Supervision Form 3. (See appendix B). On January 1, 1942 a review was made of the expenditures for the Rural War Production Training Program and this review was used as a basis for making an adjustment in the allotments made to each of the several States.

Under Public Law 647, for the fiscal year 1943, 15 percent of the allotment available to each of the States was sent at the beginning of the fiscal year for the purchase and rental of equipment and for rental of space. The remaining 5 percent of the allotment available for purchase and rental of equipment was sent out to the respective States upon their showing a need for additional funds. At the beginning of the fiscal year an amount equal to 20 percent of the allotment available to each State was distributed for the costs of instruction and supervision. After receiving its first payment of funds the State was required to justify its need for further payments by submitting data which substantiated this need. On January 1, 1943 a review was made of the expenditures for this program and adjustments were made in the amount of funds to be used by each of the several States during the remainder of the fiscal year.

Under Public Law 135, fiscal year 1944, the same procedures were followed as under Public Law 647 except that under Public Law 135, 66 $\frac{2}{3}$ percent of the amount available for the rent and purchase of equipment and space was sent with the first certification and 25 percent of the amount available for supervision and instruction under this program was transmitted to the States at the beginning of the fiscal year.

Under Public Law 373 for the fiscal year 1945 one-half of the amount available for equipment and rental of space was sent to the States at the beginning of the year. Funds for instruction and supervision under this law were not allotted on a percentage basis. The amount certified at the beginning of the year was equal to one-half of the amount expended by the individual States under Public Law 647.

AMOUNTS EXPENDED BY STATES

During the years that the training program was in operation it was noted that, in general, most of the State boards for vocational education used only a small amount of the funds allotted to them for the rental of equipment. No doubt this was due to the fact that any money spent for

rental of equipment had to come out of the funds allowed for the purchase of equipment, and since the title to the tools purchased under these funds remained with the State boards for vocational education they tried wherever practicable to purchase the tools that were needed for the operation of the program.

A comparison of tables VI and VII shows that for the first 2 years of the program the States expended a larger share of their allotments for instruction and supervision than for equipment and rental of space. The second 2 years the proportions expended were approximately the same for the two items. For the last year of the program the proportions were reversed, 96.5 percent of the equipment allotment having been spent as compared with 87.4 percent of the allotment for instruction and supervision.

Table VI.—Funds available and expended for equipment and rental of space

Public Law	Funds available	Amount expended ¹	Percent expended
812	\$4,000,000	\$2,895,865.26	72.4
146	4,500,000	2,688,704.76	59.7
647	3,000,000	2,331,263.59	77.7
135	1,706,000	1,670,300.56	98.0
373	1,482,500	1,431,280.07	96.5
Total	14,687,500	11,017,414.34	75.0

¹Reported as of Mar. 1, 1946.

Table VII.—Funds available and expended for instruction and supervision

Public Law	Funds available	Amount expended ¹	Percent expended
812	\$6,000,000	\$5,801,536.47	96.7
146	10,500,000	7,337,496.59	69.9
647	12,000,000	9,311,535.33	77.6
135	6,695,000	6,614,798.01	98.8
373	9,617,500	8,406,732.61	87.4
Total	44,812,500	37,472,099.01	84.0

¹Reported as of Mar. 1, 1946.

Table VIII shows the total amount of money expended by each of the several States for instruction and supervision and for equipment and space as of January 1946.

INSTRUCTIONAL MATERIAL MADE AVAILABLE

In addition to administrative instructions and forms that were made available to the States to assist them in the development of the Rural War Production Training Program, a large amount of material that could be used to improve the instructional phase of the program was developed in the U. S. Office of Education and sent to the States. This material was made available in quantities at the beginning of the program. Later, due to shortage of clerical help and paper, it was necessary for the States to reproduce any of the material that they might care to distribute to local centers. Examples of this instructional material are to be found in appendix C.

Table VIII.—Total expenditures under all laws as of January 1946

State or Territory	Instruction and supervision	Equipment and space	Total
Total	\$37,458,107 62	\$11,017,424 81	\$48,475,532 43
Alabama	1,660,412 21	378,229 09	2,038,641 30
Arizona	367,572 14	81,603 37	449,175 51
Arkansas	1,609,271 84	378,495 40	1,987,767 24
California	845,050 34	162,148 83	1,007,199 17
Colorado	255,632 68	96,205 13	351,837 81
Connecticut	9,800 94	2,652 13	12,453 07
Delaware	58,491 19	17,747 50	76,238 69
Florida	1,324,894 20	240,098 12	1,564,992 32
Georgia	1,907,440 66	530,751 18	2,438,191 84
Idaho	333,410 78	115,492 85	448,903 63
Illinois	976,661 14	244,213 43	1,220,874 57
Indiana	325,173 55	163,103 81	488,277 36
Iowa	351,215 43	133,274 56	484,490 99
Kansas	801,590 74	216,291 55	1,017,882 29
Kentucky	1,380,528 29	454,169 49	1,834,697 78
Louisiana	2,036,857 15	312,889 84	2,349,746 99
Maine	187,537 13	54,377 74	241,914 87
Maryland	436,750 87	164,756 30	601,507 17
Massachusetts	46,622 38	36,885 63	83,508 01
Michigan	663,434 13	270,098 16	933,532 29
Minnesota	904,342 56	224,178 62	1,128,521 18
Mississippi	2,436,019 80	558,407 77	2,994,427 57
Missouri	1,119,053 22	307,475 91	1,426,529 13
Montana	210,404 10	60,053 39	270,457 49
Nebraska	264,720 77	115,367 44	380,088 21
Nevada	51,298 90	12,308 14	63,607 04
New Hampshire	95,749 99	33,323 71	129,073 70
New Jersey	186,193 29	33,263 29	219,456 58
New Mexico	200,280 72	62,080 92	262,361 64
New York	891,011 41	336,439 87	1,227,451 28
North Carolina	1,689,707 31	887,731 50	2,577,438 81
North Dakota	265,396 59	78,083 22	343,479 81
Ohio	651,827 41	226,817 03	878,644 44
Oklahoma	1,532,449 88	338,830 41	1,871,280 29
Oregon	303,896 10	98,177 93	402,074 03
Pennsylvania	1,190,457 20	503,740 71	1,694,197 91
Rhode Island	8,569 17	857 54	9,426 71
South Carolina	998,437 90	384,057 01	1,382,494 91
South Dakota	58,349 18	22,332 48	80,681 66
Tennessee	1,086,732 58	363,537 12	1,450,269 70
Texas	3,610,512 62	981,080 88	4,591,603 50
Utah	231,502 32	47,998 76	279,501 08
Vermont	151,809 26	45,776 05	197,585 31
Virginia	1,348,681 56	543,569 90	1,892,251 55
Washington	404,092 51	120,166 83	524,259 34
West Virginia	847,754 55	259,028 59	1,106,783 14
Wisconsin	712,922 06	204,211 43	917,133 49
Wyoming	109,476 50	40,461 59	149,938 09
District of Columbia	36,756 90	11,520 13	48,277 03
Hawaii	61,238 77	10,016 44	71,255 21
Puerto Rico	520,124 70	50,116 00	570,240 70

SHOP COURSES

The primary purpose of Misc. No. 2611, Suggestions for Instructors for General Preemployment Courses in the National Defense Training Program was to assist the practical mechanic who was teaching many of these courses by furnishing general suggestions for organizing and conducting the courses. The suggestions were outlined in a series of steps, such as: determining objectives, analyzing and selecting jobs to be taught, securing teaching materials, developing the student's interest in each job, demon-

strating the jobs to the class, providing for student participation, and teaching while the students are at work (appendix C).

Suggestions for the development of the general preemployment courses were issued at the beginning of the program for each of the four courses (Misc. Nos. 2613, 2614, 2615, and 2616). Each publication was divided into four parts: (1) general statements, including a chart for recording skills or jobs and trainee performance; (2) details regarding the course of study, including skills to be developed and suggested ways of developing each skill; (3) list of references to available teaching aids representative of the instructional material which could be secured, and (4) sample job sheets. It was stated that, "It is not expected that an exceedingly high degree of proficiency will be developed by every individual in each skill listed in the course. It is expected, however, that the typical trainee enrolled in the course will become reasonably skilled, although he may not become an expert workman." These suggestions were found helpful by the States and were used as a basic outline for each of the mechanical courses offered.

FARM MACHINERY REPAIR

Public Law 647 for the fiscal year ending June 30, 1943 permitted instruction in the repair, operation and construction of farm machinery and equipment. Misc. 2634 was developed for this course and released to the States in July 1942. In its general statement this miscellany indicated that the primary aim of the course was to develop skills and ability in the repair, operation and construction of farm machinery and equipment needed by farmers in order to achieve production goals for those farm commodities designated by the Secretary of Agriculture. It was suggested that the local centers survey the farm machinery and equipment situation in their respective communities so that they could determine what type of farm machinery repair instruction should be offered to the farmers. It was also suggested that the course be broken into four phases, namely: (1) The repair, operation and construction of tillage, seeding and harvesting machinery and such service implements as wagons, manure spreaders and fertilizer distributors, (2) the operation, service and minor repair of farm motors, trucks and tractors, (3) the major repair of farm motors, trucks and tractors and (4) the repair and construction of equipment essential to the attainment of commodity production goals. General suggestions for organizing the course dealt with selecting enrollees, providing tools and equipment, securing the instructor, and determining the course content. The idea of providing follow-up instruction and of relating it to the class instruction was stressed.

To further aid the States in their instruction in farm machinery repair program courses Misc. 2660 was developed and issued. The specific purpose of this document was to assist instructors of farm mechanics by suggesting activities, methods, and procedures to follow in supervising and instructing classes in the care, service, repair, operation and construction

of farm machinery and equipment. It included a farm machinery and equipment check sheet which could be duplicated and used by the farmers attending these classes to check on the repairs needed on their own equipment. Instructors were asked to encourage farmers to bring to the shop machinery and equipment or parts that were in need of service, repair, and adjustment. Instructional information was included on how to service a machine, or "preventive maintenance." Outlines of jobs to be done in reconditioning certain farm implements were given with the suggestion that the instructor should develop a similar list of the principal servicing, repair, replacement, and adjustment jobs for each kind of farm machine common to the area served by his instructional program.

COMMODITY PRODUCTION COURSES

In July 1942, Misc. 2636, *Suggestions for the Development of Courses for Increasing Production of Food for Victory*, was released. These suggestions were prepared for the purpose of aiding supervisors and instructors in the development of courses for increasing milk, poultry, egg, pork, sheep, soybean, peanut, and vegetable production. Included were general suggestions for the organization of the courses with emphasis on the adoption of approved practices which would contribute immediately to increased production of livestock and crops. This miscellany was used as a guide for all of the commodity courses added subsequent to Public Law 647. (appendix C).

Misc. 2655 entitled "Conserving Country Hides and Skins" was developed to assist the farmer in properly conserving the hides and skins found on his farm. It was suggested that conservation of hides and skins be taught during one of the courses on increasing production of food. The development of the following skills and understandings was emphasized: skinning animals, curing hides and skins, storing hides and skins, observing safety precautions when handling hides and skins, and effective marketing of these products.

Misc. 2672 released in August 1943, provided information on the grading of poultry and poultry products.

Suggestions for the development of Course 23, production and conservation of feed for livestock, were released through Misc. 2695. The primary purpose of this bulletin was to aid in developing the ability to produce and conserve food for livestock in order to maintain livestock production at a desirable level. A few of the important activities suggested were providing year-round pastures, maintaining and improving soil fertility, producing desirable feed, mixing feed on the farm for a balanced ration, harvesting and storing feed to prevent loss.

Misc. 2600-1 outlined the plans for Course 22, soil and water conservation and use. It was contemplated that farmers enrolling in this course would receive training in the need for and the method of carrying out the most important soil conservation practices in each community such as

contour farming, strip cropping, application of fertilizer and pasture improvement. The War Food Administration had indicated that in certain areas there was a need for training inexperienced persons to aid farmers with such work as laying out contour lines and strips, estimating carrying capacities of pastures, checking grades, assisting and planning irrigation improvements. It was suggested by the U. S. Office of Education that men needing training along this line be given instruction under Course 19, training of farm workers. This miscellany stated that representatives of the War Food Administration namely, the State Director of Extension, the State AAA executive officer and the State Conservationist of the Soil Conservation Service, as a committee, in cooperation with the State Director of Rural War Production Training would develop plans for the organization and operation of this particular training program. The representatives of the Agricultural Adjustment Agency and the Soil Conservation Service were particularly interested in this course and sent out rather detailed instruction to their State representatives regarding methods in which it could be used to promote the advancement of the soil and water conservation program.

