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THE SMALLNESS OF AMERICA'S RURAL HIGH SCHOOLS

By

WALTER H. GAUMNITZ
SPECIALIST IN RURAL EDUCATION PROBLEMS
OFFICE OF EDUCATION

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D. C., July, 1930.

SIR: There has long been the general feeling among those reponsible for the administration of State school systems that the ideals of what constitutes modern secondary education and the educational activities actually obtaining in so many of our high schools are greatly at variance. Many of the shortcomings of our high-school system have been attributed to the fact that the popularization of secondary education has necessitated the establishment of a large number of very small high schools. But no one has known with any definiteness just how small these schools are, how many of them there are, how extensive a program of secondary education they undertake, how well they reach the children dependent upon them for an education, or in which States these small high schools predominate. This study presents statistical data to answer each of these questions; it summarizes the problems resulting from the small high school; and it cites what is being done in various communities to solve these problems. I recommend the publication of this manuscript as a bulletin of the Office of Education.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

THE SMALLNESS OF AMERICA'S RURAL HIGH SCHOOLS

Purposes of the Study

Some of the most perplexing problems retarding educational progress in America at the present time are those relating to the large general task of providing an acceptable type of secondary education in rural areas. Educators everywhere agree that the high school is an integral part of the American public-school system, and there is common insistence that public education should be democratic both in the sense that equivalent educational opportunities be made available to all children irrespective of the location of their parental habitat and in the sense that the character of this education be adapted as closely as possible to the needs of all the children of all the people. As a result of this widespread attitude toward the high school, the number of secondary schools is increasing rapidly; such schools are becoming widely distributed throughout the country, and the educational content of this level of education is undergoing radical changes. The term "common school" is coming to be as accurately applied to the high school as to the elementary schools.

This popularization of the idea of secondary education has resulted in the demand that high-school opportunities be made as readily available in rural and sparsely settled communities as in urban centers. Fathers and mothers living upon the farms and in isolated places are showing a wistful interest in education as a promising means of escape for their children from hard and unrequited physical toil. They are, generally speaking, just as eager as urban parents that their children shall have the best possible opportunities to fit themselves for larger and more useful lives; and where rural people do not as yet fully appreciate the relationship between education and the social and economic welfare of their children they are insisting as a matter of local pride that a local high school be established and maintained, if for no other reason than that their own community might "keep up with the Joneses."

These attitudes on the part of rural people, together with the acceptance by educational authorities of the idea that a secondary education is the universal right of every American child, have led

all over this Nation to the expenditure of extreme efforts to the end that high-school opportunities shall be provided for all rural children. These efforts have usually resulted in the establishment of very small high schools and too often has the smallness of these schools so limited the nature and content of the education provided in them that the rural child has had to be content with a high-school education available in name rather than in actuality. The establishment of these small high schools, therefore, only partially accomplishes our educational ideals. It is a means of bringing high schools nearer to the homes of rural children, but at the same time it leaves unsolved a large number of very difficult administrative and educational problems. Indeed, when one considers the very complicated service society expects of its modern secondary schools and if at the same time he considers the limitations and weaknesses inherent in the small high-school situation he is made to wonder whether this small school is not actually delaying and making more difficult the realization of an adequate program of secondary education in rural communities.

Careless administration has in many cases been to blame for the small high schools and the problems obtaining in them. The process of extending high-school education to rural areas can not always be said to have proceeded intelligently. The high-school needs peculiar to any given community have seldom been carefully studied, and the best means of caring for such needs have not been completely ascertained. High schools have been established without regard either to the present or to the future number of eligible candidates available for this level of education. The minimum number of pupils necessary to provide the proper social setting and educational experiences for an acceptable quality of secondary education has seldom been ascertained or fully considered. The size of enrollment needed to enable a high school to operate either at optimum or at economically justifiable costs has not often been determined or taken into account when a new high school has been established. The comparison of the cost of providing a local high school to that of making secondary education available through some other administrative scheme has frequently not been sufficiently studied. The total result obtained when an attempt is made to stretch the available funds, housing space, teaching staff, equipment, etc., which were formerly needed to afford a very meager type of elementary education, so that a secondary program may be made possible has often received less attention than it has deserved.

With the rapid increase in the number of rural high schools, and with the general indisposition or inability on the part of local school boards to study the educational needs of their own communities in connection with the needs of neighboring communities, or in relationship to any well-formulated policy, a great many mistakes have

occurred and a great many unnecessary problems have been created. There has been little or no effort on the part of State school authorities to study, control, or guide the local situation so that the establishment of these small schools might be articulated with and fitted into an intelligent and well-defined program of education.

Another reason why the development of the rural high school has been so haphazard is that there have been so few of our educational leaders who have taken a serious interest in these schools. Most of the high-priced leadership of secondary education is administratively associated with the larger schools. Universities and research centers are usually located in cities, and their scholars conduct most of their researches in schools near at hand. It is the larger schools which hold membership in educational associations, and it is these same large schools from which delegates go to the professional conferences. Men and women upon whom the responsibilities for the small high schools devolve can not be expected to study the situation as intensively as it should be studied. They are greatly limited both in time and in training. Teaching and administrative duties are so heavy that little in the way of an involved investigation can be undertaken by them. As a result of this situation comparatively few studies dealing with problems of rural education have been carried out, and professional conferences devote by far the major part of their time to the problems of the larger or city high schools. In the absence of facts and information based directly upon the problems of small high schools, these schools have tried to apply to themselves the findings of studies dealing with the large schools. Too frequently they mimic the organization, the procedures, and the activities found successful in the larger centers. Naturally the problems peculiar to the small school situation have remained largely unsolved and serious errors have been committed.

In recent years students of secondary education have come to realize the need for more specific attention to the small school situation and there has been some disposition to differentiate the problems of high-school education on the basis of size of enrollment. But these differentiations have not gone far enough. Students in the field of secondary education who have recognized the fact that the problems, the practices, and the very nature of secondary education are greatly different in small and rural high schools from those present in large schools located in the cities, and who accordingly have differentiated the statistical and experimental data presented in their studies, have too often stopped short of the point where the most extreme differences obtain. They have frequently classified the schools included in their studies into something like three to five groupings. If the smallest high schools are represented at all they are often found unceremoniously lumped together into a single group

and labeled "schools enrolling fewer than 200 pupils." Such studies have usually arrived at conclusions and advanced recommendations which are very different for the several classes of schools represented. When we stop to consider the matter, however, it becomes obvious that such conclusions and recommendations can not be expected to fit equally the various sizes of schools included in so crude a grouping. A high school enrolling 200 pupils, for instance, and employing seven or eight teachers presents a very different series of problems from one enrolling 30 pupils and employing one or two teachers. Conditions and limitations in the latter situation are usually much more difficult to overcome than in the former; and in the absence of adequate information, problems relating to the conditions and limitations in these smallest schools are going unsolved.

Many of the problems of secondary education in rural communities are inherent in the smallness of the rural high school. These problems are the natural outcome of a small enrollment, few teachers, meager equipment, limited taxing unit, and inferior leadership. They are therefore regarded by many as unsolvable. But this is true only in so far as we insist upon the present forms of school administration and organization. If the democratic and comprehensive type of secondary education to which we are committed as an ideal is to become actually available to the rural child, it may become necessary to evolve a very different type of administrative program than now exists. In any event the entire problem is greatly in need of careful and intensive investigation.

The large high schools have in the past received the "lion's share" of our attention, both popular and professional. Too often there has been the general attitude that the number of children involved the expenditures entailed, and the social and economic factors implicated are too small to warrant serious consideration of our small high school situation. But when careful thought is given to the whole matter it will be seen that this attitude is seriously in error. Rural high schools involve the future social and economic welfare of a large and important part of our society, and they have far-reaching influences upon the building and functioning of our whole educational system. More and deeper study of the problems of secondary education in rural communities is urgently needed in a large number of the States.

It is because of the general circumstances already indicated that this study was undertaken. It is believed that the first step toward improving the situation outlined is to show the magnitude and localization of the problem. It is felt that if the exact number of small high schools and the extent of their smallness can be shown, together with the size of the teaching staffs employed and the number of years of high-school work attempted, the several States can be made more

conscious of the problems involved and the interest of those which are not now paying sufficient attention to their small high schools can be aroused. It is also hoped that the general facts set forth in this study may become the basis for and lead toward more detailed and more extensive investigations to the end that rural children may have high-school opportunities more nearly equal to those obtaining in urban communities; that the small high school may be more closely articulated with our educational ideals; and that eventually a wiser and more economic program may be evolved.

The first part of the study will, therefore, concern itself with the general task of showing just how many rural high schools there are in the several States, how small they are, and how many years of work they are offering, how these schools are organized, and to what extent high-school opportunities are now available to rural children. The second part of the study will attempt to call attention to some of the major problems inherent in the smallness of the rural high schools, and to cite some of the outstanding plans proposed and experiments in progress which are looking toward a solution to these problems.

Sources and Scope of Study

For the most part the statistical data presented in this study were taken from questionnaires which the United States Office of Education sends biennially to all of the public schools offering work on a secondary level and known to be in existence in the United States. This study will regard and designate as "high" or "secondary" all schools offering any amount of work above the elementary period. Schools providing less than four years of secondary work are therefore included. The major part of the study is limited to the schools which were located in the open country or in villages and towns of fewer than 2,500 population. It is believed that by limiting the study in this way attention can be centered particularly upon the schools available to rural children. Besides, the data show that practically all of the American public high schools which may properly be called small schools are located in rural and small population centers. Generally speaking, therefore, the rural high school and the small high school are identical.

The data are for the school year 1925–26. The number of schools in any given size category does not greatly change one year with another. Statistics indicate that there is a slight tendency toward increasing the average size of the very small high school, but shifts from one enrollment group to another, one year with the next, are of no great importance. Generally speaking, schools increasing their enrollments and passing beyond the range of their classification groups at one end are replaced at the other either by newly established schools

or by the elevation of other schools from a lower class. It may, therefore, be safely assumed that no significant changes have occurred in the small high school situation since 1925–26, and that the data here presented are representative of the general situation at the present time. In many parts of the study the validity of the data as a true picture of the present situation is further safeguarded by the use of proportionate numbers and central tendencies rather than whole numbers.

In 1926, the particular year for which the data presented in this study were gathered, there were 21,700 public schools in the United States which offered some work of a secondary grade. A total of more than 3,750,000 children were reported to be enrolled in high-school work. In this study only 18,157 high schools are included. From the remaining 3,543 schools either no report could be obtained or the reports sent in did not contain the data essential to this study. Thus 3,543 schools offering high-school work were known to be in existence in the United States but do not enter into this study. The schools not included have a significant relationship to the major point of the study. Since considerable effort was made to secure a report from every known school, and especially from the larger and better-known schools, those finally failing to report may be generally assumed to be the very smallest ones. If these very small high schools could have been distributed to their proper classes in the tabulations presented in the study, it is evident that the proportionate number of the very small and, coincidentally, the proportion of rural high schools would have been greatly increased. Even when these unreported schools are left out, this study found located in places of fewer than 2,500 population a total number of 14,143 schools, with an aggregate enrollment of 1,080,006.

The Small High School—A Rural Problem

Table 1 shows all the public high schools reporting or the questionnaire distributed according to enrollments. It also gives the per cent in such enrollment range. For purposes of giving a general preview of the whole situation, the schools were grouped in intervals of 50 pupils. Since very few of the rural high schools have an enrollment greater than 300 pupils, the distribution was not carried beyond that point. The table also makes possible a comparison of the proportionate number of small schools found in urban and rural communities.

Considering first the distribution of all the schools, it will be seen that 34.1 per cent of the American public high schools have enrollments of fewer than 50 pupils; 26.4 per cent more have enrollments ranging between 51 and 100 pupils. Thus a total of 60.5 per cent of

all American public high schools report enrollments of 100 or fewer pupils, and 78.3 per cent show enrollments of 200 or fewer. The general conclusion that American high schools on the whole are not large is, therefore, apparently justified. Only 15.7 per cent of all our high schools have enrollments aggregating more than 300 pupils, and only 1.4 per cent of all those located in rural areas show enrollments larger than this number.

Further evidence that American high schools are, generally speaking, not as large as frequently represented may be had from the statistical data for 1925–26.[1] The average enrollment per high school is shown to be only 211.6 pupils, and the average teaching staff consists of only 9.2 teachers.

TABLE 1.—*Distribution according to size of enrollment of the number of public high schools reporting*

Types of schools	Distribution by size of enrollment							
	Fewer than 50	51–100	101–150	151–200	201–250	251–300	More than 300	Total
1	2	3	4	5	6	7	8	9
All high schools reporting:								
Number	6,189	4,810	2,145	1,075	656	440	2,842	18,157
Per cent	34.1	26.4	11.9	5.9	3.6	2.4	15.7	100.0
All rural high schools reporting:								
Number	6,044	4,675	1,914	789	364	166	191	14,143
Per cent	42.7	33.1	13.5	5.5	2.6	1.2	1.4	100.0
All urban high schools reporting:								
Number	145	135	231	286	292	274	2,651	4,014
Per cent	3.6	3.4	5.6	7.2	7.3	6.8	66.1	100.0

TABLE 2.—*Proportion in each size group located in rural and urban communities*

Types	Percentages enrolling						
	Fewer than 50	51–100	101–150	151–200	201–250	251–300	More than 300
1	2	3	4	5	6	7	8
Rural high schools	97.7	97.2	89.2	73.4	55.5	37.7	6.7
Urban high schools	2.3	2.8	10.8	26.6	44.5	62.3	93.3

When a comparison is made between the proportionate number of small high schools operating in rural and small population centers and those operating in urban centers, it is found that the small high school problem is almost exclusively a rural problem. Only 3.6 per cent of the 4,014 high schools located in the cities have enrollments smaller than 50 pupils per schools, whereas in rural areas 42.7 per cent of the 14,143 high schools located there show enrollments below this

[1] U. S. Bureau of Education, Statistics of Public High Schools, 1925–26. Washington, Government Printing Office, 1927. (Bulletin, 1927, No. 35.)

number. Seven per cent of the former report enrollments of 100 pupils of fewer, while 75.8 per cent or nearly eleven times as large a proportion of the latter report enrollments within this limit. Looking at the comparison in another way, it may be seen from Table 2 that 97.6 per cent of all the high schools enrolling fewer than 50 pupils and 97.2 per cent of those whose enrollments range between 50 and 100 pupils are found in rural communities. It is, therefore, clear that in so far as the small high school is an educational problem it is a problem limited by and large to the rural and small population centers. The average enrollment of the rural high school, it will be seen from Tables 4 and 5, is 75.8 pupils and the average teaching staff consists of 4.2 teachers.

Extent and Types of Secondary Education Provided in Rural Communities

Judging from the small amount of attention commonly given to the rural high school and its problems one gets the impression that the rural high school is at best an insignificant part of our entire school system. The general attitude seems to be that there are not many of these schools; that the number of children concerned is comparatively small; and that it does not greatly matter whether these few children have an acceptable quality of secondary education made available to them or not. But by a computation based upon the United States census report of 1920 it was found that at a time synchronous with this investigation about 52.8 per cent of all the children in the United States 15 to 18 years of age, a span roughly corresponding to the normal high-school period, lived upon farms or in villages and towns of fewer than 2,500 population. The total number of children who are dependent upon small high schools and who are classified in this study as rural, is therefore actually greater than those dependent upon city high schools. To be sure not so large a proportion of the rural dwelling children are enrolled in these rural high schools as there are urban dwelling children enrolled in the city high schools, but when the secondary education problem is considered in its entirety those of secondary school age who are not now attending a secondary school can not properly be ignored. It is not fair to conceive of our educational problem in terms only of those now in school. Indeed, in many respects those not in high school constitute a more perplexing educational problem than those who are now injoying the benefits of this level of education.

In an earlier publication [2] of the United States Office of Education it was shown that only about 26 per cent of those of secondary school age living in rural areas were enrolled in the high schools of these communities and that, by way of comparison, about 71 per cent of

[2] Comparative Status of Secondary Education in Rural and Urban Communities. Rural School Leaflet No. 44, June, 1925, pp. 2–6.

the urban children are attending the public secondary schools provided for them. If the small high school problem is considered in the light of these differences it certainly becomes a challenging one.

Even as it is, the actual number of pupils now found in the rural high schools is not an insignificant one. As will be seen from Table 3 there are enrolled in these small rural high schools a total of 1,080,006 pupils. This is 28.8 per cent of all the children now attending public high schools in the United States. The table shows, too, that there are in these rural communities 14,143 separate schools now attempting to offer all or a part of the high-school program. This number is 77.8 per cent of all the public schools now offering work on the high-school level. Fifty-nine thousand six hundred and forty teachers, or 36.3 per cent of those now partially or wholly employed in high-school work, are found teaching in these small rural high schools.

TABLE 3.—*General statistics showing the extent and types of high-school provision in rural communities in 1925–26*

Type of school organization	Schools		Pupils		Teachers	
	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7
(a) Total in rural communities	14,143	100.0	1,080,006	100.0	59,640	100.0
(b) 4-year rural high schools regularly organized	9,926	70.1	793,980	73.5	44,767	75.1
(c) Rural junior-senior high schools (3-3 organization)	488	3.5	81,537	7.6	3,794	6.8
(d) Rural junior-senior high schools (6-year undivided)	823	5.8	121,916	11.2	5,638	9.5
(e) Rural junior-senior high schools (5-year undivided)	107	.8	12,549	1.2	610	1.0
(f) 3-year rural high schools, regularly organized	1,256	8.9	36,305	3.4	2,523	4.2
(g) 2-year rural high schools, regularly organized	1,272	9.0	19,190	1.8	1,541	2.6
(h) Rural junior high schools (4-year organization)	60	.4	3,631	.3	191	.3
(i) 1-year rural high schools, regularly organized	67	.5	646	.1	81	.1
(j) Rural junior high schools (3-year organization)	118	.8	7,883	.7	392	.7
(k) Rural junior high schools (2-year organization)	26	.2	2,369	.2	103	.2
Per cent of total number in the United States in rural communities		77.8		28.8		36.3

Table 3 presents some interesting facts with respect to such matters as the length of the period of secondary school instruction made available to children living in rural communities and the prevailing types of school organization obtaining there. It will be seen at once that by far the most of these schools offer a full 4-year program. In order to obtain a complete picture of the extent to which the small schools provide work extending through, or equivalent to, graduation from a regular 4-year high-school course, data given in items (b), (c), (d), and (e) must be added together. When this is done it will be seen that a total of 11,344, or 80.2 per cent of all rural schools offering high-school work, provide a regular 4-year high-school program or its equivalent. In other words, if a rural community undertakes education on a secondary level at all it is the common practice to offer a

program extending over a 4-year period and presumably culminating in graduation. Similar computations will show that 93.5 per cent of all the children receiving instruction in rural high schools are attending schools offering four years of work. From this situation it may be assumed that children who attend these rural high schools will in most cases complete their entire secondary education within these small schools. It will also be of interest at this point to note that 91.5 per cent of the teachers giving instruction on a secondary level in rural communities are employed in schools providing a full 4-year program. Reorganized rural high schools of the 3–3, 2–3, 3–2, and five or six year undivided types of organization were here considered as offering courses extending over the regular 4-year period because upon examination of individual reports it was found that the organization of these schools invariably included one or two years of the regular elementary period and the full four years of the regular secondary period.

Item (f) of Table 3 gives the data for all the rural high schools found by this study to be offering work equivalent in extent to three years of the regular high school. If, however, one wishes to get complete statistics for all the rural schools offering two years of regular high-school work it will be necessary to add items (g) and (h) together. About a dozen of the schools appearing in item (j) should also be included in this group. Rural communities which complete their offerings in secondary education with a 4-year junior high school were found in every case to be providing in these schools work roughly equivalent to the last two years of the elementary period and the first two years of the regular high-school period.

By far the most of the rural schools which complete their offerings in secondary education with a 3-year junior high school were found to be so organized as to include two years of the common elementary period and one year of the secondary. It therefore follows that the statistics of item (i) and most of those of item (j) must be added together for a complete measure of the extent to which but one year of work on the regular secondary level is provided in rural communities. Examinations show that the schools reported as 2-year junior high schools in item (k) confine their activities to grades regularly classed as elementary. These schools are probably in a transition stage from the regular elementary form of organization to the junior high school form and should therefore be thought of as providing no part of the regular secondary school program when the absolute amount of secondary education available to rural children is considered.

