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TRENDS IN SECONDARY EDUCATION

BEING CHAPTER II OF VOLUME I OF THE
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FOREWORD

Education in the United States faces important problems in the large and increasing enrollments in secondary schools, in the wide variety of interests and the extensive range of capacities represented in the pupils coming to these schools, and in the peculiar needs by pupils of early adolescent age for advice and guidance on social, moral, educational, and vocational issues which they imminently must decide, no matter how inadequately prepared they may be to make the needed decisions. Moreover, since the end of the compulsory school age usually comes within the secondary school period, pupils are withdrawing at all times, thus placing a demand for flexibility in the courses such as is required at no other level.

In its effort to record basic facts regarding the development of secondary education through the years, the Office of Education includes data on secondary schools in the chapters entitled "Statistics of State School Systems" and "Statistics of City School Systems" which appear in every issue of the Biennial Survey of Education. Quadriennially in the same publication appear chapters on Statistics of Public High Schools and Statistics of Private High Schools.

The present chapter on Trends in Secondary Education is included to provide opportunity for discussion of significant movements and undertakings which do not lend themselves appropriately to analyses so exclusively statistical in character as those mentioned in the preceding paragraph. The chapter was written principally by Carl A. Jessen, senior specialist in secondary education. Certain sections of the chapter were prepared by other members of the Office staff. These contributions are indicated by footnotes at the appropriate places in the chapter. The subjects of the sections and their authors are as follows:

Exceptional Pupils. Elise H. Martens, *Senior Specialist in Exceptional Children.*

Vocational Education. C. M. Arthur, *Research Specialist in the Vocational Education Division.*

Small High Schools. Division of Special Problems.

Tests and Measurements. David Segel, *Educational Consultant and Senior Specialist in Tests and Measurements.*

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At the outset the outline and general plan of the chapter were submitted for criticism to a number of persons outside the Office of Education. Valuable reactions and suggestions were received from Roy O. Billett, Boston University; Harl R. Douglass, University of Minnesota; D. H. Eikenberry, Ohio State University; E. D. Grizzell, University of Pennsylvania; B. Lamar Johnson, Stephens College, Columbia, Mo.; Grayson N. Kefauver, Stanford University; Leonard V. Koos, The University of Chicago; Joseph Roemer, George Peabody College for Teachers; and Francis T. Spaulding, Harvard University.

BESS GOODYKOONTZ,
Assistant Commissioner.

CHAPTER II

TRENDS IN SECONDARY EDUCATION

INCREASES IN THE SECONDARY SCHOOL POPULATION

Over the last 40-odd years the public high schools have increased their enrollments more than thirtyfold. In the 25,000 public high schools of the Nation nearly 7,000,000 pupils are enrolled. The enrollments in grades 9 to 12 (8 to 11 in 11-grade systems) have virtually doubled with each decade from 1890 to 1930. Reports submitted by the various States indicate that between 1930 and 1934 the gain was 29.5 percent.

Taking the number of persons in the population of ages 14 to 17 as the group that is of high-school age and comparing that number with the enrollments in the last 4 years of the public high schools, one finds that the enrollment as of 1934 is 59.5 percent of the population count. If those attending private secondary schools are added, the percentage rises to 64. This leaves out of consideration those enrolled in part-time, continuation, and night schools as well as those in business colleges, junior colleges, and trade schools. When one considers that in one of the States (California) the number in high school in 1934 was 89.6 percent of the estimate of the population of ages 14-17, one realizes how close to 100 percent the enrollment must have been in some communities to bring the average for the State to so high a figure.

Comparison for earlier years indicates that in 1890 the number in secondary schools, public and private, was 6.7 percent of the census count of persons between the ages of 14 and 17 in the United States. In 1900 the percentage had risen to 11.4; in 1910 it was 16.6; in 1920 it was 37.9; in 1930 it was 51.1; and in 1934, as already reported, it reached 64 percent.

These are most astonishing growths in enrollment—increases more rapid and more far-reaching than any found at any other time in any other nation. They indicate the expanding way in which the youth of the land is being reached by the provisions for secondary education.¹

¹ The reader who is interested in further statistical data on this subject is referred to successive issues of the Biennial Survey of Education, and its predecessor, the Annual Report of the Commissioner of Education. Both are publications of the U. S. Department of the Interior, Office of Education, and are, for the most part, available in educational libraries.

PROVIDING FOR INDIVIDUAL DIFFERENCES

Change in the character of the school population.—The sustained rise in the enrollments in secondary schools is important, not only because of the growth in numbers and the greater popularization of secondary education in the United States, but also because of the increased range of pupil abilities, needs, and interests which has accompanied the expansion in numbers. To what extent the sons and daughters of all groups in the population are present in the high schools has not been determined so unmistakably as the enrollments, but the data which are available² tend to show a growing although by no means a uniform representation in the schools of pupils from homes at all levels in the socio-economic scale. Similarly, results of so-called intelligence tests show that many of the pupils now coming to the high schools are very different in academic ability from those of an earlier day.

The 203,000 pupils who were enrolled in public high schools in 1890 were a rather homogeneous group. Occasionally a pupil who was not by ability or interest suited for college work found his way into the public high school; but he was soon made to see his error. The colleges and normal schools of that day enrolled almost half as many pupils as did the secondary schools, public and private combined. The great similarity in interests, capacities, and destinations of pupils made it possible for the high school to offer a prescribed curriculum taught in a rather uniform way.

The 7 million registered in public high schools in 1934 were of a different order. Among them is included the same type of academically minded pupil that made up the enrollment in 1890; but with nearly 60 percent of the population of school age enrolled in the schools (as indicated, close to 100 percent in some communities), numerous types of pupils not represented in that earlier day now find their way into the high schools. Six of every seven will in all probability never go to college. The present high-school population displays an almost complete spectrum of abilities of normal human beings and sounds nearly the entire gamut of interests of young people. The varied interests and abilities of these millions will not be served by a few leaves taken from the book of knowledge and presented in a stereotyped way. Moreover, any attempt to compare the achievements of these pupils with those of an earlier day or with the selected pupil population of foreign secondary schools is inevitably based upon the false premise that the character of the pupil population remains constant through the years and is comparable as among nations. Nothing could well be further removed from the truth.

² See U. S. Office of Education Bulletin, 1932, No. 17, Monograph No. 4, *The Secondary School Population*, by Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake. In addition to reports of findings of the National Survey of Secondary Education on popularization and democratization of secondary education, this monograph supplies reference to earlier studies on the subject.

The segregated or specialized school.—The solutions attempted for the growing problems of widely differentiated capacities and needs are numerous and diverse. They involve important changes in offerings, in curriculum content, in teaching methods, in administration, in graduation requirements, and in the entire concept of secondary education.

One of the suggested ways of meeting the problem of individual differences is through separate schools. In the present year an educator of importance has recommended that segregated schools be developed for pupils who are especially slow and for those who are unusually efficient in their school work.³ Similar recommendations have been made from time to time regarding segregated secondary schools to care for different interests, especially vocational work. While illustrations can be found of special vocational schools which have retained their characteristics of specialization over a period of years, the response of the American public has generally been that it desires a comprehensive school which pupils with all types of interests may attend. The considerable number of schools known by such names as manual training high schools, commercial high schools, polytechnic high schools, and the like, which are in reality comprehensive high schools with little or no vestige of the more than ordinary specialization which originally gave them their names, supply frequent proof of the demand of democracy that every pupil in every school of a city shall by and large have the opportunity to take any subject available to any pupil in that city. It remains to be seen whether the public will respond favorably to the suggestion that segregated schools be developed for housing pupils of exceptionally high or low scholastic ability and academic aptitude.

Homogeneous grouping.—In the past certainly the practice has been to enroll normal pupils in the same school despite wide range in abilities or so-called intelligence quotients. That this procedure introduces complications goes without saying. Some schools attempt to form special classes for those pupils who deviate greatly from the average. Many more schools have attempted to solve the problem through homogeneous grouping which is a more elaborate system than the special class since it involves the assignment of each pupil of a school to classes in which are to be found pupils having capacities approximately equal to those which he possesses. Most frequently three such levels of capacity are recognized in each subject, with a resultant three-level organization of classes. Numerous problems are encountered in putting plans for homogeneous grouping into operation. Aside from the objection that it is undemocratic and likely to develop superiority or inferiority complexes in the pupils, homogeneous group-

³ Tildsley, John L., *The Mounting Waste of the American Secondary School*. (The Inglis Lecture, 1936.) Cambridge, Mass., Harvard University Press, 1936.

ing involves problems relating to the basis of selection of pupils for the various groups, the introduction of flexibility in schedule-making to allow assignment and reassignment of pupils, and the marking of achievement of pupils in the different groups. Probably the major difficulty has been to secure actual differentiation in content and teaching procedures used with the various groups. Obviously, if such differentiation does not take place, the purpose of grouping has been defeated. The entire subject has become so important that recently the National Society for the Study of Education produced a yearbook on the grouping of pupils.⁴

Unit plans of teaching.—Homogeneous grouping presupposes a pupil enrollment large enough to support more than one class section in each subject. When one considers that 70 percent of the high schools have fewer than 200 pupils enrolled in them, it becomes apparent that this provision can be employed only to a limited extent in the high schools of the United States. For smaller schools it is necessary to provide some means of differentiation within the class.

A number of provisions for differentiation within the class have been grouped together and named "plans characterized by the unit assignment" by one author in the field.⁵ It would be incorrect to leave the impression that unit organization and unit assignment are found only in small schools; the unit plan is employed by large schools as well as by small schools. By breaking up the content of a course into smaller blocks, unit organization makes possible the administration of both minimum requirements and enrichment to pupils in the same class section; especially is this true when, as frequently happens, the unit plan is combined with the laboratory method of teaching.

The various types of unit plans can, if desired, be operated in connection with special classes and grouping procedures. Moreover, since no special organization of the school as a whole is required, unit plans are likely to be adopted only by teachers who have an interest in making them effective; those not interested are under no compulsion to give attention to them.

*Exceptional pupils.*⁶—The discussion of individual differences up to this point has been directed toward that large group of pupils who are classified as normal in mental and physical ability. With the influx of pupils which has taken place it is important to make adjustments for those who deviate markedly from normality. More high-school leaders are alert to the problem than ever before. Several serious attempts have been made to effect needed adjustment in a compre-

⁴ The Grouping of Pupils. Part I of the thirty-fifth yearbook of the National Society for the Study of Education. Public School Publishing Co., 1936.

⁵ Billett, Roy O. Provisions for Individual Differences, Marking, and Promotion. National Survey of Secondary Education. U. S. Department of the Interior, Office of Education, Bulletin 1932, No. 17, Monograph No. 13.

⁶ The section on exceptional pupils was written by Elise H. Martens, senior specialist in the education of exceptional children, Office of Education.

hensive way. The concept seems to be taking root that the secondary school is for adolescents, whatever their mental capacity or physical status, and that consequent drastic changes are in order in high-school organization and curriculum.

The junior high school has been the first to encounter the problems of mentally and physically handicapped children and to make constructive efforts to meet them. In Philadelphia, for example, a plan has been recently developed whereby a modified course of study is offered in several selected junior high schools, comprising instruction in practical arts, problems of living, English and literature, physical and health education, and club and guidance activities.⁷ Specific plans are made to adjust the content of the 3-year program to the needs of the retarded young people for whom it is organized. Extension of the project to carry them on into the senior high school through adjustment that will parallel that of the junior high school is now under consideration.

In planning a similar experiment in one of the high schools of Baltimore for those who in spite of every effort are unable to master the content of a standard curriculum, the sole requirements for advancement were stated as "regular attendance and a willingness to put forth their best effort." The content of the course includes practical English and arithmetic, hygiene and health education, art, home economics, and music, with the elements of office practice and typing for those who can take them. The course leads to a certificate of completion instead of a high-school diploma.

