THE SMALLER SECONDARY SCHOOLS

BULLETIN, 1932, No. 17

MONOGRAPH No. 6

UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF EDUCATION

NATIONAL SURVEY OF SECONDARY EDUCATION

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UNITED STATES DEPARTMENT OF THE INTERIOR
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THE SMALLER SECONDARY SCHOOLS

BY

EMERY N. FERRISS
W. H. GAUMNITZ
P. ROY BRAMMELL

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CONTENTS

	Page
LETTER OF TRANSMITTAL	VII
CHAPTER I : THE PROBLEM AND THE SCHOOLS	1
1. Scope of the study and sources of information	1
2. Description of the schools studied	5
3. Extent to which rural children receive secondary training	17
4. Purposes of the project	20
CHAPTER II : GENERAL ORGANIZATION AND ADMINISTRATION	21
1. General features in the organization of the schools	21
2. The principals of the schools	26
3. The high-school assembly	35
4. The library	38
5. Transportation and other means to make the high school accessible	47
6. Summary and significance	51
CHAPTER III : THE ADMINISTRATIVE AND TEACHING STAFF	55
1. The principals	55
2. The teachers	71
3. Summary	82
CHAPTER IV : SCHOOL GROUNDS, BUILDINGS, AND EQUIPMENT	85
1. School grounds	85
2. Buildings	88
3. The library	99
4. Other equipment	104
5. Conclusions	107
CHAPTER V : THE CURRICULUM	109
1. Findings of earlier studies and point of attack in present investigation	109
2. Changes in curriculum offerings	111
3. Requirements for graduation	117
4. Special plans for increasing educational offerings	119
5. Conclusion	122

CONTENTS

	Page
CHAPTER VI : METHODS OF INSTRUCTION	124
1. Characteristics of the methods employed	124
2. Methods used in schools investigated	125
3. Methods reported as unusually successful	129
4. Adaptation of work to individual differences in the selected schools	132
5. Conclusion	137
CHAPTER VII : SUPERVISION OF INSTRUCTION AND PROFESSIONAL GROWTH OF TEACHERS	138
1. Importance of supervision and placement of supervisory responsibility	138
2. The supervisory procedures employed	141
3. Supervisory procedures emphasized	143
4. Other methods of promoting the professional growth of teachers	146
5. Supervisory procedures in selected schools visited	147
6. Conclusion	148
CHAPTER VIII : THE EXTRACURRICULUM AND RELATED ACTIVITIES	150
1. General characteristics of the program of extracurriculum and related activities	150
2. Competitive activities in the smaller schools	156
3. Administration and control of activities in selected schools	159
4. Pupil participation in high-school government	165
5. Conclusion	169
CHAPTER IX : PUPIL ACCOUNTING AND GUIDANCE	170
1. Records and testing	170
2. Physical examination	180
3. Guidance	184
4. Conclusion and summary	192
CHAPTER X : EXTENDED SERVICE AND COMMUNITY RELATIONS	194
1. Range and types of extended service	194
2. School publicity	200
3. Conclusion	203

CONTENTS

	Page
CHAPTER XI : GENERAL SUMMARY, TRENDS, PROBLEMS, AND SIGNIFICANCE	206
1. Representativeness of the schools of the study	206
2. Some general characteristics of the schools	206
3. General organization and administration	209
4. The administrative and teaching staff	213
5. School grounds, buildings, and equipment	217
6. The curriculum	221
7. Methods of instruction	223
8. Supervision of instruction and professional growth of teachers	224
9. Extracurriculum and related activities	226
10. Pupil accounting and guidance	228
11. Extended service and community relations	231
12. Two major implications	232

LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D. C., June, 1933.

SIR: Within a period of 30 years the high-school enrollment has increased from a little over 10 per cent of the population of high-school age to more than 50 per cent of that population. This enrollment is so unusual for a secondary school that it has attracted the attention of Europe, where only 8 to 10 per cent attend secondary schools. Many European educators have said that we are educating too many people. I believe, however, that the people of the United States are now getting a new conception of education. They are coming to look upon education as a preparation for citizenship and for daily life rather than for the money return which comes from it. They are looking upon the high school as a place for their boys and girls to profit at a period when they are not yet acceptable to industry.

In order that we may know where we stand in secondary education, the membership of the North Central Association of Colleges and Secondary Schools four years ago took the lead in urging a study. It seemed to them that it was wise for such a study to be made by the Government of the United States rather than by a private foundation, for if such an agency studied secondary education it might be accused either rightly or wrongly of a bias toward a special interest. When the members of a committee of this association appeared before the Bureau of the Budget in 1928, they received a very courteous hearing. It was impossible, so the Chief of the Budget Bureau thought, to obtain all the money which the commission felt desirable; with the money which was obtained, $225,000, to be expended over a 3-year period, it was found impossible to do all the things that the committee had in mind. It was possible, however, to study those things which pertained strictly to secondary education, that is, its organization; its curriculum, including some of the more fundamental subjects, and particularly those subjects on which a comparison could be made between the present and earlier periods; its extracurriculum, which is almost entirely

new in the past 30 years; the pupil population; and administrative and supervisory problems, personnel, and activities.

The handling of this Survey was intrusted to Dr. Leonard V. Koos, of the University of Chicago. With great skill he has, working on a full-time basis during his free quarters from the University of Chicago and part time during other quarters, brought it to a conclusion.

This manuscript on the smaller secondary schools is one of the most important of the series. It is written by Emery N. Ferriss, a part-time specialist; W. H. Gaumnitz, full-time specialist of the Office of Education; and P. Roy Brammell, a full-time specialist in the employ of the Survey.

In assigning this topic, full realization was had that approximately 12,000 of the secondary schools in the United States enroll 100 pupils or fewer, and that these schools minister to approximately three-fourths of a million American children. This section of the Survey undertook to make a comparison of the several sizes of high schools with a view to throwing into relief the outstanding characteristics of the education found in them. The study was based on 614 of these schools located chiefly in rural areas. The study re[illegible] from the point of view of library and other facilities th[illegible] schools of fewer than 150 pupils do not render the full service of secondary education. It was revealed that various efforts were being made to enrich the curriculum, among them an experiment in the State of Nebraska whereby correspondence education is tried, and other experiments in which the itinerant teacher and correspondence instruction are tried. The manuscript is filled with many significant tables. The conclusions drawn are such as will prove valuable to administrators of schools of small size.

An analysis of certain small secondary schools doing unusual things will be suggestive of how the services of small secondary schools can be improved, and I recommend that the manuscript be printed as a monograph of the National Survey of Secondary Education.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

THE SECRETARY OF THE INTERIOR.

THE SMALLER SECONDARY SCHOOLS

CHAPTER I : THE PROBLEM AND THE SCHOOLS

1. SCOPE OF THE STUDY AND SOURCES OF INFORMATION

A study of the smaller secondary schools.—The present study is concerned with the smaller secondary schools, those schools which in the main afford the opportunities for secondary education to the children of the smaller centers of population and rural areas. In order to make the picture as complete as possible, the study has included high schools with enrollments ranging from fewer than 20 pupils to a group of schools enrolling more than 300 high-school pupils and standing on the border line between what are ordinarily classed as small high schools and those generally classed as large high schools. With respect to the number of teachers, the schools supplying the data for the study range all the way from 4-year high schools with 1 teacher to schools with staffs of more than 20 teachers.

Throughout the study the data are tabulated with reference to two groups or classes of schools, namely (1) *the unselected schools* and (2) *the selected schools;* comparisons are constantly made between these two groups.

The unselected schools.—The description of general status and characteristics of smaller secondary schools is based mainly upon information on 505 4-year high schools. Throughout the study these are referred to as *the unselected schools*. They are representative of the different sizes of smaller secondary schools, and for purposes of analysis and comparison are classified into five size groups, as shown in Table 1: Group IA contains those schools enrolling 40 pupils or fewer; Group IB contains those schools with enrollments of 41 to 75 pupils; Group II, those enrolling 76 to 150; Group IIIA, those enrolling 151 to 300; and Group IIIB, those enrolling more than 300 pupils.

The data pertaining to these schools were obtained from replies to a special inquiry form sent out to the schools and

designed to include all their major characteristics and activities. In order not to complicate the study unnecessarily, the schools of the unselected groups were limited to those offering the regular four years of high-school work. From a preliminary study it was known how many of these schools in each State fell into the several size groups. To assure representativeness, the inquiry forms were apportioned to each State on the basis of these known distributions. Within these limitations the schools to which the inquiry forms were sent were selected at random.

The returns were fairly proportionate to the forms mailed out, both as to size groups and as to geographical divisions. It was hoped that 100 forms would become available from each of the five size groups. The actual number returned, as seen in Table 1, was slightly fewer in Groups IA and IB and slightly larger in the other three groups. Geographically, of the schools located in the Southern States to which forms were sent, 27 per cent replied, and of those located in the Midwestern States, 50 per cent replied. The percentages of returns from the other three regional divisions fell between these two extremes. The average proportion of returns for all the divisions was 38 per cent.

TABLE 1.—*Number, size, and geographical distribution of schools investigated*

Group or measure	Unselected schools by size groups					Selected schools by size groups		
	IA	IB	II	IIIA	IIIB	I	II	III
1	2	3	4	5	6	7	8	9
Geographical distribution:								
New England	3	3	8	3	6	4	8	8
Middle Atlantic	4	10	19	16	27	2	8	11
South	14	18	25	25	23	4	2	11
Middle West	37	45	42	48	50	6	9	15
West	14	16	16	15	18	3	7	11
Total number of schools studied	72	92	110	107	124	19	34	56
Average enrollment	25.9	51.4	107.2	219.4	471.7	49.1	109.2	293.3
Average number of teachers	2.8	4.0	6.7	10.0	18.5	4.3	7.1	11.5
Average number of secondary-school pupils per teacher	9.2	12.8	16.0	21.9	25.5	11.4	15.4	25.5
Percentage of schools with elementary school housed with high school	83.3	83.7	64.2	44.9	18.6	84.2	82.4	54.5

It may be said, therefore, that in point of size a somewhat smaller proportion of the schools of the smallest size groups and a somewhat larger proportion of the largest size groups

became available for study. Geographically, a somewhat smaller proportion of the schools of the Southern States and a somewhat larger proportion of those of the Midwestern States were included. It is believed that the differences shown are not sufficiently great to disturb the representativeness of the study from the standpoint of giving a general picture of the status and characteristics of smaller secondary schools of different sizes. On the other hand, it is probable that the schools are in a sense selected and show a somewhat more favorable condition than actually exists in the run of schools, since the replies represent slightly less than two-fifths of the schools to which forms were sent and since it is probable that a greater proportion of the better than of the poorer schools would tend to reply. This fact should be kept in mind in the comparisons made between these schools and the group of selected schools described below. It should also be noted that Group IIIB of these schools represents in general larger schools than any group of selected schools, so that when the unselected schools as a class are compared with the selected schools as a class, whatever advantages may come from the inclusion of this group of larger schools will tend to favor the unselected schools.