Table 3 also shows in a general way the progress which the junior high school movement is making in these rural communities. At a later point evidence will be presented to show the effect of this move-

ment upon such matters as the size of the school and the pupil-teacher ratio. Suffice it here to point out that the reorganization movement is making slow headway in rural areas. Schools which have reorganized on the junior high school basis clearly favor, first, the 6-year undivided plan of organization and, second, the 3–3 plan. A significant number of rural schools are coming to add one or two years to the upper elementary grades and to reorganize the whole into a junior high school. Communities in which this has taken place either make no further provisions for education on a secondary level, or, in cooperation with neighboring communities, they provide for additional high-school opportunities through some centralization scheme embodying such features as consolidation, transportation, dormitory provisions, free tuition, etc.

According to another study[3] the statistics for 1925–26 show only 12 per cent of the schools in rural communities offering secondary work to be reorganized to include some form of the junior high school. The schools which have effected this reorganization, however, enroll 21.6 per cent of the rural pupils attending high schools. It is therefore evident that these reorganized schools have larger enrollments than those not organized on the junior high school plan. By comparison 47.2 per cent of the city high schools have this type of organization and they enroll 49 per cent of the pupils attending urban public secondary schools.

How Small Is the Rural High School?

In considering the size of a school this study concerns itself with two factors, namely, the number of children enrolled in the school and the number of teachers employed by it. Such matters as the dimensions of the buildings which house the school and the amount of equipment used in the teaching processes are factors which commonly come to mind first when the schools are compared as to size. These things are recognized as important aspects of any school enterprise, but they do not properly constitute the school itself. Educational advantages depending upon the size of the school are commonly limited by the number of pupils and the number of teachers available rather than by the availability of space and the completeness of the equipment. Indeed, it could be shown that the adequacy of the housing space and teaching equipment a locality can afford to provide is to a large degree determined by the number of pupils available.

This section of the study therefore seeks to distribute the 14,143 schools found to be offering high-school work in rural communities, first, on the basis of the number of pupils attending each of the schools,

[3] Ibid., p. 14.

and, second, on the basis of the number of teachers constituting the teaching staff of each school. Since the task of any given school is so largely determined by the number of years of work offered and by the number of grades included within its organization, the distributions were arranged in such a manner as to show these factors. Tables 4 and 5 provide for both the numerical and the percentage distributions. We are thus able to see at a glance not only the total number of each size and class of school, but also the proportion which that number represents of the entire class.

We turn now to Table 4, which shows the schools grouped according to certain enrollment ranges. The distribution begins at one extreme with schools enrolling from 1 to 5 pupils and ends at the other with schools enrolling more than 200 pupils. The intervening enrollment groupings are arranged in intervals of 5 for schools enrolling from 1 to 10 pupils; in intervals of 10 in those enrolling from 11 to 50 pupils; and in intervals of 25 in those with enrollments greater than 50. It will thus be seen that the size of the interval increases with the size of the enrollment. This scheme was followed because it was believed that a few pupils more or less were of greater significance in the lower enrollment ranges than in the higher ranges. That is to say, 10 pupils more or fewer represent a greater difference in the number and kind of problems involved in such matters as curriculum adaptation, teaching load, per capita costs, etc., in a school of 30 pupils than this same number would represent in a school of 80 pupils. Another reason for the narrow intervals in the lower ranges is the special interest of this study in showing the number of extremely small schools which attempt to offer work on the high-school level. The regular 4-year high schools and the junior-senior high schools tend to pile up somewhat in the interval "more than 200," but since the rural high school enrolling as many as 200 pupils is generally thought of as a comparatively large school, it was not believed necessary in this general preview to further distribute these schools. The tables showing the enrollment size of these schools by States, presented later, will provide more detailed data on this point.

TABLE 4.—*Size and type of rural high schools distributed on the basis of the number of pupils enrolled in each school*

Type of school	Enrollment													Total number of schools	Median enrollment	Average enrollment
	1–5	6–10	11–20	21–30	31–40	41–50	51–75	76–100	101–125	126–150	151–175	176–200	More than 200			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Regular 4-year:																
Number	7	27	323	765	1,061	1,185	2,608	1,524	910	572	312	229	403	9,926	65.3	79.9
Per cent	0.1	0.3	6.2	7.7	10.7	11.9	26.3	15.3	9.2	5.8	3.1	2.3	4.1	100		
Regular 3-year:																
Number	4	37	348	399	268	107	73	17	1	2				1,256	25.9	28.9
Per cent	0.3	2.9	27.7	31.8	21.3	8.5	5.9	1.3	0.1	0.2				100		
Regular 2-year:																
Number	86	205	688	224	49	12	6	1				1		1,272	15.0	15.1
Per cent	6.8	16.2	54.1	17.6	3.8	0.9	0.4	0.1				0.1		100		
Regular 1-year:																
Number	31	15	15	3	2			1						67	6.0	9.6
Per cent	46.2	22.4	22.4	4.5	3.0			1.5						100		
Reorganized junior-senior: [1]																
Number			2	4	23	46	151	232	228	166	142	106	318	1,418	128.5	152.3
Per cent			0.1	0.3	1.6	3.2	10.7	16.4	16.1	11.7	10.0	7.5	22.4	100		
Reorganized 3 or 4 year junior: [1]																
Number			18	30	27	24	30	20	12	6	3	3	5	178	45.8	64.6
Per cent			10.1	16.9	15.2	13.4	16.9	11.2	6.7	3.4	1.7	1.7	2.8	100		
Reorganized 2-year junior:																
Number			2	2	3	1	7	2	4	2		1	2	26	57.8	91.1
Per cent			7.7	7.7	11.5	3.9	26.9	7.7	15.4	7.7		3.9	7.7	100		
All classes regularly organized: Number	128	284	1,374	1,391	1,380	1,304	2,687	1,543	911	574	312	230	403	12,521	53.7	67.3
All classes reorganized: Number			22	36	53	71	188	254	244	174	145	110	325	1,622	119.1	141.7
All rural high schools	128	284	1,396	1,427	1,433	1,375	2,875	1,797	1,155	748	457	340	728	14,143	58.9	75.8

[1] See Table 3 for number of each type of organization included.

Since by far the most of the rural high schools offer four years of work, let us consider this class of schools first. It will be seen that even in this group there are a great many schools with extremely small enrollments. Seven of them enroll from 1 to 5 pupils, and 27 more from 6 to 10 pupils; 323 others from 11 to 20 pupils, and a total of 2,183 of these schools enroll 40 pupils or fewer. The median school in this group has an enrollment of only 65.3 pupils and the average enrollment for all of the 4-year high schools in rural areas is only 79.9 pupils. Considering percentages, we find that 3.6 per cent of these 4-year high schools enroll from 1 to 20 pupils each. Eleven and three-tenths per cent enroll from 1 to 30 pupils each; 22 per cent enroll from 1 to 40 pupils each, and a total of 33.9 per cent of these schools have enrollments of 50 pupils or fewer. Only 9.5 per cent of these 4-year schools show enrollments of more than 150 pupils.

The junior-senior high schools make a much better showing as to size of enrollments than do the 4-year high schools. None of this class of schools is found in the first two enrollment groups. A total of only 29, or 2 per cent of all the schools in this class, report enrollments of fewer than 40 pupils. The median school has an enrollment of 128.5 pupils, and the average enrollment is 152.3. Of course it must be borne in mind that most of these schools are offering six years of work and that the enrollments are in most cases composites of six instead of four grades. If the average enrollments of these two types of schools are divided by the respective number of grades composing each, it is found that there are about five pupils more per grade in the junior-senior type of organization than in the regular 4-year school. The difference may, however, be in part accounted for by the fact that the first two grades of the junior-senior organization offer a level of work which is, generally speaking, on a par with the last two grades of the regular elementary school. Proportionate enrollments are usually larger in these elementary grades than they are in the succeeding high-school grades. No statistics on the actual enrollments of these schools by grades are available, but indications are that the average number of pupils per grade is not greatly different in the last four grades of the schools organized on the junior-senior basis from what it is in the corresponding grade of the regular 4-year schools. The quality and the variety of the educational activities a school can offer are undoubtedly dependent to some extent upon the number of pupils available in each grade, but the greater number of alternations of curriculum offerings possible in the six grades than in the four, the larger total number of children and teachers available, and the greater similarity of interests likely to be represented in a larger body of students, and other factors of this kind related to the aggregate size of the enrollment still make it highly probable that the junior-senior type of organization has an advantage

over the traditional 4-year high school in providing an acceptable type of education in rural communities.

Rural schools with high-school departments which offer less than four years of work bring together even smaller aggregations of pupils than do those offering a full 4-year course. A total of 41 schools, or 3.2 per cent of those offering a regular 3-year course, show enrollments ranging from 1 to 10 pupils. Thirty and nine-tenths per cent of this class enroll between 1 and 20 pupils each, and a total of 62.7 per cent report enrollments ranging between 1 and 30 pupils. The median enrollment of the regular 3-year high schools is only 25.9 pupils, and this entire class shows an average enrollment of only 28.9 pupils per school. The schools offering a regular 2-year high-school course show an average enrollment of only 15.1 pupils. The median 2-year school was found to enroll 15 pupils. Twenty-three per cent of this class of schools enroll 10 or fewer pupils each, and more than three-fourths of the entire group show enrollments of 20 pupils or fewer each. Of those offering only one year of the regular high-school course, nearly one-half enroll only between 1 and 5 pupils each, and more than two out of every three of this group of schools enroll only between 1 and 10 pupils each.

It is interesting to note that when the average enrollment of each of these classes of schools is divided by the number of years constituting the length of their respective courses the number of pupils per year increases in direct proportion to the number of years of work offered. This is true in every case except that of the 1-year schools. The average per grade in the 4-year schools is nearly 20 pupils, that of the 3-year schools is about 10 pupils, that of the 2-year schools about 8 pupils, and that of the 1-year group about 10. If our school systems were organized into larger administrative units, and if our plans of education were more comprehensive in character, it would seem that much could be gained by limiting the activities on the secondary levels in the smaller communities to one or two years of work. We could then require with some hope of success that the more limited job be done well rather than to allow these very small schools to struggle along trying to give a complete 4-year program which in the nature of things must be a makeshift and which must always be disproportionately expensive. These communities could then cooperate with neighboring school districts in providing elsewhere for those pupils who have completed the local high-school offerings and who would wish to continue this type of education. Such a scheme would make possible the establishment of centrally located union schools which could recruit enrollments and teaching staffs sufficiently large to make an acceptable quality and a complete program of secondary education possible in rural areas and which would place these geographically within reach of rural children.

The statistics of the schools of the comparatively small number of communities which offer a year or two of secondary work by means of the 3-year junior high school organization would seem to support the above contentions. The average enrollment of this group is 64.6 pupils. This gives an average of more than 20 pupils for each year of work offered. To be sure, there are 60 4-year junior high schools included in this grouping, but calculations show the average enrollment of these to be only 60.5 pupils, thus leaving an average of 66.8 pupils for each of the 3-year junior high schools. It will, therefore, be seen that both the average enrollment per school and the average enrollment per grade is more than twice as great in rural high schools of less than four years when they are reorganized on the junior high school basis than when organized on the traditional plan.

There are undoubtedly a great many schools which offer one or two years of high-school work but which are not recognized officially in any way by their respective State departments of education. The existence of these schools would, therefore, not be known to this office, and, consequently, these schools would not be included in these tabulations. As pointed out above, there were 3,543 schools known to be offering some form of high-school work which could not be included in this study. Most of these probably offer less than four years of work. It is relatively certain, therefore, that the data for the various groups of schools, especially those offering less than four years of work, must be regarded as indicative of the situation rather than numerically complete. The number of schools offering one year of work on a secondary level, for instance, is undoubtedly much greater than that shown in Table 4.

Before examining the facts presented in Table 5 it should be understood that the questionnaire requested each school offering work of high-school grade to report as high-school teachers only those persons who devote half or more than half of their time to the work on a secondary level. In these small schools, especially in those offering but one or two years of work of a secondary grade, many of the teachers are devoting a part of their time to the elementary grades. It is a frequent practice in schools employing but one high-school teacher to require that teacher to act as the principal of the elementary school, in addition to his high-school duties. When but one year of high-school work is offered, this principal must also frequently teach some of the classes in the elementary school, such as manual arts and agriculture. In the rural high school employing two or three teachers one of them is usually designated as principal of both the high and the elementary school. Since none of the schools included in the study reported the employment of fewer than one teacher, there can be in these statistics no compensatory factor from elementary teachers giving a part of their time to work on the high-school level. It is highly probable, therefore, that the statistics presented in Table 5 show the teaching staffs of these small schools to be larger

than they actually are. Many of the high-school departments reported to be employing one teacher probably receive the benefits of but one-half or three-fourths of the full time of a teacher. In the two or three teacher high schools several or all of them may be devoting a portion of their time to the grade schools of which they are a part.

When the size of the teaching staff employed in the rural high schools is taken as an index of the size of the school enterprise, the smallness of these schools shows up even more significantly than was true when only the enrollment was considered. It takes, by and large, just as much of a teacher's time and energy, as our high schools are now organized, to instruct a group of 10 children in the requirements of a given year of high-school work as it does to instruct 20 or even 30 children. When one or two teachers attempt a complete 4-year program of high-school work under the present scheme of organization and procedure it always means a more limited number of curriculum offerings and fewer educational activities than is possible when this work is divided between several teachers. The per capita cost of secondary education under such circumstances is at best high, sometimes mounting to sums all out of proportion to what they should be or to the values derived. When in addition the very poor quality of this education is considered the cost per unit of actual educational achievement becomes such as to raise a serious question concerning the administrative wisdom and justification for providing secondary education in rural areas in the manner we are now doing.

TABLE 5.—*Size and type of rural high schools distributed on the basis of the number of teachers employed in each school*

Types of schools	Number of teachers employed								Median teaching staff	Average teaching staff	Average number of pupils per teacher
	1	2	3	4	5	6	7	8 or more			
1	2	3	4	5	6	7	8	9	10	11	12
Regular 4-year:											
Number	130	1,195	2,819	2,131	1,371	816	468	996	3.4	4.5	17.7
Per cent	1.3	12.1	28.4	21.5	13.8	8.2	4.7	10.0			
Regular 3-year:											
Number	246	818	158	25	7		2		1.5	2.0	14.4
Per cent	19.6	65.1	12.6	2.0	0.5		0.2				
Regular 2-year:											
Number	1,025	229	16	1	1				0.6	1.2	12.5
Per cent	80.6	18.0	1.2	0.1	0.1						
Regular 1-year:											
Number	58	8					1		0.6	1.2	7.9
Per cent	85.6	11.9					1.5				
Reorganized junior-senior											
Number		20	96	197	248	230	160	467	5.6	7.1	21.5
Per cent		1.4	6.8	13.9	17.5	16.2	11.3	32.9			
Reorganized 3 or 4 year junior:											
Number	16	62	44	27	9	9	5	6	2.3	3.3	19.7
Per cent	8.9	34.8	24.7	15.2	5.1	5.1	2.8	3.4			
Reorganized 2-year junior:											
Number	4	5	6	4	3	1	1	2	2.7	4.0	23.0
Per cent	15.4	19.2	23.1	15.4	11.6	3.8	3.8	7.7			
All classes of regularly organized	1,459	2,250	2,993	2,157	1,379	816	471	996	2.9	3.9	17.4
All classes reorganized	20	87	146	228	260	240	166	475	5.3	6.5	21.4
All rural high schools	1,479	2,337	3,139	2,385	1,639	1,056	637	1,471	3.0	4.2	18.2

[1] See Table 3 for number of each type of organization included.

It will be seen from Table 5 that 130 of the regularly organized 4-year high schools reported that they were employing but a single teacher. That is to say, that in 130 rural school communities one teacher is called upon to give all the instruction necessary to provide a complete 4-year high-school course. In 1,195 communities the work of providing four years of high-school work is divided between two teachers; and in 2,819 schools the entire 4-year program is dependent upon a staff of three teachers. Percentages show that 1.3 per cent of the 4-year high schools in rural areas are dependent for all their instructional service upon a single teacher; that 12.1 per cent more employ but two teachers; and that a total of 41.8 per cent offer four years of high-school work with a staff of three teachers or fewer. The median school in this group employs only 3.4 teachers, and the average teaching staff consists of 4.5 teachers.

Schools which offer a complete 4-year program but which are organized on the junior-senior plan show up advantageously in a number of respects when their teaching staffs are compared to those of the regular 4-year high schools. Even if the average number of teachers is not so very much greater there are always two or more teachers and that in itself means some chance to departmentalize the work and to capitalize to some extent the several teachers' individual training and fitness. Since there are no fewer than two teachers in any of the junior-senior schools, it is not likely that the equivalent of more than three years of work will devolve upon any one teacher. It will be remembered that in the case of the 4-year schools there were 130 situations where one teacher was responsible for the entire 4-year program. In only 1.4 per cent of the schools in the junior-senior group was one teacher responsible for as much as three years of the program, and in only 6.8 per cent more could there be a service load of more than two years per teacher. The median school in this group employed a staff of 5.6 teachers, and the average staff consisted of 7.1 teachers. If the four grades or years of high-school work represented by each of the 9,926 rural 4-year high schools are added together and the total number of grades or years apportioned equally among the total number of teachers employed in these schools, it is found that the average service load per teacher employed in this class of schools is 0.84 of a year or grade. Similar computations for the 6-year rural junior-senior high schools show an average service load of 0.67 of a school year or grade per teacher. The average teacher in a 4-year high school must, therefore, carry a considerably heavier program of duties than is true in the junior-senior schools. In view of the fact that at best the rural high school teacher must spread her services rather thinly over a wide area, it is probable that the pupils attending the latter type of rural high school are at an advan-

tage educationally because of the larger teaching staffs obtaining in them.

It will be seen that of the regular 3-year high schools in rural communities 19.6 per cent depend for all the instruction offered in them on a single teacher. That is to say, that in about one out of five of these schools the one person composing its teaching staff must offer all the courses constituting their 3-year curriculum. In another 65.1 per cent of this group of schools two teachers provide the entire 3-year program. The median 3-year school employs 1.5 teachers, and the average teaching staff in these 3-year schools is two teachers. In nearly seven out of every eight of the comparatively small number of regularly organized 2-year rural high schools included in the study one teacher is responsible for all the work offered.

Most of the 3-year junior high schools located in the rural communities are found to have a teaching staff of either two or three teachers. The median school in this group employs 2.3 teachers and the average staff consists of 3.3 teachers. About one in six of these schools has a teaching staff of five or more teachers. With the common practice of departmentalizing the instruction in the junior high schools a teaching staff of three or more teachers should be able to provide a fairly acceptable quality of junior high school education. For example, in building a teaching staff of four teachers it will be possible to provide for one who is specially fitted to teach the courses in English and languages, another to teach the social sciences, one to teach the mathematics and sciences, and one especially trained in the industrial arts. Provisions for health education, the fine arts, and extracurricular activities could be provided in such a school by capitalizing the individual fitness and the adaptability found among the teachers of both the elementary and junior high school.

Since cost is an important consideration in providing secondary school opportunities in rural communities, the column showing the average number of pupils per teacher in the various types of high schools is of interest. Other things being equal, schools with larger teaching staffs undoubtedly have a better chance of providing a high grade of secondary education than have those with smaller teaching staffs. Even if the pupil-teacher ratio in small and large high schools were equal, the units of actual educational achievement would probably be more costly in the smaller than in the larger school. When it is found, however, that there are an average of 7.9 pupils per teacher in the 1-year high schools, 12.5 in the 2-year schools, 14.4 in the 3-year schools, and 17.7 in the 4-year schools, and when it is remembered that teachers' salaries constitute the major item of expense, it becomes apparent that the per capita cost is a good deal higher in the smaller rural high schools than it is in the larger schools. The group of rural high schools which shows the largest number of

pupils per teacher is the junior-senior group. The schools offering junior high school work only have the second largest number of pupils per teacher. Indications, therefore, are that the cost of the commodity purchased in these schools is much higher as the schools become smaller, both from the standpoint of the quality of education provided and from the standpoint of the number of pupils among whom the instructional costs must be apportioned.

Size of the Rural High School by States

Having examined the smallness of the rural high schools as indicated by the statistics for the Nation as a whole, the study now presents data to show in what States these small high schools may be found. The following tables show for each of the States the number of high schools of various types falling within the several enrollment ranges and the number employing teaching staffs of various sizes. The tables show also the total number of the several types of high-school enterprises found in the rural areas of each State, the total number of pupils enrolled in each type, and the total number of teachers employed in each. In order to show central tendencies in enrollment, averages are given, and where schools of sufficient number were recorded to be statistically valid, the median enrollment and the interquartile range of the enrollment distributions for each State are also presented. Similar measures for the size of the teaching staffs were also found and are presented by States. In order that some estimate may be had of the comparative cost of the various types of school organization in the several States, the pupil-teacher ratios are also examined.