An accompaniment of such adjustments as these for mentally handicapped adolescents is a growing realization of the broadening function of the high-school shops and commercial laboratories. The time-honored theory that no seriously retarded children should be admitted to these is beginning to yield to the conviction that there are shop and commercial activities which some retarded pupils can perform quite satisfactorily and which will help to prepare them to enter semiskilled occupations. The plans referred to above are being developed on this basis. Some communities are finding the way to a similar goal through the organization of "adjustment classes" in the high school, in which occupational activities and liberalizing experiences both hold important places. It has even been advocated that steps be taken to introduce into the shop program training in "gardening, farm labor, furnace tending, window washing, auto washing, some types of janitorial service",⁸ and other activities within the capacity of seriously retarded pupils. To help these people to fit into the routine jobs of industry and to do better the things they will do anyway is certainly a worthy

⁷ Broome, Edwin C. Industrial Arts and the Problems of the Maladjusted Pupil. *Industrial education magazine*, 38: 15-17, January 1936.

⁸ Hoopes, Paul C. What To Do with the Dull Child? *Industrial arts and vocational education*, 25: 8-9, January 1936.

function of the secondary school, quite in keeping with its established objectives. Every phase of the school program—including vocational education—must contribute to this goal and must accept its share of responsibility for the releasing of individual capacities of whatever nature.

The physically handicapped face a somewhat different problem. When they reach the age of employability, they have at their disposal the services of specialists in vocational rehabilitation who will assist them to secure suitable occupational training and placement. What the secondary school should give them is a general educational background, with the opportunity to explore occupational activities should they face the need of early wage-earning. Yet little is being done in a systematic way at present to extend the educational program for the physically handicapped into the secondary school. Sight-saving classes, classes for the deaf and the hard-of-hearing, and facilities for crippled children all too often end with the elementary grades and those pupils who wish to go on to high school must do so as best they can, with little or no adjustment made to their particular handicaps. There are a few exceptions among the school systems of the country in which the local high schools have formulated a well-organized plan to meet the needs of such handicapped groups. But the problem is as yet only dimly recognized. It offers a challenge for future development in the secondary school no less impelling than that presented by the mentally handicapped. Special education for all exceptional children—both handicapped and gifted—must be accepted unequivocally as a function of the modern high school if it is to discharge its responsibility as a socialized and socializing educational agency.

Largely a problem for future solution.—Finally it must be said that the number of schools and teachers who give any visible symptom that they are really aware of the importance of the problem of individual differences is regrettably small. As late as 1932 Billett stated "that provisions for individual differences, in general, are innovations in the secondary schools."⁹ It is hopeful that the literature on individual differences is becoming extensive and that specialists in such important fields as administration, curriculum, guidance, and tests and measurements are giving attention to the problems occasioned by the wide range of abilities, needs, and interests represented in pupils of public high schools. Those abilities and those interests are so varied and their presence so compelling that they cannot for any great length of time be ignored.

⁹ Op. cit. p. 8.

THE REORGANIZATION MOVEMENT

Prevalence of reorganized schools.—Of the public high schools in the United States reporting in 1934 to the Office of Education, 28.6 per cent were reorganized; that is, they had deviated from the conventional type of organization consisting of an elementary school followed by a 4-year high school. In this 28 percent of the schools were registered 46.4 percent of the high-school pupils of the Nation. If comparison is made only for the pupils in the last 4 years preceding high-school graduation, it is found that the reorganized high schools enrolled 37 percent of the total number.

The growth in reorganization which had been pronounced through the decade 1920–30 was slower from 1930 to 1934. In fact, the proportions of all high-school pupils in reorganized and regular high schools during this period remained practically constant; that is, the two types of schools were growing with approximately equal speed in total pupil enrollment. The reader should not conclude that the movement toward reorganization was arrested. On the contrary, the evidence indicates a more rapid growth in the number of reorganized high schools than in the number of regular high schools and in the most comparable measure of all, namely, numbers of pupils in the last 4 years of school, the increase was greater for the reorganized than for the regular schools. The character of the movement was changed somewhat and the tempo was retarded, but the trend toward change from conventional to reorganized plans of organization, which has been going on for a quarter of a century, was not interrupted.

Types.—The condition just mentioned, in regard to both number of schools and enrollments, reflects the rapid development in junior-senior schools, and the somewhat slower growth in junior high schools. Obviously, any persistent addition to the number of junior high schools, such as occurred in the early 1920's, serves to raise the total number of pupils enrolled in reorganized schools, but does not proportionately add to the number of pupils in the last 4 years. Rapid increase in 5- and 6-year as well as senior high schools, on the other hand, adds noticeably to the numbers in the last 4 years. When the rate of increase in junior high schools dropped sharply as it did between 1930 and 1934, and the growth in numbers of senior and junior-senior schools held much more nearly to the trend line, it was to be expected that the increase in number of pupils in the last 4 years of reorganized schools would maintain the leadership over the regular schools while the percentage of pupils in all reorganized schools might not be augmented in any marked way. This is what happened as shown in table 1.

TABLE 1.—NUMBER AND TYPES OF REORGANIZED SCHOOLS BY 4-YEAR PERIODS, 1922-34

Type of school	1922	1926	1930	1934
1	2	3	4	5
Total	1,566	2,544	3,777	6,639
Junior.....	387	1,127	1,842	1,418
Senior.....	91	414	638	777
Junior-senior and undivided.....	1,088	2,003	3,287	4,444

Nearly three-fifths of the reorganized schools reporting in 1934 were junior-senior or undivided schools. Their number was about twice that of the junior high schools although the enrollments of pupils were about equal in the two kinds of schools; in other words, the typical junior-senior school was approximately half the size of the typical junior high school. The number of senior high schools was much lower, only about one-ninth of the total. It is to be noted that the rate of increase in junior-senior and senior high schools has been more rapid than the increase in junior high schools since 1926, and especially since 1930.

Attention is invited to the dominant prevalence of 3-year schools and their counterpart, the 3-3 and 6-year schools, among the junior-senior and undivided types. (See table 2.) Three of every four of the reorganized schools follow one or another of the patterns mentioned. Nine of every ten of the undivided schools are of the 6-year type and four of every five of the segregated junior and senior schools are developed on the 3-grade plan. Only among the junior-senior schools does one find any considerable number of deviates from the standard pattern; here 43 percent of the schools are organized on the 2-4 plan.

With such a predominance of one style of grade organization one may well ask oneself if the movement toward reorganization is in danger of itself becoming standardized. Is a school system which undergoes reorganization likely to shift merely from one kind of standardized pattern to another? The situation, so far as assignment of grades to the units of reorganized schools is concerned, seems to suggest that such is the case. One needs to bear in mind, however, that the characteristics of schools are determined by many factors aside from grades included. Moreover, even if one views the matter purely from the standpoint of grades assigned to each unit, there are significant variations from the 3-year and 6-year patterns. In table 2 are shown 23 types of grade organization within reorganized schools. Surely this should be enough variety to suit the most enthusiastic opponent of standardization. In addition, there are various alignments and relationships among units which are not shown in the table.

One of these is the so-called 6-4-4 plan. It consists of a 6-year elementary school, followed by two 4-year units at the secondary school level. Taken together, these units provide an education from the first grade through junior college. Numerically, the school systems which have adopted the 4-4 plan are not convincing, but the significance of the movement is probably not to be judged by the number of those which have adopted it at the present time. If it or any other plan has certain advantages over more common practice in school organization, one may expect that it will be adopted much more widely. Educators who support the 4-4 plan claim that very significant advantages in articulation of work and in acceleration of pupils inhere in the compact 4-4 plan over the less well integrated 3-3-2 or other plans of organization. Certain it is that while those administering and teaching in any given unit of the school system may think of their unit as being in a measure independent of other units, no such thought can be present in the mind of the pupil who as an individual has to pass from unit to unit. Any provision, whether 6-4-4 or other plan, is to his advantage if it makes his progress from grade to grade and from unit to unit less subject to delays and stops from causes over which he has no control.¹⁰

Trends in the States.—Returning to table 2, one finds that Ohio led in number of reorganized schools with nearly 600 such schools; six other States, namely, Indiana, Pennsylvania, Alabama, Michigan, New York, and Arkansas, had more than 300 reorganized schools. Comparison of table 2 with a similar table for 1928 included in the chapter on Secondary Education in the Biennial Survey of Education, 1928-30, provides some revealing contrasts. Eight States reported a loss in the number of reorganized schools since 1928 and eight had exactly or very nearly the same number at both periods; the remaining States showed gains in total numbers. Most of the States showing losses were in the South, although the largest loss was in Illinois, where the net reduction in reorganized schools was 18. The States showing the largest increases in number of reorganized schools were in order, Arkansas, Ohio, Alabama, Kentucky, New York, and Florida. Those showing the largest percentage increases were in order, Delaware, Arkansas, Florida, Kentucky, Maryland, and New Hampshire. Thus it is seen that the largest increases occurred also in the South. The net increase in number of reorganized schools in the three States which are in both of the above lists was 476, a 156 percent growth. Over the same 6 years, the increase for all the States was 36 percent; noticeably most of this increase came between 1928 and 1930.

¹⁰ The reader who is interested in a discussion of unusual as well as more usual types of reorganized schools is referred to U. S. Department of the Interior, Office of Education, Bulletin 1932, No. 17, Monograph No. 5, *The Reorganization of Secondary Education*. This monograph, written by Francis T. Spaulding, O. I. Frederick, and Leonard V. Koss, is one of the publications of the National Survey of Secondary Education.

TABLE 2.—REORGANIZED HIGH SCHOOLS CLASSIFIED ACCORDING TO TYPE OF ORGANIZATION, 1934

State	SEGREGATED JUNIOR HIGH SCHOOLS							SEGREGATED SENIOR HIGH SCHOOLS					JUNIOR-SENIOR HIGH SCHOOLS						UNDIVIDED HIGH SCHOOLS									
	Total	Grades 6-7	Grades 6-8	Grades 6-9	Grades 7-8	Grades 7-9	Grades 7-10	Grades 8-9	Grades 8-10	Total	Grades 8-11	Grades 9-11	Grades 9-12	Grades 10-11	Grades 10-12	Grades 11-12	Total	Grades 6-7	Grades 8-8	Grades 8-9	Grades 8-10	Grades 8-11	Grades 8-12	Grades 7-11	Grades 8-12	Grades 6-11	Grades 7-12	
Continental United States.....	6,659	1,948	71	7	192	1,457	189	22	8	755	2	55	140	4	546	8	2,378	12	16	22	23	24	25	42	104	10	1,402	
Alabama.....	398	64	6	6	6	55	3	4	4	6	1	1	1	4	4	4	285	1	4	9	281	24	43	5	5	34	34	
Arizona.....	21	7	7	7	7	7	7	7	7	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Arkansas.....	335	44	20	20	20	20	24	4	4	4	4	4	4	4	4	4	110	37	21	89	89	177	3	3	3	174	174	
California.....	219	125	111	111	111	111	12	12	12	45	45	5	5	16	3	3	37	0	0	0	28	12	12	4	4	4	8	8
Colorado.....	106	30	6	6	6	24	21	21	21	21	21	5	5	16	3	3	46	28	28	28	18	9	9	2	2	2	7	7
Connecticut.....	47	23	1	1	1	18	2	2	2	6	6	6	6	6	6	6	11	3	3	3	8	7	7	3	3	3	4	4
Delaware.....	23	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	10	4	4	4	12	3	3	1	1	1	3	3
District of Columbia.....	19	17	17	17	17	17	31	31	31	11	11	11	11	11	11	11	98	12	12	12	86	1	1	0	0	0	68	68
Florida.....	260	83	1	1	1	14	1	1	1	4	4	4	4	4	4	4	5	3	3	3	5	3	3	1	1	1	1	1
Georgia.....	33	16	2	2	2	2	2	2	2	6	6	6	6	6	6	6	11	7	7	7	8	7	7	3	3	3	4	4
Idaho.....	23	6	2	2	2	4	1	1	1	6	6	6	6	6	6	6	9	9	9	6	2	2	2	1	1	1	1	1
Illinois.....	64	36	3	3	3	12	3	3	3	19	19	19	19	19	19	19	7	7	7	3	1	1	1	1	1	1	2	2
Indiana.....	469	45	16	16	16	24	4	4	4	22	22	14	14	8	8	8	167	114	127	40	30	235	3	3	3	234	234	
Iowa.....	198	41	2	2	2	29	1	1	1	25	25	7	7	18	18	18	114	67	67	39	8	18	3	3	3	15	15	
Kansas.....	174	57	10	10	10	38	37	37	37	37	37	17	17	20	20	20	60	60	60	33	27	20	1	1	1	19	19	
Kentucky.....	219	21	1	1	1	13	6	6	6	8	8	2	2	6	6	6	143	143	125	18	18	47	3	3	3	44	44	
Louisiana.....	5	3	2	2	2	2	3	3	3	1	1	1	1	1	1	1	18	18	10	7	1	1	1	1	1	9	9	
Maine.....	55	17	5	5	5	6	2	2	2	10	10	5	5	6	6	6	13	13	10	3	3	10	2	2	2	16	16	
Maryland.....	50	27	1	1	1	4	22	131	1	2	2	14	14	14	14	14	37	37	21	15	1	18	5	5	5	16	16	
Massachusetts.....	271	159	25	25	25	131	1	2	2	67	67	14	14	43	43	43	155	155	88	67	1	91	19	19	19	72	72	
Michigan.....	385	91	9	9	9	70	8	3	3	48	48	10	10	38	38	38	155	155	88	67	1	91	19	19	19	72	72	
Minnesota.....	158	49	4	4	4	45	4	4	4	29	29	1	1	28	28	28	105	105	66	39	3	10	3	3	3	34	34	
Mississippi.....	154	8	3	3	3	24	5	5	5	24	24	3	3	17	17	17	60	60	32	32	1	38	2	2	2	36	36	
Missouri.....	154	32	1	1	1	24	1	1	1	24	24	3	3	17	17	17	60	60	32	32	1	38	2	2	2	36	36	
Montana.....	31	5	4	4	4	4	1	1	1	6	6	5	5	1	1	1	20	20	15	1	1	1	1	1	1	1	1	1