FOOD CONSERVATION

In November 1942, suggestions for the development of Course 15, production, conservation and processing of food for farm families were outlined in Misc. 2647. It was stated that the test of the effectiveness of this course would be the actual production and preservation of food so that enough of all kinds would be available to meet the dietary needs of each farm family. This was followed by the release in March 1943, of Misc. 2656 entitled "The Use of the Community Cannery" which was instrumental in the promotion of the school-community canning idea.

During the season of 1943 it was observed that a large amount of the time devoted to Course 15 was being given to the canning of commodities and little time devoted to the planning of family food budgets or a study of producing the products. In December 1943, Misc. 2682, Organizing and Developing Food Production War Training Programs in Food Production and Conservation, was issued to the States. This miscellany stated that if Course 15 was to be effective, an educational program on food production and conservation should begin before the planting of the products which were to be conserved. It was proposed that the educational program should be divided in three distinct sections or phases of instruction: (1) Planning the family food budget for the year, (2) Producing family food, and (3) Conserving and processing food. An outline, indicating in part what should be included in Course 15 under these three topics with the view to supplying family nutritional needs, was included.

During 1943 and 1944 a large number of community canneries were established throughout the United States under the Rural War Production Training Program. It was observed that many of the centers were having

trouble in the operation of the cannery equipment. Misc. 2691 entitled "Operating and Maintaining Equipment Used in School Community Canning Plants," was developed and distributed to the States in February 1944 to aid operators and supervisors in attaining those skills that they should have in order to operate safely the equipment and to increase the quantity and quality of the food processed in the plants. Various steps to be followed in the operation of each piece of equipment found in the community cannery were suggested. For example, instructions were given for firing and maintaining the boiler and precautions to take to insure its safe operation were listed. The operation and adjustment of retorts, sealing machines, exhaust boxes, and steam jacketed kettles were explained.

FARM LABOR TRAINING

On December 26, 1942, an amendment was made to the rules and regulations governing the operation of the Rural War Production Training Program which permitted the training of farm workers. In order to assist the States in the development and teaching of this course Miscellany 2649 was issued. This miscellany stated that the primary aim of the course was to aid in providing an adequate supply of trained year-round and seasonal agricultural workers for the production of agricultural commodities essential to the war effort. It discussed the farm labor situation and presented a plan for organizing the instructional program. Suggestions for formulating a course of instruction to meet local situations and needs included a consideration of such topics as

- (1) An appreciation of the need for agricultural products and of the demand for farm workers.
- (2) An understanding of living and working conditions of individuals when employed as farm workers.
- (3) An understanding of the types of agriculture and the kinds of farm jobs to be done in the community where they will be employed.
- (4) Acquiring an ability to do specific farm jobs.

It was emphasized that the training program should be designed to train individuals to meet a specific demand. Some specific jobs suggested in which training could be offered were: Shearing sheep, milking cows, harvesting vegetables, picking fruit, plowing with a tractor, operating a combine, and cultivating with a team.

It was recognized that a general farm-labor training course designed to meet the needs of agriculture in the United States would be so broad and cover so wide a variety and number of jobs that it would be impractical and ineffective. No one general course could be outlined to cover adequately the type of instruction that should be given. In order that the States might analyze carefully each farm-job training need and prepare a rather specific and detailed outline to be followed in offering the instruction to meet such a need, a suggested outline covering the training of sheep shearers was prepared by the Office of Education and issued as

Misc. 2650. This outline was offered as a suggested pattern which the States might utilize in preparing other specific course outlines for the training of farm workers.

It was felt that farmers employing inexperienced workers should be given training in the handling of this type of labor. Miscellany 2651, Training Farm Workers, was developed to assist the farmers or farm supervisors to train their own workers to do specific jobs for which the workers were employed. Part A of the Miscellany discussed the efficient use of farm labor and the management of farm workers, and part B, the plans and procedures to use for training farm workers on the job. This is commonly known as Job Instructor Training. The Training Within Industry Section of the War Manpower Commission was interested in this phase of the training program and arrangements were made with JIT trainers to offer courses of instruction for people working with the Rural War Production Training Program. A number of training institutes were held in various States for this purpose and those individuals certified by the institute conductors held 10-hour training sessions for groups of farmer employers and agricultural supervisors.

During the 1943 conference of State directors of Rural War Production Training held in Cincinnati a resolution was passed requesting that a committee be appointed to develop a Job Instruction Training Program adapted to agriculture.

This committee met in Washington in January 1944, and prepared two publications on this subject, namely, Job Instruction for Farm Workers, which was a printed bulletin to be used only by persons trained to conduct a short intensive course on job instruction for farm workers for those individuals who would teach the job instruction training procedure to the employers of farm labor; and Misc. 2692 Manual for Institute Conductors—Job Instruction for Farm Workers. The second publication gave detailed instruction on conducting the institutes.

Under Public Laws 135 and 373 for the fiscal years ending June 30, 1944 and June 30, 1945 respectively, it was permissible to have in-school persons enrolled in the farm labor training program. With this in mind, Misc. 2685, Training In-School Nonfarm Youth for Wartime Food Production, was prepared and distributed to the States in January 1944. This miscellany contained suggestions for organizing training programs for in-school nonfarm youth who would be employed as emergency farm workers. The miscellany was planned as an aid to school administrators and instructors who would be responsible for training this group of volunteers.

A cooperative study, The Role of the Schools in Emergency Employment of Nonfarm Youth in War-time Agriculture was made by the Children's Bureau of the United States Department of Labor and by the Office of Education. Another publication on the training of urban youth to work on farms, Victory Farm Volunteers Do Good Work, was prepared

cooperatively by the Extension Service, United States Department of Agriculture, and the Office of Education.

VISUAL AIDS

In cooperation with the Visual Aids Division of the U. S. Office of Education, a series of 17 motion pictures and film strips were prepared on farm skills that were closely related to the teaching being offered in the Rural War Production Training Program. The motion pictures and film strips developed were as follows:

Reconditioning a Mower, Part I.	Repainting a Frame Building.
Reconditioning a Mower, Part II.	Cutting and Boning Forequarter of Beef.
Reconditioning a Two-Bottom Tractor Plow.	Cutting and Boning Hindquarter of Beef.
Reconditioning a Grain Drill.	Handling Livestock for Market.
Community Canning.	Canning Beef.
Sheep Shearing.	Forging with a Hand Forge.
Reconditioning a Cultivator.	Forge Welding.
Care of a Tractor.	Forge Hardening and Tempering Farm Tools.
Horseshoeing.	

The scripts for these films and their actual "shootings" were done under the technical supervision of staff members of the Agricultural Education Service and Rural War Production Training Program.

APPRAISAL OF THE PROGRAM

During 1944, in response to the expressed interest of many leaders in agricultural education, the U. S. Office of Education and workers in the several States cooperated in conducting a national appraisal study of the Rural War Production Training Program.¹ The major purpose of the study was to determine the effectiveness of the program in achieving the objectives for which it was created. A second purpose was to obtain further information on program features which might merit continuance as integral parts of the regular program in vocational agriculture (in agricultural education) in the post-war period. The program was studied at both the State and local community levels.

Appraisals of the State level phases were made in each of the 48 States. Appraisals of the local level phases of the program were made in 359 communities in 23 States: Alabama, California, Idaho, Illinois, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

Within each State the number of local programs selected for study was equally divided between high and low quality. In each community the local appraisers drew random samples of 10 to 15 trainees from a single representative course in the community's total Rural War Production Training Program. Individual farm and home interviews yielded detailed descriptions of the trainees themselves and of their use of and reactions to the training program. Such data were obtained from 4,588 trainees who

¹A summary of the study entitled "Appraisal of Food Production War Training Program" appeared in *Education for Victory*, 3: 7-10, June 4, 1945.

were currently or recently had been enrolled in four types of training courses as follows:

Repair, operation and construction of farm machinery and equipment	2,408
Production, conservation and processing of food for family use	1,338
Farm commodities production	635
Farm labor training	207

Following are some of the significant findings of the study:

(1) The program has met many of the wartime food production and conservation needs of a cross section of the rural population of the United States, as shown by the age range of the enrollees which was from 17 to over 70, and by the educational level which had been attained by the enrollees. The average white enrollee had completed 10 grades of school; the average Negro enrollee 6.8 grades. Twenty-five percent of the Negro enrollees had completed less than 5 grades; 13.4 percent of all enrollees had completed more than 12 grades.

(2) The classes reached large numbers of farmers not hitherto reached by vocational education in agriculture. Eighty-two percent of all enrollees had not previously been enrolled in vocational agriculture part time or evening classes. This percentage for Course 5, repair, operation and construction of farm machinery and equipment, was 76.5, an especially significant figure since enrollments in this course were made up almost altogether of men.

(3) One of the finest products of the Rural War Production Training is the reservoir of teaching talent in the form of special teachers now to be found in each community in which the program operated. It has been demonstrated that a person with no professional or formal technical training, if skilled in his line of work and possessed of proper personal qualities that enable him to impart knowledge and command the respect of the members in his group, may be developed into a successful teacher. The teacher of vocational agriculture, supplemented by a staff of special teachers, can expand and at the same time intensify the teaching of agriculture in his community.

(4) Course 5 enrollees gave the following as the main advantages of taking the course: (1) they obtained needed repairs and adjustments of farm machinery; (2) they obtained training in making farm machinery repairs and adjustments, and (3) tools and equipment not available at home could be utilized.

(5) Enrollees in Course 15, production, conservation and processing of food for family use, gave the following as the main advantages of this course: (1) time and labor consumed in food preservation is reduced; (2) training in food preservation is obtained, and (3) equipment not found at home is made available. Eighty percent of the enrollees interviewed planned to use school community canning centers after the war.

LIQUIDATION OF THE PROGRAM

Shortly after the War closed in Europe the Office of Education was notified that funds would not be continued for the Rural War Production Training Program. Accordingly, on May 5, 1945, the Commissioner of Education addressed a memorandum to the State Directors informing the States that all classes should be closed by May 31 except a few specially approved by the U. S. Office of Education to operate to not later than June 30, and that all existing contracts for equipment, supplies, other materials, and for facilities should be canceled as soon as feasible. The States were urged to expedite the payment of all bills and vacate leased property as rapidly as possible so that most of the liquidation activities would be accomplished prior to the end of the fiscal year.

Although Congress appropriated no funds which the States might use in liquidating the training program after June 30, it was provided that within budgetary limitations set by the Office of Education, Public Law 373 funds would be available to pay costs of liquidating the program after that date since such costs were an essential part of the costs of courses contemplated by the State plan. Such items as personal services rendered after June 30, 1945, and costs of space occupied after June 30, 1945, were therefore payable from Public Law 373 funds provided such expenses were necessary to fulfill the liquidation requirements of the Office of Education.

Part II

FOOD PROCESSING PROGRAM IN THE PUBLIC SCHOOLS UNDER THE SPECIAL GRANT FUNDS

June 8, 1945–December 31, 1945

ORIGIN OF THE SPECIAL GRANT

PURSUANT to the establishment in the War Food Administration, United States Department of Agriculture, effective May 25, 1945, of an office charged specifically with the responsibility for intensifying the growing and preserving of food on the home front, the War Food Administrator wrote to the Administrator of the Federal Security Agency relative to food preservation. He requested that the U. S. Office of Education arrange for the operation of home canning projects (with facilities which were already established and used heretofore in connection with training programs) through State boards for vocational education and the local public schools during the canning season beginning June 1, 1945. The Administrator replied that the Office of Education was prepared to meet the request if funds should be made available.

Following conferences between representatives of the two agencies, the War Food Administration agreed to transfer a limited amount of money to the U. S. Office of Education for the operation of a training program in food processing. Accordingly, the U. S. Office of Education was advanced a working fund of \$1,670,000 from the appropriation, Salaries and Expenses, War Food Administration, 1945. This fund, referred to herein as the Special Grant, was made available for the period June 8 to December 31, 1945. It was agreed that any unobligated balances remaining as of December 31, 1945 would be returned to the War Food Administration together with a report on the 1945 accomplishment, the purposes for which expenditures were made, and the amounts of such expenditures.

The Special Grant Program was designed "to increase the supply by providing necessary food production and conservation facilities through community canning projects." It was stipulated that the funds were to be used only in connection with the food processing phase of Course 15, production, conservation, and processing of food for family use. The States were further restricted in the use of the funds to the payment of salaries, as follows:

1. Salaries of instructors for the food processing phase of course 15.
2. Salaries of local supervisors for the food processing phase of course 15, for the same functions as provided for in Misc. 2000, revised July 1944, plus liquidation functions.
3. Salary of not to exceed one full-time clerk-stenographer at the State level, for services both in connection with the operation and with the liquidation of these courses.