There is little need for extensive analyses of the data presented. The arrangements are simple and the significant facts are more or less obvious. It is the purpose of this section of the study, therefore, to state the major purpose of each table, indicate how it should be read, point out any special facts that should be noted, and leave the reader to draw largely his own conclusions. The major reason for including these detailed tables in the study is to make it possible for each State to see how many of these very small high schools are maintained by the rural communities within its borders and to facilitate comparison with other States with respect to the small high school problem. The hope is that a presentation of facts of this sort will help any given State to become aware of the presence and the extent of its small high school problem and to stimulate study looking toward improvement in the secondary education provided for rural children. A later section of the study will attempt to show how some of the States and many of the communities are solving the rural high-school problem.

Table 6 presents a distribution of the 9,926 regularly organized 4-year high schools on the basis of the number of pupils enrolled in each. It will be noted that the same arrangement of intervals was followed as in Table 4 except that the upper limit was extended to provide for the further distribution of the schools with enrollments greater than 200. Those with enrollments ranging between 200 and 300 pupils were apportioned to four additional range intervals, and those with enrollments of more than 300 pupils each were grouped together in the tabulation, but footnotes are provided to give some idea of the enrollment size of the comparatively few schools reaching these higher enrollment levels.

Column 19 of Table 6 gives the total number of 4-year high schools located in centers of 2,500 or fewer population and reported from each State. These totals must be kept in mind as the distributions and the measures of school size of the several States are compared. A State with a large number of rural high schools obviously could have a good many high schools in the lower enrollment ranges and still not have as large a proportion of very small schools as some other State with a smaller total number of rural high schools and equal or even slightly smaller number in the lower enrollment groups.

The table should be read as follows: Alabama reported a total of only 33 4-year high schools of the regularly organized type. The smallest school reported in this group has an enrollment of 21 to 30 pupils and the largest one reported an enrollment of more than 500 pupils. The remaining schools are scattered between these extremes, with the great majority enrolling 76 pupils or more. In other words, Alabama's regular 4-year rural high schools are relatively large, especially when comparisons are made with other States. This observation is borne out when the central tendencies given in Table 8 are examined. The average enrollment for Alabama is here found to be 148.8 pupils, the median enrollment 134, and the middle 50 per cent of these schools are found to have enrollments ranging between 87 and 181 pupils. The reason for Alabama's superiority in the size of these rural 4-year high schools can undoubtedly be found in part in its consolidation program, and in part in the fact that this State administrates its educational programs on a county unit basis.

TABLE 6.—*The regularly organized 4-year high schools in rural and small population centers distributed by States and on the basis of the size of the enrollment*

State	Number of pupils enrolled																	
	1-5	5-10	11-20	21-30	31-40	41-50	51-75	76-100	101-125	126-150	151-175	176-200	201-225	226-250	251-275	276-300	More than 300	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Continental United States	7	27	323	765	1,061	1,185	2,608	1,524	910	572	312	229	152	75	50	36	90	9,926
Alabama				1	1		3	7	3	4	5	3	2		2	1	1	33
Arizona		1		4	1	4	5	5	1	1	1	1						24
Arkansas		1	13	15	15	15	28	13	10	3	5				1	1	2	122
California			1	8	9	8	26	21	23	15	12	9	11	6	6	3	20	178
Colorado			2	16	9	12	24	7	8	4	2	4	2	1	1		2	94
Connecticut				2	1	1	4		1	1							1	11
Delaware			1	1	2		4	4		3		2						17
Florida		1	2	7	9	14	17	13	10	4	1		2			1		81
Georgia			6	8	19	15	52	30	18	9	1	1	2	1				162
Idaho			2	5	9	13	29	10	9	6	2	4	1	1		1	2	94
Illinois			2	17	33	46	132	90	64	33	28	15	4	5	5	2	3	479
Indiana			2	23	36	64	137	66	37	26	8	10	4	2			1	416
Iowa		2	11	46	99	84	187	108	50	27	10	13	7	3	1	2	1	651
Kansas			22	43	67	66	130	83	57	23	17	14	13	4	1	3	3	546
Kentucky		1	20	43	64	49	83	39	20	14	1	3	1	1				339
Louisiana			1	25	29	29	63	19	19	14	5		3	1				208
Maine		1	9	14	20	18	32	14	10		2							120
Maryland				1	5	10	25	18	12	4	5	1	1	1	1		4	88
Massachusetts				1	4	10	19	7	3	2	1	1					1	49
Michigan		1	12	18	31	22	59	37	24	10	6	1	6				2	229
Minnesota		1	9	27	31	42	99	56	41	23	14	5	8	3		1	1	361
Mississippi			10	32	20	27	34	25	9	7	2	2	2					170
Missouri			9	24	38	62	136	74	32	12	12	11	8	2				420
Montana		1	7	25	20	13	30	21	11	8	3	5			1			145
Nebraska		2	14	49	53	50	111	60	28	32	11	7	6	2	2	1	1	429
Nevada	2		4		4		2	1	3	2			1					19
New Hampshire				4	7	8	8	5	2	2	1	1						38
New Jersey					1	1		5	7	2	3	3	1	2		2	9	36
New Mexico			2	7	9	4	12	5	2	2	2	2	1	1				49
New York			11	37	50	40	96	56	35	25	13	5	7			3	2	380

North Carolina			6	8	16	17	101	99	56	33	24	3	6	4	2	2	1	378
North Dakota		2	40	48	45	33	56	18	10	7	4	2						265
Ohio			4	25	57	65	172	89	54	31	21	9	3	2	4	3		539
Oklahoma		1	19	36	58	42	82	49	19	18	11	8	4	3	2		1	353
Pennsylvania		1	3	12	27	37	90	59	35	36	16	16	7	10	2	2	10	363
Rhode Island									1				2		1			4
South Carolina			2	2	10	15	52	30	19	6	3	9	4	2				154
South Dakota			10	22	26	45	55	29	18	8	7	4	4	1				229
Tennessee				6	13	26	53	32	17	9	9	5	2				2	174
Texas	1	1	8	23	29	32	73	51	43	23	16	10	7	5	3		6	331
Utah				2	2		1	1	1	1	1	3		2	2		4	20
Vermont				1	1	3	2	1	1		1							10
Virginia			3	11	21	38	97	48	21	13	4	3		1	1	1		262
Washington	2	2	19	19	20	25	39	35	23	14	6	8	6	2	8	2	5	235
West Virginia				1	1	12	21	16	8	14	4	6	3	2	1		1	90
Wisconsin			1	10	21	33	83	50	30	29	8	11	6	3	1	1	1	288
Wyoming			2	4	2	2	4	4		2	2	4	2	1		1		30

[1] 60 of these schools enroll between 301 and 400 pupils. Those not falling in this group are found distributed among the States as follows: Enrolling 401–500 pupils—Kansas, Michigan, Texas, Utah, and Washington each 1, Colorado 2, California 3, Pennsylvania 3, and New Jersey 4; 501–600—Alabama, Connecticut, Maryland, and New York each 1, California 2, and Utah 3; 601–700—Maryland, Pennsylvania, Texas each 1; 1,001–1,100—California 1.

Four States report schools which are attempting four years of high-school work with an enrollment of five pupils or fewer. Nearly one-third of all the schools with enrollments between 1 and 10 pupils are found in Oregon, the remainder of this group being scattered between 17 States, one or two to a State. Most of the States report no schools in the first two enrollment groups. One out of every three of the 4-year rural high schools operating in the State of Nevada has an enrollment of 20 pupils or fewer; in Oregon one out of five of these sch[illegible]s report an enrollment small enough to fall within this limit, and in North Dakota one out of six falls within this group. Several other States show a considerable number of these extremely small high schools but the proportion to the total number is not great.

Table 7 presents these same schools distributed on the basis of the number of teachers employed in each. In this table may be found the exact number of 4-year rural high schools, in each State, which employ teaching staffs of various sizes. Detailed data are given in the footnote for those which employ a teaching staff of more than 15 teachers. It will be seen that of the 130 schools which report, offering four years of secondary work with a teaching staff of but one teacher, 28 are in the State of Oregon, 27 are in North Dakota, 13 in the State of Washington, 8 in Arkansas, 8 in Kentucky, and 7 in Texas. The remaining 39 are scattered among 17 States.

TABLE 7.—*The regularly organized 4-year high schools in rural and small population centers distributed by States and on the basis of the size of the teaching staff employed*

State	Number of teachers employed																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	More than 15[1]	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Continental United States	130	1,195	2,819	2,131	1,371	816	468	329	226	151	92	49	41	28	18	62	9,926
Alabama		2	1	6	8	3	4	6		2						1	33
Arizona		2	6	1	3	5	3	1	1	2						3	24
Arkansas	8	33	40	20	10	6	2										122
California		4	7	15	12	17	18	16	21	6	9	6	10	7	6	24	178
Colorado	1	7	25	19	12	11	3	2	3	3	2	1	1		1	3	94
Connecticut			4	3	3											1	11
Delaware		1	3	1	5	2	2	1	1		1						17
Florida	1	11	16	14	16	14	3	1	1	3	1						81
Georgia	5	18	50	49	22	10	2	4		2							162
Idaho		8	27	25	16	3	6	3	2	2	1	1					94
Illinois		2	77	107	100	58	42	28	26	12	12	3	2	4	4	2	479
Indiana		12	119	126	59	38	25	16	12	5	1	2	1				416
Iowa	3	31	183	163	107	72	28	22	16	12	4	5	3	1		1	651
Kansas	3	69	97	110	103	57	34	18	12	15	12	5	4	4	2	1	546
Kentucky	8	178	95	36	17	9	2	4									339
Louisiana		14	75	65	23	21	6	2	2								208
Maine	3	49	37	20	4	6		1									120
Maryland		6	19	26	14	8	5	3	1	3	1					2	88
Massachusetts		3	13	15	8	4	3		1		1	1					49
Michigan	3	52	65	49	24	14	10	2	4	4			1			1	229

[1] Arkansas, Illinois, Iowa, Pennsylvania, and Texas, each report 1 rural high school with 16 teachers; California and New Jersey each report 2 with 16 teachers each; Alabama, Arkansas, Colorado, Ohio, and West Virginia each report 1 with 17 teachers; Utah reports 2 with 17 teachers each; and California reports 8 with 17 teachers each; New Jersey, New York, Pennsylvania, and Washington each report 1 school with 18 teachers each, and California reports 3 with 18 teachers each; Illinois and New Jersey each report 1 with 19 teachers each, and California reports 3 with 19 teachers each; Arkansas, Maryland, New Jersey, Utah, Connecticut, Minnesota each report 1 with 20 teachers each; Kansas, Pennsylvania, and Utah each report 1 with 21 teachers each, and California reports 2 with 21 teachers each; New York reports 1 with 22 teachers; and California reports 2 with 22 teachers each; Maryland and Texas each report 1 with 23 teachers each, and California reports 2 with 23 teachers each; California reports 1 with 25 teachers; Michigan reports 1 with 27 teachers; New Jersey reports 1 with 28 teachers, and Pennsylvania reports 2 with 28 teachers each; California reports 1 with 31 teachers; Colorado reports 1 with 34 teachers and 1 with 35 teachers.

TABLE 7.—*The regularly organized 4-year high schools in rural and small population centers distributed by States and on the basis of the size of the teaching staff employed*—Continued

State	Number of teachers employed																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	More than 15	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Minnesota	3	49	88	82	45	34	19	13	15	7	2	1	2			1	361
Mississippi	2	39	45	38	16	9	10	6	3	1				1			170
Missouri	4	27	187	99	41	26	10	12	8	2	4						420
Montana	2	11	57	31	16	10	6	6	4	1	1						145
Nebraska	1	74	109	98	54	37	15	19	10	4	3	2	3				429
Nevada	2	4	4	1	1		3		1	1		2					19
New Hampshire		6	8	9	9	2	1	2		1							38
New Jersey			2	3	5	6	3	3	2	2	1			2	1	6	36
New Mexico	1	6	14	8	9	4	1	3	1	2							49
New York		27	134	64	50	34	30	17	6	8	4	3	1			2	380
North Carolina	2	28	100	87	83	41	17	7	3	4	2	1	3				378
North Dakota	27	111	63	36	9	9	6	2	2								265
Ohio		7	248	117	74	41	19	16	9	4	1	1	1			1	539
Oklahoma	2	82	130	60	32	20	10	7	6		3	1					353
Oregon	28	58	41	39	13	7	7	5	3	2	2	3	2	2	1		213
Pennsylvania	1	40	106	78	51	26	18	13	14	6	1		1	1	2	5	363
Rhode Island							2			1					1		4
South Carolina		7	47	44	25	6	10	9	1	1	4						154
South Dakota		24	89	55	25	12	9	7	3	4	1						229
Tennessee		3	71	46	31	13	3	4	1		1			1			174
Texas	7	25	84	78	53	35	16	13	6	5	4	1		2		2	331
Utah		2	3		2	1	1	2	3	1	1					4	20
Vermont			5	2	1	1	1										10
Virginia		6	111	66	49	20	6	2		1	1						262
Washington	13	21	44	48	37	19	18	10	4	7	6	4	2	1		1	235
West Virginia		2	5	22	22	8	10	5	6	4	1	3	1			1	90
Wisconsin		34	59	55	49	34	18	15	10	7	4	2		1			288
Wyoming			6	5	3	3	1	1	2	4		1	3	1			30

Table 8 should be read together with Tables 6 and 7. In it are presented the totals and the central tendencies for the distributions given for the several States in the two previous tables. All three types of data are necessary to give a complete picture of the size in each State of this type of school. It will be seen from Table 7 that the average number of pupils enrolled per school ranges from 49.3 pupils in North Dakota to 213.1 pupils in Utah. The average number of teachers employed per school ranges from 2.6 in Arkansas to 9.8 in California. Rhode Island also shows an average teaching staff as large as 9.8 teachers, but this State reported only four schools in this class and it would be a fair guess that these are located in suburban centers. Three States show an average teaching staff of fewer than three teachers and seven others show fewer than four teachers per school. The data in column 6 indicate that low pupil-teacher ratios are due not only to the large number of schools in the lower enrollment ranges but also to the proportionately large number of teachers constituting the average teaching staffs of these small schools. It will be seen that the lowest pupil-teacher ratios are found, by and large, in the States which are known to have large sections of sparsely settled areas—States such as Arizona, Nevada, Colorado, and California. Six other States show fewer than 16 pupils per teacher. Arkansas shows an average of more than 25 pupils per teacher and Utah shows nearly that number. The high pupil-teacher ratio in Arkansas is obviously caused by understaffing these small high schools whereas that of Utah is caused by the large enrollments brought together in the rural high schools of this State. Utah's success in this respect is probably due to two factors, viz, consolidation and the county unit of school administration. Whatever the cause of the small number of pupils available per teacher it always follows that the per capita costs in such schools are high. On the other hand, high costs may be more justifiable than attempting to offer a 4-year high-school course with a staff too small in number to make possible an acceptable quality of secondary work.

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TABLE 8.—*Totals and central tendencies in the size of the regularly organized 4-year high schools in rural and small population centers shown by States*

States	Total number of schools	Total number of pupils	Total number of teachers	Average enrollment	Average number of teachers per school	Average number of pupils per teacher	Median enrollment	Interquartile range of enrollment	Median teaching staff	Interquartile range of teaching staff
1	2	3	4	5	6	7	8	9	10	11
Continental United States	9,926	793,980	44,767	79.9	4.5	17.7	65	42- 99	3.3	2.4-4.9
Alabama	33	4,912	202	148.8	6.1	24.3	134	87-181	5.0	3.8-7.1
Arizona	24	1,643	129	68.4	5.4	12.7	60	40- 90	5.0	2.6-6.3
Arkansas	122	8,411	327	68.9	2.6	25.7	52	31- 83	2.5	1.6-3.5
California	178	26,956	1,748	151.4	9.8	14.8	117	68-205	7.1	5.4-12.3
Colorado	94	7,819	534	83.1	5.7	14.6	58	37-101	3.7	2.6-5.6
Connecticut [1]	11	1,250	58	113.6	5.3	21.6				
Delaware [1]	17	1,542	94	90.7	5.5	16.4				
Florida	81	5,933	370	73.2	4.6	16.0	61	41- 95	3.2	2.5- 4.6
Georgia	162	11,944	623	73.7	3.8	19.2	66	45- 93	3.1	2.3- 3.8
Idaho	94	7,994	422	85.0	4.5	18.9	66	46-107	3.4	2.5- 4.6
Illinois	479	43,874	2,726	91.6	5.7	16.1	77	52-115	4.5	3.3- 6.3
Indiana	416	31,301	1,917	75.2	4.6	16.3	66	47- 94	3.6	2.7- 4.9
Iowa	651	46,339	3,042	71.2	4.7	15.2	61	41- 89	3.6	2.7- 5.0
Kansas	546	43,042	2,721	78.8	4.9	15.8	64	41- 99	3.9	2.6- 5.4
Kentucky	339	19,664	936	58.0	2.8	21.0	48	33- 73	1.9	1.4- 2.7
Louisiana	208	14,389	830	69.2	3.9	17.3	53	39- 87	3.2	2.5- 4.1
Maine	120	6,670	356	55.6	2.9	18.7	49	33- 72	2.2	1.5- 3.1
Maryland	88	9,258	441	105.2	5.0	20.9	79	52-115	3.7	2.8- 5.1
Massachusetts	49	3,607	222	73.6	4.5	16.2	63	47- 85	3.6	2.7- 4.7
Michigan	229	17,043	904	74.4	3.9	18.9	63	38- 95	2.9	2.0- 4.1
Minnesota	361	28,918	1,644	80.1	4.6	17.6	68	45-104	3.4	2.4- 4.9
Mississippi	170	10,272	670	60.4	3.9	15.3	49	31- 80	2.9	2.0- 4.2
Missouri	420	31,188	1,677	74.3	3.9	18.6	63	45- 91	2.9	2.3- 3.9
Montana	145	9,712	606	66.9	4.1	15.9	56	32- 98	3.1	2.4- 4.5
Nebraska	429	31,546	1,843	73.5	4.3	17.1	61	38- 94	3.3	2.3- 4.7
Nevada [1]	19	1,240	95	65.3	5.0	13.1				
New Hampshire	38	2,487	162	65.4	4.3	15.4	50	39- 85	3.5	2.5- 4.9
New Jersey	36	7,281	333	202.3	9.3	21.9	167	107-310	6.6	4.8-11.0
New Mexico	49	3,502	216	71.5	4.4	16.2	56	33- 90	3.5	2.3- 4.8
New York	380	29,211	1,779	76.9	4.7	16.4	64	39- 98	3.4	2.5- 5.2

North Carolina	378	35,526	1,682	93.9	4.4	21.1	85	92–117	3.6	2.6– 4.9
North Dakota	265	13,071	757	49.3	2.9	17.3	40	25– 56	1.9	1.3– 2.9
Ohio	539	42,449	2,277	78.8	4.2	18.6	67	48– 98	3.1	2.5– 4.4
Oklahoma	353	24,757	1,301	70.1	3.7	19.0	56	36– 89	2.7	2.0– 3.8
Oregon	213	13,582	793	63.8	3.7	17.1	45	23– 72	2.5	1.4– 3.8
Pennsylvania	363	37,379	1,714	102.9	4.7	21.8	80	53–131	3.3	2.4– 4.7
Rhode Island [1]	4	762	39	190.5	9.8	19.5				
South Carolina	154	13,187	697	85.6	4.5	18.9	73	55–107	3.5	2.4– 4.7
South Dakota	229	15,604	929	68.1	4.1	16.8	55	40– 87	3.0	2.3– 4.1
Tennessee	174	14,576	723	83.8	4.2	20.2	70	50–101	3.2	2.5– 4.3
Texas	331	30,556	1,537	92.3	4.6	19.9	75	47–117	3.3	2.5– 5.0
Utah [1]	20	4,262	175	213.1	8.8	24.4				
Vermont [1]	10	664	41	66.4	4.1	16.2				
Virginia	262	18,810	1,172	71.8	4.5	16.0	65	48– 86	3.2	2.5– 4.2
Washington	235	21,357	1,143	90.8	4.8	18.6	70	39–116	3.7	2.5– 5.6
West Virginia	90	9,608	546	106.8	6.1	17.6	91	67–143	4.7	3.7– 6.9
Wisconsin	288	25,701	1,402	89.2	4.9	18.3	74	52–115	3.9	2.6– 5.5
Wyoming	30	3,181	209	106.0	6.9	15.2	81	38–178	5.3	3.4– 9.5

[1] Too few in number and too scattered to find valid medians or quartiles.