SECONDARY EDUCATION

Nebraska.....	83	19	7	10	2	1	1	5	41	13	26	2	11	3	8
Nevada.....	5	3	1	2	1	1	1	1	19	17	2	2	9	1	9
New Hampshire.....	64	10	11	4	1	0	3	3	9	1	8	1	9	1	8
New Jersey.....	96	58	54	3	1	3	3	20	9	1	8	1	9	1	8
New Mexico.....	13	3	3	3	1	3	3	3	3	2	1	1	4	1	3
New York.....	353	125	1	117	6	2	24	24	154	71	82	1	48	14	34
North Carolina.....	22	6	1	5	1	1	1	1	4	12	2	2	0	1	3
North Dakota.....	35	8	1	7	3	1	4	4	18	66	6	1	3	5	3
Ohio.....	591	118	5	109	2	1	37	39	117	96	50	1	317	8	312
Oklahoma.....	134	33	1	29	2	1	19	20	64	43	21	1	17	6	12
Oregon.....	45	25	7	17	1	1	11	18	1	1	126	1	1	1	101
Pennsylvania.....	443	188	2	107	37	2	44	48	144	18	2	2	105	4	1
Rhode Island.....	32	19	2	17	1	1	8	8	3	1	2	2	2	1	1
South Carolina.....	7	2	2	5	1	1	2	1	14	9	4	1	4	3	3
South Dakota.....	26	6	5	5	2	1	2	3	14	9	4	1	3	1	3
Tennessee.....	37	19	7	17	2	5	5	5	9	5	3	1	4	4	4
Texas.....	159	77	4	3	10	45	1	48	20	4	8	1	14	8	6
Utah.....	97	53	8	35	10	6	11	22	12	4	8	8	10	4	6
Vermont.....	48	4	2	1	1	2	3	2	33	31	2	2	9	1	8
Virginia.....	37	16	2	8	1	2	1	3	6	0	4	4	12	2	1
Washington.....	80	41	1	38	3	1	26	26	13	10	13	13	70	2	70
West Virginia.....	232	99	1	83	15	1	14	15	48	10	38	38	10	8	8
Wisconsin.....	99	33	3	32	4	1	14	15	41	9	32	32	10	8	16
Wyoming.....	37	7	3	4	4	3	1	4	10	6	4	4	16	16	16

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Values.—Varied viewpoints exist with regard to the values of reorganized as against regular high schools. Assuredly, no one is in position to say that one type or another is best adapted to all situations. The sustained trend toward establishment of reorganized schools and the relatively few cases in which reorganization has been abandoned are in themselves indications of a large number of judgments favorable to reorganization. It is a fact also that many provisions for guidance, individual differences, student activities, expanded curriculum offerings, better-trained teachers, and the like, awaited the coming of the reorganized school before being widely introduced into the training of pupils of early adolescent age. This does not constitute proof that these facilities and improvements came as a result of reorganization; they did accompany it.

PROVISIONS FOR CONTINUING AND SUPPLEMENTING HIGH-SCHOOL EDUCATION

A varied category.—A movement so widespread and so persistent as has been the development of secondary education in the United States inevitably involves, and should involve, numerous adaptations to meet the complex conditions which it is intended to serve. It is almost universally realized that these adaptations need to be made for the benefit of those who are enrolled in the schools. It is not so universally realized, however, that they should be made also for those who have left school or who are about to leave.

Still there are many agencies, public and private, designed to supply educational services to those who are no longer attending full-time day classes in the usual types of high schools and academies. Some of these provisions look toward an extension of secondary education beyond high-school graduation while others aim at meeting the varied needs of those who have not completed their high-school work. Trade schools, business colleges, night and evening schools, various other kinds of part-time schools, summer schools, summer camps, postgraduate high-school classes, junior colleges, correspondence study, and reading courses are among the auxiliary agencies thus provided. Attempt will not be made here to discuss all such facilities, but to give attention to some of those which have been especially prominent over the last few years.

The junior college.—The first junior colleges were private institutions. Not till the early years of the present century did the public junior college make its appearance.¹¹ The growth in both public and private junior colleges has been rapid although by no means spectacular as has been the development of reorganization at the high-school level. One reason for this slower development is that the public has not by unanimous consent regarded the junior colleges a part

¹¹ Joliet (Ill.) Junior College was established in 1902. This is the oldest public junior college now in operation.

of secondary education. This viewpoint in turn is largely determined by the path which has been taken by the junior college itself. No matter what its proponents say about it and its objectives, so long as the junior college in practice shows itself to be principally an institution preparatory to further college work, and only secondarily an agency for general education, so long will it find difficulty in attracting pupils who are not destined for college and whose parents therefore are not especially interested in paying taxes toward support of what they consider to be essentially a collegiate institution.

The problem of terminal courses, principally of semiprofessional character, is one which is occupying the attention of leaders in the junior-college movement at the present time. A committee of the Carnegie Foundation for the Advancement of Teaching, after a study of junior colleges in California in 1932, recommended three such curriculums to take their place beside the preacademic and preprofessional curriculums usually found. These three were (1) a curriculum for social intelligence intended to train for social citizenship in American civilization, (2) a series of specialized vocational curriculums for those "who will soon terminate their schooling to enter the occupations", and (3) an adult education curriculum for those now out of school. It is to be noted that in California probably more extensively than anywhere else has the idea of terminal curriculums in the junior college found its way into practice.¹²

Only two of every five junior colleges are publicly supported and controlled, but two of every three students enrolled in junior colleges are registered in public as distinct from private institutions. (See table 3.) The acceleration in enrollments over the last 5 or 6 years has been more pronounced in the public than in the private junior colleges although the growth has been considerably arrested in all these institutions since 1932.

TABLE 3.—NUMBER OF JUNIOR COLLEGES AND THEIR ENROLLMENT, 1931-36¹

Year	Public		Private		Total	
	Number	Enrollment	Number	Enrollment	Number	Enrollment
1	2	3	4	5	6	7
1931.....	178	45,021	258	29,067	436	74,088
1932.....	181	60,954	288	36,677	469	97,631
1933.....	189	60,345	304	36,210	493	96,555
1934.....	210	70,221	304	33,309	514	103,530
1935.....	219	74,853	302	32,954	521	107,807
1936.....	213	82,701	305	39,610	518	122,311

¹ Data taken from the Junior College Journal (Stanford University Press, Stanford University, California) for January of each year. In Office of Education, Bulletin 1936, No. 3, are listed the names of 554 institutions of junior college grade in operation during the school year 1935-36; this listing excludes commercial schools, normal schools, professional schools, emergency junior colleges, university branch schools, and university lower divisions.

¹² According to an article appearing in the November 1935 issue of the Junior College Journal, 75 percent of the graduates of the Los Angeles Junior College had pursued semiprofessional curriculums designed to be of terminal character.

California leads in number of junior colleges with 55. Other States having more than 20 junior colleges are the following: Texas, 43; Iowa, 37; Oklahoma, 24; North Carolina, 23; Missouri, 22; Illinois, 21; Mississippi, 21. It is apparent that, aside from California and North Carolina, the principal development has occurred through the Mississippi Valley.

Beginning with the fall of 1934, so-called emergency-junior colleges were established in a number of States. At the outset, Michigan, Ohio, New Jersey, and Connecticut were especially active in this direction. As of April 1936, there were 143 freshman junior colleges in 16 States; their combined enrollment was approximately 14,000. Among the States, Kansas led with 37 such institutions. Other States having 20 or more such colleges in 1936 were Michigan, New York, and Texas. In each of four States, namely, New York, New Jersey, Michigan, and Kansas, the enrollment exceeded 1,000 students. The largest schools were in New Jersey, where six such colleges employed more than 150 teachers and had nearly 3,100 students.

These freshman colleges are intended primarily to give an opportunity for the beginning of college careers to high-school graduates who otherwise would not find it possible to start their college work. Generally they offer only 1-year courses, depend upon other educational institutions for use of their plants and equipment in off hours, and in other ways give evidence of their temporary character.

Postgraduate high-school work.—Not only do high-school graduates in increasing numbers enter junior colleges; but in communities where opportunity for junior college work is not supplied, the high schools have been required to provide training for large numbers of graduates who return for further work. An investigation conducted in New York State¹³ during the school year 1933-34 revealed that in 171 schools reporting there were more than 5,000 postgraduate students. In Illinois¹⁴ that same year 118 schools reported more than 2,000 postgraduate students. In Wisconsin¹⁵ 130 high schools had 1,314 postgraduates. In the Nation as a whole about 60,000 postgraduate high-school students were reported in 1933-34.¹⁶ Such data as are available in these and other studies indicate rapid increases in the number of postgraduates in the period since 1930.

The educational programs which are offered postgraduate students consist principally of subjects which they did not elect during their attendance in high school previous to graduation. Commercial

¹³ Soper, Wayne W., and Hollister, Frederick J. *The Postgraduate Problem in New York State*. Albany, N. Y. Bulletin No. 1029 of the University of the State of New York.

¹⁴ Clement, J. A. *A Study of Postgraduate Students Enrolled in Accredited Public High Schools of Illinois Outside Chicago*. Ann Arbor, Mich. North Central Association Quarterly, April 1935.

¹⁵ Lyons, George B. *Postgraduate Students in the Public High Schools of Wisconsin*. Unpublished Master's thesis, Department of Education, the University of Chicago, 1934. A summary of this study appeared in the Wisconsin Journal of Education, Madison, for November 1934.

¹⁶ Biennial Survey of Education in the United States, 1932-34. U. S. Department of the Interior, Office of Education, Bulletin 1935, no. 2. See table 10 of ch. V.

subjects are reported with especial frequency. The school which offers a program designed especially for its postgraduate enrollment is rare.

Night schools, part-time education, correspondence instruction.—A type of education developed especially to meet the needs of those who have dropped out of school is the night or evening school. Some plans include provisions by which students of night schools may earn credit toward graduation and ultimately receive a high-school diploma on the basis of their work in night school. More frequently, the work is designed primarily to assist those who, having stopped their attendance at day school on account of employment or for other reasons, at some later time wish to study subjects of high-school grade. The vocational motive is usually prominent in the educational programs of night schools.