The selected schools.—The second general group of schools used in the study are designated as *the selected schools*. The material on these schools is based on data obtained from returns received from 109 smaller secondary schools and from personal visits by a member of the Survey staff of 17 of these schools distributed over 15 States.

The original list of selected schools was made up from the replies to an item in the inquiry form sent to State school officers requesting a report of outstanding schools in smaller communities and rural areas, and from replies to special inquiries asking for the name and location of small secondary schools doing outstanding or significant work in two or more phases of their programs. These special inquiries were sent to all State supervisors of secondary education, State supervisors of rural education in the States where such officers are employed, professors and instructors of rural education in universities and normal colleges, professors of secondary education, and a representation of county superintendents in

the several States. Of the 303 schools located by the means described, the administrative officers of 205 expressed a willingness to cooperate in the study and were sent a special and extended inquiry form similar in most respects to that used in gathering information concerning the groups of unselected schools. Fairly complete returns were received from 109 schools representing slightly more than one-half of those to which the inquiry forms were sent. Practically all the schools of this class finally included in the study were mentioned as doing noteworthy work by two or more of the persons reporting.

Selected schools visited.—To obtain more intimate knowledge of representatives of the schools reported as doing outstanding work than was possible through the inquiry forms alone, 17 of the schools were visited by a member of the Survey staff. In determining the schools to be visited the replies of the 109 schools (see Table 1) that had reported on the inquiry form were first ranked with reference to information supplied on 10 major items contained in the inquiry form. From the schools ranking highest, those to be visited were chosen with reference, as far as feasible, to the inclusion of schools representing (1) each size group, (2) each type of secondary-school organization, and (3) each geographical division. Reference to these schools will be made from time to time throughout the report. Below is shown the name, location of each school visited, and approximate enrollment.

Caesar Rodney High School, Wyoming, Del	155
Flathead County High School, Kalispell, Mont	740
Frederic High School, Frederic, Wis	188
Glasgow High School, Glasgow, Mont	327
Hanover High School, Hanover, Mass	154
Johnstown High School, Johnstown, Colo	129
Lawrenceville High School, Lawrenceville, Pa	70
Madison High School, Madison, N. J	330
Masontown High School, Masontown, W. Va	278
Montpelier High School, Montpelier, Ohio	294
Mound High School, Mound, Minn	189
New Milford High School, New Milford, Conn	243
Orange Consolidated High School, Waterloo, Iowa	71
Pendleton High School, Pendleton, Ind	163
Point Marion High School, Point Marion, Pa	261
Sandy Junior High School, Sandy, Utah	246
Wallingford High School, Wallingford, Vt	102

Since the selected schools were chosen on the basis of reports from the several States as to small secondary schools of unusual merit, they naturally represent both 4-year high schools and various types of reorganized schools. Fifty-six are 4-year high schools and 53 are schools representing different types of reorganization. Of the reorganized schools, 5 are junior high schools; 5, senior high schools; 25, junior-senior high schools; 3, undivided 5-year high schools; and 15, undivided 6-year high schools.

The selected schools are classified under three size groups: Group I, including schools with enrollments of 75 pupils or fewer and corresponding to Groups IA and IB of the unselected schools; Group II, containing schools with enrollments of 76 to 150 and corresponding to Group II of the unselected group; and Group III, with enrollments of 151 pupils or more and corresponding roughly to Group IIIA of the unselected schools. The number of selected schools in each size group and their geographical distribution is shown in Table 1.

DESCRIPTION OF THE SCHOOLS STUDIED

Size in terms of enrollment.—On the basis of pupil enrollment, the unselected schools range from a 4-year high school of 11 pupils to schools in Group IIIB with enrollments of more than 1,000. Between these two extremes the number of schools representative of each size group is well distributed both geographically and with respect to enrollment. The average number of secondary pupils per school ranges from 25.9 in Group IA to 471.7 in Group IIIB, with a general average for all five groups of 193.4 pupils. (See Table 1.) It is significant to note that the pupil-teacher ratio increases regularly from Group IA, with an average of 9.2 pupils per teacher to Group IIIB, where the ratio is 25.5. The ratio of all size groups is approximately 21 pupils per teacher.

In terms of pupil enrollment the selected schools are somewhat larger for similar groups than the unselected schools. The smallest school among the selected schools enrolled 21 secondary pupils. The average pupil enrollment for Group I among the 4-year selected schools was 46.9; among the reorganized schools, 67.5; and for the two types of schools

combined, 49.1 pupils. The average enrollment for Group III of the selected 4-year high schools was 263; of the reorganized schools, 329.3; and for both types combined, 293.3. The general average for the 4-year schools was 154.8 pupils per school and for the reorganized schools 231 pupils. It may also be noted that the average enrollment for each size group is considerably larger for the reorganized schools than for the corresponding 4-year schools, the difference ranging from approximately 20 pupils in Group I to almost 70 pupils in Group III.

In the selected schools as in the unselected groups the pupil-teacher ratio increases regularly from the smaller to the larger schools. In both classes of schools, those enrolling 75 pupils or fewer have pupil-teacher ratios less than half that generally regarded as desirable from the standpoint of economy. Only in schools enrolling more than 150 pupils does the average number of pupils per teacher approximately equal this desirable ratio of 25. There are no significant differences between the two classes of schools in this respect.

TABLE 2.—*Distribution of schools by numbers of teachers on their staffs*

Number of teachers	Unselected 4-year high schools by size groups						Selected schools by size groups							
							4-year high schools				Reorganized schools			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	3	1				4								
2	19	7				26	2			2				
3	38	34	2			74	6	1		7			1	1
4	10	22	14			46	3			3	1	1		2
5–6	1	21	48	4		74	5	6	2	13	1	8	1	10
7–8		4	28	10	1	43		4	4	8		5	3	8
9–10		1	9	30	1	41		4	8	12	1	2	11	14
11–15		1	6	53	27	87		1	5	6		2	7	9
16–20			1	7	37	45							5	5
21–25					29	29			3	3			2	2
More than 25					21	21			1	1			2	2
Number of schools reporting	71	91	108	104	116	490	16	16	23	55	3	18	32	53
Average number per school	2.8	4.0	6.7	10.0	18.5	9.3	3.8	7.0	11.9	8.1	6.3	7.2	11.1	9.5

Size in terms of number of teachers.—In terms of number of teachers the unselected schools, as shown in Table 2, are well distributed over the entire range from 4 schools with 1 teacher

each to 21 schools in Group IIIB with staffs of more than 25 high-school instructors. No 1-teacher high school occurs in the list of selected schools and only two schools of the 2-teacher class. A markedly smaller percentage of the selected schools than of the unselected schools have high-school staffs of four teachers or fewer, the relative number for the selected 4-year and reorganized schools being 21.8 per cent and 5.6 per cent, respectively, as compared with 28.6 per cent for the unselected schools as a class. The percentage of unselected schools with staffs of more than 15 teachers is 19.4, as compared with 7.3 for the selected 4-year schools and 17 per cent for the reorganized schools. The higher percentage in the case of the unselected schools is largely due to the schools in Group IIIB, which, as has been previously pointed out, represent the border line between smaller and larger high schools.

The average number of teachers per school in the unselected schools ranges from 2.8 for Group IA to 18.5 for Group IIIB, with a general average of 9.3 teachers per school. In the selected schools the range for 4-year schools is from 3.8 teachers for schools in Group I to 11.9 in Group III, and for the corresponding size groups in the reorganized schools the range is from 6.3 to 11.1 teachers per school. The general average for the selected 4-year schools is 8.1 teachers and for the reorganized schools 9.5 teachers per school. The average number of teachers in schools of corresponding groups of unselected and selected schools is similar, except that Group IIIB of the former schools has an average staff considerably larger than any other group of either class of schools.

Year high-school work was begun and year 4-year program was first offered.—For the unselected schools only were data obtained showing the year in which high-school work was begun and when a 4-year course was first offered. The data obtained show that a few of the larger schools were established as early as 1850, but that the majority had begun their work since 1900. As a group the schools enrolling 75 pupils or fewer had been more recently established (Table 3) than the schools enrolling more than 75 pupils.

The majority of all schools reporting had entered upon a 4-year high-school program since 1910, although almost a

third of the schools in Groups IIIA and IIIB had begun a 4-year program in the period closing with 1900. Slightly more than half of the schools enrolling 75 pupils or fewer had entered on a 4-year high-school program after the year 1920. (See Table 4.) The data, both on the year high-school work was first begun and on the year a 4-year program was first offered, indicate clearly that the smaller the schools the more recently they tend to have been established. Also, over a fourth of the schools with 75 pupils or fewer had begun high-school work since 1920 as compared with less than 5 per cent of the schools enrolling more than 150 pupils.

However, it is significant to note that the very small high school is not merely a transitional stage in the evolution toward a large school. It was found that the schools in Group IA have achieved a median age of 13.3 years and that those of Group IB have a median age of 19.3 years. This indicates that these small schools are an accepted part of the scheme of secondary education in the United States. Indeed, nearly 61 per cent of the former and 80 per cent of the latter began offering high-school work before 1920. Data in Table 4 further indicate that a third of the former class of schools and two thirds of the latter have been offering four years of high-school work since before 1920.