Column 8 shows the enrollment of the median 4-year high school in rural communities. That is to say, half of the schools of this type in a given State have enrollments larger than the number given in this column and half have enrollments which are smaller. In North Dakota, for example, half of the 4-year rural high schools enroll fewer than 40 pupils each and half report enrollments larger than this number. Column 9 gives the enrollment range which includes the middle 50 per cent of these schools when arranged in order of size of enrollment. In columns 10 and 11 are presented data similar to those given in columns 8 and 9, except that they show the size of the teaching staff instead of the size of the enrollment.

Table 9 gives a statistical picture by States of the sizes of those schools located in rural areas which offer only the first three years of the regular 4-year high-school course. Since the distribution ranges are much narrower for this class of rural high schools than for the 4-year schools, it was possible to show in a single table facts similar to those shown in Tables 6, 7, and 8, except that because of the relatively small number of schools of this class in most of the States, the medians and interquartile ranges are not included. The table is arranged into four major parts, viz, the distribution of the 1,256 schools by size of enrollment and by size of teaching staffs, the columns showing totals for each State, and the columns presenting the central tendencies found. The States of Arizona, California, Colorado, Delaware, Massachusetts, Nevada, and New Hampshire report no schools under this classification, and 11 others report fewer than five such schools. Nearly one-half of all the schools of this type are found within the four populous States of Texas, Illinois, Pennsylvania, and Ohio, each of which reports more than 100 such schools. It will be seen later that in each of these States schools of this type are fully accepted as a part of the State's secondary school system, and definite standards for them are set up and maintained by their respective State departments of public instruction. In nine States the average enrollment per 3-year school is fewer than 20 pupils. It will be noted that most of these States are those with comparatively sparse populations. In but a single State, New Jersey, do these schools employ an average teaching staff of as many as three teachers. Maine and North Dakota show an average staff of one and one-tenth teachers respectively. Nearly two-thirds of all the schools in this group employ but two teachers each to provide all the secondary instruction the children will get during the three years of their attendance. In five States there is an average of fewer than 10 pupils per teacher.

TABLE 9.—*Size of regular 3-year high schools in rural and small population centers shown by the size of the enrollment and the number of teachers employed*

State	Distribution of schools by size of enrollment								Distribution of schools by size of teaching staff					Total			Central tendencies		
	1–5	6–10	11–20	21–30	31–40	41–50	51–75	76–100 [1]	1 teacher	2 teachers	3 teachers	4 teachers	5 teachers	Number of schools	Number of pupils	Number of teachers	Average enrollment	Average number of teachers per school	Average number of pupils per teacher
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Continental United States	4	37	348	399	268	107	73	20	246	818	158	25	9	1,256	36,305	2,523	28.9	2.0	14.4
Alabama	1		1	1	1			1	2	2		1		5	175	10	35.0	2.0	17.5
Arkansas	1		9	11	7	4	2		9	19	5	1		34	983	66	28.9	1.9	14.8
Connecticut				1						1				1	30	2	30.0	2.0	15.0
Florida				1	1					1	1			2	60	5	30.0	2.5	12.0
Georgia		1	26	21	8	4	2		25	33	4			62	1,503	103	24.2	1.6	14.5
Idaho		1	1	2	1	1	1			5	2			7	203	16	29.0	2.2	12.6
Illinois			28	47	42	20	22	6	1	103	49	12		165	5,899	402	35.7	2.4	14.6
Indiana			9	12	5		1		2	22	3			27	674	57	24.9	2.1	11.8
Iowa		1	3	7	3				2	12				14	332	26	23.7	1.8	12.7
Kansas		1	5	2					2	5	1			8	134	15	16.7	1.8	8.9
Kentucky			7	12	4		2		12	12		1		25	653	40	26.1	1.6	16.3
Louisiana			1		1				1		1			2	56	4	28.0	2.0	14.0
Maine			4						4					4	71	4	17.7	1.0	17.7
Maryland			1	3	5	1	1			10	1			11	380	23	34.5	2.1	16.5
Michigan		1	1					1	1	1			1	3	113	8	37.6	2.6	14.1
Minnesota			5	8	3				5	11				16	389	27	24.3	1.6	14.4
Mississippi		2	19	20	2	1			9	33	2			44	924	81	21.0	1.8	11.4
Missouri		1	19	21	14	5	1		8	53				61	1,600	114	26.2	1.8	14.0
Montana		1	1	3						5				5	99	10	19.8	2.0	9.9
Nebraska		4	11	7	2				4	20				24	422	44	17.5	1.8	9.5
New Jersey					1						1			1	35	3	35.0	3.0	11.6
New Mexico			11	5	2				4	12	2			18	373	34	20.7	1.8	10.9
New York			10	10	3	3		3		17	7	2	3	29	971	85	33.4	2.9	11.4
North Carolina		1	4	14	21	9	5	1	9	36	9	2		55	1,997	116	36.3	2.1	17.2
North Dakota		8	28	8			1		36	8				45	736	52	16.3	1.1	14.1

[1] The schools enrolling more than 100 pupils reported the following enrollments: New York, 107 and 149; Texas, 140.

TABLE 9.—*Size of regular 3-year high schools in rural and small population centers shown by the size of the enrollment and the number of teachers employed*—Continued

State	Distribution of schools by size of enrollment								Distribution of schools by size of teaching staff					Total			Central tendencies		
	1–5	6–10	11–20	21–30	31–40	41–50	51–75	76–100	1 teacher	2 teachers	3 teachers	4 teachers	5 teachers	Number of schools	Number of pupils	Number of teachers	Average enrollment	Average number of teachers per school	Average number of pupils per teacher
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ohio			30	34	36	7	4		13	93	5			111	3,175	214	28.6	1.9	14.8
Oklahoma		2	4	12	4	1			2	20	1			23	572	45	24.8	1.9	12.7
Oregon			1							1				1	18	2	18.0	2.0	9.0
Pennsylvania		1	30	47	33	18	16	5	34	101	12	1	2	150	4,975	286	33.1	1.9	17.4
Rhode Island				1						1				1	23	2	23.0	2.0	11.5
South Carolina			1	10	5	2		1	1	13	5			19	634	42	33.3	2.2	15.0
South Dakota	1		10	12	6				6	22	1			29	649	53	22.3	1.8	12.2
Tennessee			7	9	2				2	15	3			20	604	41	30.2	2.0	14.7
Texas	1	7	51	53	39	24	10	2	43	102	36	3	3	187	5,538	396	29.6	2.1	13.9
Utah							1			1				1	66	2	66.0	2.0	33.0
Vermont			1	1					1	1				2	39	3	19.5	1.5	13.0
Virginia		1	6	3	4	1			1	12	1	1		15	366	32	24.4	2.1	11.4
Washington		2	4	1	1		1		7		2			9	176	13	19.5	1.4	13.5
West Virginia				2	4	2	3			7	3	1		11	449	27	40.8	2.4	16.6
Wisconsin			1			2				3				3	101	6	33.6	2.0	16.8
Wyoming		2	3		1					5	1			6	108	13	18.0	2.1	8.3

Data presented in Table 10 relative to the sizes by States of the schools offering two years of the regular high-school course are similar in almost every respect to those given for the 3-year schools. States from which are reported either none or very few schools of the 3-year type in almost every case show none or very few of the 2-year type. Michigan is the only outstanding exception. Only three of the schools of this State are reported as 3-year schools, whereas 69 are reported as 2-year schools. Illinois also shows more than 100 schools of the 2-year type and Missouri ranks highest in the total number of schools of this class. Kentucky, Nebraska, Pennsylvania, and Ohio also rank high. The table shows that in some of the States all of the schools of this class report 10 pupils or fewer each and in many all report 20 pupils or fewer. Teaching staffs are proportionately small. Fourteen States show an average of one teacher per school and the average number per school of all the schools in this class is only a little more than one teacher. The series of measures from the two tables most nearly comparable are those showing the pupil teacher ratio. In most of the States the 2-year schools show slightly fewer pupils per teacher than the 3-year schools. Among the States reporting large numbers of schools offering two and three years of the regular secondary course Illinois and North Dakota should be noted as States showing, respectively, eight and four pupils per teacher more in the latter type of school than in the former.

TABLE 10.—*Size of the regular 2-year high school in rural and small population centers shown by size of the enrollment and by the number of teachers employed*

State	Distribution of schools by size of enrollment							Distribution of schools by size of teaching staff			Total			Central tendencies		
	1-5	6-10	11-20	21-30	31-40	41-50	51-75	1 teacher	2 teachers	3 teachers	Number of schools	Number of pupils	Number of teachers	Average enrollment	Average number of teachers per school	Average number of pupils per teacher
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Continental United States	81	205	688	224	49	12	8	1,025	229	18	1,272	19,190	1,541	15.1	1.2	12.5
Alabama		1	1					2			2	17	2	8.5	1.0	8.5
Arizona	1							1			1	2	1	2.0	1.0	2.0
Arkansas	2	8	16	7	4	1		23	14	1	38	656	54	17.2	1.4	12.1
Colorado	2	1	3	1					1		7	76	8	10.8	1.1	9.5
Connecticut			1						1		1	13	2	13.0	2.0	6.5
Florida	2	2	11	5				10	9	1	20	296	31	14.8	1.5	9.5
Georgia	3	2	8	2	1			9	7		16	235	23	14.6	1.4	10.2
Idaho	1	1	2					3	1		4	47	5	11.7	1.2	9.4
Illinois	2	18	66	22	2		1	105	4	2	111	780	119	7.0	1.0	6.5
Indiana	2		5	8				11	3	1	15	278	20	18.5	1.3	13.9
Iowa	1	11	28	6	1			38	9		47	661	56	14.1	1.1	11.8
Kansas	4	9	17	1				29	2		31	342	33	11.0	1.0	10.3
Kentucky	4	7	49	16	3	1		72	8		80	1,323	88	16.5	1.1	15.0
Louisiana		1	3		1			2	3		5	92	8	18.4	1.6	11.5
Maine	1	2	17					19	1		20	284	21	14.2	1.0	13.5
Maryland			4	6	1			10	1		11	226	12	20.5	1.0	18.8
Massachusetts				1						1	1	26	3	26.0	3.0	8.6
Michigan	10	16	28	14		1		65	4		69	985	73	14.2	1.0	13.4
Minnesota	2	5	23	5		1		32	4		36	509	40	14.1	1.1	12.7
Mississippi	2	15	33	1	2			39	14		53	676	67	12.7	1.2	10.0
Missouri	9	11	69	22	4	2		106	11		117	1,956	128	16.7	1.1	15.3
Montana		4	8	4				11	5		16	234	21	14.6	1.3	11.1
Nebraska	8	19	33	6				64	2		66	767	68	11.6	1.0	11.2
Nevada		1						1			1	6	1	6.0	1.0	6.0
New Hampshire			3	2	2			2	3	2	7	175	15	25.0	2.1	11.6

New Jersey					2		1		3		3	133	6	44.3	2.0	22.1
New Mexico	1	6	6	1		1		10	5		15	203	20	13.5	1.3	10.1
New York	3	3	29	8	3			5	39	2	46	744	89	16.1	1.9	8.3
North Carolina		5	15	16	7		1	26	15	3	44	977	65	22.2	1.4	15.0
North Dakota	7	17	23	2				47	2		49	500	51	10.2	1.0	9.8
Ohio	3	11	29	8	3	1		50	5		55	835	60	15.1	1.0	13.9
Oklahoma	3	4	16	5	1			23	6		29	426	35	14.6	1.2	12.1
Oregon			2					2			2	21	2	10.5	1.0	10.5
Pennsylvania	1	1	45	16	6	3	2	62	11	1	74	1,573	87	21.2	1.1	18.0
Rhode Island						1			1		1	46	2	46.0	2.0	23.0
South Carolina			1	2				1	1	1	3	66	6	22.0	2.0	11.0
South Dakota	4	11						13	2		15	177	17	11.8	1.1	10.4
Tennessee		5	32	17	2		1	48	8	1	57	1,158	69	20.3	1.2	16.7
Texas	1	4	19	2	1			23	4		27	382	31	14.1	1.1	12.3
Utah				4	2			2	2	2	6	185	13	30.8	2.1	14.2
Vermont		1	7	3				11			11	188	11	17.0	1.0	17.0
Virginia	1	3	14	5			1	17	7		24	420	31	17.5	1.2	13.5
Washington	9	5	6					17	3		20	150	23	7.5	1.1	6.5
West Virginia		2	2	4	1			3	6		9	182	15	20.2	1.6	12.1
Wisconsin			2	2			1	3	2		5	143	7	28.6	1.4	20.3
Wyoming	1		1					2			2	19	2	9.5	1.0	9.5

[1] The schools enrolling more than 75 pupils reported the following enrollments: Pennsylvania, 77; and Tennessee, 165.

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The data for schools in rural areas which reported that they offer but one year of the regular high-school course are given in Table 11. The arrangement is the same as in Tables 9 and 10. Reports of secondary school situations of this type were received from only 24 States, and from each of 11 of these but one such school was reported. North Dakota reports as many as 12 schools of this type, and this is the largest number from any one State. Since such slight variations occur in the matter of size of enrollment and teaching staff the distributions and central tendencies shown in this table are not very significant. The table is included here only in the interest of a complete picture. One significant difference related to school size should, however, be noted. The pupil-teacher ratio is in almost every case much lower in the 1-year schools than in those offering longer courses. This would naturally have an effect upon the cost per child of secondary school education.

TABLE 11.—*Size of regular 1-year high schools in rural and small population centers shown by size of the enrollment and by the number of teachers employed*

State	Distribution of schools by size of enrollment					Distribution of schools by size of teaching staff		Totals and central tendencies					
	1 to 5	6 to 10	11 to 20	21 to 30	31 or more	1 teacher	2 teachers	Total schools	Total enrollment	Total teaching staff	Average enrollment	Average teachers per school	Average pupils per teacher
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Continental United States	31	15	15	3	3	58	9	67	646	81	9.6	1.2	7.9
Arkansas	1		2			3		3	23	3	7.7	1.0	7.7
Idaho	1					1		1	3	1	3.0	1.0	3.0
Illinois	1					1		1	4	1	4.0	1.0	4.0
Indiana		1				1		1	9	1	9.0	1.0	9.0
Iowa	4			1		5		5	40	5	8.0	1.0	8.0
Kansas			1				1	1	18	2	18.0	2.0	9.0
Kentucky		1				1		1	6	1	6.0	1.0	6.0
Michigan			1			1		1	11	1	11.0	1.0	11.0
Minnesota	1					1		1	2	1	2.0	1.0	2.0
Mississippi	1	2	1			1	3	4	26	7	6.5	1.7	3.7
Nebraska	3					3		3	9	3	3.0	1.0	3.0
New Hampshire	1	1				2		2	13	2	6.5	1.0	6.5
New Jersey			1		[1] 1	1	[1] 1	2	[2] 100	8	50.0	4.0	12.5
New York	1	1	2			2	2	4	45	6	11.2	1.5	7.5
North Carolina			3	1	2	4	2	6	137	8	22.8	1.3	17.1
North Dakota	5	5	2			12		12	79	12	6.6	1.0	6.6
Oklahoma	1		1			2		2	16	2	8.0	1.0	8.0
Oregon	1					1		1	2	1	2.0	1.0	2.0
Pennsylvania		1				1		1	8	1	8.0	1.0	8.0
South Carolina			1			1		1	16	1	16.0	1.0	16.0
South Dakota	4	2				6		6	28	6	4.7	1.0	4.7
Texas	1	1				2		2	10	2	5.0	1.0	5.0
Utah	1					1		1	5	1	5.0	1.0	5.0
Washington	4			1		5		5	36	5	7.2	1.0	7.2

[1] 88 pupils.

[2] 7 teachers.

Data showing sizes and prevalence by States of schools offering 4 years of high-school work in rural areas but organized on the junior high-school basis are shown in Tables 12, 13, and 14. These schools are referred to in this study as reorganized or junior-senior schools. It will be noted in the first place that all the rural high schools which have both the junior and senior units have been grouped together regardless of the number of years constituting each unit. For the total number of rural junior-senior high schools organized on each of the several plans of combining grades reference should be had to Table 3 and the discussion concerning that table. It would probably be of interest to show here the distribution by States of the schools organized on each of these various plans, but since this study is devoted primarily to showing the size of the rural high school rather than its organization, and since the factors affecting the size of the school are believed to be sufficiently similar in all types of rural high schools organized on the junior-senior basis to warrant grouping them together, separate distributions for each type are not given. For those interested in the prevalence of each type of organization, however, the States from which 25 or more schools of any one type were reported are here briefly listed. Of the 488 schools operating under the 9-3 plan, Alabama reports 93, Ohio 44, Michigan 41, West Virginia 26, and Indiana 25; of the 823 rural junior-senior high schools of the 6-year undivided type, 179 are in Indiana, 90 in Ohio, 88 in Michigan, 76 in Iowa, 32 in Pennsylvania, 26 each in Oklahoma and Missouri, and 25 in Colorado; the 107 junior-senior high schools in rural areas operating under the various combinations of the 5-year plan are thinly scattered over 32 States, only Iowa, Michigan, and Mississippi reporting as many as 10 schools each. In other words, the schools organized on one of the 5-year plans are seemingly the result of accidental causes rather than studied policy. The practices of the States with respect to the 5-year type of organization would, therefore, not be of interest.

TABLE 12.—*The reorganized 8–8, 6-year, or 5-year high schools in rural and small population centers distributed by States on the basis of enrollment*

State	Number of pupils enrolled															
	10–20	21–30	31–40	41–50	51–75	76–100	101–125	126–150	151–175	176–200	201–225	226–250	251–275	276–300	More than 300	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Continental United States	2	4	23	46	151	232	228	166	142	106	84	53	49	31	101	1,418
Alabama	1		5	2	12	17	24	21	12	8	7	4	1	1	3	118
Arizona							1	1	1	1						4
Arkansas			1	1	4	4	4	2	4	2	1	2			1	26
California					1	1	2			2	2	2	1		4	15
Colorado			2	2	1	11	8	5	7	4	2		1		3	46
Connecticut							1	1	1		1					4
Delaware										1				1	1	3
Florida				1	2		1			3	3	1	3		5	19
Georgia							2	1	2				1			6
Idaho						2			1		1	1			2	7
Illinois						1	1	3	1							6
Indiana		1	1	4	17	52	47	40	21	7	4	5	5	1	3	208
Iowa	1	2	2	5	13	19	21	9	13	6	9	2	3	1	2	108
Kansas			1		5	3	4	7	2	3	1	2	1	2		31
Kentucky					5	1	4	3	1	1				1	3	19
Maine				1	2	3	4	1	1	2		1				15
Maryland						1									1	2
Massachusetts					3	5	5		3	1						17
Michigan			1	7	13	28	16	13	14	11	10	9	8	2	7	139
Minnesota			2		1	2	3		2	4	2	2	3		6	27
Mississippi			3	4	12	12	6	2		1						40
Missouri			1	3	4	6	4	9	5	4	2	4	2		2	46
Montana					1	1	1		1	1	1				1	7
Nebraska			1	2	1		1	1	4	4	5	1	2	1	2	25
Nevada							2									2
New Hampshire			1		1	3	2	1	2	1	1					12
New Jersey							1							1	2	4
New Mexico					1	1	1	3								6
New York			1	3	1	2	1	8	6	4	3		2	2	10	38
North Carolina						1	1	2	1	1	1					7

North Dakota			1		3	1	2		2	3	1	2				15
Ohio		1		1	17	27	30	17	15	10	6	1	4	3	4	139
Oklahoma				2	2	5	1	4	6	4	4	1	2	6	9	46
Oregon								1								1
Pennsylvania					2	4	5	5	6	3	6	4	3	3	11	52
South Carolina										1	1				1	3
South Dakota				1			1			1	1				1	5
Tennessee						1	1			1	2			1		6
Texas				3	4		2				1	1			3	14
Utah							1		1		1		1	1	3	8
Vermont				2	8	4	6	2	1	2	1	1				27
Virginia					1						1			1	1	4
Washington					1	2		1			1		2	1	3	11
West Virginia					6	7	9	7	3	5	1	4	3	1	4	50
Wisconsin					3	4	1		2	4			1		2	17
Wyoming				2	4	1	1	1	1		1			1	1	13

[1] Most of these schools enroll between 301 and 400 pupils. Those not falling in this group are found distributed among the States as follows: Enrolling 401–500 pupils—Arkansas, Minnesota, Missouri, New York, South Carolina, and West Virginia, each 1, Oklahoma 2, and Pennsylvania 5; 501–600—Idaho, New Jersey, Pennsylvania, and Utah each 1, and New York 2; more than 600—New York, Utah, Pennsylvania, and Virginia each 1, and Florida 2.