The number of cities operating night schools and the enrollments in night-school classes dropped sharply from 1930 to 1934 as reported to the Office of Education;¹⁷ enrollments were nearly 22 percent below 1930, when more than a million pupils attended night-school classes. Efforts by cities to balance their educational budgets undoubtedly account for much of this retrenchment; moreover, the emergency programs for adult education supplied educational facilities to many young people who in more normal times would have had opportunity for night-school work and would have attended such an institution.

Forms of education closely allied to night school are the part-time school and the part-time class. Data supplied to the Office of Education by the States indicate that, while numerically there are only between one-fourth and one-third as many pupils enrolled in part-time work as there are registered in night school, a trend toward larger enrollments in part-time education is making itself felt in recent years. Night-school enrollments rose until 1930 and have receded since that time; part-time education, despite the large reduction in continuation school enrollments, is growing. Even in federally aided vocational education, where no set-back has occurred in night-school registration, the part-time school is showing the most rapid growth among the three classifications of schools receiving aid, namely, evening, part-time, and all-day.

Correspondence study is another means for extension of the influences of secondary education. A recent report¹⁸ indicates that in 12 States official recognition is given to supervised correspondence study by one educational agency or another. Eighteen other States and a

¹⁷ Statistics of City School Systems, 1933-34. This is ch. III. The U. S. Department of the Interior, Office of Education, Bulletin 1935, No. 2, Biennial Survey of Education in the United States, 1932-34.

¹⁸ National Conference on Supervised Correspondence Study. Report of Committee on Developing a Central Agency for Evaluation, Research, and Information on Supervised Correspondence Study. Unpublished report by A. A. Reed, chairman. 1936.

number of educational organizations national in scope have shown an interest in correspondence study of high-school subjects.

Federal agencies.—In recent years a number of agencies of the Federal Government have served to solve in part problems related to secondary education, although not established principally for that purpose. Two of these agencies which can be treated briefly here are the Civilian Conservation Corps and the National Youth Administration.

The Civilian Conservation Corps was organized in April 1933. Not until December of the same year was provision made for supervision of an educational program in the camps. By 1936 the educational program had, in the words of Robert Fechner, Director of Emergency Conservation Work, "been of increasing value and importance."¹⁰ Since participation in educational activities is at the option of the enrollee himself, it is of especial significance to note that participation rose from 50 percent in July 1935 to 75 percent in June 1936. With three-fourths of the enrollees being reached by the program, education has become an important part of life in the camps.

The objectives of Civilian Conservation Corps education run all the way from the removal of illiteracy to the providing of college courses, from instruction very definitely on the job to training in avocational and leisure-time activities. Approximately half of the enrollees are at the high-school level; that is, they have completed elementary school but have not completed high school. Two-fifths of those at the high-school level are taking high-school courses. The greatest participation is in the vocational program, where considerably more than three-fifths of the total number of enrollees take part. The job-training program of the Civilian Conservation Corps, under which instruction is closely related to work on the job, provides an example which is significant for part-time education in the regular schools.

The National Youth Administration is another recently established governmental agency of significance to secondary education. The President's Executive order creating the National Youth Administration is dated June 26, 1935.

During the first year of its existence the National Youth Administration provided two types of service to persons of high-school age. In the first place, it administered a program of high-school aid under which deserving and needy young people were assisted to attend high school through payments of up to \$6 per month per person. Generally these persons were required to perform some kind of socially desirable service to the institutions which they attended; for the current year such service is made a condition of receiving the aid. The average number thus aided over a period of 9 months from September

¹⁰ Radio address by Robert Fechner, Apr. 17, 1936.

May, inclusive, was approximately 180,000; the highest point was reached in May 1936, when more than 280,000 received high-school aid.

The other principal provision for aid to persons of high-school age was through work projects. This provision was extended to persons between the ages of 16 and 25; consequently the work project is not assignable only to persons of high-school age. In May 1936 approximately 210,000 out-of-school youths were employed on National Youth Administration work projects. Some of these projects were closely related to education, as, for instance, the beautification of school grounds, improvement of school playgrounds and equipment, development of visual aids, and preparation of exhibits of minerals, fossils, and the like to be placed in schools for educational purposes.

Significance of auxiliary agencies.—It is to be expected that the facilities of these and other auxiliary agencies in secondary education will be progressively improved to care for those who are out of school and for those who, being in school on a full-time basis, are not appealed to by the offerings and methods employed in the schools.

The brief résumé which has been given here reveals some of the directions in which development may be realized. The junior college of the future will presumably give more attention to its responsibilities as a school from which large numbers of graduates will go directly into occupations instead of to college. Postgraduate students may look for less fitting of them into the program and more fitting of the program to meet their needs. Night-school facilities may more logically be expanded than curtailed when financial problems and unemployment beset our economic system. Part-time education and correspondence instruction, which together with night schools emphasize the desirability and feasibility of education for those who are employed for all or part of the day, may be expected to become more general. The Civilian Conservation Corps is demonstrating a school-job relationship which is far too valuable to be restricted to those who can be sent away to the camps, and the principle of scholarships put into practice by the National Youth Administration need not be limited to the funds granted by the Federal Government. A broadening of the horizons to include not only those who are adjusted but also those who are unadjusted in the schools, not only the 65 percent in attendance but also the 35 percent who have withdrawn, is needed if secondary education is to fulfill its proper mission in a democracy.

VOCATIONAL EDUCATION*

* *Scope of this discussion.*—Any discussion of vocational education and the trends in this field must take into consideration the vocational-education program now being carried on in the 48 States, the Terri-

* The section on vocational education was written by C. M. Arthur, research specialist in the Office of Education.

tories of Alaska and Hawaii, and the island of Puerto Rico, provided for under the Smith-Hughes Act of 1917 and acts supplementary thereto—the George-Reed and the George-Ellzey Acts. It must be remembered, however, that vocational education antedated the passage of these acts, that some vocational schools were in operation before the passage of the acts, and that even today a number of vocational schools and classes are operated independently of Federal aid. This discussion, therefore, has to do with the trends in vocational education as it is carried out in both federally aided and nonfederally aided schools.

Vocational education as it is here discussed will be understood as education which fits youth for useful employment, providing training in the technique of the various occupations as well as in related subjects—science, mathematics, history, geography, and literature—which are useful to men and women both as workers and as citizens; which trains those already employed in a trade or industrial occupation or in the field of agriculture to become more proficient in the work in which they are engaged; and which trains girls, young women, and adult homemakers for the conduct of a home. In its very nature vocational education is unalterably tied in with the secondary-school system. Particularly is this true of vocational education reimbursed from Federal funds which, under the terms of the Smith-Hughes Act, is “of less than college grade.”

Growth of vocational education.—Concrete evidence of the growth of the vocational-education program since the passage of the Smith-Hughes Act in 1917, is to be found in the increased enrollment in vocational courses carried on under State plans in the high schools of the country as reported by the States to the United States Office of Education.

The record shows that the enrollment in vocational schools or classes in 1917, before the Smith-Hughes Act went into effect, was approximately 164,000; whereas the enrollment in these schools for the fiscal year ended June 30, 1936, was approximately 1,382,000. Even during the most trying years of the economic depression, when both State and Federal appropriations were curtailed, the total enrollment in vocational classes increased materially from year to year. From 1918 to 1936 the number of home-economics classes increased from 323 to 5,587, and the number of vocational-agriculture classes, from 1,741 to 11,183.

With this brief background of the vocational-education program in mind, it is pertinent to consider some of the problems confronting vocational education, as well as some of the trends discernible in this field.

Vocational-education problems.—A number of specific problems which vocational education has been called upon to solve have been accentuated in recent years as a result of the unprecedented economic

and social changes incident to the period of depression. An attempt will be made to indicate the more important of these problems in four main fields of vocational education—agriculture, trades and industries, home economics, and commercial education; to show what adjustments have been made in the vocational-education program in an effort to meet them; and to indicate any additional adjustments they portend for the future.

Problems in the field of commercial education.—The passage of the George-Deen Act by the Seventy-fourth Congress served to focus the attention of educators, industrialists, and merchants upon the need for greater emphasis upon vocational training in the distributive occupations.

The distributive occupations constitute a comparatively new field, for which little or no vocational training has heretofore been provided. These occupations include those involved in retailing, jobbing, and brokerage operations, commission buying and selling, and various other merchandising activities. In the large cities one person of every six between the ages of 18 and 25 gainfully employed is engaged in selling or other occupations in the distributive field. In the country as a whole 1 person of every 10 workers between these ages is so employed. As a result of the opportunities for employment open in this field more than 100,000 beginners 18 to 19 years of age enter these employments, and a large but unknown number of older beginners under 25 years of age seem to find employment every year.

Unfortunately for the youth who want to follow one of the distributive occupations, very few public schools provide preparatory training of a recognized vocational kind, and practically none offers extension training in evening and part-time schools for small-store managers, retail salespeople, and others. Out of more than 6,000,000 youth enrolled in high schools only about 10,000 are receiving vocational preparation for retailing, selling, and store-service occupations. Even on the assumption that all persons enrolled in courses preparing for the distributive occupations enter employment in the distributive field, the public schools today are offering courses for only a small proportion of the youth who will begin a career in this field, and are aiding very few to learn efficient practices necessary for earning a higher salary, for successful management of a small store or business, or for winning vocational advancement. In the cities in which a larger proportion than ever before of the high-school graduates are finding employment in stores, no efforts seem to be made to establish classes preparing for this field of employment—the third largest in the country.

Too great emphasis has been centered in commercial courses in the past upon training in commercial typewriting, stenography, and bookkeeping. The high enrollment in such courses today is out of

all proportion to the demand for workers in these and other clerical lines. Despite the findings of numerous surveys to this effect, enrollment in advanced bookkeeping and in shorthand and typewriting classes has increased, their continuance being justified on the ground that they contribute to business information, social understanding, character building, a knowledge of English, and on similar grounds.

It was in recognition of the need for adequate training programs in the distributive occupations that Congress included in the George-Deen Act, which takes the place of the George-Ellzey Act and which becomes effective July 1, 1937, authorization for annual appropriations to assist the States in carrying on this phase of commercial education and in training teachers for it.

Trends in all-day and part-time vocational programs.—For several years past vocational programs have been in process of expansion and adaptation to meet the needs of out-of-school, out-of-work youth 14 to 18 years of age who complete the period of compulsory school attendance while they are still too young for wage-earning employment.

Although the period of compulsory full-time school attendance has been extended in some States, with provision for part-time attendance in continuation schools for employed workers beyond that age, it is still true that in a number of States there is a gap between the age at which boys and girls are released from compulsory school attendance and the minimum age of employment as fixed by law or as determined by industry.

It is clearly not in the public interest that these boys and girls should be abandoned in the most critical habit- and character-forming years of adolescence by being denied both employment opportunities and suitable educational opportunities. The responsibility for providing these educational opportunities, including opportunities for securing needed vocational training to fit for entrance into regular employments, belongs to the public-school system.

In the field of vocational education this means that the all-day school will be obliged to raise its age of admission to trade courses in order that those receiving training will be old enough to secure employment on completion of the course, while the public schools in general must take over some of the services which have in the past been rendered to employed youths in the ages of 14 to 18 years by the part-time general continuation schools.

In general, the all-day vocational schools have been modifying and developing their programs to meet the needs of the 14- to 18-year-old youth, and the part-time school to meet the needs of employed youth in more advanced ages. The problem of providing for the educational needs of the two youth groups is one large phase of our present-day "youth problem."

The out-of-school rural youth.—Serious consideration and attention has been given in recent years by those responsible for vocational

education in agriculture to the problem of providing training in farming for out-of-school farm youth and young men between the ages of 16 and 25, who desire to become established in farming.