TABLE 3.—*Numerical and percentage distribution of unselected schools according to the year high-school work was begun*

Period	Number and per cent by size groups											
	IA		IB		II		IIIA		IIIB		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
1850 and before					2	2.5	2	2.4	5	5.2	9	2.4
1851–1875			2	2.9	6	7.6	2	2.4	15	15.5	25	6.6
1876–1900	6	11.8	9	13.0	21	26.6	36	43.4	37	38.1	109	28.7
1901–1910	8	15.7	22	31.9	21	26.6	26	31.3	25	25.8	102	26.9
1911–1920	17	33.3	22	31.9	21	26.6	13	15.7	10	10.3	83	21.9
1921–1925	16	31.4	13	18.8	8	10.1	4	4.8	4	4.1	45	11.9
1926–1928[1]	4	7.8	1	1.5	----	----	----	----	1	1.0	6	1.6
Schools reporting	51	100.0	69	100.0	79	100.0	83	100.0	97	100.0	379	100.0
Per cent beginning since 1920	----	39.2	----	20.3	----	10.1	----	4.8	----	4.1	----	13.5

[1] None in any group since 1928.

TABLE 4.—*Numerical and percentage distribution of unselected schools according to the year a 4-year program was first offered*

Period	Number and per cent by size groups											
	IA		IB		II		IIIA		IIIB		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
1850 and before					2	2.3	1	1.2	3	3.1	6	1.5
1851–1875					1	1.2	3	3.6	6	6.3	10	2.6
1876–1900	2	3.6	6	8.1	14	16.7	26	31.3	28	29.8	76	19.4
1901–1910	3	5.4	13	17.3	22	26.2	21	25.4	29	30.8	88	22.5
1911–1920	14	25.5	32	42.7	28	33.4	25	30.1	20	22.3	119	30.4
1921–1925	20	36.4	16	21.3	15	17.9	7	8.4	6	6.3	64	16.4
1926–1928	12	21.8	7	9.3	2	2.3			2	2.1	23	5.9
Since 1928	4	7.3	1	1.3							5	1.3
Number of schools reporting	55	100.0	75	100.0	84	100.0	83	100.0	94	100.0	391	100.0
Per cent beginning 4-year program:												
Since 1920		65.5		31.9		20.2		8.4		8.4		23.6
Since 1925		29.1		10.6		2.3		0		2.1		5.9

Accreditment of the unselected schools.—According to information not reported in the text in tabulated form, 39 per cent of the unselected schools were accredited by State departments of education, 43 per cent by regional accrediting associations, 11.5 per cent by both the State department and the State university, and 6.3 per cent by the State university. The greatest difference between the smaller and larger high schools is in the percentage accredited by a regional association, the range with such accreditment being from 3.8 per cent for schools of Group IA to 60 per cent for the schools of Group IIIA and 72 per cent for the schools of Group IIIB. The smaller schools had been more recently accredited by the State department of education and the university than the larger schools. Approximately half the accredited schools enrolling 75 pupils or fewer had secured accredited rating since 1925, as compared with 8.2 per cent of the schools in Group IIIA and 12 per cent of those belonging to Group IIIB. The evidence on accreditment, as that on year in which high-school work was first begun and a 4-year program

first offered, indicates that the smaller schools have been more recently established than the larger schools. At the same time, the fact that smaller proportions of the groups of smaller schools are accredited by the different accrediting agencies may be taken as evidence that the programs of these schools tend to be less satisfactory than those of the larger schools.

About 1 in 5 of the smallest schools and about 1 in 10 of the next smallest schools were found not to be accredited by any agency. Some States have followed the practice of adopting two or more sets of standards, thus making it possible for the smaller schools to achieve some definite standing; other States make no attempt to accredit these smaller schools. Regional accrediting associations seldom interest themselves in the quality of education offered in the secondary schools until after they enroll more than 75 pupils. Thus many of the smaller high schools do not have an opportunity to get the stimulus to improvement that comes with the attempt to achieve accreditment.

The location of the schools.—The location of the smaller secondary schools, the types of districts in which they are found, and the extent of the areas served throw some light on two problems: (1) The availability of secondary education for rural children and (2) the degree of centralization of secondary education in smaller communities and rural areas. Of the unselected schools, 8.5 per cent are located in the open country and 91.5 per cent in villages or small cities, as shown in Table 5. The largest proportions of schools located in the open country are found in the two groups enrolling 75 pupils or fewer and the smallest proportions in the two groups enrolling more than 150. Of the selected schools, 12.8 per cent are located in the open country and 87.2 per cent in villages or small cities. As in the case of the unselected schools, the largest proportion located in the open country is found in the group of smallest schools and the smallest proportion in the group of largest schools. The evidence from both classes of schools indicates some relationship between the relative smallness of schools and the attempt to make secondary education available to rural children by locating high schools in the open country. The differences between the unselected and

selected schools with regard to the relative proportions located in the open country and in villages or small cities are, it would seem, too small to have any special significance.

TABLE 5.—*Numbers and percentages of schools located in the open country and in village or city*

Location	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Open country	9	12	10	4	6	41	8.5	5	4	5	14	12.8
Village or city	61	75	99	102	106	443	91.5	14	30	51	95	87.2
Number of schools reporting	70	87	109	106	112	484	100.0	19	34	56	109	100.0

Types of districts in which schools are situated.—Of the unselected schools, slightly more than a third are in consolidated districts. A marked difference between the smaller and larger schools is shown by the fact that approximately half the schools in Groups IA and IB are in districts of the consolidated type, as compared with less than a fourth of those in Groups IIIA and IIIB. (See Table 6.) The selected schools with 57.3 per cent in consolidated districts run approximately 22 per cent higher in this respect than the unselected schools. In the selected schools the proportions in consolidated districts are similar in all size groups. Furthermore, the proportions for the 4-year high schools and the reorganized schools, not reported in the table, are practically identical.

Of the unselected schools, somewhat more than a third are in village or city districts. Here again there is a marked difference between the smaller and the larger schools. Only one in seven of the schools in Group IA, as shown in Table 6, is in this type of district, as compared with slightly less than half the schools in Group IIIA and more than half of those belonging to Group IIIB. Of the selected schools, less than a fifth are in village or city districts, the largest proportion occurring in Group III, where it represents slightly more than a fourth of all

Other types of districts, such as the New England town, township, county, and community, are all represented among both the unselected and selected schools, but in every instance by less than 10 per cent of the schools.

TABLE 6.—*Numerical and percentage distribution of the schools represented according to type of district*

Type of district	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Consolidated	35	46	41	28	21	171	35.2	12	18	29	59	57.3
Village or city	10	20	33	50	60	173	35.5	3	2	14	19	18.4
Town (New England)	2	4	4	2	4	16	3.3	2	5	3	10	9.7
Township	6	10	6	8	12	42	8.6	....	1	1	2	1.9
County	4	6	11	9	8	38	7.8	....	....	5	5	4.9
Community	10	5	9	9	7	40	8.2	1	1	1	3	2.9
District	3	0	2	1	1	7	1.4	1	3	1	5	4.9
Number of schools reporting	70	91	106	107	113	487	100.0	19	30	54	103	100.0

The data on types of districts show a significantly larger proportion of smaller schools than of larger schools in consolidated districts. This fact, since transportation of pupils and consolidation usually go together, indicates that in the smaller centers more attention has been given to making secondary education available to rural children than in the larger centers of population. Also of much significance is the fact that a markedly larger proportion of the smaller schools reported as doing outstanding work than of the general run of smaller schools are in the consolidated districts.

Areas served by the schools.—The areas served by the schools refer to the areas from which the pupils of the schools are drawn and not the areas of the school districts in the legal sense. Usually the areas actually served by the smaller secondary schools tend to be larger than the legal school districts, though they may in some instances be smaller.

Data giving the number of square miles of territory served by each school were obtained from 406 unselected and 89 selected schools. These data show (see Table 7) that 48 per cent of the unselected schools serve areas of 25 square

miles or less and that 30 per cent serve areas of more than 50 square miles. The median area in each of the three groups of schools enrolling fewer than 150 pupils is approximately 10 square miles greater than the median area served by schools with more than 150 pupils. There would appear to be a definite relationship between the size of area served and the proportion of consolidated schools in any size group. The data on types of school districts, it will be remembered, also showed that the largest proportions of schools in consolidated districts were in the groups of smaller schools, while the smallest proportions were in Groups IIIA and IIIB.

TABLE 7.—*Numerical and percentage distribution of schools according to areas served*

Area in square miles	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per-cent	I	II	III	Total	Per-cent
1	2	3	4	5	6	7	8	9	10	11	12	13
25 or less	23	28	43	47	54	195	48.0	5	9	14	28	31.5
26–30	16	27	16	17	13	89	22.0	3	3	10	16	18.0
51–75	5	9	11	8	8	41	10.1	3	8	12	23	25.8
76–100	3	1	11	6	3	24	5.9	....	1	1	2	2.2
More than 100	7	12	15	10	13	57	14.0	3	5	12	20	22.5
Number of schools reporting	54	77	96	88	91	406	.....	14	26	49	89	.....
Median area	31	35	32	23	21	27	.....	41	53	51	51	.....
Percentage 25 or less	42.6	36.4	44.8	53.4	59.3	.....	48.0	35.7	34.6	28.6	.....	31.5
Percentage more than 50	27.8	28.4	38.5	27.2	26.4	.....	30.0	42.9	53.8	51.0	.....	50.5

In the selected schools as a class larger areas are served than in the unselected schools. Among these schools also it will be recalled that a much larger proportion are in consolidated districts. Only 31.5 per cent of the selected schools serve areas of 25 square miles or less, as compared with 48 per cent for the unselected schools. On the other hand, 50.5 per cent of the selected schools serve areas of 50 square miles or more, as compared with 30 per cent for the unselected schools. Furthermore, the median area served by the selected schools as a class is almost twice as great as that served by the unselected schools as a class. This is a significant difference, indicating that the selected schools are

drawing pupils from much greater distances than the general run of smaller secondary schools and are thus providing opportunities for secondary education to rural children to a greater degree than the run of schools.