TABLE 13.—*The reorganized 3–3, 6-year, or 5-year high school in rural and small population centers distributed by States and on the basis of the number of teachers employed*

State	Number of teachers employed															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	More than 15 [1]	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Continental United States	20	96	197	248	230	160	117	88	73	47	33	21	27	17	44	1,418
Alabama	5	7	15	42	21	16	3	3	3	1	1		1			118
Arizona				1		1		1	1							4
Arkansas		5	5	5	5	1	1	1	1	1					1	26
California				2	1	1	1	1	2			3	1		3	15
Colorado	1	2	2	6	12	8	6	2	3	1	1			2		46
Connecticut					2	1		1								4
Delaware								1				1	1			3
Florida			1	3	1		2		2			2	2	1	3	19
Georgia			2	2	1			1								6
Idaho			1	1	1					2		1		1		7
Illinois				1	2	1	2									6
Indiana		4	21	43	54	33	26	8	6	6	3	1	1	1	1	208
Iowa	1	11	15	15	18	12	16	6	3	4	4		1		2	108
Kansas		1	6	3	1	3	5	2	4	3	3					31
Kentucky	1	3	7	1	3	2		1	1							19
Maine	1	3		4	4		1			1	1					15
Maryland		1											1			2
Massachusetts			1	7	4	2	1	2								17
Michigan	1	15	19	25	14	14	8	13	8	5	7	2	3	2	3	139
Minnesota		4	1	2	3	2		2	4		1		3	2	3	27
Mississippi	3	6	15	7	6	2	1									40
Missouri		5	12	2	7	5	3	5	1	2	2		2			46
Montana		1	1		1	3			1							7
Nebraska	1		1	2		4	1	6	5	2	1	1			1	25
Nevada					1		1									2
New Hampshire		1	1	5		3	1			1						12
New Jersey				1						1					2	4
New Mexico			1	1	3	1										6
New York		3	3	2	1	3	1	7	5	3	1	3	2		4	38
North Carolina			1	2	1	1	1	1								7

North Dakota	2	2	2	2	1	2	2		1	1						15
Ohio	1	6	37	30	22	11	9	5	8	2	2	1		1	4	139
Oklahoma	1	2	5	6	3	4	8	5	4		2	1	3	1	1	46
Oregon					1											1
Pennsylvania			2	5	11	5	6	4	1	3	2		3	3	7	52
South Carolina					2								1			3
South Dakota			1			2		1							1	5
Tennessee		1		1	2	1						1				6
Texas	1	3	3	1		1	1		2				1		1	14
Utah					2	1			1	2					2	8
Vermont		4	9	6	2	2	1	2	1							27
Virginia		1						1	1						1	4
Washington		1	1	1	1		1	2		1		1	1	1		11
West Virginia		3	4	3	12	10	6	4	2	1		2		1	2	50
Wisconsin	1	1	1	2	3	1			2	2	2			1	1	17
Wyoming			1	6	1	1	2					1			1	13

[1] Florida, Indiana, Ohio, Pennsylvania, Texas, West Virginia, and Wisconsin each report 1 rural high school with 16 teachers; Iowa reports 2 rural high schools with 17 teachers each; and Michigan, Minnesota, Nebraska, New York, and Ohio each report 1 with 17 teachers; Arkansas, New York, Ohio, South Dakota, and West Virginia each report 1 with 18 teachers; California, Michigan, Minnesota, New York, Oklahoma, Pennsylvania, Utah, and Wyoming each report 1 with 19 teachers; California, Michigan, Minnesota, Ohio, and Utah each report 1 with 20 teachers; Pennsylvania reports 2 with 22 teachers each; New Jersey and Pennsylvania each report 1 with 23 teachers; California reports 1 with 24 teachers; Florida and New York each report 1 with 26 teachers; Pennsylvania reports 1 with 28 teachers; New Jersey, Pennsylvania, and Virginia each report 1 with 30 teachers; Florida reports 1 with 44 teachers; and Pennsylvania reports 1 with 50 teachers.

TABLE 14.—*Central tendencies in reorganized 3–3 6-year and 5-year undivided high schools in rural and small population centers*

State	Total number of schools	Total enrollment	Total number of teachers	Average enrollment	Average teaching staff	Average pupil per teacher
1	2	3	4	5	6	7
Continental United States	1,418	216,002	10,042	152.3	7.1	21.5
Alabama	118	15,431	657	130.8	5.5	23.4
Arizona	4	594	31	148.5	7.7	19.1
Arkansas	26	3,597	153	138.3	5.8	23.5
California	15	3,198	162	213.2	10.8	19.7
Colorado	46	6,413	323	139.4	7.0	19.8
Connecticut	4	631	28	157.7	7.0	22.5
Delaware	3	848	36	279.3	12.0	23.2
Florida	19	4,783	238	251.7	12.5	20.0
Georgia	6	917	33	152.8	5.5	27.7
Idaho	7	1,661	65	237.2	9.2	25.5
Illinois	6	770	40	128.3	6.6	19.2
Indiana	208	26,181	1,373	125.8	6.6	19.1
Iowa	108	13,670	714	126.5	6.6	19.1
Kansas	31	4,409	236	142.2	7.6	18.6
Kentucky	19	2,846	95	149.7	5.0	29.9
Maine	15	1,949	86	129.9	5.7	22.6
Maryland	2	440	17	220.0	8.5	25.8
Massachusetts	17	1,826	103	107.4	6.0	17.7
Michigan	139	20,938	984	150.6	7.0	20.2
Minnesota	27	5,481	256	203.0	9.4	21.4
Mississippi	40	3,225	177	80.6	4.4	18.2
Missouri	46	6,922	303	150.4	6.5	22.8
Montana	7	1,129	44	161.2	6.2	25.6
Nebraska	25	4,873	229	194.9	9.1	21.2
Nevada	2	231	14	115.5	7.0	16.5
New Hampshire	12	1,465	72	122.0	6.0	20.3
New Jersey	4	1,572	69	393.0	17.2	22.7
New Mexico	6	610	34	101.6	5.6	17.9
New York	38	8,214	371	216.1	9.7	22.1
North Carolina	7	1,024	44	146.2	6.2	23.2
North Dakota	15	2,116	85	141.0	5.6	24.8
Ohio	139	19,000	861	136.7	6.1	22.0
Oklahoma	46	9,633	366	209.4	7.9	26.3
Oregon	1	148	6	148.0	6.0	24.3
Pennsylvania	52	12,464	552	239.6	10.6	22.5
South Carolina	3	877	26	292.3	8.6	33.7
South Dakota	5	921	45	184.2	9.0	20.4
Tennessee	6	1,135	40	189.1	6.6	28.3
Texas	14	2,162	93	154.4	6.6	23.2
Utah	8	2,549	94	318.6	11.7	27.1
Vermont	27	2,860	140	105.9	5.1	20.4
Virginia	4	1,346	52	336.5	13.0	25.8
Washington	11	2,481	97	225.5	8.8	25.5
West Virginia	50	8,091	372	161.8	7.4	21.7
Wisconsin	17	2,699	131	158.7	7.7	20.6
Wyoming	13	1,682	95	129.3	7.3	17.7

The data presented in Tables 12, 13, and 14 are arranged and should be read, respectively, very much in the same way as those for the regular 4-year high schools given in Tables 6, 7, and 8. The only significant differences are found in the table showing central tendencies. The total number of schools organized on the junior-senior basis is so small and the distribution ranges so wide in most of the States that statistics showing median schools and interquartile ranges

of distribution would have little value. These are, therefore, omitted from Table 14.

It will be found that all of the States except Louisiana and Rhode Island are represented in these tables. However, 10 others reported five or fewer such schools. The number of the schools of this type in any given State found in the lower enrollment ranges and with extremely small teaching staffs can easily be seen.

It is pertinent at this point to make some comparisons between the average sizes of the regular 4-year high schools in rural areas and those operating on the junior-senior type of organization. With respect to average enrollments it will be seen that in only one State, Missouri, do the junior-senior schools show fewer than 100 pupils; in 10 States these schools average between 200 and 300 pupils each; and in three States they average more than 300 pupils. The footnote, Table 12, shows that rural junior-senior high schools of more than 600 pupils are found in some of these States. By comparison, the 4-year rural high schools average fewer than 100 pupils in 38 of the States, between 100 and 200 in 8 of the States, and more than 200 in only 2 of the States. A comparison of the average teaching staff shows the junior-senior group to have similar advantages over the 4-year type in the matter of size, although the differences are not so marked as in the case of enrollments. Of course the fact that the former offers a 6-year program, whereas the latter provides only four years of work, offsets some of the administrative advantages made possible because of the larger aggregations of pupils and teachers, but, as just pointed out, there will still be such educational advantages as broadened curricula, increased extracurricular activities, teacher specialization, etc. As indicated by a comparison of pupil-teacher ratios, the junior-senior group is also apt to have the advantage in the matter of pupil costs. In every State except Alabama and Arkansas these schools show a larger number of pupils per teacher than do the 4-year schools. In some States these differences are slight but in others—for example, Kentucky, North Dakota, Oklahoma, and Washington—they are very substantial. If the cost advantages of both the higher quality of education provided and the higher pupil-teacher ratios could be fully ascertained, there is a high probability that the junior-senior plan of high-school organization would, at least with respect to cost, show much superiority as a means of providing high-school education in rural communities.

Comparatively few of the rural school systems have thus far undertaken to complete their local educational provisions by means of the junior high school organized and maintained separate from a senior school. The junior high school, if found at all in rural communities, is much more frequently a part of the 6-year junior-senior type of

organization, What proportion of the school districts in which these independent junior high school units are found provide the remaining part of the secondary school program by definite agreement with some near-by senior high school and what proportion allow the children upon completion of the local junior unit to shift for themselves in the matter of continuing their education is not known. What the practices are in this respect and how the various types of arrangements are working out in such matters as pupil retention, per capita costs, and other facts would be important information and should be carefully investigated. This study will, however, limit itself to showing the number of schools with this type of organization, the factors which show the sizes of enrollments and teaching staffs, and the location of these schools by States.

Table 15 shows that the 178 separately organized junior high schools of this type are distributed among 36 of the States. West Virginia leads with a total of 29 such schools, Florida shows 21, Alabama and Pennsylvania each show 15, and Utah 10. All other States report fewer than 10 such schools each. Enrollment averages show very great variations as among States, a fact also true of the average teaching staffs. Since in most of these schools but a single year of the regular high-school course is offered and since two of the grades commonly found in the elementary school are involved in the data presented in Table 15 no further general analyses or comparisons will be attempted here.

TABLE 15.—*Size of 3-year [1] junior high schools located in rural and small population centers as shown by the size of the enrollment and by the number of teachers employed*

State	Distribution of schools by size of enrollment								Distribution of schools by size of teaching staff								Total number of schools	Total enrollment	Total teachers	Average enrollment	Average teaching staff	Average pupils per teacher
	11-20	21-30	31-40	41-50	51-75	76-100	101-125	Over 125 [2]	1 teacher	2 teachers	3 teachers	4 teachers	5 teachers	6 teachers	7 teachers	More than 7 teachers [3]						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Continental United States	18	30	27	24	30	20	12	17	16	62	44	27	9	9	5	6	178	11,514	583	64.6	3.3	19.7
Alabama		7	5	1	2				2	9	2	1	1				15	519	35	34.6	2.3	14.7
Arizona						1								1			1	83	6	83.0	6.0	13.8
Arkansas		2			1					2		1					3	121	8	40.3	2.6	15.1
California			1	1			1	1		1	1			1		1	4	329	19	82.2	4.7	17.3
Connecticut				1			1			1		1					2	161	6	80.5	3.0	26.8
Florida	1	5	5	3	3	2	1	1	1	10	5	2	1	1		1	21	1,381	78	65.7	3.4	18.9
Georgia	1	1	4	2					2	3	3						8	268	17	33.5	2.1	15.7
Indiana	1	1							1		1						2	45	4	22.5	2.0	11.2
Iowa		2								2							2	51	4	25.5	2.0	12.7
Kansas	1							2	1	1					1		3	274	10	91.3	3.3	27.4
Kentucky		1			1				1	1							2	84	3	42.0	1.5	28.0
Louisiana		1	1		1		1			2	1	1					4	221	11	55.2	2.7	20.0
Maine	1								1								1	18	2	18.0	2.0	9.0
Massachusetts			2		4	1				2	2	2	1				7	389	23	55.5	3.2	16.9
Michigan	2			2		1			2	1	2						5	208	10	41.6	2.0	20.8
Minnesota		1				1				1		1					2	120	6	60.0	3.0	20.0
Missouri	1			1					1		1						2	68	4	34.0	2.0	17.0
Montana	1									1							1	10	2	10.0	2.0	5.0
Nebraska	1			1			1		1		1	1					3	161	8	53.6	2.6	20.1
New Hampshire	1			1	2		1			2	1	1	1				5	291	16	58.2	3.2	18.1

[1] Fifty-seven 4-year junior high schools are included in the data of this table, and distributed as follows: 1 each for Kentucky, Massachusetts, Minnesota, North Carolina, Wisconsin, and Wyoming; 2 each for Arkansas, Georgia, Louisiana, Missouri, Utah, and West Virginia; 3 each for New Hampshire and Tennessee; 4 for Michigan; 5 for Vermont; 7 for Florida; 8 for Alabama; and 9 for Pennsylvania.

[2] The schools enrolling more than 125 pupils reported the following enrollments: California, 133; Florida, 155 and 429; Kansas, 143; New Jersey, 132; Pennsylvania, 128, 135, 138, 168, 170, 181, and 435; Tennessee, 338; Utah, 226; West Virginia, 179, 187, and 217.

[3] California and Utah each report 1 rural high school with 8 teachers; Pennsylvania reports 1 with 8 and 1 with 16 teachers; Florida reports 1 with 18 teachers; and Tennessee reports 1 with 11 teachers.

TABLE 15.—*Size of 3-year junior high schools located in rural and small population centers as shown by the size of the enrollment and by the number of teachers employed*—Continued

State	Distribution of schools by size of enrollment								Distribution of schools by size of teaching staff								Total number of schools	Total enrollment	Total teachers	Average enrollment	Average teaching staff	Average pupils per teacher
	11–20	21–30	31–40	41–50	51–75	76–100	101–125	Over 125	1 teacher	2 teachers	3 teachers	4 teachers	5 teachers	6 teachers	7 teachers	More than 7 teachers						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
New Jersey								1						1			1	132	6	132.0	6.0	22.0
New York	1					2				1	2						3	176	8	58.6	2.6	22.0
North Carolina					1						1						1	75	3	75.0	3.0	25.0
Ohio			1		1	2				1	1	1	1				4	258	14	64.5	3.5	18.4
Oklahoma				1						1							1	48	2	48.0	2.0	24.0
Oregon	1								1								1	17	1	17.0	1.0	17.
Pennsylvania				1	3	2	2	7			3	3	3	2	2	2	15	1,989	86	132.6	5.7	23.1
Tennessee		1	1					1		1		1				1	3	400	17	133.3	5.6	23.5
Texas						1						1					1	94	4	94.0	4.0	23.5
Utah			2		2	4	1	1		1	3	5				1	10	885	37	88.5	3.7	23.9
Vermont		2	1	2						2	3						5	188	13	37.6	2.6	14.4
Virginia	2	2	1				1		1	4				1			6	230	15	38.3	2.5	15.3
Washington	1								1								1	17	1	17.0	1.0	17.0
West Virginia	2	3	3	6	7	3	2	3		10	10	5	1	1	2		29	2,013	105	69.4	3.6	19.1
Wisconsin					1									1			1	62	6	62.0	6.0	10.3
Wyoming		1		1	1					2	1						3	128	7	42.6	2.3	18.2

The data for the 2-year junior high schools operating as independent units are given by States in Table 16. It was just pointed out that an examination of the questionnaires revealed the fact that the grades constituting these schools are in every case those commonly found in the elementary schools. Strictly speaking, therefore, these schools do not offer any secondary education at all. Teaching programs in these schools are probably assigned on a vertical or departmental plan instead of the horizontal or grade plan, and they may follow a few other of the administrative practices commonly found in the junior high schools. It is probably for this reason that they have appropriated to themselves the name junior high school. The data from these schools are given here in the interest of completing a picture rather than for any significance that they may have in themselves. In any event the data are too scattering to be of much value.

TABLE 16.—*Size of 2-year junior high schools in rural and small population centers as shown by the size of the enrollment and by the number of teachers employed*

State	Distribution of schools by size of enrollment								Distribution of schools by size of teaching staff						Total schools	Total enrollment	Total number of teachers	Average enrollment	Average teaching staff	Average pupils per teacher
	11–20	21–30	31–40	41–50	51–75	76–100	101–125	Over 125	1 teacher	2 teachers	3 teachers	4 teachers	5 teachers	More than 5 teachers						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Continental United States	2	2	3	1	7	2	4	5	4	5	6	4	3	4	26	2,369	103	91.1	4.0	23.0
Alabama				1							1				1	50	3	50.0	3.0	16.6
Illinois	1		1						1	1					2	49	3	24.5	1.5	16.3
Kansas					2	1	2	[1] 1			2	2	1	[2] 1	6	577	25	96.1	4.1	23.0
Maine		1							1						1	21	2	21.0	2.0	10.5
Maryland							1						1		1	110	5	110.0	5.0	22.0
Massachusetts			1		1			[3] 1		1	1			[4] 1	3	292	14	97.3	4.6	20.8
Missouri								[5] 1						[6] 1	1	251	6	251.0	6.0	41.8
Montana						1	1					1	1		2	209	9	104.5	4.5	23.2
Nebraska					1						1				1	63	3	63.0	3.0	21.0
New Hampshire		1	1		2				1	3					4	186	7	46.5	1.7	26.5
New York	1								1						1	19	1	19.0	1.0	19.0
Ohio								[7] 1						1	1	343	18	343.0	18.0	19.0
Utah					1						1				1	68	3	68.0	3.0	22.6
Washington								[8] 1				1			1	131	4	131.0	4.0	32.7

[1] 150 pupils. [2] 7 teachers. [3] 195 pupils. [4] 9 teachers. [5] 251 pupils. [6] 9 teachers. [7] 343 pupils. [8] 131 pupils.

In order that each State might compare its rural high school situation with that of any other State, an attempt was made in Table 17 to show a general picture. Column 2 gives the total number of high schools which in 1926 returned data on the questionnaires sufficiently complete to be used in this study. Column 3 shows the total number of high schools located in centers with 2,500 or more population and column 4 shows those located in centers which have a population smaller than that number and which are therefore regarded in this study as rural. From the data given in these columns percentages were computed and presented in column 5 to show what proportion the rural high school is of the States' entire secondary school problem, the proportions being measured by the number of high school enterprises in each type of community. The proportion of all the children of high-school age in a given State which live in rural communities would undoubtedly be a better measure of a State's rural high school problem than the proportion of schools which are rural, but, generally speaking, little attention is paid to children not in high school and most of the State's interest in secondary education concerns itself with the school enterprise as a unit. The chief purpose of columns 6–12 is to show in summary form how, that is, by what means and to what degree, the several States meet the high-school needs in their rural communities. These columns, therefore, show the number of schools according to the length of the secondary school program made available in the several rural centers and the number of schools operating either on the traditional or on the reorganized plan of organization.