No ironclad standard for training these youth and placing them on their own farms can be set up, since different individuals in the group have different requirements and different objectives. In some instances such youth have accumulated a little money from profits on supervised farm practice projects while attending day-school classes in vocational agriculture and are looking forward to farm ownership. For these youth, continued training looking toward the accomplishment of their goal is essential. In addition, definite steps should be taken to see that they are placed on farms suitable to the enterprises in which they desire to engage. This is now being done.

Only recently a plan has been worked out by the agricultural education service of the Office of Education, cooperating with State boards for vocational education, whereby farm youth who are receiving training in part-time agriculture classes in rural high schools may rent or purchase farms. Under this plan a young man, who, upon the investigation of a vocational agriculture teacher and the local supervisor of vocational agriculture, proves to be a desirable prospect as a farm purchaser or renter, is put in touch with a local representative of a Federal land bank. When he has acquired a farm and has started to operate it, every effort is made to get him to continue his agricultural training in evening classes with a view to developing his farming ability and getting assistance in building up the farm for which he has contracted. Where desirable, officials of the Federal land bank cooperate with the vocational agriculture teacher in counseling and helping the young farmer in connection with his marketing, management, and financing problems.

A sound educational program for out-of-school farm youth must be based upon a survey of the individual youth and the community in which he lives. During recent years many of the State supervisors of agricultural education have encouraged vocational agriculture teachers to make such surveys to determine: (1) The needs of the out-of-school farm youths in their present situations; (2) their needs for prospective future situations; and (3) the extent to which part-time schools can meet these needs.

Programs for these youth must be as flexible as possible to enable them to get both individual and group instruction at a convenient time and place, and on a unit, short-time, intensive basis.

To enable them to get training in cooperative activities, as well as leadership training in these and school and community affairs, part-time vocational agriculture students all over the country have been formed into local organizations. Chief among these organizations is the Future Farmers of America, the 4,500 chapters of which have a total membership of 120,000 boys—many of them part-time voca-

tional agriculture students. In 47 States, Hawaii, and Puerto Rico, the local chapters of this organization are now providing training for boys in group and community activities through chapter programs; participation in the work of marketing and purchasing organizations; community betterment projects, agricultural fair exhibit projects; and chapter thrift bank programs; and in educational, recreational, and social activities of a varied character.

The out-of-school girl.—The school mortality among girls 16 to 18 years of age, many of whom have found it necessary to drop out of school and become wage earners or aids in their own homes, has in recent years been somewhat high. Included in the out-of-school group, also, are those who have finished the compulsory school period and who, because they can neither find employment nor afford to attend college, are forced to live at home, where in many instances there is no specific need for their help.

Instruction for these two out-of-school groups, and particularly the former group, presents a complex problem. In many instances it has been possible to gather these girls into part-time classes for periods of from 4 to 8 hours a week. An attempt is made in these classes to capitalize the avocational interests of the girls by stressing personal and home problems in relation to preservation of health, the economical budgeting of slender resources, and the various aspects involved in the provision of food and clothing for themselves and the members of their family. Special emphasis has been laid also upon instruction designed to make these girls proficient in avocations for which there is a sale value, such as fancy baking, canning, candy making, making of clothing accessories, making of children's clothing, and handicraft work of various kinds.

Placement and follow-up of vocational graduates.—As the program of vocational education has developed and advanced those in charge of it have felt an increasing responsibility for the placement, insofar as possible, of those who complete vocational courses. The boy or girl or adult worker trained for a job which he does not find continues to be a social liability. In some instances, therefore, special employment bureaus have been set up by vocational schools, and in many instances close cooperation of schools with local industries, labor organizations, and public employment offices is maintained in an effort to place vocational graduates.

Training a boy enrolled in a vocational agriculture department, for example, is only a part of the responsibility of that department. His establishment in farming is the next step.

As indicated in the discussion of problems confronting vocational agriculture with respect to the out-of-school rural youth, every effort is made by the vocational agriculture teacher to see that graduates of his department are placed on farms, either as tenants or as owners, followed up in their farming activities, and induced to return to school

on a part-time basis for continuing instruction in farming problems.

In a similar manner, also, attention is being given in the field of trade and industrial training to placement of those who have completed training, following them up to see that their service is satisfactory, and persuading them to return to part-time and evening classes for extension instruction which will make them more efficient and proficient in their employment.

In this placement and extension instruction program, the vocational teacher works in close touch with employers, securing from them suggestions concerning instruction which will aid in making the employee more valuable as a worker.

Supervised farm practice.—Under the terms of the Smith-Hughes Act every individual enrolling for a course in vocational agriculture in a rural high school is required to take at least 6 months of supervised farm practice work. This provision has been rigidly adhered to in all vocational agriculture programs in the States reimbursed from Federal money.

With the development of the program, however, came the realization that a broader interpretation of the Smith-Hughes provision in respect to supervised farm practice was necessary. Early in the history of the program, therefore, the requirements governing supervised practice were raised. Instead of covering only one enterprise and carrying it for a period of 6 months, pupils were encouraged to undertake more than one enterprise and to carry on several enterprises for the period of the calendar year or longer.

Gradually, also, the program has evolved until today vocational agriculture students are encouraged to carry a number of different supervised farm practice projects, involving experience in a number of farm enterprises and for the full period of the agricultural course. More recently a plan has been adopted whereby students outline their farm practice on a long-time basis, which takes into consideration the extension of this practice into actual farming enterprises—after they have completed their vocational agriculture training and are established as partners on the home farm or as farm renters or owners—and the fitting of these enterprises into the general agricultural program of the community.

Home projects.—The increasing recognition of the necessity of giving pupils experience in handling concrete situations instead of expecting them to learn the principles of homemaking by merely teaching them facts and principles, is revealed in many of the newer courses of study in home economics. This recognition has given rise to an increasing use of the home project in such courses as a means of providing experience in actual home situations.

The home project is to the program of instruction in home economics what supervised farm practice is to the program of instruction in vocational agriculture.

Through the home project as it has developed over the years, and particularly during the past 6 years, home economics students interpret in home activities the instruction they receive in the classroom. Reports from the different States indicate that, through undertaking and carrying out home projects, girls develop ability to carry increasing home responsibility for such enterprises as planning and preparing food for family meals that are adequate and yet procured at a cost low enough to come within limited income, raising in home gardens and preserving vegetables and fruits to be used in the family diet, making clothing from materials on hand, planning for family recreation at home at little or no cost, sharing in various phases of home management, caring for sick members of the family or sharing the responsibility of caring for small brothers or sisters, and similar home activities.

School superintendents and teachers have testified to the outstanding value of home economics instruction in general and home project activities in particular in bringing about improved practices of buying, preparing, and serving nutritious foods; providing clothing for the family on an economical basis; changing the physical aspects of the home; and increasing the family morale, creating happier relations among family members, and setting up better standards of family living.

Problems of adult education.—Lest it be thought that the only problems with which vocational education has been concerned have been those involved in providing preparatory training for boys and girls, it should be made clear that special attention has been given almost from the inception of the vocational education program, and particularly during the years of depression and unemployment, to the needs of adult men and women—those employed in trade and industrial occupations, those engaged in farming, and those responsible for the management and operation of homes.

The needs of employed adult workers who because of technological and other changes must have training in new phases of their occupations in order that they may be able to hold their jobs, or of unemployed workers who must be trained in entirely new jobs which may be available, have been provided for to a large degree. Adult farmers in need of instruction and help to aid them in meeting the new conditions which have confronted them in the past 6 years, and city workers returning to the farms, or settling on farms for the first time, have received increasing attention. Adult women in special need of help in meeting problems growing out of the emergency and recovery period have been given much needed help. More detailed discussion of the problems of vocational education for adults, however, is reserved for another chapter of the survey.

Emphasis upon rounded vocational courses.—The mission of vocational education as conceived by President Wilson's Commission on National Aid to Vocational Education is not only to provide the

individual with definite training in the technique of the various occupations so that he can take his place in society as a producer, but to prepare him for his place as a citizen. To this end, therefore, the well-organized vocational school or class provides training in techniques and in the related fields—science, mathematics, drawing, and similar subjects—as well as in such subjects as history, geography, English, literature, economics, and psychology.

Further, the well-organized vocational school or class seeks to familiarize the prospective worker and the individual already employed, with the laws of health and with his rights and obligations as a worker and as a citizen, in relation to his employer, his fellow employees, his family, the community, the State, and the Nation.

Events of the past 6 years have served to emphasize to an increasing degree the need for a type of vocational training which has for its objective the integration of training in the fundamentals of an occupation with training in the liberal subjects provided for students enrolled in the academic courses in the high school.

SMALL HIGH SCHOOLS²¹

Problems prevalent in small high schools.—With all the mass-production tendencies in the United States and with all our reputation for bigness, it is surprising to many to be told that smallness rather than largeness has been and continues to be an outstanding characteristic of our schools. If one considers the broad responsibilities placed by society upon secondary education, it is apparent that American educators must give attention to the small high school and its problems.

The efforts of local school officials to bring secondary education within reach of the children living in areas of sparse population has made the multiplication of small high schools almost inevitable. Since the age span of children attending high school is, roughly, only half as wide as that of children attending elementary school, and since more and more selection takes place as the children grow older, the difficulties involved in bringing together a group of sufficient size in sparsely populated areas to maintain a high school which can perform the tasks assigned to it become evident.

The administrative and instructional problems of the small high school have been too frequently pointed out to warrant much consideration here.²² Administratively the small high school involves difficulties in maintaining at reasonable per capita costs adequate housing, equipment, and supervision. From the point of view of

²¹ The section on the small high schools was prepared in the Division of Special Problems, Office of Education.

²² Ferriss, E. N. *The Rural High School, Its Organization and Curriculum*. U. S. Department of the Interior, Office of Education, Bulletin 1925, No. 10.

Gaumnitz, W. H. *The Smallness of America's Rural High Schools*. U. S. Department of the Interior, Office of Education, Bulletin 1930, no. 13.

Roemer, Joseph. *The Weakness of the Small High School*. *Peabody Journal of Education*, 6:37-47, July 1928.

instruction, it means limited curricular and extracurricular provisions, overloading of teachers in numbers of classes and subjects taught, poor distribution in staff assignments, and similar problems. Approximately 2,000 small high schools attempt to provide a complete 4-year program of secondary education with but one or two teachers. The difficulties encountered and the limitations imposed upon the type and quality of secondary education provided are numerous and have far-reaching results.

Reducing the number of small high schools.—A definite reduction in the number of high schools with very limited enrollments may be observed during recent years. The percentages of high schools in the two enrollment groups 10 to 24 and 25 to 49 (table 4) are growing smaller, and the total number of schools enrolling fewer than 50 pupils is decreasing. These trends have been especially evident during the last 4 years. They mean that existing high schools are growing larger through increments in enrollment and fewer extremely small high schools are being established.

TABLE 4.—SIZE OF HIGH SCHOOLS, BY ENROLLMENTS

Size of schools by enrollment	Schools in 1925-26		Schools in 1929-30		Schools in 1933-34	
	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7
10 to 24.....	12,107	11.9	2,077	9.3	1,470	6.3
25 to 49.....	3,635	20.6	3,866	17.4	3,139	13.6
50 to 74.....	2,940	16.6	3,521	15.5	3,364	14.5
75 to 99.....	1,876	10.6	2,543	11.5	2,795	12.0
100 to 199.....	3,220	18.1	4,603	20.7	5,594	24.1
200 or more.....	3,032	22.2	5,627	25.6	6,851	29.5
Total.....	17,710	100.0	22,237	100.0	23,213	100.0

¹ Partially estimated.

The total number of high schools for which data are available has increased only 4.4 percent during the past 4 years, while high-school enrollments have increased 28.9 percent. It is particularly hopeful to note that even in rural communities fewer high schools were established from 1930 to 1934 than during the previous 4 years, and that the establishment of small high schools has been kept in check despite an unprecedented increase in high-school attendance in these communities. While the increase of more than 53 percent in the number of rural children attending high school is in itself an important factor in the enrollment in established schools, one cannot escape the fact that a very large proportion of the increase resulted from the extension of high-school opportunities into areas in which

² Gaumnitz, W. H. *The Place of the Small High School in American Secondary Education. In Economic Enrichment of the Small Secondary School Curriculum, Department of Rural Education, National Education Association, 1934.*

such opportunities did not formerly exist. This means that the opportunity to attend high school is becoming more widely available in the rural communities without the multiplication of extremely small schools.