Percentage of high schools with elementary schools housed in the same buildings.—In the typical situation high schools enrolling fewer than 150 pupils are housed in the same buildings with elementary-school pupils. Of the high schools enrolling 151 to 300 pupils about half and of high schools enrolling more than 300 pupils less than a fifth are housed with the elementary schools. Of both the unselected and selected schools with 75 pupils or fewer, somewhat more than four-fifths, as shown in Table 1, are housed in the same buildings with the elementary schools. A similar situation is true of somewhat more than three-fifths of the unselected schools with 76 to 150 pupils and of about four-fifths of the selected schools of the corresponding size group. Of the former schools enrolling 151 to 300 pupils, somewhat less than half and of the latter schools of similar size somewhat more than half occupy the same buildings as the elementary grades. As noted in the groups of larger schools, the proportion of selected schools housed with the elementary school is considerably larger than for the corresponding unselected schools. This difference is undoubtedly due in large part to the larger proportion of consolidated schools in these size groups of selected schools.

Length of school year.—One measure of educational opportunity afforded children in attendance is the length of the school year. On this basis the data on the smaller secondary schools indicate in general that the smaller the school the less the opportunity afforded, although the differences between the different size groups of schools are not great enough to be especially significant. In fact, as shown in Table 8, the differences in length of school year between schools within each size group are much greater and more significant than the differences that exist between groups of smaller and larger schools. As a typical example, the difference in length of school year between the schools with the shortest and those with the longest term in Group IA of the unselected schools is more than 25 days, while the difference between the aver-

age length of year of this group of schools and those of Group IIIB, the group of largest unselected schools, is only 5 days.

For the unselected schools as a whole the average length of school year is 178 days. The average for each of the three groups of smaller schools is either equal to or slightly less than the general average. For Groups IIIA and IIIB the averages are somewhat higher, being 180 and 182 days, respectively. For the selected schools as a whole the average school year is 179 days, or only 1 day more than the general average for the unselected schools. For the selected schools the range in average length of school year is very similar to that of the unselected schools, being from 175 days in Group I to 181 days in Group III.

TABLE 8.—*Distribution of unselected and selected schools according to length of school year in days in 1929–30*

Number of days	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
160 or fewer	5	7	8	3	1	24	.....	1	3	4
161–165	.....	.....	.....	.....	1	1	.....	.....	.....	.....
166–170	2	4	3	1	1	11	1	.....	1	2
171–175	9	7	10	8	10	44	5	2	1	8
176–180	49	56	58	64	60	287	11	24	31	66
181–185	3	4	8	14	16	45	.....	3	12	15
186–190	3	5	10	9	20	47	.....	2	3	5
191–195	.....	1	7	4	5	17	.....	2	.....	2
196 or more	.....	2	3	1	9	15	.....	.....	3	3
Number of schools reporting	71	86	107	104	123	491	17	34	54	105
Average number	178	177	175	180	182	178	175	178	181	179
Per cent with 175 days or less	21.7	20.9	19.6	11.5	10.6	16.3	35.3	8.8	9.3	13.3
Per cent with 181 days or more	8.5	13.9	26.2	26.9	40.7	25.2	.....	20.6	33.3	23.8

As previously indicated, of more significance than the differences in average length of school year between different size groups of schools are the proportions of schools with relatively short and relatively long school years. In the unselected schools there is a marked difference in this respect between the three groups of schools enrolling fewer than 150

pupils and the two groups of larger schools enrolling more than 150. Of the former groups, approximately a fifth have school years of 175 days or less, as compared with slightly more than a tenth of the latter groups. On the other hand, less than a fifth of the schools in the three former groups taken together have school years of 181 days or more, as compared with approximately one-third of the latter two groups of larger schools.

Among the selected schools, Group I differs markedly from the two groups of larger schools, both from the fact that it contains a relatively larger proportion of schools with a school year of 175 days or less and from the fact that it contains no schools with school years of 181 days or more. This group of schools is also unique, in that it has no schools with less than 166 days. Groups II and III are very much alike, in that less than a tenth of the schools in each group have school years of 175 days or less. In Group II approximately a fifth and in Group III a third of the schools have school years of 181 days or more.

There are no significant differences between the unselected schools as a class and the selected schools as a class in respect to educational opportunities afforded pupils as measured by length of school year. A slightly smaller proportion of the selected schools have school years of 175 days or less, but, on the other hand, a slightly smaller proportion have school years of 181 days or more. It should be noted in this connection that Group IIIB of the unselected schools, representing schools considerably larger as a group than any other group in either class of schools, showed a considerably higher proportion than any other group of schools with school years of 181 days or more, a further indication that the larger the school the greater the probability that it will have a relatively long school year.

Average daily attendance.—The average daily attendance, not given in tabular form, was reported by only slightly more than half the unselected and three-fifths of the selected schools, and consequently can not be regarded as more than an indication of the actual situation in the schools investigated. For the schools reporting, the data show the average number of days attended by pupils of the unselected

schools to be 159, for the selected 4-year schools 160 days, and for the reorganized schools 155 days. In all classes of schools the larger schools show the highest averages in number of days attended. This fact seems to indicate that the larger schools have either a more effective organization for checking up on attendance than the smaller schools or that their programs are such as to arouse greater interest on the part of pupils; perhaps both conditions exist.

3. EXTENT TO WHICH RURAL CHILDREN RECEIVE SECONDARY TRAINING

Proportion attending secondary schools.—Statistics of the United States Office of Education for 1929–30 show that the number of children of the ages 14 to 17, inclusive, enrolled in rural public and private high schools represented 30.9 per cent of the children of those ages living in centers of less than 2,500 population. They show also that the number of children of the ages 14 to 17 enrolled in urban public and private high schools represented 66.8 per cent of the children of those ages living in centers of more than 2,500. These figures do not take into account either the number of rural children attending urban high schools or the number of urban children attending rural high schools. It is probable that the latter represent a relatively small number. With corrections based on estimates of 24 States as to the number of rural children attending urban public high schools and of 11 States as to the number of rural children attending urban private high schools, the results indicate that the proportion of rural children of the ages 14 to 17 attending high school in 1929–30 was about 39 per cent, as compared with somewhat more than 58 per cent for urban children of those ages. On this basis approximately 20 per cent less of the rural children of the ages 14 to 17 attend high school than of the urban children of those ages. It is clear enough that this difference represents one of the major deficiencies in the aim in this country to offer equal opportunities to all and a major problem in achieving a parity in this respect of the two population groups concerned.

Retention of pupils in schools studied.—All but seven of the unselected schools furnished usable data on the number of

pupils enrolled in each of the four years of high school. The data indicate, with no allowance made for increase in enrollment and using the ninth-grade enrollment in each instance as the 100 per cent base, that for these schools as a class approximately 54 of every 100 pupils in the ninth grade were retained to the twelfth grade. (See Table 9.) On the same basis the group of schools enrolling 40 pupils or fewer and the group enrolling more than 300 pupils showed the smallest percentages of pupils retained to the twelfth grade. On the other hand, the schools enrolling 76 to 150 pupils showed the largest percentage retained. In all size groups of these schools, as indicated by the data, girls were retained to the twelfth grade to a considerably greater extent than boys.

All the selected 4-year high schools supplied information on the number of pupils enrolled in each of the four years. As a class these schools retained to the twelfth grade approximately 51 per cent of the ninth-grade enrollment, a slightly smaller percentage than was retained by the unselected schools. Of these schools, Group II showed the largest percentage retained to the twelfth grade and Group III the smallest. These schools also showed a somewhat greater tendency for girls than for boys to remain in school to the twelfth grade.

Of the selected reorganized schools, 33 gave the number of pupils enrolled for each year from the seventh to the twelfth grade. To place these schools on the same basis as the 4-year schools, however, data for grades 9 to 12 only are shown in Table 9. Also, since data from only two of the schools in Group I were available, this group is not included. The data indicate a significantly greater retention of pupils from the ninth grade to the twelfth grade in the reorganized schools than in any group of regular 4-year schools included in the whole study. The percentage retained to the twelfth grade in these schools was approximately 64, as compared with 51 for the selected 4-year schools and 54 for the unselected schools.

TABLE 9.—*Percentage retention of pupils in successive grades of unselected and selected schools*

Groups of schools	Grade 10[1]			Grade 11			Grade 12		
	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
1	2	3	4	5	6	7	8	9	10
Unselected:									
IA (72)	68.0	83.9	76.4	51.9	54.1	53.3	46.2	51.1	48.9
IB (92)	81.4	81.7	81.6	63.5	68.0	65.9	51.8	56.1	54.1
II (110)	78.7	79.7	79.2	63.4	70.6	67.2	53.7	63.0	59.4
IIIA (106)	77.0	83.3	79.1	63.3	70.6	67.2	55.4	63.2	59.4
IIIB (116)	83.1	81.8	82.4	59.3	65.9	62.5	46.7	54.0	50.4
Total (498)	80.8	82.0	81.5	60.8	67.3	64.2	49.8	57.3	53.6
Selected, regular 4-year:									
I (16)	79.6	81.8	80.9	55.8	62.2	59.4	48.7	55.9	52.7
II (16)	75.7	75.1	75.4	63.8	64.8	64.4	55.6	63.5	59.9
III (24)	76.2	78.2	77.6	58.9	69.1	64.5	48.4	48.9	48.7
Total (56)	76.9	77.9	77.5	59.9	67.1	64.1	50.0	52.3	51.2
Reorganized schools:									
II (10)	74.4	96.7	85.7	56.2	77.2	66.8	58.7	71.5	65.2
III (21)	84.4	92.9	88.7	66.0	80.5	73.3	59.8	67.4	63.6
Total (31)	82.8	93.5	88.2	64.5	80.0	72.4	59.6	68.1	63.9

[1] Percentages for grades 10, 11, and 12 are computed on base of 100 for grade 9.

NOTE.—The numbers in parentheses indicate the number of schools represented.