At the National level the funds could be used for the necessary costs in connection with the administration of the program.

ADMINISTRATION OF THE PROGRAM

ADMINISTRATIVE STRUCTURE

Special Grant funds were administered by the U. S. Office of Education and State boards for vocational education through the local schools in a manner similar to that followed in the administration of funds provided in Public Law 373 for the Rural War Production Training Program. The program was operated in conformance with the provisions of the State plans of the respective States and Misc. 2600, revised July 1944, except where those provisions were in conflict with the purposes for which these funds were made available as described in Misc. 4603 of June 1945, entitled "Operating Procedure—Special Grant Fund."

Funds for this special program were transferred to the U. S. Office of Education by the War Food Administration with the understanding that the same administrative arrangements and responsibilities would prevail as in the administration of all previous Rural War Production Training programs. State boards for vocational education and local boards of education continued to have the same authority and responsibilities they had for the development and operation of the program in previous years.

In order that there would be no public misunderstanding as to the responsibilities for the program, it was requested that materials for release to the press or for publication in magazines and bulletins be prepared in closest cooperation with War Food Administration personnel in the respective States. To this end it was suggested that State boards for vocational education utilize services of the staff of the War Food Administration whenever such services were available. Also, the fact that there were other community canning programs in operation in many of the States made it desirable that close working relationships be established and maintained with War Food Administration officials.

SPECIAL ADMINISTRATIVE REGULATIONS

As previously mentioned, the administration of the Special Grant Program was the same as that of the previous Rural War Production Training Program with the inclusion of certain limitations as set forth in Misc. 4603, of June 1945. Important among these limitations were those relating to the approval of courses, which stipulated that:

1. All courses must be approved and funds obligated before July 1, 1945, as shown by the approval dates on OSYA Form 2.
2. Courses may be started at any time after June 7, but must be closed by not later than December 31, 1945. They may be approved to operate for any length of period of time necessary between these two dates.

Other regulations covered in Misc. 4603 concerned the filing of statements and reports. It was provided that separate accounts should be established and maintained for all financial transactions in connection

with the Special Grant, and that monthly financial reports as well as a final financial report to be made not later than January 31, 1946, should be filed with the U. S. Office of Education.

The regulations also provided that a monthly report of new enrollments during the month and amount of food processed during the month should be prepared. This report was to be transmitted in duplicate by the local operating agency to the State board for vocational education on the first day of the month following that for which the report was prepared, the State office retaining one copy and transmitting the other copy to the U. S. Office of Education.

RESPONSIBILITY OF THE LOCAL OPERATING AGENCY

One of the first responsibilities of local operating agencies was to determine whether there was a need for a food processing program in the area served by them. This necessitated a survey of the kinds and amount of food that could and should be processed, the facilities available, the number of individuals willing to participate in such a program, the means of financing such a program, and the availability of qualified instructors. If on the basis of this survey a program was deemed advisable, the local agency applied for Special Grant funds by filing OSYA, Form 2 with the State director.

If the State director of Rural War Production Training approved this application, the local operating agency was permitted to proceed with its proposed program. Forms 2 were reviewed by the U. S. Office of Education to determine if they were in conformity with the established regulations. From this point it became the responsibility of the operating agency to organize and promote the program, provide for financing the program other than the salary of the teacher and supervisor, select instructors, recruit enrollees, provide for supervision of instruction and operation, and keep all records required for periodic State and Federal reports.

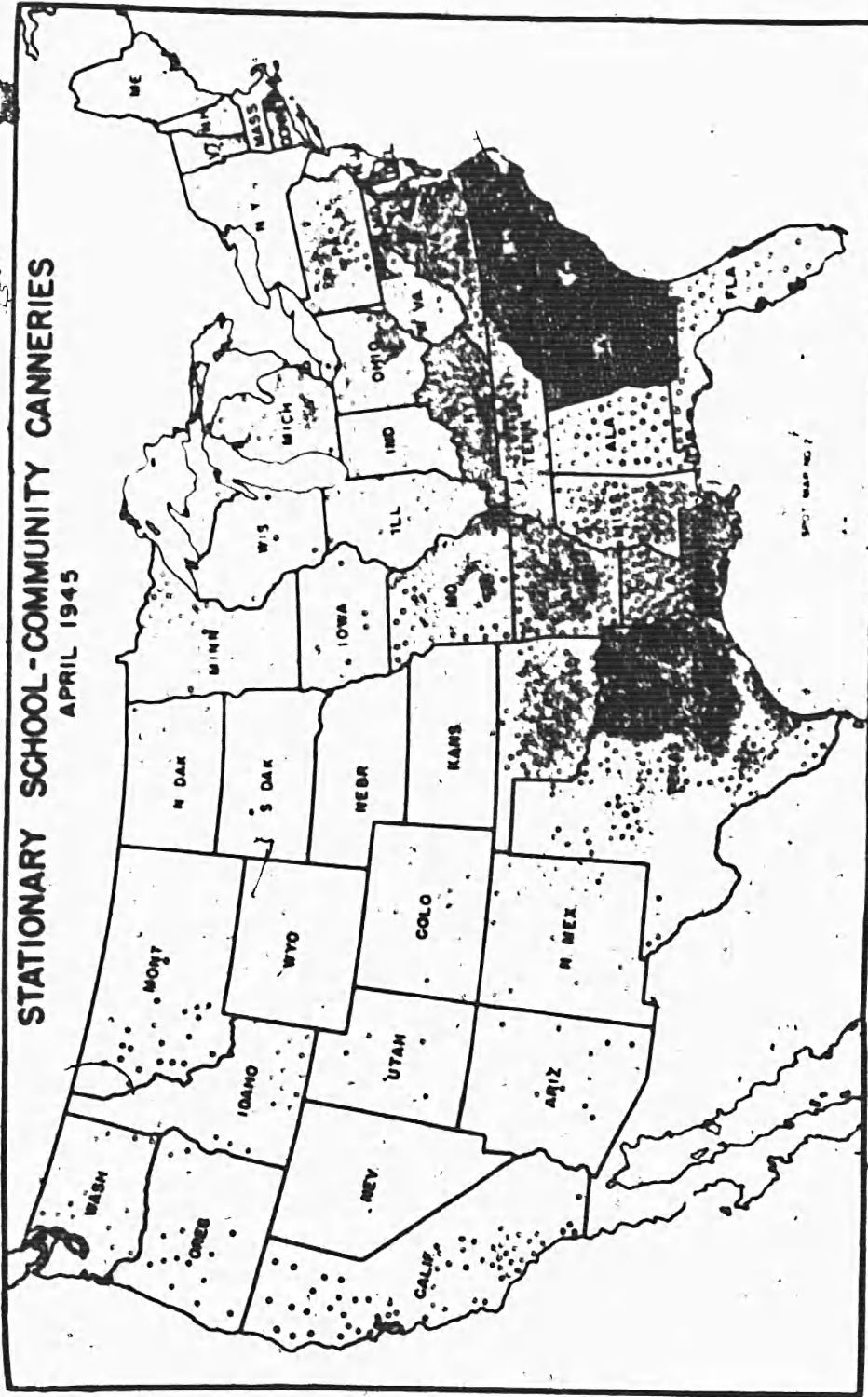
ALLOTMENTS TO STATES

An allotment of funds was made to each State based upon the number of the stationary type school-community canning plants in the State and the volume of approvals for Course 15 under Public Law 373 funds up to March 31, 1945. A slight adjustment was made in a few States in which this basis of determining the amount needed for the Special Grant Program did not seem to be a justifiable method to follow. Such adjustments were made after receiving a statement from these States justifying the need for additional funds.

In April 1945, there was a total of 3,142 school-community canneries in the United States as reported by the respective States. The distribution of these canneries is shown in table IX and on the map.

Table IX.—School-community canning centers, by State, April 1945

State	Number of canning centers		
	For whites	For Negroes	Total
Alabama.....	43	6	49
Arizona.....	9	0	9
Arkansas.....	123	32	155
California.....	62	0	62
Colorado.....	8	0	8
Connecticut.....	0	0	0
Delaware.....	4	0	4
Florida.....	32	0	32
Georgia.....	369	80	449
Idaho.....	18	0	18
Illinois.....	24	0	24
Indiana.....	8	0	8
Iowa.....	6	0	6
Kansas.....	0	0	0
Kentucky.....	145	1	146
Louisiana (1944).....	122	28	150
Maine.....	1	0	1
Maryland.....	10	0	10
Massachusetts.....	0	0	0
Michigan.....	29	0	29
Minnesota.....	46	0	46
Mississippi.....	72	15	87
Missouri.....	120	3	123
Montana.....	33	0	33
Nebraska.....	1	0	1
Nevada.....	0	0	0
New Hampshire.....	4	0	4
New Jersey.....	4	0	4
New Mexico.....	22	0	22
New York.....	7	0	7
North Carolina.....	178	78	256
North Dakota.....	10	0	10
Ohio.....	48	0	48
Oklahoma.....	128	25	153
Oregon.....	15	0	15
Pennsylvania.....	84	0	84
Rhode Island.....	0	0	0
South Carolina.....	229	16	245
South Dakota.....	0	0	0
Tennessee.....	67	8	75
Texas.....	407	144	551
Utah.....	4	0	4
Vermont.....	15	0	15
Virginia.....	141	6	147
Washington.....	14	0	14
West Virginia.....	26	2	28
Wisconsin.....	5	0	5
Wyoming.....	4	0	4
District of Columbia.....	1	0	1
Total.....	2,698	444	3,142



The Special Grant funds were distributed on June 29, 1945 as shown in table X.

Table X.—Allotments to States, processing phase course 13, War Food Administration Special Grant, June 29, 1945

State	Allotment	State	Allotment
Alabama	(1)	North Dakota	\$ 5,880 00
Arizona	\$ 6,490 00	Ohio	13,400 00
Arkansas	80,890 00	Oklahoma	78,630 00
California	37,860 00	Oregon	9,130 00
Colorado	8,580 00	Pennsylvania	36,600 00
Connecticut	(1)	Rhode Island	(1)
Delaware	4,780 00	South Carolina	87,130 00
Florida	33,580 00	South Dakota	(1)
Georgia	132,810 00	Tennessee	32,500 00
Idaho	12,680 00	Texas	226,150 00
Illinois	51,760 00	Utah	1,520 00
Indiana	4,800 00	Vermont	5,000 00
Iowa	3,580 00	Virginia	93,710 00
Kansas	(1)	Washington	7,230 00
Kentucky	71,920 00	West Virginia	22,740 00
Louisiana	91,640 00	Wisconsin	8,970 00
Maine	(1)	Wyoming	2,640 00
Maryland	18,100 00	Alaska	(1)
Massachusetts	(1)	District of Columbia	770 00
Michigan	23,610 00	Hawaii	(1)
Minnesota	54,140 00	Puerto Rico	(1)
Mississippi	73,030 00	Total allotted	1,587,923.63
Missouri	68,130 00	Unbudgeted	22,076.37
Montana	12,930 00	Administration	60,000.00
Nebraska	2,633.63	Total Grant	1,670,000.00
Nevada	(1)		
New Hampshire	5,680 00		
New Jersey	11,420 00		
New Mexico	13,040 00		
New York	5,250 00		
North Carolina	101,380 00		

(1) Did not accept funds.

SUMMARY OF COURSES AND EXPENDITURES

In the 40 States and the District of Columbia which participated in the food processing program under the Special Grant, 3,121 courses were approved to operate. Texas and Georgia led in having the largest numbers of courses approved, 584 and 419, respectively. Other States in the Southern region—Arkansas, Louisiana, North Carolina, Oklahoma, South Carolina, and Virginia—and Kentucky in the Central region, had a hundred or more courses approved.

For this program the States budgeted a total of \$1,537,116.16, of the amount allotted for the operation of the program, with \$21,812.40 of this amount going for supervisory expenditures at the State level. Funds expended according to reports received as of March 1, 1946 total \$1,114,547.52. A summary of this information by States is given in table XI.