TABLE 17.—*Total number and types of public high schools in rural areas by States and some measures of the extent to which they reach rural children*

State	All high schools reported	Urban [1] high schools	Rural high schools	Per cent in rural communities	Type of rural high schools							Ratio of rural high school enrollment to each 100 pupils of rural elementary enrollment	Ratio of urban high school enrollment to each 100 pupils of urban elementary enrollment	Ratio of total secondary enrollment to each 100 pupils in both urban and rural elementary schools	Average enrollment per rural high school	Number of rural high schools per 10,000 pupils in rural elementary schools	Per cent of rural children 15–18 years of age enrolled in rural high schools
					Regularly organized				Reorganized								
					4-year	3-year	2-year	1-year	Junior-senior	3-year junior only	2-year junior						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Continental United States	18,157	4,014	14,143	77.8	9,926	1,256	1,272	67	1,418	178	26	9.01	29.4	17.91	75.8	11.81	27.3
Alabama	221	47	174	78.7	33	5	2	0	118	15	1	4.71	20.4	9.54	121.6	3.87	13.3
Arizona	42	12	30	71.4	34	0	1	0	4	1	0	6.50	21.8	14.55	77.4	8.41	11.4
Arkansas	272	46	226	83.0	122	34	38	3	26	3	0	3.42	25.3	7.52	61.0	5.61	16.9
California	408	211	197	48.2	178	0	0	0	15	4	0	9.58	42.2	23.80	154.7	6.19	46.8
Colorado	193	46	147	76.1	94	0	7	0	46	0	0	14.33	37.4	21.41	97.3	14.73	36.8
Connecticut	92	73	19	20.6	11	1	1	0	4	2	0	4.43	19.1	14.82	109.7	4.05	7.7
Delaware	26	6	20	76.9	17	0	0	0	3	0	0	13.11	24.2	16.99	119.0	11.02	35.2
District of Columbia	15	15	0										28.7	22.44			
Florida	185	42	143	77.2	81	2	20	0	19	21	0	5.73	29.8	11.39	87.0	6.59	24.2
Georgia	324	70	254	78.3	162	62	16	0	6	8	0	2.94	19.2	10.51	58.5	5.04	7.6
Idaho	136	23	113	83.0	94	7	4	1	7	0	0	15.41	32.7	22.77	87.6	17.59	40.7
Illinois	979	215	764	78.0	479	165	111	1	6	0	2	11.44	24.2	21.51	67.3	16.99	35.1
Indiana	810	141	669	82.5	416	27	15	1	208	2	0	22.35	34.5	29.96	87.4	25.57	61.0
Iowa	938	111	827	88.1	651	14	47	5	108	2	0	20.18	42.9	25.18	73.9	27.32	57.6
Kansas	739	113	626	84.7	540	8	31	1	31	3	6	21.45	56.6	24.87	77.7	27.58	59.2
Kentucky	558	92	466	83.5	339	25	80	1	19	2	0	5.85	22.9	8.58	52.7	11.10	17.1
Louisiana	253	34	219	86.5	208	2	5	0	0	4	0	5.76	14.6	13.02	67.3	8.56	14.2
Maine	217	56	161	74.1	120	4	20	0	15	1	1	15.52	28.2	22.27	56.2	27.62	29.9
Maryland	157	44	113	71.9	88	11	11	0	2	0	1	9.25	28.5	14.47	92.0	10.06	24.8
Massachusetts	347	270	77	22.1	49	0	1	0	17	7	3	9.56	31.3	22.53	79.0	12.10	54.4

Michigan	598	152	446	74.5	229	3	69	1	139	5	0	12.06	32.4	17.04	88.1	13.69	44.1
Minnesota	538	95	443	82.3	361	16	36	1	27	2	0	12.87	42.7	18.04	79.9	16.05	33.8
Mississippi	351	40	311	88.6	170	44	53	4	40	0	0	3.00	22.3	8.13	48.6	6.18	11.4
Missouri	748	101	647	86.5	420	61	117	0	46	2	1	10.61	28.4	18.08	64.6	16.43	31.9
Montana	197	21	176	89.3	145	5	16	0	7	1	2	16.20	44.4	21.80	64.2	25.35	38.6
Nebraska	602	51	551	91.5	429	24	66	3	25	3	1	19.27	39.6	22.53	68.6	28.83	58.3
Nevada	26	4	22	84.6	19	0	1	0	2	0	0	15.33	56.0	21.95	67.1	22.84	50.1
New Hampshire	107	39	68	63.5	38	0	7	2	12	5	4	18.17	37.8	20.39	69.2	26.25	49.8
New Jersey	174	127	47	27.0	36	1	3	2	4	1	0	5.15	21.2	16.73	196.8	2.62	21.3
New Mexico	100	12	88	88.0	49	18	15	0	6	0	0	7.11	32.2	10.26	53.2	13.35	19.9
New York	775	274	501	64.6	380	29	46	4	38	3	1	14.41	28.5	19.73	78.7	18.78	39.9
North Carolina	569	78	491	86.2	378	55	44	6	7	1	0	6.32	21.5	11.52	80.9	7.80	22.0
North Dakota	399	13	386	96.7	265	45	49	12	15	0	0	12.11	48.5	15.55	42.7	28.34	37.4
Ohio	1,092	243	849	77.7	539	111	55	0	139	4	1	15.41	31.8	21.68	77.4	19.89	48.3
Oklahoma	530	76	454	85.6	353	23	29	2	46	1	0	8.47	36.0	14.68	78.0	10.27	26.3
Oregon	262	43	219	83.5	213	1	2	1	1	1	0	19.14	36.9	27.46	63.4	30.41	53.2
Pennsylvania	1,005	350	655	65.1	863	150	74	1	52	15	0	8.48	25.9	16.91	89.1	9.52	27.2
Rhode Island	22	16	6	27.2	4	1	1	0	0	0	0	45.50	13.8	15.49	138.5	32.86	95.3
South Carolina	224	44	180	80.3	154	19	3	1	3	0	0	3.88	17.3	10.90	82.1	4.73	11.7
South Dakota	302	18	284	94.0	229	29	15	6	5	0	0	14.36	37.3	19.10	61.1	23.47	43.5
Tennessee	312	52	260	83.3	174	20	57	0	6	3	0	3.72	21.0	8.87	68.7	5.42	12.9
Texas	737	175	562	76.2	331	187	27	2	14	1	0	4.90	29.1	19.11	68.9	7.12	13.6
Utah	71	24	47	66.1	20	1	6	1	8	10	1	11.83	34.8	28.09	85.6	6.85	39.7
Vermont	77	22	55	71.4	10	2	11	0	27	5	0	12.48	28.6	19.60	71.6	17.43	25.7
Virginia	359	48	311	86.6	262	15	24	0	4	6	0	5.40	26.8	14.46	68.0	7.93	15.4
Washington	335	53	282	84.1	235	9	20	5	11	1	1	18.55	36.9	27.23	86.1	21.43	58.8
West Virginia	243	54	189	77.7	90	11	9	0	50	29	0	7.59	29.8	10.42	107.6	7.06	22.8
Wisconsin	425	111	314	73.8	288	3	5	0	17	1	0	10.76	37.5	30.46	91.4	11.78	28.3
Wyoming	65	11	54	83.0	30	6	2	0	13	3	0	19.75	41.2	23.88	94.7	20.84	51.2

[1] Partially estimated.

In the remaining columns an attempt is made to bring together some data which will at least in part measure what is accomplished by the rural high school program in each State. Column 13 shows what the ratio of the number of pupils attending rural high schools is to each 100 pupils enrolled in rural elementary schools. It is assumed that the compulsory school laws have the effect in all States of bringing approximately the same proportion of the available rural children into the rural elementary school. It is believed, therefore, that the proportion of children of elementary school age enrolled in the elementary school is a sufficiently constant factor in all States to constitute a valid measure against which to gage the proportionate number of children brought into the rural high school.

It is, of course, recognized that some of the children living in rural communities attend high school in urban centers and that the number of pupils given in this study as enrolled in rural high schools are not all the rural children attending high school. No data comparable for all States are available to show just how great this influx from rural areas to city high schools is, but it seems safe to assume that most of the children who must leave their homes to pursue a secondary education are guided in their choice of a school either by district, county, or State free tuition provisions and by various transportation arrangements. These provisions would naturally operate in favor of choosing a school in an adjacent or near-by school unit. Since nonresident rural high school pupils are drawn chiefly from the open country where no high-school opportunities are provided, and since such pupils are apt to attend schools in districts nearest to their homes, it seems fair to assume that most of these nonresident high-school children attend schools in the smaller population centers. If the above assumptions are granted, it follows that most of the pupils living in one district and attending high school in another shift between school districts, both of which are regarded by this study as rural. It is believed, therefore, that the number of children living in the country and attending high schools in the cities is probably comparatively small and that the number of children shown by this study to be attending rural high schools includes for most of the States very nearly all the rural children who are enjoying secondary school opportunities.

States which are highly urbanized or which follow policies of providing high-school education to large numbers of rural children by transporting them to high schools located in centers larger than 2,500 population will probably find the data presented in columns 13 and 18 to be slightly too low as a measure of how well rural children are reached by secondary education. Allowances should be made in the use of these data for such unusual conditions.

States in which such conditions obtain should, as a result of the influx of rural children, show somewhat larger proportions of children

attending urban high schools. It is partly for this reason that data are presented in column 14 to show for each State what the ratio of the number of pupils enrolled in its urban high schools is to each 100 pupils enrolled in its elementary schools. Other things being equal a State in which many children living in population centers of fewer than 2,500 are transported to or otherwise attend high schools located in centers larger than 2,500 population should show a slightly larger proportion of children attending these city high schools than a State not following this policy. It is obvious that if elementary children as well as high-school children attend schools located in city centers it will have the same effect on the measures in both columns 13 and 14 as if neither elementary nor secondary pupils were shifted for school purposes from rural to urban centers. When, therefore, comparisons are attempted between States with respect to the proportions of rural children reached by its high-school program the data given in column 14 should be taken into account.

Another reason for introducing into the study the data given in column 14 is to provide a means by which the several States might make comparisons between the relative number of rural and urban children brought into contact with secondary school opportunities. It will be seen that in most States a much larger proportion of urban children are enrolled in high school than is true of its rural children. Column 15 shows data similar to those given in columns 13 and 14, except that it shows the proportionate number of high-school pupils reached in both rural and urban communities. The data in column 15 are unaffected by the number of pupils living in rural communities and attending high schools located in cities. They provide a fairly reliable measure of the extent to which a State's high-school program reaches all the available children living within its borders.

In order to provide a further check for the data presented in column 13, an attempt was made to find for each of the States the per cent of the rural children 15 to 18 years of age, the United States census group comparing most closely to the normal high-school period, found enrolled in the rural high schools. The results of these computations are given in column 18. These data do not overcome the element of error arising from the number of rural pupils attending urban high schools, but they are computed upon the United States census report, thus overcoming any errors emanating from the use of elementary school enrollment as a basis. Since the data showing the enrollments in rural elementary schools were computed from two different sources there is always a chance that slight errors may have entered because of differences in bases upon which the raw data were reported.

No census data are available for a date later than 1920. It was therefore necessary to find the rate of change for each State which

occurred during the previous decade in the population of the age group most closely approximating the normal high-school age and then stepping-up the 1920 census figures to 1926. Obviously, in some States the annual rate of increase or drecrease of rural populations was not the same since 1920 that it was during the years immediately preceding this date. The percentages of rural children of high-school age actually attending rural high schools as given in column 18 are faulty to the degree that these census estimates are not true to fact. However, the figures used are believed to be the best obtainable. Most of the errors appearing in columns 13, 14, and 18 are apt to be more or less constant to all States of the same general geographic area and will, therefore, have a tendency balance off when comparisons are made between States. The figures given in these columns are believed to be useful indices of how well the various States reach their rural high school populations. From them may be had a fairly safe measure of the proportion of rural high school eligibles attending schools of secondary level in a given State and how its achievements in this respect compare with those of neighboring States.

In column 16 are given data to show the average enrollment each State brings together per school offering high-school work. The size of the average school enrollment may be taken as an index of the quality of secondary education offered in these rural schools. A State which shows a low enrollment average will of necessity have many schools with a small teaching staff trying to teach many subjects each; many of its schools will have very meager curriculum offerings, and many schools will have very inadequate library and other teaching equipment. All these factors place definite limitations upon the quality of the educational opportunities these schools can offer.

Column 17 represents an attempt to gage the effort made by each of the States to make secondary education available to rural children. This column shows the number of schools offering high-school work which are provided in each State per 10,000 children enrolled in rural elementary-schools. Of course, many of the States have solved the problem of making secondary education available to rural children by elaborate schemes for transporting children to centrally located high schools. Others are using dormitories and similar means of bringing rural children to the high school. These various provisions can not be cited here for each of the several States. However, when comparisons are made between States with respect to the high-school opportunities available to the rural children, these special provisions must be considered.

Space will not permit a detailed discussion of all the significant facts brought out in Table 17. Thus far an attempt has been made to make clear how the various columns of data were obtained; to show for what purpose these data were introduced into the study;

and to point out the nature of the measures, their limitations, and their relative validity. There remains now only the task of reading through the various columns in order that their use may be more fully understood. Taking the figures for the Nation as a whole it will be seen that of the 18,157 high schools reported, 14,143, or 77.8 per cent of the entire number, were found located in places with fewer than 2,500 population. Several of the States show more than 90 per cent of their high-school enterprises located in rural communities. Taking the proportionate number of high schools located in urban and rural communities as an index, each State may see to what extent its entire high-school problem is rural in character. By far the most of these rural high schools are 4-year schools. There are more 2-year high schools than 3-year schools. The latter are popular in only a few of the States, such as Illinois, Ohio, Pennsylvania, and Texas. The 2-year high schools are fairly proportionately distributed among the several States. Very few 1-year schools were reported. There is some evidence in most of the States to show that when a rural community inaugurates high-school work it begins with a 2-year program. When this program is expanded, four years of work are undertaken rather than three years. Columns 10, 11, and 12 show the extent to which the rural high schools of the various States are reorganizing on the junior high school basis. The junior-senior type of rural high school is becoming popular in several of the States, and the independent junior high school is beginning to make a numerical showing in a few States.

The Nation as a whole shows 9.01 rural children enrolled in rural high schools to every 100 children attending elementary schools in these communities. Many of the States make a much better showing than this and many others enroll a much smaller ratio. Comparing the data presented for rural communities with those given in column 14 for urban centers it may be seen that for the Nation as a whole urban high schools bring more than three times as large a proportion of their children into contact with a high-school education as the rural schools. Some of the States show as many as seven times as large a proportion of children in urban high schools as there are in rural high schools. The only State which shows a larger proportion attending rural high schools is Rhode Island. The very small number of rural high schools found in that State, together with the likelihood that those classed by this study as rural are apt to be located in populous suburban centers, may account for this unusual showing. The measures presented in columns 13 and 14 are by no means absolute. As already pointed out, a large number of factors enter into each situation which can not be fully evaluated, but the measures do show some significant comparative relationships both between the urban and the rural data of a given State and between both series of measures for any two

States. If in a given State the disparity between the number of rural children enrolled in high school and the number of urban children enjoying the benefits of this level of education is inordinately great, this fact should, in the interest of fairness, become a challenge to the educational forces of that State; and if the data for a given State, when compared to those of other States, show a low level of achievement in the number of both urban and rural children brought into contact with secondary education, that fact too should become a matter for serious concern.

The average size of the rural high school for the Nation is 75.8 pupils. In many States a very much smaller average is found. As has been suggested above the size of the high school may be regarded as an index of the quality of education that is apt to obtain in the rural communities of a given State. This point will be more completely considered in the next section. Suffice it here to say that in some of the States the rural high schools are, generally speaking, very small. There will be found some relationship between the average size of the rural high school enrollment and the number of high schools made available. Many States are now bringing comparatively large numbers of rural children into high school but they are achieving this result by providing a disproportionately large number of very small high schools. In so far as this situation indicates effort to provide high-school opportunities in rural communities it is to be commended, but when one considers the very low standards obtaining in these small high schools and the comparatively low quality of educational experience offered by them, one wonders if some solution other than the establishment of very small high schools should not be sought for providing high-school education to rural children. Column 17 shows that for every 10,000 pupils of the Nation attending rural elementary schools there are 11.81 rural high schools. Some of the States show as many as 30 rural high schools per 10,000 rural elementary children.

The analyses, comparisons, and evaluations of the data presented in the foregoing tables are readily admitted to be cursory if not somewhat superficial. It is believed, however, that the structure of the tables presented has been made clear, that some of the values of the data have been suggested, and that a few of the most significant facts revealed by them have been pointed out. A careful analysis, State by State, of all the various facts here presented would undoubtedly reveal many other important points. So extensive a task can, however, not be undertaken within the scope of this study. Those wishing to study and evaluate the rural or small high school situation of any given State will, of course, want to make comparisons between the data shown for that State with those presented for neighboring States or for States in whose rural high school policies they are particularly inter-

ested. Such procedure should yield many suggestions which should prove useful in finding solutions for the rural or small high school problem obtaining in such a State. There are in each State a great many conditioning factors which must be taken into account if the entire high-school situation of the State or States selected is to be understood and if intelligent comparisons are to be made as to the effectiveness of rural secondary programs. Some of these factors are State school laws and policies, forms of local school administration, topographical and weather conditions, types of agriculture, rural industries other than farming, population factors, etc. A good many elements of error were inherent in the source materials and in the techniques employed. However, every effort was made in computing these series of measures to avoid inaccuracies and to recognize the conditioning factors. The basic measures involved were carefully checked and, wherever possible, were compared with similar measures obtained from other sources. With few exceptions the data submitted in columns 13 and 18 were found to have a high degree of validity. The limitations of the data should, of course, be held in mind as comparison between States are undertaken.

The major purpose of this section of the study has been to present data for each of the States showing the number of rural high schools by types of organization and length of program offered; the distribution by size of enrollment and number of teachers employed; and some measures of the extent to which rural children are brought into contact with an opportunity for secondary education. There was also some attempt to suggest the educational significance of the data presented and to point toward further uses which might be made of them. It has been shown that most of the States have large numbers of high schools with extremely small enrollments. Of the regularly organized 4-year high schools, the type greatly predominating in the rural communities of nearly all of the States, a total of 1,122, or more than 1 out of every 9, attempt an entire high-school program with enrollments of 30 or fewer, and 3,368, or more than 1 in 3, of these rural high schools operate with enrollments of 50 or fewer. One hundred thirty of these schools attempt to offer four years of high-school work with but one teacher and 1,325 schools, or 1 in 8, attempt to provide four years of high-school work with two teachers or fewer. Situations even more startling than these are shown to obtain in some of the States, but there are too many States involved and the findings vary too greatly to permit of summary. The next section will undertake to show more fully what the small high school means as an educational institution, point out the major educational problems involved in and related to this numerically predominant institution, and cite some of the ways and means employed in attacking and overcoming the weaknesses obtaining in it.

Educational Problems and Limitations of the Small High School

The statistical data showing the smallness of America's secondary schools are important only in so far as this smallness affects the educational welfare of the children whose education is dependent upon these schools. This part of the study will, therefore, undertake a summary of the educational weaknesses of the small or rural high school and point out the relationship of these weaknesses to the educational opportunities of rural children. An effort will also be made to suggest some of the ways and means employed in various localities, or advocated by rural education experts, through which these educational weaknesses may be overcome.

The small high school has its reason for being in the facts that the rural people believe in secondary education and that they are insistent upon making this level of educational opportunity easily available to their children. The location of so large a proportion of the total number of our high schools in rural areas is in itself evidence of the strenuous effort that these communities are making in this direction, but the establishment of high schools in localities as sparsely populated as are most of the rural communities presents difficulties which, under our present system of school administration, nearly always result in a small school. It must, therefore, be concluded that the establishment and maintenance of the large number of very small high schools is the natural outcome of our insistence upon the proposition that educational opportunities shall be made available equally to all children. We have seen from the data presented above to what extent our educational system has succeeded in rural communities in bringing the children who live there in contact with a high-school education. It was found that a great many more rural children must be retained in school beyond the elementary grades before the proportionate number enjoying this level of education in rural areas and those who should be in school can be made more nearly equal. The cities have been shown to be much more successful in bringing large proportions of their children of high-school age under the influence of this level of education. But these differences become relatively more significant when we consider the character of the secondary education made available in rural communities. The quality of education provided even raises the question whether it is wise to establish more high schools, if by so doing more of the extremely small high schools must be established, and if a type of education results which, when measured against the accepted standards, is shown to be very meager in content. It is time that we inquire seriously whether the experiences offered in the small rural high school approximate the educational values which we have set up as the ideals of secondary education and whether the multiplication of

small high schools should be continued. Some of the students of the rural high school problem are frankly skeptical on this point. They believe that the gains which the establishment of many small high schools achieves in making secondary education more and more locally available are offset by the poor type of the education offered. Generally speaking, there can be no doubt that as the school staff and enrollment become smaller and smaller the type of education provided has a tendency to become poorer and poorer. Those who have studied the matter insist that when the number of high-school eligibles of a school district falls below a certain reasonable minimum, secondary education must be furnished by other means than by the establishment and maintenance of local high schools. After an extended study of the rural high school problem in Ohio, Ashbaugh [4] comes to the conclusion that—

> A high school in every school district is probably a mistaken ideal so long as we have school districts with such small numbers of children. A rich curriculum, experienced teachers, and opportunities for social education which are possible with larger numbers are conspicuously absent in fully one-half of these schools.

Combs, who made an extensive study of the small high school situation in Virginia, has the following to say apropos of the small high school problem of that State: [5]

> In recent years we have gone to extremes in establishing small high schools, and as a result our school system has become top-heavy. For the past several years the counties of the State have incurred an annual indebtedness of a million dollars for education. Much of this indebtedness, no doubt, is due to the attempt to operate more high schools than we can well afford or actually need, and the burden of supporting these schools has become heavy indeed. * * *
>
> Many of the so-called high schools now operating are in no sense high schools. The demand for secondary education in practically every small community not only interferes with high-school efficiency and increases the per capita cost of instruction in many instances beyond all reasonable bounds when the quality of instruction is considered, but seriously interferes with the elementary schools, and the many children in the elementary grades are being robbed in an attempt to offer secondary school instruction to the comparatively few who are ready for high school.