Comparability of the schools.—The preceding discussion has shown that both the unselected and selected schools as groups are fairly well distributed over all geographical divisions of the continental United States and that both are representative of the different sizes of smaller secondary schools. All types of school districts in which smaller secondary schools are found are also represented by both unselected and selected schools. On the basis of these facts it is believed that the groups of unselected and of selected schools are comparable with one another taken either as classes or with respect to corresponding size groups. It should be noted, however, that Group IIIB of the unselected schools contains schools in general considerably larger than any group of selected schools and that when the unselected schools as a class are compared with the selected schools as a class the inclusion of this group will tend to favor the former schools to the extent that there are differences due to size. The introduction of a group of selected reorganized schools also complicates the problem of comparison; but since

the comparisons that will be made are mainly with reference to characteristics possessed by schools of similar size and differences existing between schools of different sizes, it is believed that the results will not be materially distorted by the presence of these schools.

4. PURPOSES OF THE PROJECT

Main purposes.—The main purposes of the present study are:

(1) To make an analysis of the status and characteristics of secondary education in small high schools of different sizes.

(2) To determine, as far as possible, the major limitations due to the smallness of the schools belonging to the different size groups.

(3) To discover through the investigation of the schools belonging to the different size groups the changes, if any, that are taking place in the characteristics of secondary education in small secondary schools.

(4) To investigate the characteristics of a group of selected schools representing the different sizes found in small communities and rural areas.

(5) To compare these selected schools of different sizes with each other and with the unselected schools to discover the nature of the differences, if any, that exist.

(6) To determine what, if any, innovations or significant departures from ordinary practices exist in the selected schools that may be of value to smaller secondary schools in general

CHAPTER II : GENERAL ORGANIZATION AND ADMINISTRATION

1. GENERAL FEATURES IN THE ORGANIZATION OF THE SCHOOLS

Scope of the chapter.—The present chapter will be concerned with certain more general characteristics of the organization and administration of the smaller secondary schools. The major topics presented will include the general features of organization, the responsibilities and duties of the high-school principal,[1] the school assembly, the organization and availability of the library, and the transportation of pupils.

Grades over which high-school principal has responsibility.—One of the first things that impresses one in the study of smaller secondary schools is the great variation existing in organization, not only among schools of different sizes but also among those belonging to similar size groups. One of the most noticeable characteristics of organization and administration in these schools is that of variability. This is especially true in respect to the number of grades or years of work over which the person in charge has administrative and supervisory responsibility.

The situation that occurs more often than any other in regard to the organization of the smaller secondary schools is that in which the person serving as high-school principal has major administrative and supervisory responsibility over all grades, including both elementary school and high school. This is seen in Table 10. The grades included are usually grades 1 to 12, although in a considerable number of schools they are 1 to 11 and in a few instances 1 to 13. This represents the type of organization in 46.4 per cent of the unselected 4-year high schools. The proportion of schools in which all elementary grades and the high school are in charge of the high-school principal decreases rather rapidly from the smaller

[1] Although practice varies, to avoid confusion throughout the present study the terms "high-school principal" or "principal" will be used whenever the person referred to has major responsibility for the high school, even though he may also be responsible for some or all of the elementary grades.

to the larger schools. In Group IA approximately three-fourths of the schools have this type of organization, as compared with slightly more than a third of Group IIIA and less than a tenth of the schools in Group IIIB.

TABLE 10.—*Distribution of unselected and selected schools according to the grades under the administrative and supervisory control of administrator in charge of the high school*

Grades	Unselected schools by size groups						
	IA	IB	II	IIIA	IIIB	Total	Per cent
1	2	3	4	5	6	7	8
1-11 or 1-12	53	66	67	38	10	234	46.4
7-11 or 7-12	2	----	5	12	15	34	6.8
8-11 or 8-12	----	1	2	3	12	18	3.6
9-11 or 9-12	17	25	33	52	71	198	39.3
10-12	----	----	----	2	5	7	1.3
Other	----	----	2	----	11	13	2.6
Total number of schools reporting	72	92	109	107	124	504	100.0

Grades	Selected schools by size groups									
	4-year					Reorganized				
	I	II	III	Total	Per cent	I	II	III	Total	Per cent
1	9	10	11	12	13	14	15	16	17	18
1-9 or 1-10	----	----	----	----	----	1	2	1	4	7.5
1-11 or 1-12	14	11	12	37	67.3	----	13	13	26	49.1
7-11 or 7-12	1	----	3	4	7.3	1	1	12	14	26.4
8-11 or 8-12	----	5	2	7	12.7	1	----	1	2	3.8
9-11 or 9-12	----	----	7	7	12.7	----	----	----	----	----
10-12	----	----	----	----	----	----	1	3	4	7.5
Other	----	----	----	----	----	----	1	2	3	5.7
Total number of schools reporting	15	16	24	55	100.0	3	18	32	53	100.0

In the second most frequent type of organization occurring in the unselected schools, the high-school principal is responsible for the high school only, usually including grades 9 to 12, but frequently grades 8 to 11. This form of organization occurs in approximately two-fifths of the schools. In a small proportion of schools the grades included are either 7 to 11 or 7 to 12. Other types of organization occur infrequently.

In 67.3 per cent of the selected 4-year schools the high-school principal is in charge of both the elementary school and the high school. In approximately 5 schools in 6 the grades included are 1 to 12, and in 1 school in 6, grades 1 to 11. In Group I of these schools practically all and in Group III half include all elementary grades and the high school. In approximately one-eighth of the schools, all in Group III, the high-school principal is responsible for grades 9 to 12 only. That there is a tendency among the smaller secondary schools, even in the regular 4-year schools, to associate the upper elementary grades with the high school is indicated by the fact that in approximately an eighth of the selected 4-year schools the high-school principal is in charge of the eighth grade and, in approximately 8 per cent, of both the seventh and eighth grades. This same tendency is also evident in the unselected schools, all of which, it will be recalled, were reported as 4-year schools.

Among the selected reorganized schools, approximately half have all elementary grades, including the high school. Four have all elementary grades and the junior high school. Slightly more than a fourth of these schools have only grades 7 to 12, and slightly less than 8 per cent include grades 10 to 12 only. In the first instance all but one and in the second instance all are schools enrolling more than 75 high-school pupils.

Several interesting deductions may be drawn from the data on the grades under the administration and control of the high-school principal. According to these data, in all groups of schools enrolling 150 pupils or fewer the predominant practice is that in which the high-school principal has charge of all elementary grades and the high school. In schools with 151 to 300 pupils, practice is divided between a form of organization including all elementary grades and the high school and a form of organization including either the high school alone or the high school and one or two of the upper elementary grades, there being a considerable tendency toward the latter forms of organization. Only in schools enrolling more than 300 pupils is it predominantly the practice for the high-school principal to have responsibility for the high school only. The data also show, as mentioned

previously, a considerable tendency in the 4-year high schools where the high-school principal is not in charge of all elementary grades to place in his charge either one or two of the upper elementary grades. This indicates a tendency in these schools to take over some features of the reorganized schools.

It is of interest to note that a much larger proportion of the selected 4-year schools than of the unselected schools have the type of organization in which the high-school principal has charge of all elementary grades and the high school. In part this difference may be explained by the inclusion in the unselected schools of Group IIIB in which the prevailing form of organization is a high school administered separately from the elementary grades. In part it is probably due to the fact that a considerably larger proportion of the selected schools are in consolidated districts. On the other hand, a much smaller proportion of the selected reorganized schools than of the selected 4-year schools include all elementary grades and the high school, the reorganized schools differing very little in this respect from the unselected schools. Since the proportion of these schools in consolidated districts is practically the same as that of the selected 4-year schools, it would seem that the difference between them can only be explained as a difference due to reorganization on the basis of a 5-year or 6-year secondary school, the form of organization predominant in those schools.

Unusual types of organization.—A few schools reported types of organization somewhat unusual in character. Two of the unselected schools in Group IIIB included grades 1 to 13, two reported grades 5 to 11, and one school reported grades 5 to 12. One of the selected schools in Group II had all work departmentalized beginning with the fourth grade. Another school in the same group was organized with a 5-year elementary school, a 3-year junior high school, and a 4-year senior high school. In Montpelier, Ohio, the secondary-school work was organized with a 4-year junior high school including grades 5 to 8 on a departmental plan, and a senior high school including the ninth to the twelfth years.

Organization of the school day.—All but 11 of the unselected and all but 1 of the selected schools furnished information on

the organization of the school day in terms of length of class periods. This information shows some significant differences between the different size groups in both classes of schools. It also shows some interesting differences between the unselected and selected schools.

Among the unselected schools, slightly more than a fourth are organized with class periods of 40 minutes or less in length. As shown in Table 11, much the largest proportions of schools with relatively short class periods are in the three groups of smaller schools and the smallest proportions in the two groups of largest schools. In fact, the proportion of schools with the shorter periods decreases markedly with each group of larger schools.

TABLE 11.—*Numbers and percentages of unselected and selected schools with periods of 40 minutes or less and with periods of more than 50 minutes*

Groups of schools	Periods of 40 minutes or less		Periods of more than 50 minutes		Total number
	Number	Per cent	Number	Per cent	
1	2	3	4	5	6
Unselected:					
IA	31	43.0	5	7.0	[1] 72
IB	33	35.8	8	8.7	92
II	30	27.2	18	16.3	110
IIIA	23	21.5	31	29.0	107
IIIB	12	9.7	43	34.7	124
Total	129	25.5	105	20.8	505
Selected:					
I	4	21.1	1	5.2	19
II	10	29.4	11	32.3	34
III	9	16.1	16	28.5	56
Total	23	21.1	28	25.7	109

[1] The numbers in this column represent in each instance the total number of schools investigated and on which the percentages in the preceding columns are based.

Of the unselected schools as a class, slightly more than a fifth have class periods of more than 50 minutes in length. Here again there are significant differences between the different size groups. In groups IA and IB, schools enrolling 75 pupils or fewer, the longer class periods are seldom found. On the other hand, in Groups IIIA and IIIB, schools enroll-

ing more than 150 pupils, almost a third are organized with the longer periods.