Table XI.—Summary of courses approved to operate, allotments and expenditures of Special Grant Funds, by State

States	Super- vision approved on form 3, amount	Courses approved on form 2		Total amount budgeted	Total amount allotted	Total amount expended ¹	Balance
		Num- ber	Amount				
U. S. total	\$21,812.40	3,121	\$1,515,303.76	\$1,537,116.16	\$1,587,923.63	\$1,131,767.77	\$456,153.89
North Atlantic Region	1,312.00	200	111,371.18	112,683.18	113,340.00	91,876.09	32,463.91
Delaware	154.00	18	4,626.00	4,780.00	4,780.00	3,856.00	924.00
District of Columbia		2	769.00	769.00	770.00	769.00	1.00
Maryland	550.00	42	17,550.00	18,100.00	18,100.00	12,568.20	5,731.80
New Hampshire	350.00	13	5,830.00	5,680.00	5,680.00	2,870.74	2,809.26
New Jersey		19	11,414.96	11,414.96	11,420.00	10,737.51	682.49
New York	258.00	8	7,992.00	8,250.00	8,250.00	4,915.91	3,334.09
Pennsylvania		61	36,589.97	36,589.97	36,600.00	25,591.50	11,008.50
Vermont		9	4,359.25	4,359.25	5,000.00	2,491.00	2,509.00
West Virginia		28	22,740.00	22,740.00	22,740.00	17,276.23	5,463.77
Southern Region	10,629.00	2,244	1,005,323.79	1,015,952.79	1,053,610.00	759,827.29	293,782.71
Arkansas	1,200.00	154	71,893.00	73,063.00	80,890.00	58,266.75	22,623.25
Florida	900.00	94	32,386.25	33,296.25	33,580.00	28,503.15	5,076.85
Georgia	810.00	419	138,835.52	139,645.52	152,810.00	117,439.88	33,370.12
Louisiana	1,200.00	142	90,160.00	91,360.00	91,580.00	43,072.48	48,287.52
Mississippi	750.00	99	61,957.45	62,707.45	75,050.00	43,450.84	31,599.16
North Carolina	750.00	197	100,306.20	101,056.20	101,390.00	51,920.36	49,459.64
Oklahoma	1,800.00	140	77,011.62	78,811.62	78,830.00	70,280.93	8,549.07
South Carolina	1,080.00	225	65,967.07	67,047.07	87,130.00	61,239.39	25,899.61
Tennessee	524.00	90	28,561.68	29,085.68	32,500.00	22,388.67	10,111.33
Texas	900.00	584	225,250.00	226,150.00	226,150.00	188,511.16	37,638.84
Virginia	715.00	100	92,995.00	93,710.00	93,710.00	74,753.68	18,956.32
Central Region	5,974.40	488	290,627.67	296,502.07	308,883.63	201,161.40	107,722.23
Illinois	552.00	66	51,199.04	51,751.04	51,760.00	41,590.55	10,169.45
Indiana	660.00	7	4,200.00	4,800.00	4,800.00	3,702.12	1,157.88
Iowa	330.00	7	3,250.00	3,580.00	3,580.00	2,796.40	783.60
Kentucky	1,040.00	154	70,523.93	71,563.93	71,920.00	31,552.31	40,367.69
Michigan	900.00	33	22,709.84	23,609.84	23,610.00	17,220.25	6,389.75
Minnesota	1,050.00	55	48,527.89	49,577.89	54,140.00	36,151.69	17,988.31
Missouri	900.00	76	61,473.87	62,373.87	68,130.00	46,123.23	22,006.77
Nebraska		2	2,633.63	2,633.63	2,633.63	2,419.75	213.88
North Dakota	90.00	10	5,788.37	5,878.37	5,890.00	3,678.38	2,201.62
Wisconsin		19	8,958.05	8,958.05	8,970.00	6,935.10	2,034.90
Ohio	452.40	39	11,263.05	11,765.45	13,400.00	8,994.62	4,408.38
Pacific Region	3,897.00	189	108,081.12	111,978.12	112,000.00	89,902.99	22,187.01
Arizona	600.00	9	5,887.00	6,487.00	6,490.00	5,890.42	599.58
California	900.00	64	36,900.00	37,800.00	37,860.00	33,962.86	3,897.14
Colorado		11	8,579.52	8,579.52	8,580.00	7,352.04	1,227.06
Idaho	675.00	15	12,001.00	12,676.00	12,680.00	9,693.15	2,986.85
Montana	202.00	24	12,728.00	12,930.00	12,930.00	11,170.43	1,759.57
New Mexico	700.00	19	12,340.00	13,040.00	13,040.00	5,270.83	7,769.67
Oregon	660.00	14	8,430.00	9,090.00	9,130.00	6,857.35	2,272.65
Utah		15	1,517.80	1,517.80	1,520.00	1,517.80	2.20
Washington	160.00	14	7,090.00	7,220.00	7,220.00	6,260.58	959.42
Wyoming		4	2,637.80	2,637.80	2,640.00	1,927.13	712.87

¹Reported as of Mar. 1, 1946.

OPERATION OF THE PROGRAM

In gathering and compiling the information and data relating to the operation of the food processing program in the various States under the Special Grant, a number of sources were used. These sources included the reports submitted to the U. S. Office of Education by State and local agencies operating the program; interviews with various State and local school officials administering and supervising the program; and the detailed reports of the field observations of four special representatives of the U. S. Office of Education assigned to the Special Grant Program.

These special representatives personally visited and analyzed a total of 163 school-community canning centers in 40 States and in addition

checked State and local data with State directors of Rural War Production Training in their respective State offices. The visitations made to local centers by these representatives averaged 4.1 visits per State. The local programs analyzed were as nearly representative of excellent, average, and poor school-community cannery facilities and programs as could be obtained. In every case the selection of centers to be visited was left to the State directors and their assistants. In order to keep travel expenses at a minimum, representative centers conveniently located to the State offices were selected.

PLANT FACILITIES

The following have been considered under plant facilities: (1) housing, (2) equipment and working space, (3) sanitation and safety provisions.

Housing.—School-community cannery buildings in which Course 15 was conducted under Special Grant were constructed and completed, in almost every case, prior to the allotment of Special Grant funds. Most of the special buildings planned for use as canneries in the States were constructed since 1940. No Rural War Production Training funds or Special Grant money was available for the purpose of constructing or remodeling buildings.

In 85.9 percent of the centers visited by representatives of the U. S. Office of Education assigned to the Special Grant Program, the food processing courses were conducted in school-owned buildings, 6.1 percent were in other rent-free buildings, 4.3 percent were in rented buildings, and 3.7 percent were housed in buildings cooperatively owned by the patrons.

Seventy-four percent of the buildings constructed especially for canning were separated from the main school building, 23.1 percent were part of separate vocational agriculture buildings, while only 2.9 percent were a part of the main building. Space reconverted or adapted for a cannery from other school use and from other use was essentially the same in each case. The largest number of courses were conducted in buildings located on school premises in contrast to those not located on school-owned land.

The type of construction of the school-owned "especially constructed" buildings varied: frame construction (56.0 percent), cinder block (16.5 percent), brick (13.7 percent), concrete block (11.0 percent), tile (1.0 percent), and other (1.8 percent). Eighty-one and five-tenths percent of the floors were made of concrete, the remaining 18.5 percent being of wood construction.

From the statistics included in the above it is noted that the majority of schools evidently prefer to own their canneries, have them separated from the main school building but located on the school premises, and that the majority favored frame construction with substantial concrete floors.

The size of the buildings varied according to the number of patrons expected to use the canneries, the location of the buildings, funds available, and the type, quantity and arrangement of the equipment.

The ventilation in 75 percent of the centers visited was considered adequate; the lighting was deemed adequate in 87 percent of the canneries. Canneries inadequately ventilated usually lacked a sufficient number of windows and ventilators to allow the hot, humid air to escape readily. Buildings inadequately lighted had too few or too small windows and too few electric lights, or used low wattage light bulbs.

Equipment and working space.—The essential requirements as to the kind and amount of equipment needed in a canning plant depended mainly on (1) the amount and kind of produce to be canned, and (2) the number of individuals who would use the plant.

Eighty-eight and five-tenths percent of the plants visited appeared to have adequate equipment. The most common faults appeared to be in the improper arrangement of the existing equipment for efficiency and convenience of operation and in providing enough working space for the persons using the plant. Eighty-five and three-tenths percent of the canneries appeared to have adequate working space as compared with 14.7 percent which had not provided adequate space for the patrons.

Sanitation and safety provisions.—The importance of providing for sanitation and safety in the plant is recognized by everyone concerned with the successful operation of a school-community cannery.

The most common practices which are considered unsanitary are failure: to provide screens on doors and windows in areas where flies are a menace; to provide for water drainage from the floor; to keep utensils and tables clean; and to dispose of the accumulated garbage each day.

Approximately 81 percent of the centers visited had adequate screening materials in place, 74.8 percent had adequate floor drainage, and 84.6 percent provided for garbage removal daily.

The most frequently found hazards or possible causes of accidents to the patrons in a plant included hot pipes which were not insulated, floors which were slippery or had obstructions of some sort to be avoided, rough and sharp edges on certain pieces of equipment, and lack of protective gloves. An absence of placards or signs calling attention to dangers in the plant was quite common.

Safety precautions were considered adequate in 86.3 percent of the centers and inadequate in 13.7 percent of the plants visited.

PERSONNEL EMPLOYED OR ASSISTING WITH THE LOCAL PROGRAM

Administrators and supervisors.—On the local level the operating agency was responsible for the administration of the program. Local administrators were usually county and district superintendents, high school superintendents, principals, and other school administrative officers. In the centers visited by the special representatives of the U. S. Office of Education 86.4 percent of the local administrators were school superintendents, 8.4 percent were principals, and 5.2 percent were other administrative officers.

Much of the success of a good canning program depends on the quality of the supervision given. Individuals who made the best supervisors were those who were well acquainted with their community and with the enrollees, were well informed concerning modern food processing procedures, and were persons in whom the enrollees had confidence. Daily visits to the cannery and close contact with the program were a necessity. Qualified supervisors contributed much to make functionally efficient the instruction in food conservation and processing. Close cooperation between local and State supervisors and between local supervisors and instructors was also important.

Local supervisors in 84.4 percent of the centers inspected were teachers of vocational agriculture, 3.6 percent were teachers of vocational home economics, 4.2 percent were principals or superintendents and 7.8 percent were other qualified individuals.

Instructors.—Previous to actual processing, it had been found essential to the success of the canning program that a number of hours be devoted to some formal precanning instruction. Such instruction stimulated better planning for family nutritional needs, insured the proper selection of foods for canning, acquainted enrollees with the dangers of food spoilage, and increased the efficiency of operation during actual processing. Most of this training was offered in connection with the Rural War Production Training Program prior to the Special Grant Program. The costs of such training were not paid from Special Grant funds.

Vocational homemaking instructors conducted many of these precanning sessions as regular instructors or in cooperation with other instructors connected with the program. An official policy established by the U. S. Office of Education stated that teachers of homemaking who were employed full-time in the regular program could not be paid under Special Grant for teaching between the hours from 8 a. m. to 5 p. m. Monday through Friday, and from 8 a. m. to noon on Saturday.

The principal duty of the instructor was to instruct all patrons, particularly the new ones, in the techniques of processing. In some centers, due to a lack of other help, some of the instructor's time was spent in preparing schedules, collecting money for cans and doing jobs ordinarily left to a clerk. An attempt to relieve the instructor of these extraneous duties resulted in improved programs.

In the centers visited by the special representatives of the U. S. Office of Education, 84.2 percent of the instructors employed were housewives, 9.1 percent were homemaking teachers, 3.0 percent were other teachers, and 3.7 percent were listed as unclassified.

Janitors.—Besides the supervisor and the instructor, most plants had the assistance of a janitor or some other person hired by the operating agency to assist with the heavy jobs in the cannery and to attend to the operation of the steam boiler. This help was particularly important and necessary in the large plants.

Advisory committees.—The formation of and the assistance given by advisory committees was instrumental in assuring the success of many canning centers. The number of men and women on an advisory committee was usually three or four although much larger committees were appointed in many communities. A committee was usually made up of representatives of agricultural and other interested community organizations who gave freely of their time without pay to aid in the development of the program. These committees were useful in securing enrollments, providing support for the instructors, suggesting improvements, and otherwise aiding the programs.

OPERATING SCHEDULES

The directive (Misc. 4603, June 1945) giving the operative procedures for the Special Grant Program provided that "Courses may be started at any time after June 7, but must be closed not later than December 31, 1945. They may be approved to operate for any length of period of time necessary between these two dates."

In the centers visited by the special representatives of the U. S. Office of Education, 63.0 percent of the courses were scheduled for 21 to 29 weeks, 30.4 percent were 11 to 20 weeks in length and 6.6 percent were less than 10 weeks in length. In these same centers, 39.0 percent operated 5 days per week, 9.5 percent operated 4 days a week, 31.2 percent were open 3 days per week, while 20.3 percent were in session up to 2 days per week. Most of the centers (84.0 percent) were open between 5 and 8 hours per day; 13.0 percent were open over 9 hours daily on those days that the course operated, while the remaining 3.0 percent were open less than 4 hours per day.