TABLE 5.—PERCENTAGE INCREASES IN SCHOOLS AND ENROLLMENTS, 1926-34

Type of school	Schools		Enrollments	
	1926-30	1930-34	1926-30	1930-34
	2	3	4	5
Rural.....	21.8	5.3	33.1	53.2
Urban.....	36.8	1.9	10.6	17.1
Both.....	25.6	4.4	17.1	28.9

While the growth in the proportion of children of high-school age going to high schools has to be recognized as one of the most important factors responsible for the growing increase in the size of high schools located in the sparsely settled communities, it should not be concluded that this factor alone accounts for the tendency toward larger schools. Perhaps more than ever before thought and study has during recent years been given to the problem of reorganizing the vast number of extremely small local units of school administration with their limitations in providing secondary education in such communities into larger ones. More than a dozen States are at present studying this problem with the cooperation of the Office of Education. Arizona, Arkansas, California, Illinois, Kentucky, North Carolina, Ohio, Oklahoma, Pennsylvania, and Tennessee are cooperating officially with the local school units survey project of the Government. Certain other States have made similar consolidation studies financed either in whole or in part by allotment from the Works Progress Administration, among them Texas, Washington, and Wisconsin. Others have within recent years completed studies of this problem and have developed State-wide plans of action looking toward larger units of finance and control. Graduate schools have contributed to progress made along these lines through county and community studies of the need for reorganizing local school units. Fully 50 masters' theses were reported in this field during the school year 1934-35. A number of the studies now being made are concerned with consolidating the areas formerly organized as consolidated units. School consolidation and other lines of cooperative action are through these surveys not only becoming easier but they are for the most part larger in scope and based upon more scientific bases.

Provisions for free tuition and transportation for children of high-school age continue to be important factors in making high-school opportunities available in sparsely settled areas without further multi-

plying the number of small high schools. Many improvements along these lines have been made by the various States during recent years. These improvements have consisted of both new legislation and refinements in the existing laws. According to recent studies,²⁴ provisions have now been made in every State of the Union for the payment of part or all of the tuition of high-school pupils residing in districts not maintaining high schools and under certain conditions for free transportation to and from school. In 12 States board and room may be furnished in lieu of transportation and a number of States are empowered to erect and maintain dormitories in connection with high schools. However, many of the laws providing free tuition and transportation are still optional rather than mandatory in character and frequently they are limited to specific types of school districts and areas. In some cases the conditions under which these laws operate are still so restrictive in nature as to make high-school attendance of rural children unreasonably difficult. The lack of availability of local funds has been one of the most important factors in making free tuition and transportation laws imperative. Many States have found it necessary to provide funds for these services from county and State sources if high schools of an effective size are to become generally available to children of rural communities.

Several other types of State laws and regulations should be cited briefly as influencing high-school enrollment in rural areas. During recent years there has been an increase in the financial aid provided from State sources for the support of secondary education. Such grants are frequently made only on condition that the schools be of a minimum size. For example, Oklahoma now requires that a high school must have a minimum of 40 pupils in average daily attendance before it is eligible to receive secondary aid; North Carolina requires 60 pupils as a basic minimum for State aid; Tennessee requires 30 pupils for a 4-year high school and 10 pupils for a 2-year high school; while Maryland requires an average daily attendance of 25 pupils for State aid toward the maintenance of a first-class high school and 12 pupils for a second-class school. Since all of these are in terms of average daily attendance it is clear that minimum enrollments must be even larger than those suggested above. In a number of States equalization programs, based upon a stipulated amount per teacher known as a foundation program, fix definite pupil-teacher ratios. These ratios discourage small schools. Frequently from 20 to 25 pupils are required for the first teacher, and an increasing number for succeeding teachers subsidized according to the particular regulations established.

Other requirements now commonly applied to discourage establishment and maintenance of unreasonably small high schools are:

²⁴ Rivenburg, B. E. A Study of the Opportunities for Secondary Education in the Different States of the United States. Master's thesis, University of Minnesota, 1935. (Available for interlibrary loan from the United States Department of the Interior, Office of Education.)

Permission from and accreditation by State departments of education; a minimum property evaluation; a minimum area in square miles; a minimum distance between schools, etc. Any study of trends along these lines leads definitely to the conclusion that school leaders have become more and more convinced that there have been too many small high schools in the past and that they are making determined efforts to make secondary education available to rural children with fewer and larger schools.

Brief mention should probably also be made of the effect that the tendency to reorganize the school system to include junior high school has had upon the size of these schools. It is clear that when the two upper elementary grades are included in the high-school organization a larger school results and that such an enlargement makes possible improvements in pupil-teacher ratios, in staff assignments, in management of extracurricular activities, and the like. Such reorganization has, however, not as yet greatly affected the high schools of the sparsely settled areas. One high school in every five has fewer than 50 pupils enrolled and nearly half of them have fewer than 100 pupils (table 4). Supplementary data reveal that only 1 in 33 of those in the first group and only 1 in 6 of all schools of fewer than 100 pupils are reorganized. Not a great deal of the growth in the size of high schools can, therefore, be attributed to this factor.

It is probable that the depression with its emphasis upon the reduction of per capita costs has given impetus to the trend toward larger high schools. The financial aid given by the Government to rural school districts to encourage school building construction has no doubt also helped. Another factor closely related to the general problem is the continued, if not accelerated, program of road improvement observable throughout the Nation. Without hard-surfaced highways, improved supplementary roadways, snow clearance during the winter months, and similar developments, large school attendance units and free transportation provisions could have made comparatively little headway.

As has already been implied in connection with the discussion relating to provisions for free tuition and transportation wide variations exist among the States in the developments affecting the number and size of high schools. A number of States, notably Mississippi, Missouri, Tennessee, and Illinois have been especially successful during the past 4 years in eliminating small high schools. These States still have many schools enrolling fewer than 50 pupils but through consolidations and reconsolidations the proportion of very small high schools has decreased and, except in Illinois, the number of schools maintained also. These accomplishments are especially significant in view of the increases which have occurred in the number of children pursuing secondary education. Other States, including Indiana, Maryland, North Carolina, New York, Ohio, and Virginia,

which have long been successful in providing secondary education to rural children without the multiplication of very small high schools, have during the past 4 years further lowered the proportion of such schools. On the other hand, other States, such as North Dakota, Nebraska, New Mexico, and Texas, have increased the total number of high schools maintained as well as the number enrolling fewer than 50 pupils. Other Midwestern States—Michigan, Iowa, and Kansas, for example—have made some slight reductions in the proportionate numbers of small high schools.

Improving education within the small high schools.—In the discussion analyzing the trends in and the status of the small high-school situation in the United States, it is assumed, whether true or false, that instruction must be given in organized classes meeting in regular class periods. It is a system of group instruction involving regular, usually daily, assignments and recitations. Tradition and economic necessity have decreed that the classes, or at least the average number of pupils per teacher, shall range between 25 and 35. Taking now the ever-expanding number of objectives and services which are considered essentials of a modern program of secondary education, it becomes a case of simple mathematics to determine the minimum number of teachers and pupils which will be needed in a given high-school organization. This line of reasoning has led certain students²⁵ in recent years to fix the minimum enrollment of the high school capable of providing a modern program of secondary education at from 200 to 300 pupils. The heterogeneity of the secondary education group and the consequent demand for increased services place a premium on larger high schools and increase the problems of the smaller schools. Insofar as the class organization and procedures indicated are considered essential it would appear that the solution is the development of larger schools.

During recent years objective evidence has been accumulating to show that marked improvements can be made both in the organization and in the instructional processes of the small high school. For the most part the plans for improving the educational programs of the small high schools are local in character rather than State-wide. For one thing, there has been increased experimentation with the alternation of courses. Under this plan certain of the first- and third-year courses, or of the second- and fourth-year courses, are offered only in alternate years. Excellent results have been obtained where this plan has been carefully organized and properly safeguarded. Many of the State high-school manuals and courses of study include complete 4-year programs, outlining for high schools employing various numbers of teachers plans for alternating courses in even- and odd-numbered years. The chief achievements of this plan are to increase the number of pupils per class and the number of courses offered. Alternation of

²⁵ Dawson, Howard A. *Satisfactory Local School Units*. Nashville, Tenn., 1934, pp. 27-31. George Peabody College for Teachers, Field Study No. 7.

courses has the merit of accomplishing some improvement in the small high-school situation without disturbing the usual scheme of class sessions and group instruction.

Another plan which has been used to add courses to the traditionally narrow curriculum of the small high school, especially in the vocational subjects and the fine arts, is the employment jointly by two or more of the small schools of a teacher specially trained in these fields. In some States, Pennsylvania, for example, such circuit or part-time instructors are now being employed by the State and their services made available to the several high schools of certain counties needing such specialized service. This plan provides trained teachers in fields for which full-time teachers could not be economically provided within a single small high school. If, as has been proposed, county, State, and Federal funds were to become more generally available for the employment of itinerant circuit teachers of this type, it is clear that improvements in the program and services of the small high school could be achieved far beyond anything that has been accomplished through this plan thus far. It has been demonstrated that through the use of such teachers education in home economics, agriculture, and the industrial arts of a quality on a par with that generally comprehended under the Smith-Hughes program could be made available in even the smallest and most isolated rural communities.

One other important scheme to improve the services of the small high school should be discussed briefly. It is commonly known as the supervised correspondence study plan.²⁰ Under this plan the growing demands for a broader and more diversified program of secondary education are met in high schools of sparsely settled communities by the use of lessons purchased from some central agency. Where such lessons are properly constructed every effort is made to make them as nearly self-teaching and self-administrative as possible. They may be used by high schools to provide instruction in courses needed by individuals or small groups of pupils. Usually the completed lessons are sent back to the agency of issue for correction and criticism, and thus the course takes on the complete character of correspondence instruction except that the pupils have a specific time and place for study as well as the guidance of a teacher. In some cases only the lessons are purchased and used by the local teacher as lesson contracts, workbooks, and other types of supervised study.

The advantages of this plan are that the teacher using such lessons need not have any extensive amount of training in the fields in which instruction is given by this means. Moreover, she can conduct instruction in more than one subject or field during the same class hour, thus overcoming the small-class problem. Through the proper

²⁰ University of Nebraska. Supervised Correspondence Study—Questions and Answers. Lincoln, Nebr., 1936. Publication No. 116, Extension Division, University of Nebraska.
Gaumnitz, W. H. High-School Instruction by Mail. U. S. Department of the Interior, Office of Education, Bulletin 1033, No. 13.

use of this plan no child needs to be held back because he cannot fit into the program of a given small high school or because he works faster than others of his age. On the other hand, the needs of the slow and irregular child can be met without disturbing the progress of others or the program of the school. Best of all, each child can be given training in the particular fields in which he is especially interested within reasonable costs.

To be sure, the quality of the lessons and instructional services thus provided must be carefully safeguarded. It has been demonstrated by experimentation at the University of Nebraska, which secured a grant for this purpose from the Carnegie Foundation for the Advancement of Teaching, that self-teaching lessons of high quality can be constructed and that instruction in the various high-school subjects by correspondence is feasible. The courses used must, of course, be built for that purpose and the administrative procedures must be carefully worked out. Where definite standards for the use of such lessons have been established, preferably in cooperation with the State school authorities, satisfactory results have been obtained.

According to a recent report²⁷ supervised correspondence study has now become officially recognized in 12 different States either by the State departments of education or by the high institutions of learning as a practical means of providing and improving opportunities for secondary education in rural communities. Interest has also been shown in this movement in 18 additional States, either through the use of such lessons in one or more of the high schools of each or through other manifestations. If the growth of the use of this plan and the interest in it may be taken as proof of its possibilities it may be concluded that great things may be expected from it in the future.