Among the selected schools as a class, slightly more than a fifth reported class periods of 40 minutes or less. Somewhat more than a fourth of these schools have class periods of more than 50 minutes. In the selected schools the differences between different size groups of schools in the use of the shorter class periods are not so marked as is the case in the unselected schools. In the use of the longer periods, however, there is a very significant difference between those schools enrolling 75 pupils or fewer and those enrolling more than 75 pupils, with the larger schools showing a much larger proportion organized on the basis of the longer periods. As a class the selected schools are using the shorter periods considerably less often than the unselected schools and the longer periods much more often. These differences show that the former schools as a class have adopted to a considerably greater extent than have the unselected schools class periods usually regarded as suitable for carrying out plans of supervised study.

2. THE PRINCIPALS OF THE SCHOOLS

Responsibility relative to teaching staff.—In the selection of the teaching staff the principal in the unselected schools most commonly shares responsibility. This is the practice, as shown in Table 12, in approximately 7 in 10 of these schools and is fairly uniform for all size groups. In the remaining schools practice is about equally divided between no responsibility on the part of the principal and full responsibility. Schools belonging to Group IA differ markedly from the other groups of schools in that a fourth of the principals in this group have no responsibility for the selection of teachers and less than 1 in 10 exercises full responsibility. This difference indicates that in high schools of 40 pupils or fewer the principals have least voice in determining the teaching personnel.

In the matter of promotion of teachers the practice in the unselected schools is in general similar to that found in the selection of teachers. There are, however, two differences that should be noted. In the first place, the proportion of

principals who share responsibility for the promotion of teachers is considerably lower in the three groups of smaller schools than in the two groups of larger schools. In the second place, the proportion of principals with no responsibility for the promotion of teachers is markedly greater in the three groups of smaller schools than in the case of the larger schools. In the matter of dismissal of teachers the practice in the majority of the unselected schools is that in which the principal shares responsibility. Again, there is a marked difference between the schools enrolling fewer than 150 pupils and those enrolling more than 150 pupils. In the smaller schools, again, a much smaller proportion of the principals share responsibility and a much larger proportion have no responsibility. Both in the promotion and dismissal of teachers, principals in the smaller schools have less voice than do the principals of the larger schools and the line of demarcation is in each instance between the schools of Group II and those of Group IIIA.

TABLE 12.—*Percentage distribution of unselected and selected schools reporting the different degrees of responsibility of high-school principal in relation to the teaching staff*

Nature and extent of responsibility	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Selection:	(60)		(81)		(107)		(99)		(117)		(464)		(18)		(32)		(54)		(104)	
None	15	25.0	11	16.0	25	23.4	16	16.2	17	14.5	84	18.1	5	27.8	5	15.6	4	7.4	14	13.5
Cooperative	40	66.6	57	70.4	64	59.8	71	71.7	81	69.2	313	67.5	9	50.0	19	59.4	29	53.7	57	54.8
Exclusive	5	8.4	13	13.6	18	16.8	12	12.1	19	16.3	67	14.4	4	22.2	8	25.0	21	38.9	33	31.7
Promotion:	(54)		(78)		(100)		(94)		(118)		(444)		(14)		(30)		(52)		(96)	
None	14	25.9	17	21.8	22	22.0	10	10.6	16	13.5	79	17.8	5	35.7	9	30.0	5	9.6	19	19.8
Cooperative	34	62.9	53	69.9	66	66.0	73	77.7	86	72.9	312	70.3	5	35.7	16	53.3	38	73.1	59	61.5
Exclusive	6	11.2	8	10.3	12	12.0	11	11.7	16	13.5	53	11.9	4	28.6	5	16.7	9	17.3	18	18.7
Dismissal:	(54)		(74)		(98)		(93)		(120)		(439)		(16)		(31)		(53)		(100)	
None	17	31.5	17	23.0	27	27.6	14	15.1	22	18.3	97	22.1	6	37.5	7	22.6	6	11.3	19	19.0
Cooperative	33	61.1	50	67.6	62	63.3	71	76.3	85	70.8	301	68.6	9	56.2	22	71.0	41	77.4	72	72.0
Exclusive	4	7.4	7	9.4	9	9.1	8	8.6	13	10.9	41	9.3	1	6.3	2	6.4	6	11.3	9	9.0
Assignment of duties:	(64)		(83)		(110)		(106)		(122)		(485)		(17)		(32)		(54)		(103)	
None	7	10.9	5	6.0	3	2.7	1	0.9	4	3.3	20	4.1	3	17.6	1	3.1	2	3.7	6	5.8
Cooperative	22	34.4	27	32.5	50	45.5	48	45.3	46	37.7	193	39.8	6	35.3	11	34.4	17	31.5	34	33.0
Exclusive	35	54.7	51	61.5	57	51.8	57	53.8	72	59.0	272	56.1	8	47.1	20	62.5	35	64.8	63	61.2

NOTE.—The numbers in parentheses show the number of schools reporting.

In the assignment of duties to teachers the principals of the unselected schools exercise more responsibility than in the other items discussed. In considerably more than half of the schools they have full responsibility, and in only about 4 per cent of the schools do they exercise no responsibility. The majority of the schools in which the principal has no responsibility in the assignment of duties are in Groups IA and IB, or those schools enrolling 75 or fewer pupils.

Among the selected schools, practice as to responsibility of the principal in relation to the teaching staff is in some respects similar to that noted in the unselected schools. In other respects practice is significantly different. It is similar in that shared responsibility on the part of the principal, in all but the assignment of duties to teachers, is the most common practice in the majority of the selected schools. It is also similar to the practice in the unselected schools in that the principals of the larger schools have a greater degree of responsibility, generally speaking, in relation to the teaching staff than do the principals of the smaller schools.

In the selection of teachers there are two differences between the selected and unselected schools. Almost a third of the principals of the selected schools exercise full responsibility in the selection of teachers, as compared with slightly more than 14 per cent of the principals of the unselected schools. Also, the differences between the different size groups of schools are more pronounced in the selected than in the unselected schools. For example, more than a fourth of the principals in Group I have no voice in the selection of teachers, as contrasted with approximately 16 per cent in Group II and slightly more than 7 per cent in Group III.

In the matter of promotion the situation in the selected schools is in general similar to that in the unselected schools. Again, however, the differences between the different size groups are more pronounced in the selected schools. As a class the selected schools show a slightly smaller proportion of principals with no responsibility in the dismissal of teachers and a slightly larger proportion who share this responsibility than is the case in the unselected schools. In general, the practice as to responsibility of the principal in the assign-

ment of duties to teachers is similar in the two classes of schools.

The data on the high-school principal's responsibility in relation to the teaching staff show that cooperative or shared responsibility is the predominant practice in smaller secondary schools in regard to selection, promotion, and dismissal of teachers. Exclusive or full responsibility is predominantly the practice in the assignment of duties. The principals of the smaller schools as a class have less responsibility in relation to teaching staff than the principals of the larger schools. In the unselected schools the line of demarcation is between schools enrolling 150 pupils or fewer and the larger schools. In the selected schools the differences are clearly marked between each group of schools and the group next above it in size.

The principals of the selected schools as a class exercise a greater amount of responsibility in relation to the teaching staff than do the principals of the unselected schools. This difference is most pronounced in the matter of selection of teachers. The principals of Group III of the selected schools, according to the data, exercise much greater responsibility in relation to the teaching staff than do the principals of any other group of schools included in the study. There may be more than one explanation of the more desirable situation in the selected schools, and particularly in the larger schools. One plausible explanation is the greater amount of professional training on the part of the principals of the selected schools as a class as compared with the principals of the unselected schools. It seems probable also that there may be some definite relation between the greater degree of responsibility in relation to the teaching staff exercised by the principals of the selected schools and the fact that these schools were reported as superior schools in one or more phases of their work.

Teaching load.—The data forming the basis for the discussion on this and the following items on the principal were supplied by the principals of unselected schools only. Similar data are not available for the selected schools. Although no comparisons will be possible between the practices in the run of schools and selected schools, these data on the unse-

lected schools are given to make more complete the picture relative to that phase of the study concerned with the differences between schools of different sizes and the relative limitations of size.

According to the data, it is the common practice of principals in the smaller secondary schools to teach some high-school classes. In high schools with enrollments of 150 pupils or fewer some teaching by the principal, as shown in Table 13, is almost the universal practice. Only in schools with more than 300 pupils does the proportion of principals who do not teach become more than one half. The average number of clock hours of high-school teaching decreases rather markedly from the smaller to the larger schools. In schools enrolling 75 pupils or fewer, the typical principal teaches half time or more, while the typical principal in schools enrolling from 151 to 300 pupils devotes about a third of his time to teaching and the principal who teaches in schools enrolling more than 300 pupils gives less than a fourth of his time to teaching.

TABLE 13.—*Distribution of principals of unselected schools according to number of clock hours per week devoted to teaching in the high school*

Number of hours	Unselected schools by size groups					
	IA	IB	II	IIIA	IIIB	Total
1	2	3	4	5	6	7
1 to 5	------	1	9	20	24	54
6 to 10	5	11	29	28	23	96
11 to 15	31	34	41	23	6	135
16 to 20	15	29	21	12	2	79
21 to 25	14	14	6	1	------	35
More than 25	7	1	------	1	------	9
Number of principals teaching	72	90	106	85	55	409
Number of principals reporting	72	90	106	103	114	487
Percentage of principals teaching	100.0	100.0	98.1	82.5	48.2	84.0
Average number of hours for principals who teach	17.3	15.4	12.2	10.5	7.2	12.9

Study-hall duties.—Slightly more than half of the principals in the unselected schools reported study-hall duties. Only

in schools enrolling more than 150 pupils, according to data shown in Table 14, do more than one-half of the principals give no time to supervision of the study hall. The number of clock hours a week devoted to the study hall by principals performing such duties is fairly constant for all size groups and ranges from approximately 5 hours in the smallest schools to 6.5 hours per week in the largest schools.

Clerical duties and clerical assistance.—The typical principal of the smaller secondary schools, as shown in Table 14, performs clerical duties. The proportion of principals with such duties is markedly smaller in the larger than in the smaller schools. In general, however, the principals of the larger schools who have clerical duties devote more hours per week to them than do the principals of the smaller schools.