An analysis of the method of scheduling appointments used by canneries showed that 54.3 percent of the centers required advance appointments either by individuals or by groups. Forty-seven and one-tenth percent of the plants scheduled individuals only and 7.2 percent scheduled both groups and individuals. A total of 45.8 percent of the canneries did no scheduling at all, except for the canning of meats, but allowed individuals and groups to use the plant at any time during the hours the course was in operation. The most efficient use of the facilities appeared to result when some advance scheduling was made.

ENROLLMENTS

One of the essential features of the Special Grant Program and its enrollment was that no course "should be organized or maintained for fewer than 10 enrollees." Enrollment was limited to out-of-school, rural persons except that "not to exceed 10 percent of a State's total allotment for costs of instruction and supervision may be used to finance Course 15 for nonfarm families."

During the period of its operation, 429,061 persons were enrolled in the Special Grant Food Processing Program for a total of 7,557,489 hours

(table XII). Texas and Georgia had the largest number of enrollees followed by South Carolina, Virginia, Kentucky, and North Carolina.

Three-fourths of the enrollees in the food processing courses were women. This is shown in table XIII which gives enrollments by States for certain population types.

Table XII.—Cumulative enrollment and number of attendance trainee hours in food processing courses by State from June 8, 1945 through Dec. 31, 1945¹

State or Territory	Enrollment	Number of attendance trainee hours	Average attendance trainee hours per enrollment
1	2	3	4
Total.....	429,061	7,557,489	17.6
Arizona.....	1,410	16,437	11.7
Arkansas.....	12,941	407,657	31.5
California.....	21,719	317,191	10.0
Colorado.....	3,934	27,571	7.0
Delaware.....	684	13,096	19.1
Florida.....	3,196	165,775	51.9
Georgia.....	57,161	1,047,635	18.3
Idaho.....	8,167	85,885	10.5
Illinois.....	17,015	136,579	8.0
Indiana.....	1,026	13,299	13.0
Iowa.....	543	7,468	13.8
Kentucky.....	26,766	292,344	10.9
Louisiana.....	11,692	495,305	42.4
Maryland.....	1,811	45,474	25.1
Michigan.....	5,525	66,348	12.0
Minnesota.....	15,165	133,574	8.8
Mississippi.....	11,012	266,249	24.2
Missouri.....	12,415	148,561	12.0
Montana.....	4,964	49,332	9.9
Nebraska.....	1,230	14,309	11.6
New Hampshire.....	669	10,369	15.3
New Jersey.....	1,250	23,338	18.7
New Mexico.....	879	14,378	16.2
New York.....	2,285	28,693	12.6
North Carolina.....	23,464	468,413	20.0
North Dakota.....	2,747	21,376	7.7
Ohio.....	4,813	40,696	8.5
Oklahoma.....	12,354	269,041	21.0
Oregon.....	4,173	27,819	6.7
Pennsylvania.....	3,774	71,343	18.9
South Carolina.....	44,822	587,006	13.1
Tennessee.....	8,472	136,556	16.1
Texas.....	57,758	1,663,292	28.8
Utah.....	748	13,130	17.6
Vermont.....	918	7,328	7.9
Virginia.....	36,072	366,935	12.2
Washington.....	3,635	51,342	14.1
West Virginia.....	5,531	56,441	10.2
Wisconsin.....	1,825	48,480	26.6
Wyoming.....	529	9,124	17.2
District of Columbia.....	189	3,070	16.2

¹As reported through Feb. 21, 1946

RECORDS AND REPORTS

In addition to filing the Application for Approval of Course (Form 2) with the State office, the local operating agency was obligated to see that its center kept an official class record of the enrollment and attendance and also that a monthly record of food processed was submitted regularly to the State office for transmittal to the U. S. Office of Education. Most

Table XIII.—Cumulative enrollment in food processing courses by State and population type from June 8, 1945 through Dec. 31, 1945¹

State or Territory	All persons	Female	Negro	Urban	In-school
1	2	3	4	5	6
Total.....	429,061	335,626	38,333	61,904	16,440
Arizona.....	1,410	1,011	0	606	85
Arkansas.....	12,941	10,328	2,731	3,509	462
California.....	21,719	19,740	12	5,854	692
Colorado.....	3,924	3,516	128	2,475	789
Delaware.....	684	581	213	236	11
Florida.....	3,196	2,333	807	348	3
Georgia.....	57,161	35,643	3,717	8,273	1,048
Idaho.....	8,157	7,358	0	1,660	311
Illinois.....	17,015	15,794	512	6,268	1,822
Indiana.....	1,026	943	90	327	71
Iowa.....	543	513	0	272	0
Kentucky.....	26,766	21,430	1,037	2,718	657
Louisiana.....	11,692	8,328	1,341	305	437
Maryland.....	1,811	1,573	341	20	29
Michigan.....	5,525	4,975	8	428	520
Minnesota.....	15,166	14,175	1	4,900	683
Mississippi.....	11,012	7,463	1,823	247	345
Missouri.....	12,415	10,619	160	2,215	730
Montana.....	4,964	4,406	1	742	380
Nebraska.....	1,330	1,005	0	472	0
New Hampshire.....	699	618	0	289	7
New Jersey.....	1,260	1,132	95	498	151
New Mexico.....	879	727	0	56	72
New York.....	2,285	1,828	183	864	362
North Carolina.....	23,464	16,895	3,630	1,590	590
North Dakota.....	3,747	2,273	0	61	485
Ohio.....	4,613	3,973	7	740	197
Oklahoma.....	12,354	11,153	937	3,038	289
Oregon.....	4,173	3,657	0	890	146
Pennsylvania.....	3,774	3,267	33	498	92
South Carolina.....	44,822	30,677	5,311	4,062	836
Tennessee.....	8,472	5,733	800	494	235
Texas.....	57,758	46,849	10,381	1,330	1,831
Utah.....	748	551	0	0	0
Vermont.....	916	853	0	533	47
Virginia.....	30,072	23,029	3,895	2,377	1,578
Washington.....	3,635	3,298	0	901	135
West Virginia.....	5,531	4,464	149	1,180	243
Wisconsin.....	1,825	1,756	0	267	25
Wyoming.....	529	505	0	251	0
District of Columbia.....	189	154	75	122	3

¹As reported through Feb. 21, 1946.

centers also kept some type of permanent records which included the names of the families and individuals who patronized the cannery, the number and size of cans of the different products canned, date of canning, the amount of the can charges, amounts paid, and other similar information. Such records are helpful to the instructor and the supervisor in planning teaching programs, in making reports of accomplishments to the press, to the operating agency, to the State department of education, and to other interested agencies and individuals.

Many centers kept a complete financial account of their canning operations and made a financial analysis of the entire program including figures on all costs and expenses down to the smallest items. Such a practice is a desirable one and might well be followed by every center.

FINANCING ASPECTS OF LOCAL PROGRAMS NOT PROVIDED FOR BY SPECIAL GRANT FUNDS

Means of financing local food processing programs, over and above the amount allotted from Special Grant funds to pay for instruction and supervision, had to be devised locally. Items of cost which had to be financed included such things as building costs, insurance charges, rubber stamps, salt and other miscellaneous supplies, coal, electricity, gas, telephone, and clerical and janitorial service.

Special Grant funds could not be used for any other purpose on the local level than to pay the salaries of instructors and local supervisors. Some States and some county units provided additional funds for the canning program, but limits were placed on the purposes for which they could be used. It was necessary to seek other methods and means of providing the funds necessary, in addition to what the local school board or operating agency could provide. Following are some of the varied methods which were employed: (1) accepting direct financial aid from individuals and organizations, (2) receiving indirect aid in the form of rent-free space, service and supplies, (3) raising money by giving plays and carnivals, (4) having funds raised by an "association" or organization of trainees who paid "membership" fees which in most cases were used for building costs, and (5) making a can charge on everything processed in the center.

The cost of cans varied from approximately 3 cents to 4 cents for No. 2 cans and 4 cents to 5 cents for No. 3 cans. The charge in addition to the actual cost of the can varied from 2 cents to 5 cents per can, with the most common charge being 3 cents. By setting this charge, it was possible for the majority of centers to build up a fund which could be used for paying most of the current operating costs of the course. Thereby, a center which operated 3 days a week and processed on the average 1,000 cans per day at a charge of 3 cents per can, collected ninety dollars (\$90) income each week which was used for such costs.

An official policy established by the U. S. Office of Education in connection with the Rural War Production Training Program stated that "funds accruing from school-community canning service fees, or from the profit from the sale of cans should be used only for the current operating costs of the courses from which such funds are derived. This might include any of the costs for instruction and supervision which may be budgeted on OSYA Form 2. Some common uses of such funds are for building costs such as light, fuel and water; supplies, such as brushes, soap, and washing powder; and the salary of the janitor."

STATE AND LOCAL RELATIONSHIPS WITH OTHER ORGANIZATIONS AND AGENCIES

During the period in which Special Grant funds were used, there was evidence of a continuation of the same type of assistance and cooperation which ran throughout the entire Rural War Production Training Program.

The relationship has been that of mutual cooperation in the processing of food for the war effort.

In many States representatives of various agencies held conferences with the State Directors of Rural War Production Training to discuss relationships and the part that their groups could play in furthering this food processing program. Teacher trainers in both agricultural and home economics education, State supervisors of vocational agriculture and homemaking, and representatives of civic, school, and farm organizations gave both direct and indirect assistance in promoting the programs in the various States.

The timely cooperation by the War Food Administration in connection with the critical and urgent need for maximum food conservation and preservation during the summer and fall of 1945 and its decision to "transfer, by advance working fund from the appropriation 'Salaries and Expenses, War Food Administration, 1945', the sum of \$1,670,000 from which the U. S. Office of Education will pay all necessary expenses of this program including payments under agreements with State and local school organizations, and upon completion of the program any costs of liquidation" was their outstanding contribution and made possible the Special Grant Program as it is now recognized.

The War Food Administration also bought up products that were in abundance and made them available for school lunch purposes. Local school canning facilities were made available to can these surpluses.

Precanning and processing instruction was given in workshops in many States after June 8, 1945. These workshops for supervisors and instructors were sponsored by State boards for vocational education, with the assistance of food preservation specialists from the Office of Education, the War Food Administration, United States Department of Agriculture, State colleges and universities and a number of can and equipment companies.

A food processing specialist from the U. S. Office of Education participated in seven workshops between October 26 and November 20, 1945. Specialists from the War Food Administration conducted other workshops after June 1945 in a few of the States. The costs of conducting these workshops were not paid out of Special Grant funds but were financed out of regular State and local funds.

Cooperation with the United Nations Relief and Rehabilitation Administration in supplying canned food for war relief purposes was instrumental in getting many local canning centers to devote some time at the canneries to this purpose. The Future Farmers of America, Future Homemakers of America, New Farmers of America, and other organizations such as Parents' and Teachers' Association units and church organizations had a leading role in this phase of the canning program.

OUTCOMES OF THE PROGRAM

A review of table XIV gives an idea of the tremendous amount of planning and effort which went into the food processing program under the Special Grant throughout the United States. During the period of the operation of the program, June 8 to December 31, 1945, there was a total of 29,554,059 quarts of food canned with an average of 69 quarts per enrollee. In addition to the food canned there were 910,832 pounds of fresh food dehydrated; 685,246 pounds frozen; 217,926 pounds of meat cured; and 573,438 pounds of other products handled, such as lard rendered, meat cut and ground.

Table XIV.—Summary of food processed by type of process and kind of food

Process	Total	Fruit	Vegetable	Meat
1	2	3	4	5
Canned (quarts).....	29,554,059	8,069,552	17,632,943	3,851,764
Dehydrated (pounds—fresh weight).....	910,832	628,146	145,830	136,856
Frozen (pounds).....	685,246	74,898	79,569	530,781
Cured Meat (pounds).....	217,926			217,926
Other (pounds).....	573,438			

According to the records available, Georgia processed, by canning, 5,681,184 quarts of fruits, vegetables, and meats; South Carolina canned 3,897,508 quarts; and Texas 3,229,482 quarts. The other States processed correspondingly large quantities of food according to their location and the number of canning centers in those States. Table XV shows for each State the amount of food processed by two methods—canning and dehydration.

The directors and supervisors of the Special Grant Program realized the critical nature of the funds which were allotted to their States and freely admitted that a very large proportion of the food raised would not have been canned and saved had it not been for this program. They indicated that many centers in the States would not have been able to operate at all had not these Federal funds been forthcoming. In numerous centers the funds made it possible for courses to continue to operate until December 31, 1945, during which time the local operating agency had to pay the operating costs other than for instruction and supervision. This gave the local operating agency this period of time to develop a plan for operating courses after December 31, 1945, if Federal and/or State funds were not available. All enrollees interviewed were enthusiastic about the program and expressed the hope that it would be continued in the future.