A composite solution needed.—The various plans here discussed as means of solving the problems of the small high school need not be thought of as being exclusive of each other. It is clear that regular instruction in many of the fundamental courses, such as English, must be continued. It is, however, probable that the services of high schools with limited enrollments could be expanded and improved through the wise use of course alternation, of itinerant or circuit teachers, of the supervised study plan, or of combinations of these methods. There seems to be a basic need that persons responsible for providing and improving secondary education in sparsely settled communities should be quite as alert to the possibilities of these non-traditional means of improving and solving the problems of the existing small high schools as they are to the several ways and means whereby such schools may be abandoned or made larger. There can be no doubt that sparsity of population, weather and road conditions,

²⁷ Reed, A. A., et al. National Development and Present Status of Supervised Correspondence Study, An unpublished report made before the National Conference on Supervised Correspondence Study, Aug. 11, 1936, at Teachers College, New York City.

costs of transportation, insufficient school support, and like factors will for years to come necessitate the continuance in rural communities of thousands of high schools with enrollments of fewer than 200 pupils.

THE CURRICULUM

Importance of the curriculum.—In an educational program no considerations are of greater importance than those which concern the curriculum. Such other features as housing and material equipment, financing, organization, and administration are significant, but they are necessary as means to efficient operation of schools and do not have to do with basic reasons for operating schools at all, as do curriculum content and teaching procedures.

The paramount significance of the curriculum is reflected in the amount of study and consideration given to it. For instance, over a period of years the Office of Education has attempted to secure references to research studies conducted by agencies and individuals throughout the Nation. Each year is published a bibliography listing these studies, and in each bibliography is a section devoted to the curriculum. Twenty-eight percent of these studies during the last 6 years deal specifically with the curriculum. Moreover, the evidence is that the proportionate number of such studies is growing: From 1929 to 1932 less than one-fourth of the studies reported dealt specifically with the curriculum; from 1932 to 1935 more than one-third of the studies were on this subject.

Courses of study.—One type of curriculum study which is of special importance because it involves numerous persons both in its preparation and in its effects is the course of study. This is especially true in elaborate curriculum revisions such as those which are under way in the States of California, Texas, and Virginia at the present time. From 1930 to 1935, nearly 500 high-school courses of study were reported, 202 issued by State school systems, and 277 by city school systems. Published high-school courses submitted by city school systems since that time bring the total to somewhat over 550. No claim is made that these are all the courses published during these 6 years. The total number in all probability is considerably above this figure. Add to these the large number of courses whose circulation is limited entirely to staff members of the high school in which they are used, and one may gain some realization of the importance of courses of study in influencing educational thought and practice in the United States.

Social sciences and English are the subject fields in which courses of study appear most frequently.²⁸ They show very little superiority

²⁸ This activity is paralleled by nationally developed curriculum studies in these two subject fields. Reference is made to the publication in 1935 of *An Experience Curriculum in English* by a committee of the National Council of Teachers of English under the chairmanship of W. W. Hatfield, and to the series of reports growing out of the investigation of the Social Studies, currently being printed by Charles Scribner's Sons.

one over the other, but there is considerable drop from them to the other three large academic fields—namely, mathematics, science, and foreign languages. These three also are rather close together in frequency although mathematics and science display superiority over foreign languages (all of them taken together) in the number of courses of study issued by city school systems. Home economics, commercial education, and health education follow, with industrial arts, art, and music less frequently represented. Additional listings of courses and manuals include agriculture, guidance, library instruction, safety, character education, and extracurriculum activities.

The statements contained in courses of study are regarded largely as tentative. One indication of this is the large number of courses which appear in mimeographed form, thus providing for additions and changes from time to time. The frequent revisions which occur supply further evidence of the temporary character of the pronouncements made. The curriculum is not in much danger of being frozen through the course of study unless the revisions become perfunctory or ineffective.

Courses of study are usually prepared by committees of teachers. Obviously, they reflect a composite opinion of the teaching staff concerning what shall be taught and how it shall be presented. Usually also the courses are written for teachers. However, in late years a number of courses have been designed for placement into the hands of the pupils as well. In such cases they are likely to be developed in greater detail and to contain numerous suggestions on how the various activities and assignments may be approached.

A noticeable trend is the development of subject content in the form of units. To be sure, many of the courses purporting to be developed on the unit plan exhibit little or no change from the topical outline courses of an earlier day, except in the substitution of the term "unit" for the older term "topic." On the other hand, larger numbers of courses are appearing in which content is broken up into true units and the treatment developed on this basis.

With unit organization is often included provision for minimum essentials and for enrichment through optional work. The unit plan is especially adapted to varying the amount and the difficulty of activities required of different pupils. A few courses are developed on the principle of differentiation for various ability levels or are intended for the noncollege group or some similar classification of pupils. Provisions for individualization, while present in many cases, are by no means common even among those school systems which elevate the importance of their instructional programs by issuing courses of study.

Articulation.—A notable trend in thought and practice affecting the curriculum is the increasing realization of the close relationship which must be maintained among the different subjects studied at

the same time and among treatments at different times when the same subject is studied. In other words, articulation is horizontal among the subjects studied at any given time and vertical within each individual subject studied from semester to semester or from year to year. Both types of articulation are being developed.

The fusion and core courses which have been established in various schools are illustrative of efforts mainly at horizontal articulation. The fusion movement has been effective principally at the junior high school level and has been developed more especially in mathematics, science, English, and social science. Where it has involved a number of years of work, as in general mathematics, vertical articulation is very definitely aimed at; but in much of the work in general science, general shop, general social science, and combinations of spelling, written composition, speech, and literature into general courses in English, the emphasis is upon horizontal articulation within a subject field.

An expanded conception of horizontal articulation is involved when relationships between or among subject fields are considered. In this classification, for instance, belongs the effort toward cooperation of various school departments in promoting a better knowledge, understanding, and use of English.²⁹ More compelling perhaps is the principle under which a major fraction of the pupil's school time is given to a course which cuts across subject fields and combines into this one course, materials which are regarded as being of significance to all pupils regardless of where those materials may have been placed under a more traditional subject-field organization. This is a practice which, while one cannot claim that it has been generally or even often adopted, nevertheless is found in a fair sprinkling of schools. Many of the schools cooperating in the Progressive Education Association's study of the relation of schools and colleges give evidence of revising their curriculums in this direction.³⁰ Discussion of the conventional school subject plan of organization versus the "fundamental categories" type of curriculum organization is to be found as one of the issues in the 1936 Report of the Committee on the Orientation of Secondary Education.³¹

Numerous plans for horizontal articulation involve equally great emphasis on vertical articulation. Probably no advocate of reduction in separations between subject fields will admit that he is not fully as much interested in a sequential arrangement of curriculum content through the various grades and administrative units of secondary education. Certainly a comprehensive effort for unification

²⁹ The reader may be interested in examining a publication in this field issued in 1936 by the National Council of Teachers of English. Ruth Mary Weeks is editor of the study which is entitled "A Correlated Curriculum" and is published by D. Appleton-Century Co., New York.

³⁰ See the November 1935 issue of *Progressive Education* for descriptions of various types of realignments of subject matter looking toward greater integration.

³¹ *Bulletin of the Department of Secondary School Principals*, vol. 20, no. 50. *Issues of Secondary Education*. Thomas H. Briggs was chairman of the committee which made its report after 4 years of study.

and coherence in curriculum materials must embody both horizontal and vertical articulation. There are, however, numerous efforts at vertical articulation within subject fields which make little attempt to attack in any systematic way the problem of relationships among subject fields. Witness the large number of courses of study developed by subject specialists who have little acquaintance or concern with what is taught in other subject fields.

The most significant experiments in vertical articulation are those which aim to make less abrupt the transitions from grade to grade and from school to school. Articulation vertically is no special problem so long as a pupil remains with the same teacher. Curriculum articulation may be faulty even under those conditions, but at least the means for improvement are close at hand. The problem becomes complicated when the pupil passes on to another teacher, and it develops complexity when he enters another school. Among school systems which, through experimental modifications of the curriculum, have in recent years attempted to bring about easier and more advantageous transitions for the student as he passes through the secondary school are Joliet, Ill., Little Rock, Ark., Kansas City, Mo., Pasadena, Calif., and Tulsa, Okla.

*Tests and measurements.*³²—Measurement of outcomes is an important feature of any change or development in curriculum content and teaching procedures. It is, therefore, pertinent at this point to give attention to the steady advance which has occurred in the construction and use of tests and measurements for high school. Improvements in the use and construction of established types of testing and the creation of new types of tests are among the important activities.

One development, that of the improvement of established types of testing, is illustrated by the tests constructed by the Cooperative Test Service. These tests cover the regular subjects of the high-school and junior-college curriculum. They are characterized by thoroughness of construction and by the great length of the tests (i. e., by the large number of items), insuring for the tests high reliability and also high validity in the case of the majority of schools teaching the subjects tested. Another method of increasing the validity of tests for both instruction and guidance which has been used more and more frequently is through the use of test batteries.³³ Such tests make possible more valid interpretations of the variations in the abilities of an individual because accurate comparisons of standings in various subjects can be made. The total score of such tests

³² The section on Tests and Measurements was written by David Segel, educational consultant and senior specialist in tests and measurements, Office of Education.

³³ Carnegie High School Achievement Examination. Department of Education and Psychology, Carnegie Institute of Technology, Pittsburgh, Pa.

Progressive Achievement Tests. Intermediate and Advanced Batteries. Southern California School Book Depository, 3636 Beverly Boulevard, Los Angeles, Calif.

Public School Attainment Scales. Public School Publishing Co., Bloomington, Ill.

is also a highly reliable and valid measurement of attainment in the secondary field.

In a recent survey of the testing practices of high-school teachers it was found that teachers construct and use many new-type tests, especially for testing during the course of the year. Standardized tests are more likely to be used at the end of the semester or year. A good practice discovered in high schools is the construction of uniform tests by and for all the instructors teaching the same subject.

Some of the standardized tests mentioned above have been expanded to cover some of the more recently advocated outcomes of instruction. In science instruction, for example, the ability to apply principles to a new situation is now considered to be a direct outcome of science teaching in high school. Formerly the student was expected to learn scientific principles but was not required to apply them, on the assumption either that science was being taught because of the mental discipline involved or that the application of scientific principles followed easily the knowledge of such principles. Science tests are now constructed which require the pupil to apply scientific principles to new situations.

Another development related to the testing movement is the creation of new types of appraisal for outcomes of school activity which cannot be appraised by new-type paper and pencil tests. One of the more prominent attempts in this area is that of a group of high schools to construct new methods of evaluation under the encouragement of a committee of the Progressive Education Association. Rating schemes, diary accounts, and anecdotal records by teachers, are among other types of appraisal being experimented with.

Another development in test construction on the secondary level is the search for test items which denote maladjustment of pupils to school or life. In addition to their use in diagnosing individual pupils, such tests have a bearing upon the general efficiency of schools and their related activities. This development is probably best exemplified by the work of Symonds and Maller.³⁴

Still another line of activity in testing affecting secondary education is the search for independent intellectual and social traits and the use of tests which measure these traits. If upon further investigation, as the first fruits of this research indicate, it is found that the number of intellectual and social traits is not large, then secondary as well as other education would necessarily be affected, since the development of the individual's capacities is an important consideration in education. Some general aptitude tests following the findings of this research have already been constructed. Further activity in the production of such tests is probable.

³⁴ Student Questionnaire. Bureau of Publications, Teachers College, Columbia University, New York City.

Character Sketches—A Test of the Measurement of Personality Adjustment. Bureau of Publications, Teachers College, Columbia University, New York City

The extracurriculum.—In recent years extracurriculum activities have taken on respectability and educational standing previously denied them. Time was when school activities in which pupils engaged outside the classroom were largely ignored if they were not actually opposed by the educational authorities. The result was that they were conducted apologetically or covertly as the conditions might require.

From this low estate student activities have been elevated to a position where it is realized not only that they are here to stay but that they have large educational values. Their contributions to citizenship-social, leisure-time, and vocational objectives are frequently stressed. That they are important in character development is usually admitted. Their failure to make a significant contribution to the health objective through their athletic programs is generally deplored, thus indicating that an unrealized opportunity for such contribution exists.