As one studies the regulations and standards set up by the several State departments for the establishment of high schools he becomes convinced that many of these States have found the establishment of many small high schools to have a depressing effect upon the elementary schools with which they are associated. Many of the States provide specifically that no high-school work shall be undertaken until adequate provisions shall have been made for the elementary school

[4] Ashbaugh, E. J. A High School in Every School District Means Too Many Small High Schools. School Life, 14: 133-135, 138, March, 1929.

[5] Combs, M. L. The Readjustment of Our High-School System to Present-Day Conditions. Virginia Journal of Education, 18: 389-392, June, 1925. Doctor Combs gives complete data to support his views in his study, "Efficiency in Relation to the Size of High Schools." Richmond, Va., State board of education, 1928.

with respect to such important matters as teachers, equipment, and housing. They caution wisely that it is a better policy to do well a more limited part of the educational program than to undertake a more extensive program and do it poorly. There can be no doubt that many a community is so intent upon providing high-school facilities for its children that the elementary and more fundamental part of their educational program is placed in jeopardy. Too frequently local communities undertake high-school work with a teaching staff which is already overloaded with duties in the elementary school. They attempt to stretch still further the funds which are already inadequate to provide satisfactorily for the needs of elementary children. Local school buildings are made to yield space to house a high-school department; the teaching staff is made to take on additional duties; and the newly created high school is given first consideration in the allotments of funds and in the interest of the community. Such a policy is obviously very unwise. When the alternative of providing opportunities for secondary education in rural communities is a lower quality of elementary education, it would undoubtedly be a better plan not to attempt high-school work at all. The elementary school provides not only a more fundamental type of education, but it is concerned with a larger proportion of the children. Rural communities will do well to consider some other way of providing high-school opportunities than to do so at the expense of the elementary school.

To find adequate ways and means for providing in small population centers educational opportunities of such a character that the road from the elementary school will be open and free from obstacles, that every normal boy and girl of secondary school age will find the chance to pursue studies profitably to himself and to the society of which he is a part, that these studies will be adjusted to his ability to achieve, and that at the same time this education be kept within reasonable bounds with respect to cost, is the great fundamental task with which school authorities laboring in this field of education must cope. A myriad of problems grow out of this major problem. Perhaps the best way to summarize the limitations and weaknesses of the small high school is to cite the conclusions of those who have studied the small high school field most intensively. Roemer has in substance pointed out the situation as follows: [6]

(1) With respect to teaching force the small high school means (*a*) excessive teaching load, (*b*) lower standards of teacher qualification and prepartion, (*c*) poor distribution of teacher assignment. (2) In the matter of curriculm, it means (*a*) limited, (*b*) poorly arranged and unbalanced curricula with practically no vocational offerings, and (*c*) unjustifiable requirements of pupils. (3) In building and equipment, (*a*) practically no working library; (*b*) very poor

[6] Roemer, Joseph. The Weaknesses of the Small High School. Peabody Journal of Education 6: 37–43, July, 1928.

science equipment, if any; (c) little or no playground equipment, inadequate or no gymnasium or auditorium facilities, are possible. (4) In instruction the small high school means (a) poor quality because teachers can not specialize or are overloaded, and (b) little or no supervision is provided. (5) It means limited possibilities with respect to student and extracurricular activities because insufficient numbers are inevitable.

In a discussion of the rapid growth in the United States of the total number of high schools and the pupils attending them, Ferriss makes the following statements and lists certain difficulties as the most pressing problems growing out of the situation: [7]

> One of the significant phases of this development has been the growth of high schools in rural and semirural communities. To place a high school within reach of every child in such communities has necessarily meant the establishment of large numbers of small high schools with small staffs of instruction. The most pressing problems facing these rural and semirural high schools * * * seem to be:
>
> (1) To keep the teacher's load in number of instruction periods and number of different subjects handled within reasonable bounds.
>
> (2) To make possible for the principal a desirable distribution of time for the performance of his various duties.
>
> (3) To give teachers adequate supervision and encouragement toward professional growth.
>
> (4) To give pupils adequate educational and vocational guidance.
>
> (5) To organize, direct, and control extra class room activities.
>
> (6) To develop and retain community and school cooperation.
>
> (7) To offer a program of studies of desirable breadth and variety.
>
> (8) To organize curriculums to meet most effectively the educational needs of the pupil, the community, and the Nation.
>
> (9) To set up requirements for graduation that will insure each pupil contact with the essentials of education in a democracy, and at the same time permit of sufficient flexibility to meet the individual needs of the pupil.
>
> Practically all of these problems spring entirely or in part from one source, namely, the smallness of the rural and semirural high schools.

The two summaries just cited give first place to problems related to the teaching staffs of the small high schools. Instruction is without a doubt the major function of any school, and the teacher and her activities determine to a very large degree the quality of instruction that is given. The teacher situation is at present such as to make instructional possibilities greatly inferior in these rural high schools. In the first place the teachers of the small high schools are apt to be inferior in quality. Since the salaries in the larger centers are higher than those paid in the smaller centers, teacher-training institutions recommend their best products to their best patrons. The small high schools are, therefore, obliged to take what is left. Many of the city systems have a definite regulation requiring candidates for appointment to show two years of experience. This practice has

[7] Ferriss, Emery N. The Rural High School, Its Organization and Curriculum. Washington, D. C., Government Printing Office, 1925. (U. S. Bureau of Education Bulletin, 1925, No. 10, p. 61.)

resulted in a condition in which a disproportionate share of the small high school teachers are inexperienced.

The training of these teachers is another source of difficulty as well as another urgent problem. Most of these schools are too small to be accredited by their respective regional associations, and if State departments set up definite training requirements for teachers of small high schools at all they frequently fix a lower standard for these schools than for the larger schools. As a result the academic and professional preparation found in these rural schools is usually more limited in extent than is true in the cities. It is only natural that in a high school employing only one, two, or three teachers those employed should be required to teach a large variety of subjects. Many studies[8] have recently investigated the problem of the number of subjects teachers teach and the extent to which they teach in the particular fields in which their training specialized. These studies have invariably shown *that teachers are called upon to teach more subjects than were provided for in their training; that they teach many subjects for which they have had no special preparation whatsoever; and that there is little relationship between the combinations of subjects they must teach and their training programs.* Of course, these maladjustments are also in part true in city high schools, but those studies which have differentiated the schools included on the basis of size have found that these conditions become progressively worse as the schools become smaller in size. Where these conditions obtain in large high schools they can be improved through relatively simple administrative adjustments. In the small high school the matter is not so easy.

Still another teacher problem encountered in the small high school is the matter of teaching load. The number of class hours per day and per week is usually higher in the smaller than in the larger schools, and the extraclassroom duties are proportionately greater. Schools accredited by the regional associations are compelled to limit the teaching load to five or six class periods per day. In the smaller schools, which are not accredited, teachers are expected to meet as many as 8 classes per day, and frequently the number runs as high as 10 or 12. If the finding of those who have studied the small high school teaching problems are accepted and if the foregoing appraisals are accurate, the situation may be summarized somewhat as follows: The smaller the school, the more limited is the teaching staff, especially in professional experience and in training. With these greater limitations the teachers of the smaller high schools are expected to

[8] Mead, A. R. How Many Subjects Should a High-School Teacher Teach? Peabody Journal of Education, 4: 196–207, January, 1927.

Smith, J. M. Training of High-School Teachers of Louisiana. New York, Bureau of Publications, Teachers College, Columbia University, 1926. (Contributions to Education, No. 247.)

teach in a wider variety of fields; they must teach more classes per day; and they must make daily preparation for a larger proportion of work for which they have had no special training. The teacher problems obtaining in the rural high schools call attention to one of the most obvious inconsistencies of our school system: *The high-school teacher with the more inferior equipment is called upon to do by far the more difficult task. In the discharge of this task she must rely almost entirely upon her own resources and initiative, since little or no supervision is made available to her; she is limited in instructional materials and equipment; and she is not specifically trained for the difficult position she must fill. And if she shows unusual ability she is lured away to the larger school. Too frequently training schools fit their candidates to teach only one or two subjects, a teaching program which is possible only in the larger schools. We may, therefore, say that high-school teachers are, by and large, trained to teach in the urban school, they are compelled to get their first experience in the smaller schools, gathering this experience almost entirely by trial and error and forming teaching habits peculiar to rural situations; and those that survive are finally expected to make their professional contribution to the city schools. A more costly, unscientific, and chaotic scheme can hardly be imagined. The educational injustices resulting to rural children from inadequate teacher adjustments alone are far-reaching.* The criticism does not, of course, fall upon the teachers employed in these small schools, and seldom upon the principals in charge. It is the system that is to blame. County superintendents, high-school principals, school boards, and others responsible for the administration of instruction in these rural high schools should insist that the teaching staff in these small high schools be made as capable and as fit in every way as that employed in the larger schools, and that the services expected and the equipment provided be such as to make possible to rural children the very highest educational attainments. The equalization of available funds, provisions for state-wide salary schedules which make possible to the rural teacher compensation equal to that offered in the cities, attention to the needs of the small high school administration, reformulation of the State's teacher-training program, and the development of a more effective scheme of educational supervision—all these are improvements greatly needed if instruction in our rural high schools is to become a process worthy of our democracy.

The absence in the rural high schools of almost everything that could properly be called supervision has already been suggested. In schools having a teaching staff of but one or two teachers the head teacher, or principal, must of necessity have a very heavy teaching program. He is responsible administratively both for his high school and for the elementary school with which it is associated. He usually has no clerical assistance. Most of his time is, therefore, taken up with

teaching duties, community activities, and clerical routine. Studies [1] comparing the preparation, the professional experience, the load, time allotments, and salaries of principals of small high schools with those of the large schools invariably find the status of the rural school principal correspondingly similar to that of the rural high school teacher. It must, therefore, be concluded that in most of these small high schools genuine supervision of instruction is absent both because the principal is overloaded with many and varied duties and because the principal is not selected or specially qualified for this type of work.

Another series of problems mentioned by the authorities cited as important in their effect upon the educational opportunities provided in the small high school are those related to the curriculum. How can the small high school with a teaching staff of one, two, or three teachers offer programs of studies and provide educational activities sufficiently diversified in character to appeal to and provide for the special interests and needs of the various types and classes of children to which it must minister? The natural interests and the future needs of the pupils attending the small high school are apt to be as numerous and as varied as are those of a large city system. Rural children have as much right to learn about, choose from, and be prepared for the mainfold activities of twentieth century life as have those of urban centers. But providing a diversified curriculum adjusted to the needs of these children under the present form of high-school organization and scheme of instruction means a large and specially trained teaching staff; it means many classes; it means a large and comprehensive library; and it means many types of laboratory equipment. When all these are provided for a small number of boys and girls it results in low pupil-teacher ratios and prohibitive per pupils costs. As a result most of the small high schools are compelled to offer only a single curriculum, and parental insistence that the pupils attending local high schools must be prepared to attend college, if ever they choose to do so, compels these small schools to safeguard college entrance. These circumstances make it necessary that the single curriculum offered be college preparatory in character. Indeed, a single complete program (complete in the sense that the 16 prerequisites for college entrance are met) is possible in many of the small high schools only by a scheme of alternating course units year about. If courses other than college preparatory are offered at all in these rural high schools they are usually limited to instruction in agriculture and domestic science. These courses are frequently provided in an

[1] Koos, L. V. The High-School Principal. Boston, Houghton Mifflin Co., 1924.
Elkenberry, D. H. Status of the High-School Principal. Washington, Government Printing Office, 1925. (U. S. Bureau of Education Bulletin, 1925, No. 24.)
Rolland, John R. The Principal's Load. School Review, 31: 748-755, December, 1923.
Peelhaver, Carl T. The Duties of the High-School Principal in the State of Nebraska. School Review 45: 183-193, March, 1927.

effort to give the rural high school program a semblance of practical relationship to rural needs. They are frequently given as electives and in some instances they must be carried in addition to the regular academic program.

Since colleges generally insist that high-school graduates who knock at their portals for admittance present as passports certain certificates of academic proficiency, the single curriculum offered is generally composed of courses in English, higher mathematics, ancient or foreign languages, ancient, medieval, and modern history, and such abstract sciences as physics and chemistry. The departments of education of most of the States emphasize these same general requirements. State departments have frequently believed it necessary to prescribe uniform curricula, uniform courses of study, and uniform textbooks for all small schools of the State, and so with few exceptions, the lines of study just listed constitute the entire program of the small high school.[10]

The curricula limitations of the small high school result in a situation which Windes characterizes as undemocratic. He summarizes the situation as follows: [11]

> The small rural high school yet tends to lead away from democracy rather than toward democracy, not always in purpose but often in practice. This is true because the small high school now offers either an academic curriculum designed solely to prepare for professional-service occupations through articulation with colleges of liberal arts, or it offers only a curriculum designed to send the son into the occupation of the father.
>
> Where only an academic curriculum is offered, the high school is highly selective both because it fails to appeal to large numbers and because it eliminates large numbers of pupils who cannot master academic abstractions. Particularly it fails to attract children whose parents can not undertake to keep their children in school over the extended period necessary for training prerequisite to occupations of professional grade, and it eliminates most of those who are not endowed with the quality or type of intelligence that is necessary to success in a profession. We thus have the situation wherein an agency, set up by a democratic social state in the interests of self-perpetuation, tends toward segregation of hereditary, social, and occupational groups and offers the anomaly of a social order taxing the lower occupational groups for a system of public education that reaches few of their members but many of the higher occupational groups. Statistical evidence from a variety of sources shows that this situation exists. The small rural high school is much more highly selective than the comprehensive high-school characteristic of our large population centers.

In many States 90 per cent or more of the curriculum offerings of the rural high schools are limited to college preparatory activities. The significance of this weakness of the small high school is emphasized when it is realized that of the select few of the rural children who go

[10] Ferriss, E. N. Secondary Education in Country and Village. New York, D. Appleton & Co., 1927, pp. 24–45.

[11] Windes, E. E. Can the Rural High School Be Made an Agency for Democracy? School Life, January, 1926, p. 95.

to high school only about 60 per cent remain through to graduation, and that fewer than a third of those graduating go to college. That is to say that of 100 children entering rural high schools about 60 graduate and fewer than 20 of these go to college. If all rural children were considered, only about 16 out of every 100 would be found graduating from high school and about 5 going to college. Rural high schools as now organized are obviously providing only for the needs of a select few, and it might be added that the job which they emphasize, namely, preparing for college, is probably not very well done. Thornberg [12] and others have found graduates of small high schools to be less successful in college than those who graduate from larger schools.

Is it not time that the problem of the curriculum offerings in small high schools be carefully investigated in each State and that a plan be evolved which will be more democratic in character and which will more nearly fit the needs of these children? The problem of the democratization of rural education resolves itself into something like this: Equalization in providing educational opportunities results in the establishment of many small high schools and the small high school as now commonly organized and administered can not provide equality of educational opportunities. Curriculum offerings in these small high schools are too limited and stereotyped to fit either the collective or the individual needs of the children whose lives they touch.

A weakness of the small high schools closely related to the curriculum limitations is that of vocational guidance. We are coming more and more to realize that children reared in rural communities will not necessarily become rural dwelling adults. There is much evidence to show that as rural children approach adulthood many of them shift fromr ural living and rural occupations to urban living and urban occupations. Statistics show that 57 per cent of the present elementary-school children of the Nation live and attend school in rural communities, but when the age group 20 to 44 are considered only about 40 per cent are found to live in rural centers. This indicates that nearly one-third of these who are rural children during their elementary-school age move to the city when they are ready to enter upon a productive occupation. The mechanization of agriculture and the stoppage of the immigrant labor supply of our industries will probably send into the cities even larger proportions of the present rural childhood. Our rural high school training does not, and it is doubtful if so limited a program can, provide exploratory guidance courses and vocational information so that these rural children, naturally limited in their environmental experiences, may make an intelligent choice from and adequate preparation for the adult activities and the various

[12] Thornberg, Lester H. College Scholarship and Size of High School. School and Society, 20: 188–192, August, 1924. (Abstract of master's thesis, State College, Pullman, Wash.)

vocations upon which their future welfare will so vitally depend. One of the most thought provoking discussions of the problem of vocational guidance in small high schools was made by Eaton.[13] He shows both the need of rural high school children and a way of meeting this need.

The whole matter of extracurricular activities also enters into the problem of educational experiences possible in the small high school. In the first place, organized games, clubs, and literary and scholastic activities are dependent upon the number of participants. Athletic teams, debating teams, and social clubs are not possible unless sufficient numbers of pupils are available. Second, if activities of this sort are to be of value in the educational development of the child, they must be carefully directed. It has already been pointed out that the limitations of the teaching staff are such both as to the time that may be spared for duties of this sort and as to ability and training, that few extracurricular activities can be expected in the average rural high school. And third, successful extracurricular activities are dependent upon facilities and equipment. Rural schools seldom are equipped with an adequate auditorium or gymnasium. Considering the great importance now placed by educators upon these so-called extracurricular activities as a means of social and civic training, and considering too that the normal environment of rural children is apt to be disproportionately barren of social opportunities the limitations of the rural high school with respect to this type of activities becomes particularly significant.[14]

Another problem of the small or rural high school is that of housing and equipment. As pointed out, both the smallest and the most recently established rural high schools must often be content with space wrested from the elementary grades. They are frequently limited to a single room and seldom do they occupy rooms which are adequate or especially fitted for high-school work. If State departments show sufficient interest in the small high school to prescribe minimum library and science space or equipment, the standards are usually very general and nearly always proportionately lower for the rural high schools than for the larger schools. Some States prescribe a "separate room" for the library, but more frequently they state only that library space and equipment shall be "adequate to meet the needs." Some States specify the minimum number of volumes required for the library. Others provide that a specific minimum lump sum or per pupil sum shall be provided either annually

[13] Eaton, T. H. Teaching for the Sake of Vocational Choice in Rural Communities. School Review, 31: 191-203. March, 1923.

[14] Woody, Clifford and Chappell, E. H. Pupil Participation in Extracurricular Activities in the Smaller High Schools of Michigan. National Society for the Study of Education, Twenty-fifth Yearbook, 1926, Pt. II, pp. 81-96.

Wise, J. H. and Roemer, Joseph. A Study of Extracurricular Activities of the Public High Schools of Florida, University Record, vol. 20, No. 1, June, 1925.

or shall be represented in the total value of the library. In a few cases the particular books required for the library are prescribed in detail. Science and other special equipment nearly always receives even less attention. Minimum requirements prescribed for instruction in the sciences are even more general in character than is true in the case of the library provisions. Instructional deficiencies due to the absence of time or special fitness on the part of the teaching staff of the small high school could in part be overcome if proportionately more rather than less library and other special equipment were provided. Pupils could then be expected partially to educate themselves. But here again the educational opportunities of the rural child are very inferior. *Thus the secondary education of the child attending the rural or small high school is in most cases circumscribed by an untrained and over burdened teaching staff; it is limited to a narrow and maladjusted program of educational activities; and it is handicapped by the meagerness or the entire absence of educational equipment.*

The whole problem hinges in large part upon costs. The small high school which attempts to provide for the educational needs of its community naturally meets the problem of low pupil-teacher ratios, low pupil-building-unit ratios, and low pupil-equipment ratios. The outcome of these low ratios is high per capita instructional costs, high building costs, and high per pupil maintenance costs. If the attempt is made, despite these low ratios, to provide a teaching staff sufficient in number and adequately trained to permit a high grade of instructional service, and if the curricular and extracurricular provisions are gaged to meet the needs of rural pupils of secondary school age, and if the housing and equipment provisions for these small schools are improved so as to make a satisfactory type of education possible, the per capita costs resulting become abnormally high. Attempts to effect a satisfactory program of secondary education in rural communities have frequently resulted in costs amounting to $500 per year per child, and costs as high as a thousand dollars per year per child are not unknown. Practically all the studies [15] showing comparative costs in large and small high schools have found much higher costs in the smaller than in the larger schools. At the same time these studies show lower teachers' salaries, more limited curriculum offerings, shorter school terms, lower per capita library and equipment expenditures, and poorer buildings. The problem is, therefore, not one of careless expenditures; it is merely a matter of

[15] Hunt, C. W. The Cost and Support of Secondary Schools in the State of New York. New York, The Macmillan Co., 1924.