Table XV.—Total amount of food processed by type of process, kind of food, and by State¹ from June 8, 1945 through Dec. 31, 1945²

State or Territory	Canned (quarts)				Dehydrated (pounds—fresh weight)			
	Total	Fruit	Vegetable	Meat	Total	Fruit	Vegetable	Meat
1	2	3	4	5	6	7	8	9
Total.....	29,554,059	8,069,352	17,632,943	3,851,764	910,833	628,146	145,830	136,856
Arizona.....	71,359	17,539	43,387	10,433	1,173	1,043	0	130
Arkansas.....	1,175,519	378,735	589,729	216,055	29,922	24,717	1,717	3,488
California.....	1,107,234	848,805	238,318	30,111	225,413	215,587	6,652	3,174
Colorado.....	119,205	51,978	57,234	10,005	238	115	123	0
Delaware.....	50,245	12,466	34,445	3,334	0	0	0	0
Florida.....	164,176	81,923	10,171	74,082	2,202	1,391	181	630
Georgia.....	5,681,184	1,060,899	4,000,478	619,807	297,121	203,415	15,681	78,025
Idaho.....	492,501	161,200	299,962	41,339	0	0	0	0
Illinois.....	803,526	287,178	479,677	36,671	4,095	508	2,344	1,188
Indiana.....	75,836	25,999	47,798	2,039	24	24	0	0
Iowa.....	44,153	13,074	28,601	2,478	0	0	0	0
Kentucky.....	1,571,990	292,407	1,186,696	92,887	842	782	60	0
Louisiana.....	890,785	236,638	371,391	282,756	36,398	1,213	1,123	34,069
Maryland.....	67,455	27,241	37,817	2,397	0	0	0	0
Michigan.....	264,270	53,826	182,916	57,528	2,651	299	2,352	0
Minnesota.....	709,750	132,166	453,085	124,499	80	0	80	0
Mississippi.....	873,238	116,997	583,934	171,307	7,163	6,489	674	0
Missouri.....	500,702	143,902	335,511	80,989	2,315	2,074	241	0
Montana.....	213,199	92,808	105,313	14,991	62	0	62	0
Nebraska.....	39,330	10,646	25,146	3,538	12	0	12	0
New Hampshire.....	30,507	6,623	22,665	1,199	52	28	24	0
New Jersey.....	80,984	32,604	47,067	1,313	0	0	0	0
New Mexico.....	82,808	32,825	39,189	20,544	9,862	2,814	2,004	5,044
New York.....	80,779	20,842	56,309	3,728	0	0	0	0
North Carolina.....	2,319,572	566,862	1,235,911	514,799	5,166	680	200	4,286
North Dakota.....	90,123	12,721	64,203	13,199	0	0	0	0
Ohio.....	289,315	74,923	205,253	9,089	670	347	323	0
Oklahoma.....	918,162	294,880	543,342	79,940	13,349	11,459	1,615	275
Oregon.....	237,808	75,853	132,381	19,689	0	0	0	0
Pennsylvania.....	176,260	44,481	118,026	13,753	829	163	666	0
South Carolina.....	3,897,506	1,222,569	2,348,228	326,611	123,634	100,457	23,177	0
Tennessee.....	692,892	146,892	366,963	88,947	16,556	14,547	2,009	0
Texas.....	3,229,482	965,954	1,833,700	429,828	128,785	38,572	83,607	6,598
Utah.....	70,143	8,259	61,099	785	0	0	0	0
Vermont.....	29,022	8,530	19,448	1,044	97	25	72	0
Virginia.....	1,791,007	288,176	1,068,538	434,393	2,231	1,402	829	0
Washington.....	284,013	123,708	149,592	10,723	0	0	0	0
West Virginia.....	269,778	63,358	190,762	15,658	0	0	0	0
Wisconsin.....	88,545	18,287	55,974	14,284	0	0	0	0
Wyoming.....	43,656	10,696	28,166	4,994	0	0	0	0
District of Columbia.....	5,423	1,867	3,388	148	0	0	0	0

¹Not included are small amounts of food frozen, cured, etc.

²As reported through Feb. 21, 1946.

APPENDIX 'A.—ADMINISTRATIVE PERSONNEL

Name	Job title and regular or normal position	Fiscal years Employed
PAUL V. McNUTT.....	Federal Security Administrator.....	1941-45 ¹
JOHN W. STUDEBAKER.....	U. S. Commissioner of Education.....	1941-46
J. C. WRIGHT.....	Assistant U. S. Commissioner of Education for Vocational Education.....	1941-46
DIRECTORS		
L. S. HAWKINS.....	Chief Trade and Industrial Education.....	1942
W. T. SPANTON.....	Chief Agricultural Education Service.....	1943-46
ASSISTANT DIRECTOR		
R. W. GREGORY.....	Specialist in Agricultural Education.....	1941-46
FEDERAL AGENTS AGRICULTURAL EDUCATION		
C. H. LANE.....	North Atlantic Region.....	1941-44 ²
D. M. CLEMENTS.....	Southern Region.....	1941-46
J. H. PEARSON.....	Central Region.....	1941-46
W. P. BEARD.....	Pacific Region.....	1941-42
E. J. JOHNSON.....		1942-46
SPECIAL REPRESENTATIVES		
H. H. BROWN.....	Itinerant Teacher Trainer Vocational Agriculture, Kansas.....	1941-46
J. S. CHAMPION.....	County Supervisor, Agriculture Education, Pennsylvania.....	1943
ELLIS B. CLOUGH.....	Graduate Student, Cornell University.....	1945-46
G. C. COOK.....	Teacher Trainer, Vocational Agriculture and Farm Mechanics, Michigan.....	1941-46
J. L. EASON.....	Area Supervisor Voc. Agric., Miss.....	1941-44
A. H. HOLLENBERG.....	Department Head, California Polytechnic School, California.....	1941, 1943-44
E. J. JOHNSON.....	Assistant State Supervisor, Agricultural Education, Colorado.....	1941-42
A. D. LONGHOUSE.....	Teacher Trainer, Farm Mechanics, West Virginia.....	1941
HOWARD McCLAREN.....	District Supervisor, Vocational Agriculture, Ohio.....	1942-45
D. L. MACDONALD.....	Assistant State Supervisor Vocational Agriculture, Montana.....	1942, 1944-45
J. B. MONROE.....	Teacher Trainer, Farm Mechanics, South Carolina.....	1941
V. J. MORFORD.....	Critic Teacher, Seward, Nebr.....	1942-43
I. G. MORRISON.....	Teacher Trainer, Farm Mechanics, Indiana.....	1941
F. A. NYLUND.....	Graduate Student, Cornell University.....	1945
C. D. PARKER.....	Area Supervisor, Vocational Agriculture, Texas.....	1941
J. L. PERRIN.....	Instructor, State Teacher's College, Missouri.....	1942-45
M. A. SHARP.....	Asst., Department of Agriculture Engineer- ing, University of Tennessee.....	1941

¹ Watson B. Miller, Federal Security Administrator, 1945-46.

² H. B. Swanson, acting, 1945-46.

APPENDIX B.—FORMS USED IN THE OPERATION OF THE PROGRAM¹

<i>OSYA Form</i>	<i>Title</i>
1	Enrollment and Accomplishment Card.
2	Application for Approval of OSYA Course.
3	Application for Approval of Plan of State Supervision.
6	Monthly Financial Report, Cost Statement, and Budget Summary.
8	Initial Enrollment Reports.
9	Monthly State Summary of Enrollment from Official Class Records of Closed Courses. Instructions for OSYA Forms 8 and 9.
E	Application for Approval to Purchase or Rent Tools and Equipment. Misc. 2675—Tools and Equipment for Food Production War Training Courses.
RS	Application for Approval of Rental of Space.
EE	Expenditure for Purchase and Rental of Equipment and Rental of Space.

¹ Only Forms 2 and 3 are shown.

699511—47—9

Serial No.
(To be assigned and filed
in by State office)

FEDERAL SECURITY AGENCY
U. S. OFFICE OF EDUCATION
VOCATIONAL TRAINING FOR RURAL WAR PRODUCTION WORKERS
WASHINGTON

APPLICATION FOR APPROVAL OF OSYA COURSE

This application must be submitted in triplicate to the State board for vocational education by the operating agency. A separate application with a different serial number is required for every course, even when two or more courses of the same type are to be operated simultaneously by the same agency. After consideration by agents of the State board, the action taken will be entered on each copy. The original will be retained for the permanent files of the State board, one copy will be sent of once to the U. S. Office of Education, and the other copy will be returned to the agency which submitted it. The serial number assigned must be used to identify the course in all subsequent reports. No cost for supervision or instruction may be incurred prior to approval of this application by the State board for vocational education.

1. School board or other public educational agency making application
2. Building in which instruction will be given.

(Legal name) _____ (Name of building) _____
(Street or R. F. D. number) _____ (Street or R. F. D. number) _____
(City or post office) _____ (City or post office) _____
(County) _____ (State) _____ (County) _____ (State) _____

3. Shop or classroom: Number or name _____
4. Course title (See approved list) _____
5. Proposed opening date _____ 6. Number of weeks planned _____
7. Time schedule _____

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total hours per week
Time of Day From								
To								
Number of hours								

8. Description of course: (a) Follows Misc _____ (b) Outline attached for State office
9. Equipment inventory: (a) On file in State office (b) Attached for State office
10. Floor area available (dimensions) _____ 11. Width of largest door _____ feet.
12. Enrollment capacity of shop or classroom _____ trainees. 13. Expected enrollment _____ trainees.
14. Personnel data _____

Name	Employed as	Regular occupation	Hours per day	Days per week	Number of weeks	Rate per hour	Rate per week	Total cost for course

* Instructor, supervisor, janitor, clerk, etc.
* Carpenter, machinist, vocational agriculture teacher, contractor, etc.



15. FINANCIAL BUDGET¹

Part I Local supervision

	Per unit	Total for course
(3) Salaries	\$	\$
(4) Travel	\$	\$
(5) Communication, supplies, and duplicating	\$	\$
(6) Other (must have prior approval)	\$	\$
Subtotal (3+4+5+6)	\$	\$

Part II INSTRUCTION

(7) Salaries	\$	\$
(8) Supplies	\$	\$
(9) Repair and maintenance of equipment	\$	\$
(10) Operation of building (total for course)	\$	\$
(a) Heat	\$	
(b) Light	\$	
(c) Power	\$	
(d) Janitor's salary	\$	
(e) Miscellaneous	\$	
COST OF OPERATING BUILDING (a+b+c+d+e)	\$	\$
(11) Travel, communication, and duplicating	\$	\$
(12) Other (must have prior approval)	\$	\$
Subtotal (7+8+9+10+11+12)	\$	\$

(13) GRAND TOTAL

16. In addition to the Grand Total stated above, \$ is requested for Part A (Misc. 2603) equipment.

This application for approval of a course is submitted with the following understandings:

- That this course will be conducted in accordance with plans prepared by the State board for vocational education and approved by the Director, Rural War Production Training.
- That no tuition payments or fees of any kind are to be charged persons who enroll in this course.
- That payments authorized by this application will be made on the basis of actual expenditures.
- That the State board for vocational education will not be obligated for payments of any costs in excess of the amount approved on this application unless prior approval has been given by the State board.

17. Signature of local official (Title) (Date)

18. Received by the State board for vocational education (date) 194...

19. Approved for weeks at a total cost of \$ with the following conditions:

20. Reviewed by Date 194...

21. (Signature for State board) (Title) (Date) 194...

¹ Numbers in parentheses correspond to numbering of columns on OSVA Form A.

Federal Security Agency
U. S. OFFICE OF EDUCATION
Food Production War Training
Washington 25, D. C.

**APPLICATION FOR APPROVAL OF PLAN OF
STATE SUPERVISION**

This application is to be made in duplicate by the State Board for Vocational Education. The original copy will be sent to the U. S. Office of Education and the second copy will be retained by the State Board for Vocational Education. No cost shall be incurred prior to approval of this application by the Director.

1. Submitted by State of
2. Address
3. Supervision to be provided for period beginning, 194...
and ending, 194...
4. Estimated number of courses to be conducted: (a) Mechanical.....
(b) Farm machinery..... (c) Commodity..... (d) Farm labor.....
Total.....
5. Supervisory staff:

(a) Name	(b) Employed as ¹	(c) Number of months to be employed	(d) Percent of time	(e) Salary per month	(f) Total salary

¹Supervisors, secretaries, auditors, clerks, etc.