TABLE 14.—*Distribution of principals of unselected schools according to number of clock hours per week devoted to study-hall and clerical duties*

Number of hours	Study-hall duties in unselected schools by size groups						Clerical duties in unselected schools by size groups					
	IA	IB	II	IIIA	IIIB	Total	IA	IB	II	IIIA	IIIB	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	----	4	4	1	2	11	12	11	4	1	2	30
2	6	2	1	3	3	15	15	8	13	12	3	51
3	14	19	17	10	4	64	10	15	14	6	10	55
4	3	5	4	4	2	18	2	5	5	1	1	14
5	4	7	11	13	3	38	11	8	22	19	26	85
6	6	8	13	4	----	31	5	6	5	7	1	24
7	5	11	9	6	2	33	----	2	2	2	4	10
8	----	2	2	1	----	5	1	----	7	2	6	16
9	2	1	1	2	----	6	----	----	----	----	----	----
10	5	3	3	1	4	16	2	3	14	10	14	43
11 or more	4	12	3	5	2	26	1	3	12	8	6	30
Number of principals performing duties	49	74	68	50	22	263	59	61	93	68	73	354
Number of principals reporting	72	90	108	103	114	487	72	90	108	103	114	487
Percentage of principals performing duties	68.1	82.2	63.0	48.5	19.3	54.0	81.9	67.8	86.1	66.0	64.0	72.7
Average number of hours by principals performing duties	4.9	5.8	5.3	5.1	6.4	------	3.5	4.1	6.5	6.4	5.6	------
Average number of hours for all principals	3.8	4.8	3.3	2.8	1.2	------	2.8	2.8	5.5	4.3	3.5	------

Slightly less than half of the principals, according to the data in Table 15, are supplied with clerical assistance in the performance of clerical duties. In the schools with enrollments of 150 pupils or fewer the typical principal has no

regular clerical assistance. In schools enrolling more than 150 pupils the typical principal is provided with clerical assistance.

TABLE 15.—*Distribution of principals of unselected schools according to number of hours per week of clerical assistance*

Hours per week	Unselected schools by size groups					
	IA	IB	II	IIIA	IIIB	Total
1	2	3	4	5	6	7
None	52	56	55	19	5	187
1-5	4	10	19	11	14	58
6-10	2	1	9	17	8	37
11-15			3	3	5	11
16-20				3	6	9
21-25		1	2	2	7	12
26-30			1	9	18	28
31-35					5	5
36-40			2	10	17	29
More than 40				6	24	30
Schools reporting	58	68	91	80	109	406
Percentage without clerical help	90.0	82.4	60.4	23.8	4.6	46.1

Supervision of instruction.—Among the principals of small high schools there is considerable variation in practice both as to the total amount of time devoted to supervision of instruction and as to the distribution of this time between the supervision of the high school and supervision of the elementary grades. As shown in Table 16, for the schools as a whole approximately 38 per cent of the principals reported time devoted to the supervision of instruction in the grades and slightly more than 77 per cent reported time given to the supervision of high-school instruction. The proportion of principals responsible for supervision of the elementary grades is highest in schools of Groups IA and IB, where it approaches a half, and lowest in Group IIIB, where only 14 per cent of the principals perform this function. The opposite is the practice with respect to supervision of instruction in the high school, where the proportion of principals supervising becomes constantly greater the larger the schools. The range in the proportion of principals supervising high-school instruction as reported is from approximately 60 per cent in the schools of Group IA to more than 90 per cent in the schools of Group IIIB.

TABLE 16.—*Distribution of principals of unselected schools according to number of hours per week devoted to supervision of instruction*

Number of clock hours	Unselected schools by size groups											
	IA		IB		II		IIIA		IIIB		Total	
	Elementary	High school	Elementary	High school	Elementary	High school	Elementary	High school	Elementary	High school	Elementary	High school
1	2	3	4	5	6	7	8	9	10	11	12	13
1	7	10	5	16	11	10	1	3	2	....	26	39
2	10	10	9	10	5	11	4	5	....	2	28	38
3	6	6	12	14	15	18	2	9	2	6	37	53
4	2	5	2	6	2	3	1	1	....	2	7	17
5	1	6	7	8	3	17	5	19	3	10	19	60
6	3	4	3	4	3	7	5	3	3	5	17	23
7	2	2	1	1	8	7	1	4	....	3	12	17
8	....	....	....	2	1	1	....	6	....	4	1	13
9	1	....	1	1	1	2	1	3	1	2	5	8
10	....	....	....	1	6	5	10	13	3	27	19	46
11–15	....	....	....	1	1	3	6	11	2	20	9	35
16–20	....	....	....	....	1	....	3	3	....	16	4	19
More than 20	....	....	....	....	....	....	....	2	....	7	....	9
Total number of principals supervising instruction	32	43	40	64	57	84	39	82	16	104	184	377
Total number of principals reporting	72	72	90	90	108	108	103	103	114	114	487	487
Percentage of principals supervising instruction	44.4	59.7	44.4	71.1	52.8	77.8	37.9	79.6	14.0	91.2	37.8	77.4
Average number of hours by principals supervising instruction	3.1	3.1	3.4	3.4	4.7	4.6	8.3	7.8	6.7	11.9	5.1	6.8
Average number of hours for all principals reporting	1.4	1.9	1.5	2.4	2.5	3.6	3.2	6.0	.9	8.0	1.9	5.8

Whether considered on the basis of the number of principals reporting supervisory responsibility or on the basis of the total number of principals reporting on the items, the amount of time per week given to supervision increases markedly and steadily from the smaller to the larger schools. For the principals who supervise high-school instruction the number of clock hours per week ranges from 3.1 hours in Group IA to almost 12 hours in Group IIIB. For the principals who supervise elementary-grade instruction the range is from 3.1 clock hours per week in Group IA to more than 8 hours in Group IIIA. The principals who supervise both grade and high-school instruction distribute the time so devoted about equally between the elementary grades and the high school except in schools enrolling more than 300

pupils, where high-school supervision is given the bulk of the time devoted to this function.

3. THE HIGH-SCHOOL ASSEMBLY

Status of the assembly.—A large proportion of both the unselected and selected schools supplied data on the assembly. These data show that practically all the schools make provision in their programs for assemblies. They also show that there is much variation in practice with respect to frequency, length of periods, and the degree of pupil participation.

Frequency of assemblies.—In the matter of frequency the most common practice in all groups of schools, as shown in Table 17, is a weekly assembly. Among the unselected schools approximately 55 per cent follow this practice, as do 59 per cent of the selected schools. In general, the proportion of schools holding weekly assemblies increases with the size of the schools. The only exception to this rule is Group I of the selected schools, which, with more than 7 schools in 10 holding weekly assemblies, stands highest of all groups in this respect. Group IA of the unselected schools has the largest proportion holding assemblies oftener than once a week.

TABLE 17.—*Numerical and percentage distribution of unselected and selected schools according to frequency of high-school assemblies*

Frequency	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Daily	6	1	3	4	5	19	4.3	1	1	1	3	2.9
Twice a week	3	4	7	11	7	32	7.2	1	1	7	9	8.6
Weekly	21	38	54	55	76	244	54.6	12	18	32	62	59.0
Twice a month	12	17	16	17	11	73	16.3	1	5	8	14	13.3
Monthly	6	8	10	9	11	54	12.2	2	3	6	11	10.5
Irregularly	....	2	10	1	4	17	3.8	....	5	1	6	5.7
3 times a week	2	....	1	1	2	6	1.3	....	....	....	....	....
3 times a month	1	1	....	....	....	2	.4	....	....	....	....	....
Schools reporting	51	81	101	98	116	447	100.0	17	33	55	105	100.0

A relatively large number of both classes of schools hold assemblies less often than once a week, usually twice a month or monthly. Of the unselected schools considerably

more than a fourth follow this practice and slightly less than a fourth of the selected schools. The largest proportions of schools with assemblies less often than once a week are found in Groups IA and IB of the unselected schools.

Length of the assembly period.—In regard to the length of the assembly period in the smaller secondary schools there is as much variation in practice as in the matter of their frequency. Again, however, there is a modal practice, as shown in Table 18. Somewhat less than half of both classes of schools reported the use of either the 40- or 45-minute period. Among the smaller schools the proportion using the 40-minute period is greater than among the larger schools. About 1 in 7 of the unselected and more than one-fifth of the selected schools reported assembly periods of 50 or more minutes.

The data indicate that the most common practice among the smaller secondary schools is the use of a full class period for assembly purposes. That this is not the universal practice is shown by the fact that almost two-fifths of the unselected and one-third of the selected schools reported assemblies of 35 minutes or less. Particularly short assembly periods, those of 25 minutes or less, are most frequently found in both classes of schools enrolling 75 pupils or fewer.

TABLE 18.—*Numerical and percentage distribution of unselected and selected schools according to length of high-school assembly period in minutes*

Number of minutes	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	IC	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
15 or less	5	2	4	4	2	17	3.8	1	.....	.....	1	1.0
20 or 25	14	13	9	9	11	56	12.5	3	5	6	14	13.3
30 or 35	6	13	36	23	26	104	23.2	2	4	13	19	18.1
40 or 45	22	39	41	54	51	207	46.2	7	19	22	48	45.7
50 or 55	1	2	3	6	12	24	5.4	2	2	5	9	8.6
60 or more	3	9	7	7	14	40	8.9	2	3	9	14	13.3
Schools reporting	51	78	100	103	116	448	100.0	17	33	55	105	100.0
Per cent of periods 40 minutes or more	51.0	64.0	51.0	65.4	66.3	60.5	60.5	64.7	72.7	65.5	67.6	67.6
Per cent of periods 25 minutes or less	37.2	19.3	13.0	12.5	11.3	16.3	16.3	23.5	15.1	10.9	14.3	14.3

Comparison of the present data on frequency and length of the assembly with earlier data indicates that a change has been taking place in the nature and use of the assembly in small high schools within the decade just past. In data on the assembly based upon three groups of small high schools totaling 795 and gathered between 1920 and 1924, Ferriss [2] found that the percentages of schools in those groups holding assemblies oftener than once a week were 50.6, 45.6, and 69.3, respectively, and that the percentages of assemblies 20 minutes or less in length were, respectively, 55.2, 47.7, and 81.1 in the three groups.