Burris, B. J. Cost of Instruction in Indiana High Schools. Indianapolis, State department of public instruction, 1924. (Bulletin No. 71, 1924.)

Loomis, A. K. The Financial Aspects of School Administration. Lawrence, Kans., university extension division, University of Kansas. (Bulletin, vol. 24, No. 2, Jan. 15, 1923.)

these schools being undersize. The situation may be summarized as follows: *The number of pupils available in the average local high-school district in rural communities is so small that in most cases it is impossible to furnish at reasonable costs a quality of secondary education commensurate with social need, and if such quality of education is undertaken the cost is apt to become very high.*

As we reflect upon the problems and weaknesses of the small or rural high school recounted above, two major considerations come into the foreground. First, *What is the worth to the development of rural children of the educational opportunities offered in these small high schools? Do the values obtained justify the expenditures? Are the social services resulting from the establishment and maintenance of a high school in every local community such as to warrant extreme efforts and costs?* Second, *Can the same results and the same values be achieved through better planning and better organization of our secondary school program? Can these results be obtained at greatly reduced costs? Can plans be effected through which equal expenditures will buy for the rural child a higher quality and a more useful type of secondary education than now obtains?* Until the small high school situation is subjected to more intensive and more widespread study than has been given to it in the past we shall not be able to proceed intelligently in finding a solution.

It should, of course, not be assumed that the poor educational conditions cited as obtaining in small high schools represent a dead-level situation. Many small high schools are doing very superior work, in some instances outstripping even the larger schools. Also it is possible in almost any small high school for individual principals, teachers, or pupils to achieve superior accomplishments. Education is not necessarily dependent upon the mechanics of size or organization but it is usually either depressed or stimulated by them. This part of the study has concerned itself with the average situation; with the conclusions generally reached when the small high school situation is studied; and with the limitations usually found by such studies. When conditions obtain which do not conform to these central tendencies, they are in most cases achieved despite these limitations and weaknessess.

Ways and Means of Improving Opportunities for Secondary Education in Rural and Small Population Centers

The study will now briefly call attention to what is being done in the several States to meet and overcome the problems and limitations of the small high school. Some of the most promising solutions proposed by students in this field will also be cited. Generally speaking, the practice of establishing so many small high schools is duplicating with respect to secondary education very much the same situation which the earlier days of American education created in an effort to

provide for rural children the opportunities of the elementary school. In a very real sense the small high school has the same reason for being, is obliged to meet the same general problems, and results in the same general failures commonly associated with the 1-teacher district school. Many rural communities are resorting to the same means of improving secondary education which proved successful in the case of the elementary school. Several local school districts are consolidating their effort to provide secondary education in rural communities and they are inaugurating transportation plans to bring the available children together at central points. Thus larger enrollments are effected and many of the problems due to the smallness of the school are overcome. But consolidation of high schools in many communities involves a more complex arrangement than does consolidation of the 1-teacher schools. Many of the small high schools shown in the statistical tables of this study are located in schools formed by the consolidation of several 1-teacher schools, but they are still too small to do satisfactory high-school work. They must therefore be further consolidated. Thus in many cases, consolidations of consolidations must be effected. If a high school of sufficient enrollment size is to be made possible, greater distances must be overcome, more taxable wealth and larger numbers of families must be brought into cooperative relationships; and unless a county-wide or some other large unit of school administration already obtains, there will be problems of overlapping of secondary and elementary school interests. In some cases a comprehensive plan for providing high-school opportunities in rural areas involves as many as three levels of consolidation. The local districts must be consolidated so as to make possible a more acceptable type of elementary education; adolescent pupils must be carried to more centrally located junior high schools; and the older pupils must be transported to central senior high schools located still more remotely from the pupils' homes. There are some who advocate that this plan should include a junior college and that the organization should provide for a 6-year elementary school, a 4-year junior high school, and a 4-year senior high school. If junior college provisions are to obtain in rural communities, it is clear that the system of education needed will become still more complicated.

High-school consolidations have taken a great many different forms. Legal provisions vary greatly among States. One of the best analyses of the laws governing the establishment and control of rural high schools was made by Hood.[16] He cites the legal provisions through which the several States are making high-school education available to rural children, and he discusses the types of high schools resulting from these laws. Some of the schools organized as county

[16] Hood, W. R. Legal Provisions for Rural High Schools. Washington, Government Printing Office, 1925. (U. S. Bureau of Education, Bulletin, 1924, No. 40, pp. 7–11.)

high schools have as their chief purpose the centralization of secondary school effort either for the whole county or for a given section of the county. Then there is the "union high school" plan so popular in California and the "high-school unions" of the New England States. Another scheme provides for a strong central high school and several associated or branch schools[17] in neighboring communities. The branch schools provide such part of the secondary work as they are able to carry satisfactorily. The central school supervises and coordinates the entire program. Pupils who have completed the work offered in their home branch and those who desire training in a special field are readily provided for in the central school. The "community high school" district is another form of high-school consolidation. Under this system certain elementary-school districts contiguous upon a village or some other natural community center become legally associated for the purpose of providing secondary education for their children. This form of high-school consolidation is very similar to county, township, or school district consolidation, except that under this plan it is not always necessary to make the boundary lines fall upon the external limit of the component smaller units. This scheme also tries to preserve and utilize natural community interests.

No matter how much a State desires to consolidate or centralize its rural areas for high-school purposes, there will always be road, weather, and topographical limitations which will leave many rural communities without high-school facilities or with high schools which are very small. This is especially true in the very sparsely settled States or in areas where there are small isolated villages. Instead of building high schools within reach of the pupils' daily travel, therefore, some States meet this problem by providing dormitories and boarding facilities.[18] Under this plan the pupils are brought to the school from long distances and for extended periods rather than providing schools within daily travel distance.

The statistics presented in the tables show that some of the limitations of the small high schools are being overcome by means of a junior high school form of organization. Comparing the progress of this movement in rural communities with that in urban communities, it can not be said to be making vary great headway in rural areas. There is evidence to show that it is only the larger and more progressive rural schools which organize on this basis. As was pointed out, it is the 6-year undivided plan of organization that is most commonly followed when schools are reorganized to include the junior high school. A few States are encouraging the establishment in small population centers

[17] Wolfe, Alice R. Washington County High-School System. Colorado School Journal, 43: 13-20, October, 1927.

[18] Richardson, Jessie E. and Barger, J. Wheeler. Public-School Dormitories for Rural Children in Montana. Bozeman, University of Montana, Agricultural Experiment Station, 1927. (Bulletin 201, February, 1927.)

of independent junior high schools, that is, schools offering no secondary work above the ninth or the tenth grade. The plan usually provides that pupils completing this part of the high-school program may continue their secondary school training in the senior high schools with which these junior units are associated. Rural communities in which the junior high school form of organization has been employed have in most cases found it to be a promising means of improving secondary school advantages.[19]

There are a number of ways in which individual small high schools are trying to overcome their handicaps from within. Among the most promising of recent developments are the experiments looking toward the enrichment and the extension of the curriculum offerings of the small high schools by means of correspondence courses.[20]

In general, the scheme comprehends a contract affiliation between the local high school and a reputable correspondence school or extension service. The local school board pays for the courses pursued by the pupils. The local teaching staff gives a certain amount of guidance and supervision, and the correspondence school furnishes prepared lesson contracts and specific directions to the pupil for attacking and completing the lesson and it reads and passes upon the pupil's accomplishments. By this plan a much wider variety of courses can be made available; the curricular offerings of the school can be more nearly adjusted to individual pupil needs; and a specialized and high-grade type of instruction can be provided despite the limitations of a small teaching staff.

Still other means used for improving instructional opportunities in the small high school are the various itinerant teacher plans. These usually involve a scheme whereby several neighboring schools cooperate to employ one or more teachers who are especially trained in special fields; for example, the fine arts or the practical arts. These teachers then divide their time between the cooperating schools. Time allotments are arranged either by day, week, or month. The itinerant teacher plan could undoubtedly be applied to a much larger variety of subjects than the experiments have thus far undertaken. Generally speaking, under this plan the teaching staff, or at least a

[19] Carney, Mable. The Rural Influences and Possibilities of the Junior High School Organization. Journal of Rural Education, 3: 65–71, October, 1923.

Koos, L. V. Junior High School Organization in Smaller Communities. Journal of Rural Education, 4: 49–55, October, 1924.

Spaulding, F. T. The Small Junior High School, a Study of Its Possibilities and Limitations. Cambridge, Harvard University Press, 1927.

[20] Diamond, Thomas. Cooperation Between a Correspondence School and a Public High School. Educational Review, 71: 37–41, January, 1926.

Morrison, Robert H. Opportunities for Educational Extension in Rural School Communities. American Schoolmaster, 20: 267–272, October, 1927.

Wooden, H. Z. and Mort, Paul R. Supervised Correspondence Study for High-School Pupils. Teachers College Record, 30: 447–452, February, 1929.

part of it, is rotated from school to school, thus overcoming many of the limitations due to a small teaching staff.

A plan for securing in rural communities a higher quality of secondary education through individual contracts has been outlined by Windes.[21] This plan seems to have so many excellent possibilities as to be worthy of some very serious experimentation. The scheme suggested by Windes comprehends a program of rural secondary education developed on a county basis. He would—

> Provide a county director of secondary education, a county staff of subject-matter specialists; one for each of the fields of English, foreign language, mathematics, social studies, science, home economics, agriculture, industrial arts, fine arts, music, and health. * * * Now let us provide at each school center a man of excellent general training such as is provided by a liberal arts college training comprehending the degree B. A. with an additional year, as a minimum, of graduate study largely of a professional nature. * * * Now we will add at each school center enrolling more than 40 pupils a good secretary-librarian. * * * In the schools fixed recitation periods are discarded. The county subject-matter specialists prepare, under the direction of the county director, job outlines, contracts, or what you will, for units of work in their respective fields. These unit outlines give definite reading references, laboratory or shop directions complete for the unit of work. The specialist who is responsible for the particular unit of work goes to each school center and starts the pupils who take this unit of work on their task. The local principal is present at the conference where assignments are made. The specialist moves on to the next center. The pupil works at his own rate under the individual guidance of the local principal and his librarian-secretary assistant. The specialist returns in one, two, or three weeks for conferences, testing, or new assignments. If we rotate these specialists we may always have a minimum of one man with excellent general training, a man with excellent training in a special field and a good librarian at each center. Within a period of two weeks we may have in each center a man of excellent general training and a man of excellent special training for each of the fields of the secondary program of studies. If through centralization we reduce the number of centers there will be a corresponding increase in the number of specialists in a given center at a given time. If we assemble pupils who are working at the same tasks, weekly or biweekly or whenever desired, at a few centers for conference purposes the same effect may be had. Instead of pupils being subjected alike to a uniform academic curriculum each one may work upon problems in any of the fields of secondary education, so selected and planned that the outcomes desirable for him as an individual may be definitely sought.

Applying his scheme to an actual situation, Mr. Windes found that through it he could actually make a saving of about 10 per cent of the teaching staff. Assuming an average expenditure of $150 per year per child for the entire high-school enrollment of the county, he found that the available funds would permit an average salary schedule of more than $3,500. Satisfactory "secretary-librarians" provided for in his scheme could undoubtedly be employed at a much lower salary rate than that. This would make possible a very excellent salary

[21] Windes, E. E. Possibilities of Individualized Instruction in Small High Schools. School and Society, 21: 489–493, Apr. 25, 1925.

figure with which to employ a high-grade director, specially trained specialists, and adequately prepared local principals. There would also seem to be many other advantages in such a scheme. If no attempt were made to regiment pupils into classes a much richer program could be offered on an individual pupil basis; each pupil could select subjects along the line of his greatest interest and he could progress in his work at a rate compatible with his ability; the local principal could have time to give careful guidance and supervision to each child; and the scheme could be effected without unreasonable expenditures. It would, of course, be an extreme departure from the traditional practices, but the small high school situation is such as to warrant some courageous experimentation.

A number of States have given a good deal of attention to the problems of secondary education in rural areas. The three means to which State departments of public instruction have most frequently resorted in their attempts to bring about improvements in this field have been standardization, legislation, and special study. Generally speaking, standardization is not a good thing. It usually concerns itself with the mechanics of education rather than with the educational process itself, and this nearly always results in emphasis upon certain stereotyped procedures and material requirements. The effect is, therefore, often stifling rather than stimulative. But attempts to standardize rural high schools usually result in bringing these schools under at least an inspectorial type of supervision by the State, and this type of supervision is better than none at all. Some of the States have improved their small high schools considerably by fixing of minima below which high schools may not operate. A number of them have established several classes of schools in which the requirements become progressively higher. Grants and subventions are so arranged as to encourage schools to achieve the higher standards. Such a system usually tends to keep the rural communities from going to such extremes as to establish and maintain high schools at the expense of their elementary program, and it sets up safeguards in many other directions. Standardization programs which provide that only such portions of the high-school program may be undertaken in rural communities as can be done satisfactorily obviate such extreme situations as one or two teachers offering four years of high-school work. A good deal is being done in the matter of teacher qualifications both as concerns the extent of their training and as concerns the type and content of their training. Housing and equipment provisions are also being in part controlled. An examination of the standards now obtaining for small high schools gives one the impression, however, that they are frequently too general in character to be effective. Many standards for rural high schools which ought to be equal to or even higher than those obtain-

ing for the larger schools are found to be lower. Teacher-training requirements and per pupil library expenditures may be cited as examples. Too often there is evidence also that only a part of the high-school problem has been considered. The standards frequently prescribe maxima when they should concern themselves with minima. For instance, many of the States prescribe that there shall not be in excess of 30 or 35 pupils per class and that teachers shall not have more than 150 to 160 pupil-hours per day. In the small high schools, however, there are not too many pupils per class or per teacher, but rather too few, and standards, to be effective, should stipulate the minimum number of pupils necessary before high-school work may be offered.

One of the most important ways through which most of the States seek to provide high-school opportunities in areas which do not maintain an accessible high school is by providing for the payment of the tuition charged pupils who are not resident of the district in which they attend high school. About half of the States require by law that the local or home district pay such tuitions; in several States these tuitions are provided for by a special levy upon nonhigh-school territory or by deductions from funds payable to such districts; in a few States these payments are made from county funds; and in several others the payment of tuitions of nonresident pupils is permissive and encouraged by State-aid provisions. In all only seven States do not specifically provide for the payment of all or a part of the tuition of pupils attending high schools not located in their home school districts.

Closely allied to the problem of tuition as a means of providing high-school facilities for pupils living in districts in which there are no high schools is the problem of overcoming the distance to schools located in neighboring or centralized high-school districts. In many of the States the laws which provide for transportation for elementary children make no discernible distinction with respect to children of high-school age. However, in States in which several elementary districts are included within the high-school district or in which pupils must attend high school in another district, special transportation provisions must be made for high-school children. Twelve States permit the transportation of such pupils to another district by the pupils' home district or by the special high-school district. In three States such transportation is compulsory if high-school opportunities do not obtain within a specified distance of the child's home. Fourteen States grant State aid to encourage the transportation of high-school pupils. A common provision of laws through which transportation is made available to high-school pupils is to give local boards the power to provide board and room in lieu of transportation.

Some of the States have worked out elaborate schemes whereby they seek more nearly to equalize the amount of money available per child with which to purchase a secondary education. Many of the local districts are either financially unable or unwilling to levy the necessary taxes to make an acceptable type of secondary education possible to their children. For such districts these equalization laws provide that each must assess for school purposes up to a certain per cent of its actual wealth. If the amounts resulting from such a maximum levy are insufficient to provide a certain stipulated minimum sum per child attending high school the State makes up the deficit. Fourteen States provide for some form of special high-school equalization aid.

Since the tuition, transportation, and equalization aid provisions of the several States usually become applicable only when no high schools obtain within a district or when those provided are remote from the homes of children, it is clear that such provisions are of particular importance to rural communities. A careful analysis of the provision of the various States with respect to the matters just discussed was recently made by Troxel.[22] His study not only shows the laws and policies by which the States have sought to provide high-school education in communities which can not provide adequate local high-school facilities but tabulates and evaluates all other State high-school provisions as well.

One of the most extensive studies of the small high school problems of a given State was made in the State of Ohio.[23] This study comes to certain conclusions and makes certain recommendations looking toward the improvement of secondary education in rural communities which hold valuable suggestions for almost any State. It is because of their general and far-reaching worth that these recommendations are here reproduced:

Recommendations

(1) That the State department of education discourage any increase in the number of high schools in nonurban territory of Ohio, and that, in considering proposals for the location of new high schools in such territory, a complete survey of the situation be made in the light of the discussions, maps, and tabulations of this study.

(2) That each county of the State be encouraged to make a survey of the secondary education situation within its own borders, with a view of determining whether or not, by relocation, grouping, or other realignment, secondary opportunities might not be increased without increasing the cost thereof.

(3) That the department of education cooperate in the studies suggested in recommendation 2, keeping in mind particularly the location of larger senior high schools offering more extended curricula, better teacher personnel, and longer teacher tenure.

[22] Troxel, O. L. State Control of Secondary Education. Baltimore, Warwick & York (Inc.), 1928.
[23] Clifton, J. L. The Small Secondary School in Ohio. Columbus, Ohio, R. G. Adams Co., 1930.

(4) That second and third grade high schools, wherever possible, be reorganized as junior high schools, and grouped with reference to higher secondary opportunities for the tenth, eleventh, and twelfth grade pupils in such districts.

(5) That in the selection of teachers for small high schools special care be exercised in the selection of teachers so as to accord with the curricula of such schools.

(6) That the teacher-training institutions of the State be urged to formulate definite programs of guidance for students in education so as to accord with the field demands in subjects to be taught in the small high schools of the State, and so as to prevent an oversupply in certain subjects and a paucity of teachers of other subjects.

(7) That the curricula of teacher-training institutions be closely scanned by the teacher-training division of the department of education with a view to determining their facilities for offering a sufficient diversity of majors and minors to supply teachers of the various types needed in the small rural high schools.

(8) That the State highway department be invited to cooperate with the department of education in a survey of five distinctively rural counties looking to the establishment of a network of improved highways in those counties from the viewpoint of a system of junior high school groups, each with a centrally located senior high school, comparable in curriculum and teaching personnel to the best city high schools.

(9) That the Tax Commission of Ohio be invited to cooperate with the department of education in making a survey of the five selected counties with a view to determining what the effect upon the tax rates of these counties for school purposes would be if the recommendations of this study were to be put into effect in said counties.

(10) That the county superintendents of the five selected counties be invited to cooperate with the department of education in leading their principals and teachers in a definite study and survey of their respective counties with a view to determining, from the viewpoint of topography, density, and distribution of population, improved roads, and present location of buildings, the feasibility of reorganizing the respective county systems in accordance with the recommendations of this study as to the establishment of groups of junior high schools, each to be served by a central senior high school, comparable to the best city high schools.

(11) That the department of education use its entire staff for a sufficient period to make an intensive study of the five selected counties, in cooperation with the various agencies above suggested, with a view of making a definite set-up of a comprehensive system for each county, keeping in mind particularly the factors suggested in recommendations 9 and 10, and differentiating as conditions may require.

(12) That the departments of research of Ohio State University and the Ohio State Teachers Association be invited to cooperate with the State department of education and with the local county superintendents and teachers of the selected counties in the surveys and studies above suggested, and that they make definite findings and recommendations independently of those which may result from the department's own study.

(13) That all boards of education, chambers of commerce, fraternal, civic, and business organizations in the five selected counties be invited to cooperate in the studies and surveys above suggested and invited to organize in each county for the purpose of coordinating their efforts and of arriving at definite findings and recommendations.

(14) That for the definite and thorough study of the problems suggested above, the department of education set up a comprehensive program, proposing the

problems, the purposes of the study, stating the factors involved, the various bodies from whom cooperation is expected, and promising general distribution, in the selected counties at least, of the findings and recommendations, with such tabulations as may seem best calculated to assist in a rational and purposeful interpretation thereof.

It will be noted that the major emphases of these recommendations are concerned with the need of a careful study by a State of its whole small high school situation. Many cooperative investigations are suggested with the hope of bringing into harmony the authorities, State, county, and local, who are directly responsible for these schools; with the hope of securing a reformulation of the State's teacher-training program so as to insure a supply of teachers fitted to the needs of these small schools; and with the hope of stimulating the forces of the State highway department, the State tax commission, as well as the local social, civic, and business organizations, to interest themselves in working out a coordinated, scientific, and forward-looking program. The problem of secondary education in rural areas is so involved that only as the State's school program, its road-building program, its financial program, and its social-welfare program are coordinated and made to dovetail, can constructive results be expected.