6. Total salaries for the period covered by this application \$.....
7. Estimated cost of supervision for the period covered by this application.
 - (a) Salaries chargeable to supervision (item 6)..... \$.....
 - (b) Travel..... \$.....
 - (c) Communication..... \$.....
 - (d) Office supplies..... \$.....
 - (e) Printing and duplicating..... \$.....
 - (f) Other purposes—specify
8. Approval is requested for months, for a total of \$.....
9. Submitted by
10. (Date) 11. (Official position)
12. Approved by (Signature for State Board) (Title)
13. (Date)

(Purchases of office equipment and rental of office equipment or space require prior approval by the Director on OSYA Form E and/or Form RS-OS.)

APPENDIX C.—INSTRUCTIONAL MATERIALS MADE AVAILABLE¹

<i>Miscellany</i>	<i>Titles</i>
2611	Suggestions for Instructors of General Pre-employment OSY (4) Courses.
2613	Suggestions for the development of Course 1.—Operation, Care, and Repair of Tractors, Trucks, and Automobiles (including both Gas and Diesel Engines).
2614	Suggestions for the development of Course 2.—Metal Work, including Welding, Tempering, Drilling, Shaping, and Machinery Repair.
2615	Suggestions for the development of Course 3.—Woodworking.
2616	Suggestions for the development of Course 4.—Elementary Electricity, including Operation, Care and Repair of Electrical Equipment and Wiring for Light and Power.
2634	Suggestions for the development of Course 5.—Repair, Operation, and Construction of Farm Machinery and Equipment.
2636	Suggestions for the development of Courses 6-14.—Increasing Production of "Food For Victory" Commodities.
2646	A suggested brief outline of materials on financing for use in OSYA Course 6.—Increasing Milk Production.
2647	Suggestion for the development of Course 15.—Production, Conservation, and Processing of Food for Family Use.
2649	Suggestions for the development of Course 19.—The Training of Farm Workers (worker training.)
2650	Suggestions for outlining a specific course for training farm workers.
2651	Suggestions for the development of Course 19.—The training of farm workers (Job Instructor Training).
2656	The use of the Community Cannery in the Production, Conservation and Processing of Food for Family Use (Course 15).
2675	Tools and Equipment for Food Production War Training Courses.
2682	Organizing and developing Food Production War Training Programs in Food Production and Conservation.
2685	Training In-school Nonfarm Youth for Wartime Food Production.
2687	Cooperative development of Course 15 by Vocational Agriculture and Home Economics Education Workers.
2691	Operating and Maintaining Equipment used in School-Community type canning plants in connection with Course 15.
2695	Suggestions for the development of Course 23.—Production and Conservation of Feed for Livestock.

¹ Misc. 2611 and Misc. 2636, which follow, are typical examples of instructional materials made available.

Misc. 2611

Federal Security Agency
U. S. OFFICE OF EDUCATION
Washington

SUGGESTIONS FOR INSTRUCTORS FOR GENERAL PREEMPLOYMENT COURSES IN THE
NATIONAL DEFENSE TRAINING PROGRAM

The general preemployment courses which offer basic vocational education instruction are:

- A-1. Operation, care, and repair of tractors, trucks, and automobiles (including both gas and Diesel engines)
- A-2. Metal work, including simple welds, tempering, drilling, shaping, and machinery repair
- A-3. Woodworking
- A-4. Elementary electricity, including operation, care, and repair of electrical equipment.

Instructors employed for these defense training courses recognize that their primary concern is the development of skills by students enrolled in the classes. These skills may be developed by repairing farm machinery and motors, building equipment, repairing electrical equipment, and similar activities. One of the chief problems of the individual who will serve as an instructor for the courses will be that of determining the content of the instruction in the particular course which he is employed to teach. Suggestions relative to the content of the foregoing courses have been made available to State boards for vocational education and additional suggestions will be made available to the boards from time to time.

Job sheets, lesson plans, and a list of reference materials are being made available in order to aid instructors. The job sheets and lesson plans will give instructors suggestions on procedures that may be followed in teaching the material outlined. It is not expected that all instructors will use specific job sheets for all jobs. Instructors will develop job sheets of their own or they may use job sheets or the suggested steps to be followed in the performance of a job as they appear in selected reference books and other publications. It is recommended that each instructor outline teaching procedures to be followed before attempting to carry out any part of the instructional program. On the following pages of this release will be found some general suggestions which have been prepared for instructors for national defense training courses.

Step 1. Determine objectives

It is important that instructors have definite objectives for the instruction in the defense courses. These objectives may be stated somewhat as follows:

- (a) To train prospective workers for a degree of proficiency in work in industries essential to national defense.
- (b) To develop pride in good workmanship.
- (c) To develop an understanding of jobs that are to be done.
- (d) To make practical application of skills that are acquired.

Step 2. Analyze and select jobs to be taught

Jobs which are to be used as a basis for the instruction should have essential skill-training value. It is important that the jobs which are selected are challenging to individuals enrolled for the instruction but not too difficult.

- (a) Make an analysis of various jobs to determine steps and skills that will be required to do the jobs.
- (b) Determine the amount of repetition of the different skills or operations that will be required to do the various jobs.
- (c) Determine the degree of proficiency and precision that will be required in connection with each skill in order that the job may be done well.
- (d) Select jobs for training that give a desirable basis for developing skills that should be attained by the student within the time that is available for instruction.

Step 3. Secure teaching materials

Adequate reference and illustrative materials are essential to effective instruction. The materials should be selected and made readily available before the class meets.

- (a) Collect charts, pictures, slides and films, job sheets, instruction books, service manuals, reference books, blueprints, sketches, etc.
- (b) Arrange for the use of illustrative materials, such as cut-away motors, displays of electrical equipment, hardware displays, painter's materials, etc.
- (c) Provide books and other material and encourage the students to do some reading outside of class in order to increase their knowledge of the job to be done.

Step 4. Open the work period

It is important that the instructor begin each instructional period in a business-like way. It may be necessary for him to be at the shop some time in advance of the students to be sure that everything is in readiness for the instruction.

- (a) Begin work at the time scheduled.
- (b) Plan in advance worth-while jobs or projects for all students enrolled in the class.
- (c) Arrange for each student to have sufficient working space and materials and

equipment that are necessary for the job to be done by him or a group of students working together.

Step 5. Develop student's interest in each job

In general, it is expected that students will have a genuine interest in the jobs that are to be undertaken by them. In case there is not a natural interest on the part of the students, the instructor, before attempting to teach the students how to do the job, should plan a method which he will follow in arousing student interest.

- (a) Discuss reasons why the job is important.
- (b) Discuss the various skills or techniques required to do the job.
- (c) Call upon individuals in the group to give briefly their experiences in doing similar jobs.
- (d) Explain and show tools, equipment, and materials necessary in doing the job.
- (e) Explain procedures that will be followed in doing the job.
- (f) Take students on a field trip, if necessary, to acquaint them with the job being done.

Step 6. Demonstrate jobs

The demonstration is one of the best procedures to follow in the type of instruction to be offered in the national defense training courses. However, it must be well done to be effective.

- (a) Before starting a demonstration be sure tools, equipment, and materials are available.
- (b) Give the demonstration with the class arranged so that each student can see exactly what takes place.
- (c) Demonstrate each step slowly.
- (d) Call attention to each step by comments and explanations, and by questioning the students. Call attention to safety precautions.
- (e) Encourage the students to ask questions to clarify any step or problem.
- (f) Students may be asked to demonstrate various phases of the job.
- (g) Encourage the students, in some cases, to take notes or make sketches for future use and study.
- (h) Have the students examine the finished job for quality of workmanship.

Step 7. Have student participation

Any demonstration or other instruction not followed by student participation is almost useless. Plans for student participation, therefore, must be carefully made.

- (a) Have some students do the job or perform certain operations immediately following the demonstration.
- (b) Have the other members of the class participate in doing jobs which previously have been demonstrated.
- (c) Provide for student participation to the point where desired skills and abilities are acquired by the different students.
- (d) Teach the student to think and reason for himself and show him how to find new information necessary for solving difficulties in doing the job.
- (e) Provide for the amount of repetitive training necessary for the student to develop desirable skills.

Step 8. Teach while the students are at work

Learning is a continuous process. Students will not have acquired all of the information and skills that they need at the time of the demonstration or instruction period. They will need supplementary instruction. Much of this can be provided while the students are at work.

- (a) Ask students why they do the job a certain way.
- (b) Give individual help but do not do the job for the student.
- (c) Call the group together and redemonstrate any step or skill when the need arises, or point out why certain mistakes are being made.
- (d) Recognise good workmanship and call it to the attention of individuals and the group.

- (e) Have the student evaluate his own work by comparing it with an accepted standard, and let him tell how he thinks the job could be improved.

Step 9. Check individual performance

It is important for the instructor to be alert at all times in checking the performance of each member of the class. He may do this by moving from student to student or from group to group while they are at work. While doing this he should:

- (a) Inspect the workmanship as the job is progressing.
- (b) Inspect the steps being followed by the individual in the performance of certain skills.
- (c) Make a record of the proficiency of each individual.
- (d) Make a record of jobs that are completed by each individual student or group of students.

Step 10. Close the work period

It must be remembered that in many cases other students or workmen will be using the shop. It is very important, therefore, that the shop be left clean and in order.

- (a) Have students clean and put away tools.
- (b) Check tools to see that all are in place, and lock cabinets or tool room.
- (c) Have students mark and put in a safe place the materials on which they are working.
- (d) Give students definite responsibility in cleaning the shop and see that everything is left in order.
- (e) Dismiss class in an orderly way at close of the period.

Step 11. Review accomplishments of work period

Immediately after each work period the instructor should review for himself the things that have been accomplished and the procedures which he has followed in carrying out the instruction. These reviews should help him plan for the further development and improvement of the instruction.

- (a) Was every student fully occupied at worth-while activities throughout the period?
- (b) Was each student's work of sufficiently high standard for the type of job done?
- (c) Was each student interested in his job and did he take pride in it?
- (d) Did each student use his tools in a workmanlike manner?
- (e) Did each student keep his tools in good working condition?
- (f) Were all students properly dressed for the type of work done?
- (g) Did each student clean and return his tools to the proper place?
- (h) Were there any violations of safety precautions?
- (i) Was the instructor properly dressed for the work to be done?

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SUGGESTIONS FOR THE DEVELOPMENT OF COURSES IN THE
RURAL WAR PRODUCTION TRAINING PROGRAM

COURSES 6-14. INCREASING PRODUCTION OF "FOOD FOR VICTORY" COMMODITIES

These suggestions have been prepared for the purpose of aiding supervisors and instructors in the development of the following courses in the Rural War Production Training Program.

- Course 6. Increasing Milk Production.
- Course 7. Increasing Poultry for Meat Production.
- Course 8. Increasing Egg Production.
- Course 9. Increasing Pork Production.
- Course 10. Increasing Beef Production.
- Course 11. Increasing Mutton, Lamb, and Wool Production.

- Course 12. Increasing Soybean Production.
Course 13. Increasing Peanut Production.
Course 14. Increasing Vegetable Production (Commercial).

These courses are to be organized and operated under the rules and regulations contained in Misc. 2600 (Rev. July 1942), and are to be financed from funds appropriated under subdivision (3), Public Law 647, Seventy-seventh Congress, Second Session. If there is need for instruction in the production of more than one of these commodities, each should be organized and taught as a separate course. As many of these courses may be offered as are necessary to meet the needs of the farmers as long as each course includes only one commodity and meets the time requirements outlined in Misc. 2600 (Rev. July 1942).

Suggestions for the organization of these courses have been developed in four parts; first, general statement, second, determining the commodity production situation; third, organization of the courses; and fourth, areas that should be included in these courses.

GENERAL STATEMENT

The primary aim of these courses is to provide systematic instruction which will aid individual farmers to make and carry out their plans for attaining the commodity goals designated by the Secretary of Agriculture.

Each course of instruction also will be devoted to giving a basic understanding of the need, on both national and local levels, for the increased production goals. The war, with its attendant needs for increased production of certain farm commodities, has intensified the problems of planning necessary in the "Food for Victory" program. To assist farmers in increasing their production of commodities, each course should include the jobs and problems that have the greatest immediate influence upon such production.

DETERMINING THE COMMODITY PRODUCTION SITUATION

Every effort must be made to expand the assistance being given farmers in meeting current commodity production goals efficiently. Adequate farm production is essential to the United Nations' existence. Its achievement will command the energy and cooperation of every farm family. Some farmers may need to improve their feeding practices, some will need to use more sanitary measures in handling products, some will need to stress more careful management of their livestock, and others will find it desirable to improve other operations in the efficient production of a specific commodity.