With recognition has come a great expansion in the extracurriculum programs of secondary schools. To athletic, musical, dramatic, debating, literary, and journalistic organizations have been added a large collection of clubs in these fields as well as in school service, social improvement, guidance, school subjects of great variety, and special interests of all kinds. A recent investigation lists more than 600 different kinds of clubs as being in existence in 224 schools studied.³⁵

In many schools the time needed for extracurriculum activities is included in the school day. When this is done even greater responsibility is placed on the extracurriculum for justifying itself on the basis of educational values. Under these conditions greater stress may appropriately be placed upon a nearer approach to universal participation by pupils with less emphasis on teams representing the school and on scholarship requirements for participation, a more general supervision by educational authorities, and a closer integration of individual activities with one another and with the work and objectives of the school.

Sane school administration dictates that student activities shall be recognized for their important potentialities in contributing to educational objectives; that the competitive spirit is strong in young people and should be acknowledged, but should not dominate the extracurriculum program; that activities should be fostered which have a carry-over value for adult life, but that the pupil also has a right to some activities which have special appeal to his adolescent tastes and consequently may be dropped soon after his schooling is completed; that while supervision of the activities program is in place and necessary it must not be exercised to the point where it robs the program of spontaneity and deprives pupils of opportunity for exercising ini-

³⁵ Nonathletic extracurriculum activities, by William C. Reavis and George E. Van Dyke. This is Monograph No. 26 of the National Survey of Secondary Education. United States Department of the Interior, Office of Education, Bulletin 1932, No. 17, Monograph No. 26.

tiative and leadership; and that school authorities may have full realization of the values of extracurriculum activities in building school spirit and morale without abdicating from control of school policies.

The changing emphasis in the curriculum.—The curriculum of the secondary school is evolving in the direction of less emphasis upon formal classroom work or units of credit and more attention to successful adjustment and learning to live. As the practical procedures for achieving these ends are evolved one may look for significant changes in organization, administration, offerings, and teaching in the schools. At the present time the committee on relation of schools and colleges of the Progressive Education Association is attacking the problem from the standpoint of college entrance and college success; the Civilian Conservation Corps finds its curriculum policies most effective as they relate instruction very closely to the job and to interests in leisure-time activities; test workers are emphasizing measurement not only of scholastic achievement but also of attitudes, habits, and skills; informal activities of the extracurriculum have been gaining station and more and more find themselves dignified through inclusion in the program of education; numerous State and city educational agencies are, through courses of study, giving emphasis to new and revised curriculum materials and teaching procedures; and large numbers of administrators, guidance workers, teachers, and parents have seen that earning a stipulated number of units of credit in scholastic work is no guarantee of preparation for successful living.

The problem is one of developing techniques and procedures for introducing these important adjustments into the educational program of the schools without succumbing to a system of soft pedagogy which makes no demands on anybody anywhere. On the one side is the visionary who would have everything count as education and on the other is the extreme conservative whose motto is "What was good for me is good for my children." Certain it is that, while much that is traditional, formal, and prescriptive, both in content and in teaching methods, must be exchanged for freedom and flexibility, the traditional features should be modified gradually and only insofar as one sees with a degree of clarity how newer materials may be made to operate effectively.

GUIDANCE²⁶

The importance of guidance.—Sporadic efforts by large and small progressive school systems throughout the country to provide guidance services to their secondary school pupils have appeared from time to time for many years. For a score of years a few schools have included guidance as a vital part of their programs, but only in the past few years was there a development on a national scale of what

²⁶ The section on Guidance was written by Maris M. Proffitt, educational consultant and senior specialist in guidance and industrial education, Office of Education.

is frequently spoken of as the guidance movement. There is a general recognition among educators today that guidance as a service to the individual to assist him in making decisions and adjustments necessary for securing, in accordance with his abilities and interests, the optimum results from educational training and from efforts at social and vocational adjustments, is a fundamental and essential function of education that should be included as an integral part of every school system.

National organizations for guidance.—Organizations of teachers and others interested in the promotion of guidance in the public schools have had much to do with the development of the guidance movement. The National Vocational Guidance Association, which holds its annual meetings just preceding the winter session of the National Education Association and in the same city in which that association meets, has done much to promote the development of guidance in the schools. The publication of a national magazine by the association and later by the National Occupational Conference, which is an endowed organization for the promotion of guidance, has had a very large influence in stimulating interest in guidance and in providing information about guidance of value for schools in organizing and maintaining guidance programs. The national association has approximately 40 branch associations scattered throughout the United States which hold regular meetings during the school year for the purpose of discussing ways and means of introducing guidance in the public schools and improving services already existing. These branch associations work in close cooperation with other local organizations and agencies interested in the improvement of school programs.

State agencies for the development of guidance service.—Numerous States have undertaken to promote guidance work in the public schools. Such activities range from efforts of a State department to encourage, through its leadership in education, local schools to make some provision for educational guidance services, to legislative enactment of compulsory provisions for the inclusion of guidance in the public schools of the State. During the past 2 years the departments of education in most of the States have held State or regional conferences whose programs have dealt specifically with guidance. For example, the Wisconsin State Department of Education outlined a State guidance program and during the past year has been holding regional conferences throughout the State to promote the inclusion of the program in the work of the local schools. In Maine the secondary school principals' association has given a prominent place on its program to the subject of guidance. Arizona has held State-wide conferences on guidance. Delaware in 1932 held a State conference specifically devoted to guidance and invited lay people interested in the development of education to attend the conference. Since that

time the State Department has held a number of follow-up meetings to promote guidance work in the schools of that State.

Several States have committees working on the development of guidance programs. New Hampshire in 1932 appointed a committee to outline a guidance program for the schools of that State. The report of the committee was made available in the school year 1933-34. It outlines a plan of guidance procedure for grades 7 to 12, inclusive. This report sets forth the aims of guidance, gives a chart for organizing and administering guidance programs, and lists guidance activities to be carried on by junior and senior high schools. The report also includes a bibliography on testing and gives suggestions for the organization of a testing program in the schools. The program as outlined is now being tried out in a tentative way in a number of high schools and will be revised in the light of experience into a State program of guidance. Maine also has a State committee preparing a program of guidance. Alabama has made provisions for a study of guidance by a committee appointed to prepare a State course of study. The plan is to develop a program for guidance in the schools of the State. By legislative enactment New York State has made a requirement that beginning with the school year 1936-37, schools located in cities having a population of 100,000 or more are to make specific provisions for guidance in their programs.

Courses in occupational information.—One of the more common regulations made by State departments is that for including a course in occupational information as a part of the secondary school curriculum. West Virginia requires a course in occupations for one full semester in the ninth grade. Guidance is made a constant in the curriculum of New York high schools offering a regent's diploma. A study of occupational information courses made by the Office of Education in 1934 from a representative sampling, consisting of 1,111 junior and senior high schools, shows that 68.5 percent of all schools reporting include instruction in occupational information.

An outstanding trend during the past 2 years is the effort manifested to supply materials on occupations for vocational guidance. There has been a great increase in the number of occupational studies prepared by city school systems for use in vocational counseling in secondary schools. Each of these studies deals with a single occupation and includes information on the nature of the work to be performed, working conditions, opportunities for employment and advancement, and educational qualifications and experience necessary for entrance into the occupation and for promotion in it. In some instances the number of such occupational studies issued by a single school system runs into the dozens. Many of these have been mimeographed or printed by the local board of education and made available for purchase at a nominal cost.

In addition to occupational materials developed by public schools, numerous organizations interested in the education of vocational workers and a few private agencies catering to the demands for such literature have contributed greatly to the accumulation of occupational information in a form for use by classes studying occupations and for vocational counseling services. Comprehensive bibliographies covering this field of literature are now appearing. The National Occupational Conference has recently begun the issuance of a printed bibliography in pamphlet form on occupational information called Occupational Index. Librarians are also preparing annotated bibliographies on occupational studies, some of which are issued by commercial publishing houses.

A COMPREHENSIVE SERVICE TO ALL YOUTH

The people of the United States have embarked upon a more extensive program for universal secondary education than has ever before been witnessed. The steady influx of pupils into the high schools has been accompanied by an ever-widening range in the interests and capacities to be served. It is idle to argue that many of these pupils are not suited to high-school education. With all their variety of needs they are here; and the temper of our people and their confidence in education as the most practicable method of adjustment to modern problems lend plausibility to the belief that larger numbers and less selectivity will mark the development from year to year. The secondary school will have to meet the demands of the people for continuously increasing universality in high-school education; if those demands are not met, the people will turn to other existing organizations or will develop new agencies for carrying out their will.

Much has been accomplished in developing the high school to meet its enlarging responsibilities. Mainly the adjustments which have been made are of two kinds. In the first place, provisions and facilities have been developed through increased numbers of small and large, both regular and reorganized, high schools, a host of agencies supplementary and auxiliary to the regular day school, and expanded curriculum offerings, both academic and vocational. The second type of adjustment consists in developing ways for effective utilization of the facilities provided. Progress in utilization of facilities has lagged much behind provision of facilities, but there are evidences, especially in curriculum and in guidance developments, of a clearer realization that the secondary school must not only provide facilities but must actually serve the interests and needs of adolescent boys and girls.

Within the last 2 years efforts have been made to establish a number of services which involve the education of youth. Of this nature are the Civilian Conservation Corps and the National Youth Administration already referred to in these pages. Here also should be mentioned the committee on youth problems of the Office of Education

whose youth publications on community organization, leisure for living, education for those out of school, vocational guidance, finding jobs, and community surveys are now available. An ambitious enterprise is the series of studies now in progress under the direction of the American Youth Commission of the American Council on Education.³⁷ The yearbook of the Department of Superintendence for 1938 will deal with the subject of youth.

Exactly what new means will be developed for the future education of young Americans and what changed emphasis may take place is difficult to foretell. Undoubtedly the solutions will be fully as complex as they have been in the past, if not more so. A tendency which is being demonstrated at the present time is in the direction of part-time attendance at school and part-time work on the job, the two activities being closely correlated one with the other. With such part-time education one may expect to find much greater emphasis on adjustment service, advice, placement, and follow-up, attention being given to these functions even if the stress on informational responsibilities long regarded as paramount has to be reduced. While maintaining its courses for the scholastic type of pupil, the school will extend its services principally to the "newer 50 percent" who do not have the strong academic interests characteristic of high-school enrollments in earlier generations. The school will put forth more effort to serve all youth with a comprehensive program in which balance will be maintained in emphasis on academic, vocational, recreational, cultural, social, and health objectives.

Motives such as these are apparent in a present undertaking known as the Cooperative Study of Secondary School Standards. Started by the six regional associations of colleges and secondary schools the study at first set out to develop revisions in the standards under which secondary schools were accredited in the various areas served by these associations. This original purpose is still present, but it is overshadowed in importance by an effort to define in as specific terms as possible what constitutes a good secondary school. It is felt that if criteria for evaluation on this basis can be developed, accrediting will take its proper place in American education and attention will be shifted from meeting minimum standards to a progressive upgrading of schools from year to year.

In 1935 was celebrated the tercentenary of the founding of secondary education in the United States. The Boston Public Latin School, established in 1635, and numerous other schools throughout the Nation planned and carried out exercises which commemorated the achievement of 300 years in secondary education. Those achievements and that development were well worthy of being celebrated.

³⁷ An important publication growing out of this undertaking is the Monograph on Secondary Education by Hari R. Douglass which is in process of being printed as this is written. This monograph presents a significant evaluation of the purposes of secondary education.

During 300 years the secondary school has progressed far in enrollment, in educational program, in physical facilities, in organization and administration, and in teaching. Such dissatisfactions as exist at the present time do not reflect disappointment over past record. They reflect rather a vivid realization of the enormous task which is placed upon secondary education in a democracy and the insufficiency of present facilities for meeting the responsibility. At no other level of education, unless it should be adult education, are the problems so staggering and solutions so inadequate.