Before the organization of a course is attempted in a given locality, the production situation of the critical farm commodities in that locality should be analyzed and the needs of the farmers determined. Information of this kind may already have been secured by USDA War Boards, departments of vocational agriculture, local and county farmer organizations, and commodity associations. If it is necessary to secure these data, assistance by such groups as chapters of Future Farmers of America and, "Young Men's Farming Associations," will be invaluable. Since time is limited in getting a course in operation to meet wartime production goals, every effort should be made to have information on the local commodity situation available before organizing the course.

If such information shows a need for expanding the systematic instruction which is now being provided, and the farmers desire such training, additional courses under this program should be provided.

ORGANIZING THE COURSE

Securing enrollment

Every effort should be made to enroll farmers who have problems in meeting their production goals, and who are desirous of receiving training which will assist them in solving these problems. Members of chapters of Future Farmers of America can render a splendid community service by explaining this program and encouraging their fathers and other interested farmers in the community to enroll in a course. The advisory council for agriculture or other local organizations may assist in making known to farmers the opportunities of these courses.

Securing a suitable place to hold the course

These courses usually will be held in the classroom of the department of vocational agriculture, in rural schools, farm organization halls, farm homes, or other suitable places. Adequate facilities should be provided, such as: Sufficient space, light, heat, tables, chairs, blackboard space, equipment, and reference materials. A place should be selected where it is convenient for the farmers to attend.

Securing the instructor

In every instance, an instructor qualified through training and experience should be employed. Some desirable sources of qualified instructors are teachers of vocational agriculture, farm commodity specialists, and experienced farmers.

Determining the course content

The development of the enterprise in the locality, and the immediate need for the adoption of recognized approved practices to meet the production goals, should determine the jobs or problems to be included in the course. A suggested preliminary course outline should be developed before the first class meeting. The instructor of vocational agriculture should contact the farmers in his community to discuss the importance of such a course, determining the needs and desires of each individual farmer. These contacts with farmers should help instructors of vocational agriculture develop a list of approved practices which need to be adopted by farmers in order to attain the commodity production goals. If there is an advisory council for vocational agriculture, these approved practices should be discussed with that group for revision and further development.

Adequate time should be taken during the first meeting of the class to discuss the need for increased production of the commodity on a national and local basis. Those enrolled should be motivated by a realization of their responsibility for contributing to the attainment of the designated goals. The instructor should explain carefully to the group that the purpose of this course is to discuss ways and means and outline a plan of action by which production goals can be reached in the shortest time possible. It must be made clear that it is not the purpose of this course to cover all phases of the enterprise, but rather to emphasize only those areas which lend themselves to an immediate increase in production. The need for conserving labor in producing and marketing the commodity also should be discussed.

Following this introduction, farmers should be given an opportunity to suggest problems which they face in increasing production to meet commodity goals. These problems should be listed for future use in teaching the group.

Securing teaching materials

An ample supply of teaching materials, such as reference books, bulletins, graphs, and charts, should be organized and be available to the teacher and farmers throughout the duration of the course. Local departments of vocational agriculture will have an adequate supply of up-to-date bulletins, books, and other references suitable for use in the course.

Providing tools and equipment

Those enrolled may desire to spend a portion of the time in constructing or repairing appliances and equipment for use in producing the commodity being studied. Since most departments of vocational agriculture will have a farm mechanics shop, sufficient tools and equipment for this phase of the course will be available. Where there is sufficient need and interest for repairing or constructing such equipment, it may be desirable to offer Course 5 in Repair, Operation, and Construction of Farm Machinery and Equipment. Phase 4 of Course 5 has been developed primarily for this type of instruction.

Teaching the group

Careful planning in advance of the first meeting is highly essential. The farmers will attend the class with the idea of learning something from their neighbors and from additional information presented by the instructor; consequently, the instructor must be well prepared with basic facts and experiences which are fundamental to increased production.

Farmers will have had considerable experience in the production of the commodity under consideration, but there will be numerous problems on which they will expect the teacher to supply experimental data. The experience of the farmers, supplemented by experiment station data, should furnish the basis for the farmers to determine the approved practices necessary to follow in attaining their production goals. This course is one of action; consequently, time should not be consumed in discussing generalities.

The conference procedure is recognized as one of the desirable methods of conducting the class. This method provides an opportunity for constructive thinking and for pooling of the experiences of the various individuals. The most effective learning is accomplished through active participation on the part of the different individuals.

Demonstrations by the instructor and the individual members of the class should be given when they are appropriate to the instruction. Such demonstrations may be given while the group makes field studies and observes approved practices in the locality.

The instructor should be at the designated place in sufficient time to arrange for starting the class promptly as scheduled. The class periods should end at the specified time.

Keeping the necessary records

A record should be kept by the instructor covering enrollment, attendance, areas covered in the course, approved practices adopted by the individuals enrolled in the course, and other records that may be required.

Providing follow-up of instruction

There is a high correlation between the economic production of commodities and the use of approved practices. The farmers who are enrolled in the course must adopt such practices. To make certain that they do, it is important that there be follow-up of class instruction and thorough teaching on the job. In order for the follow-up to be effective, a well-qualified individual must render this service. The instructor of vocational agriculture is strategically situated to perform the task. He is able to:

- (1) Make frequent and effective contacts with the farmer on his farm, where the war commodity goals are to be attained.
- (2) Continue the instruction begun in class until an effective degree of learning has been attained; that is, until the farmer has achieved his individual production goal.
- (3) Suggest additional skills and practices in which training should be sought.
- (4) Keep and maintain an accurate record of approved production practices learned and adopted as a result of the instruction.

SUGGESTED AREAS THAT SHOULD BE INCLUDED IN COMMODITY PRODUCTION COURSES

The areas suggested below have been selected because they contain the most important problems affecting the attainment of the commodity production goals. The adoption of approved practices in these areas will contribute immediately to the increased production of livestock or crop commodities. Since many areas are common to all livestock or all crop enterprises, one list has been prepared for each group.

Livestock enterprises, Courses 8 to 11

1. Selecting the feeds necessary for economic and balanced rations.
2. Preparing and balancing a satisfactory grain ration (grinding, mixing, soaking, and the like).
3. Supplying proper minerals in sufficient quantities.
4. Supplying sufficient desirable roughages (green, dry, and succulent).
5. Providing sufficient water.
6. Providing suitable pastures and range.
7. Feeding under sanitary conditions (grain, roughages, minerals and water).
8. Providing satisfactory shelter.
9. Providing satisfactory equipment.
10. Controlling and preventing diseases and parasites.
11. Marketing the product on a satisfactory basis.

Crop enterprises, Courses 12 to 14

1. Selecting suitable soil.
2. Preparing a desirable seed bed.
3. Applying necessary fertilizers properly.
4. Selecting suitable seed (variety and quality).
5. Controlling insects and diseases.
6. Planting the seed using approved practices.
7. Following proper cultural practices.
8. Harvesting the crop in a satisfactory manner.
9. Utilizing the crop on a satisfactory basis.
10. Marketing the product at the proper time.

The importance of farmers' understanding, selecting, and adopting approved practices which can be put into effect at once cannot be overemphasized. After a group discussion under the guidance of the instructor has been conducted, and after definite conclusions based on experimental data and the experience of local farmers have been made, each farmer should carefully analyze his own situation and definitely decide which approved practices he can and will put into effect in order to attain his war production goals.

APPENDIX D.—ADDITIONAL TABLES

Table A.—Enrollment in the Rural War Production Training Program by State and by Type of Course

<i>Type of course</i>	<i>Enrollment</i>
All courses.....	4,188,552
Shop courses.....	785,201
Auto mechanics.....	238,926
Metal work.....	272,100
Woodworking.....	201,417
Electricity.....	72,758
Farm machinery.....	1,215,939
Food production.....	534,138
Milk production.....	54,254
Poultry production.....	86,525
Egg production.....	122,729
Pork production.....	76,498
Beef production.....	12,644
Mutton, lamb, wool production.....	2,624
Soybean production.....	3,236
Peanut production.....	11,609
Vegetable production.....	43,079
Sugar production.....	597
Field, vegetable-seed production.....	3,236
Hemp production.....	1,421
Fruit, nut production.....	2,228
Home vegetable gardening.....	72,603
Soil, water conservation.....	32,577
Production of food for livestock.....	7,895
Legume and other hayseed production.....	27
Cover crop seed production.....	60
Potato production.....	296
Food processing.....	1,514,093
Training farm workers.....	104,324
Combination.....	505
Specific.....	34,352
Female.....	1,366,570
Negro.....	771,203
Urban.....	402,114
In-school.....	85,235

Table B.—Enrollment in Rural War Production Training Program by State and by Type of Course, 5-year period 1940-45

State, District of Columbia, or outlying parts of the United States	All courses	Shop courses	Farm machinery	Food production	Food processing	Training farm workers
1	2	3	4	5	6	7
Total.....	4,188,552	785,201	1,215,939	534,138	1,514,093	104,324
Alabama.....	164,799	40,673	49,529	43,025	29,510	.....
Arizona.....	16,918	6,447	4,238	2,621	3,700	208
Arkansas.....	186,515	37,079	55,815	34,160	58,191	930
California.....	155,527	11,110	18,865	17,588	64,026	43,151
Colorado.....	19,695	7,513	4,944	870	5,693	409
Connecticut.....	1,803	153	783	49	648	170
Delaware.....	4,676	677	1,962	74	1,803	23
Florida.....	102,962	24,430	30,344	14,334	33,165	.....
Georgia.....	226,519	38,718	47,370	9,373	123,013	7,849
Idaho.....	40,666	4,032	11,788	269	23,883	205
Illinois.....	119,567	10,499	17,229	30,857	58,083	2,724
Indiana.....	22,145	7,108	4,733	2,576	3,505	1,143
Iowa.....	29,632	7,714	10,291	7,234	3,191	174
Kansas.....	55,143	10,230	41,623	278	1,139	701
Kentucky.....	250,825	31,986	49,481	50,484	117,324	1,068
Louisiana.....	192,720	40,421	27,928	36,152	78,963	8,488
Maine.....	14,155	3,483	5,560	1,110	1,143	2,859
Maryland.....	40,636	9,184	19,476	1,035	9,966	.....
Massachusetts.....	2,901	1,377	921	349	132	.....
Michigan.....	58,652	12,900	21,909	8,834	10,973	3,257
Minnesota.....	90,466	12,125	19,352	12,970	41,510	3,661
Mississippi.....	413,527	65,888	152,503	38,339	165,001	1,302
Missouri.....	150,167	28,944	16,248	10,339	92,136	1,780
Montana.....	24,854	5,497	6,296	804	10,371	1,768
Nebraska.....	17,443	3,164	9,842	1,125	765	2,021
Nevada.....	3,411	1,250	1,401	152	483	28
New Hampshire.....	5,994	1,879	1,032	200	2,816	53
New Jersey.....	12,620	3,425	2,064	1,167	4,019	1,858
New Mexico.....	11,717	2,367	3,805	82	4,816	82
New York.....	72,212	8,988	33,569	9,429	13,107	5,060
North Carolina.....	219,688	41,500	81,435	29,247	65,456	988
North Dakota.....	26,689	3,072	19,004	573	3,609	401
Ohio.....	46,896	19,351	15,618	3,879	6,973	1,124
Oklahoma.....	152,959	34,188	45,329	14,944	56,991	198
Oregon.....	34,507	4,939	12,201	1,789	15,082	313
Pennsylvania.....	64,418	22,225	31,504	2,494	7,386	116
Rhode Island.....	344	111	50	40	134	.....
South Carolina.....	172,419	26,087	31,219	51,809	62,165	35
South Dakota.....	4,225	1,315	861	1,120	13	399
Tennessee.....	159,959	28,108	65,785	11,605	52,773	43
Texas.....	452,700	86,217	139,867	44,008	175,843	2,156
Utah.....	25,602	3,208	10,787	4,829	5,669	601
Vermont.....	11,923	2,412	3,926	1,544	3,992	49
Virginia.....	115,669	20,790	28,129	1,423	64,385	13
Washington.....	35,300	6,808	13,762	3,782	7,975	2,973
West Virginia.....	58,882	24,283	19,997	4,727	9,115	350
Wisconsin.....	58,452	19,358	21,711	10,317	5,158	1,908
Wyoming.....	6,794	2,572	2,182	473	1,189	378
District of Columbia.....	2,775	1,260	.....	723	209	146
Hawaii.....	4,185	489	1,277	1,200	318	559
Puerto Rico.....	25,199	7,557	394	7,724	8,583	.....

1 Includes 34,352 enrolled in "specific" courses and 505 enrolled in "combination" courses.

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