Pupil participation in assemblies.—On the item of extent of pupil participation in the assembly program, 74 per cent of the unselected and 93 per cent of the selected schools supplied information. This difference in the proportions replying is probably significant in itself, since the schools not providing for pupil participation would be less likely to reply to the item. The smallest percentage of returns came from the groups of smallest schools. On the basis of the schools reporting, in slightly less than half of the unselected schools the entire program is furnished by the pupils. (See Table 19.) In the selected schools the proportion reporting the entire assembly program as furnished by the pupils includes two-thirds of the schools. The evidence indicates clearly that pupil participation in the assembly program is a markedly more common practice in the selected than in the unselected schools.

TABLE 19.—*Numbers and percentages of unselected and selected schools in which assembly programs are by pupils and in which parts of the assembly programs are by pupils*

Extent of pupil participation	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of schools reporting entire program by pupils	14	40	46	43	41	184	13	19	35	67
Number of schools reporting a part of program by pupils	24	31	37	42	57	191	3	15	16	34
Number of schools reporting	38	71	83	85	98	375	16	34	51	101
Percentage of schools reporting entire program by pupils	36.8	56.3	55.4	50.6	41.8	49.1	81.2	55.9	68.6	66.3
Percentage of schools reporting a part of program by pupils	63.2	43.7	44.6	49.4	58.2	50.9	18.8	44.1	31.4	33.7

[2] Ferriss, Emery N. The Rural High School: Its Organization and Curriculum. Office of Education Bulletin, 1925, No. 10, p. 42.

Assembly practices in individual schools.—A brief description of the manner of conducting assemblies and the extent of pupil participation as practiced by three of the selected schools visited will illustrate some of the developments that are taking place in the smaller secondary schools. In the junior-senior high school at Madison, N. J., a school of about 300 pupils, the assemblies were developed under the general direction of the teacher of oral expression and dramatics. The pupils themselves took full responsibility for carrying out the programs under a pupil presidency. Pupils made all announcements, led the devotional exercises, supplied the numbers on the program, and, when an outside speaker was present, introduced him to the audience. Some of the assemblies included the entire school, while separate assemblies were held once a week for the pupils of the junior high school years and for those of the senior high school years.

In the high school at Hanover, Mass., a school of 150 pupils, the principal took charge of the assembly every third week, and the pupils were responsible for the others. Each teacher was the assembly adviser for two programs each year. The pupil units for supplying the programs were the several classes or years and the home rooms.

In the junior-senior high school at Point Marion, Pa., a school of about 260 pupils, the assemblies were conducted as a feature of the pupil government plan and were in charge of the assembly program committee of the student council. They were held, as stated in the pupil handbook of the school, "for the purpose of creating a better school spirit and to train our students to take part in group activities either as performers or listeners." The regular assemblies were held each Friday, and the idea was to give each pupil in the school an opportunity to participate actively in at least one assembly each year. These assemblies were entirely in charge of the pupils, a pupil even acting as director of the school band during the assembly period at the time the school was visited.

4. THE LIBRARY

Responses to questions concerning the library.—Library facilities and service are generally regarded to-day as essential

to a good school. They are necessary at all levels of education. Without them the use of the newer methods of teaching are practically impossible. The determination of the status and practices of the unselected and selected smaller secondary schools relative to the library has been regarded as vital to the present study.

The number of schools supplying information on the several items relating to the library varies and was on the whole less satisfactory than on most of the other major items. Doubtless one explanation of the smaller proportion of returns is that some of the schools had no libraries. On the assumption that the schools not reporting would tend to represent those schools with less in the way of library equipment and service, it is possible that the data given will tend to show a condition somewhat better than actually exists in the smaller secondary schools.

Full-time librarians.—The data indicate that the smaller secondary schools as a class infrequently have the services of a full-time librarian. There is a distinct difference in this respect in both unselected and selected schools between those enrolling fewer than 150 pupils and those enrolling more than 150 pupils. (See Table 20.) The smaller schools rarely reported a full-time librarian, while in the groups of larger schools such an officer was reported in from one-fourth to three-fourths of the schools. Group IIIB of the unselected schools, containing schools enrolling more than 300 pupils and thus standing on the border line between small and large high schools, reported one or more full-time librarians in almost three-fourths of the cases. On this basis the data indicate that only in schools with more than 300 pupils enrolled is the employment of a full-time librarian typical practice. Of all the unselected schools reporting, somewhat more than 70 per cent had no full-time librarian. If the schools in Group IIIB were omitted, the proportion was more than 88 per cent. Practically none of the schools enrolling 75 pupils or fewer was so provided. Among the selected schools, slightly more than 80 per cent of those reporting did not employ a full-time librarian, the range being from 100 per cent in Group I to somewhat more than three-fifths in Group

III. If Group IIIB of the unselected schools is not included, the situation in the selected schools is very similar to that in the unselected schools.

TABLE 20.—*Distribution of unselected and selected schools according to numbers and percentages reporting full-time librarians*

Conditions reported	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Schools having—										
No full-time librarian	60	51	56	49	22	238	17	24	24	65
1 or more full-time librarians	....	5	7	16	62	90	....	2	14	16
Number of schools reporting	60	56	63	65	84	328	17	26	38	81
Percentage of schools reporting that have full-time librarians	0.0	8.9	11.1	24.6	73.8	27.8	0.0	7.7	36.9	19.8
Percentage of all schools that have full-time librarians	.0	5.4	6.4	15.0	50.0	17.8	.0	5.9	25.0	14.7
Total number of full-time librarians reported	....	6	7	17	71	101	....	2	16	18
Number with special library training	....	3	6	13	48	70	....	2	9	11

Assuming that in both classes of schools those not employing a full-time librarian will be less likely to reply to the question on full-time librarians, it seems probable that percentages based on the total number of schools included in the study will furnish a truer index of conditions than percentages based on the number of schools reporting on the item. Comparison of the unselected and selected schools on the basis of the total number of schools shows only a slight difference favoring the former schools in the proportion employing full-time librarians. If Group IIIB of the unselected schools, which still stands markedly superior to all other groups, is omitted, the situation is somewhat better in the selected than in the unselected schools. Of the 101 full-time librarians employed in the unselected schools, slightly less than 70 per cent had special library training. Of the 18 reported by the selected schools, 61 per cent had special library training. The evidence on training of full-time librarians shows a somewhat larger proportion with special training in the unselected schools. Finally, all evidence indicates that the unselected schools as a class are somewhat better provided

with full-time librarians than the selected schools, the difference being due, however, to the inclusion of the larger schools belonging to Group IIIB.

Part-time teacher-librarians.—The employment of part-time teacher-librarians is, according to the data on this item shown in Table 21, the most common practice among the smaller secondary schools. On the basis of the schools reporting on the item, somewhat more than 90 per cent of the unselected and 77 per cent of the selected schools are provided with part-time teacher-librarian service. On the basis of the total number of schools included in the study, approximately three-fifths of both classes of schools use part-time teacher-librarians. The number per school ranges from none to more than five, with an average of approximately two in the larger schools. This fact indicates that in many of the schools no one teacher is responsible for the library but that the responsibility is shared by a number of teachers.

TABLE 21.—*Distribution of unselected and selected schools according to numbers and percentages reporting part-time teacher-librarians, their training, and average number of hours per week devoted to library duties*

Conditions reported	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of schools employing part-time teacher-librarians	43	59	75	78	53	308	12	21	32	65
Percentage of schools reporting using part-time teacher-librarians	86.0	92.2	94.9	94.0	84.1	90.9	80.0	80.8	74.4	77.4
Percentage of all schools reporting part-time teacher-librarians	59.7	64.1	68.2	72.9	42.8	61.0	63.2	61.8	57.1	59.6
Average number part-time librarians per school	1.1	1.6	1.4	1.7	1.7	1.5	1.3	1.6	1.6	1.5
Number of part-time teacher-librarians with special training	15	14	31	38	24	122	6	14	23	43
Percentage with special training	30.6	14.9	35.5	29.7	27.3	26.0	30.0	33.3	33.7	33.1
Average number of hours per week devoted to library duties	4.3	5.0	6.9	13.1	20.3	10.3	4.1	6.7	18.7	12.2
Total number of schools reporting	50	64	79	83	63	339	15	26	43	84

Computation of the percentages of schools employing part-time teacher-librarians on the basis of the total number of schools brings out more clearly certain differences between the different size groups than do percentages based upon number of schools reporting. Among unselected schools,

those representing the middle groups in respect to size use part-time teacher-librarians considerably more often than either the groups of smaller or larger schools. This difference is doubtless to be explained in the case of the larger schools by the fact that a larger proportion of these schools employ full-time librarians. In the case of the smaller schools, which rarely employ a full-time librarian, the lower proportion reporting part-time teacher-librarians indicates that a considerable proportion of these smaller schools have no librarian of either type. Among the selected schools the proportions with part-time teacher-librarians are practically the same for Groups I and II, but somewhat lower for Group III. There is again an indication that a considerable proportion of the smallest schools have neither type of librarian.

Of the part-time teacher-librarians in the unselected schools approximately a fourth were reported as having special library training as compared with a third in the selected schools. The data indicate that a large majority of the part-time teacher-librarians in the smaller secondary schools have had no special training for library work. They also indicate that in this respect the selected schools are considerably superior to the unselected schools. In neither class of schools are there any significant differences between different size groups in the proportions of part-time teacher-librarians with special training. The data on average number of hours per week devoted to the library by this type of librarian show that those in the selected schools give a somewhat greater amount of time than do those in the unselected schools. In both classes of schools the amount of time given is markedly less in schools enrolling fewer than 150 pupils than in the larger schools.

The data on part-time teacher-librarians indicate rather clearly that the smaller schools are less well provided with librarians than the larger schools both in respect to the proportion of schools with librarians and in respect to the average amount of time devoted to library work. There are no significant differences between the unselected and selected schools in the proportions having the services of this type of

librarian, although there is a slight difference in favor of the unselected schools. In the matter of special training for library work the part-time teacher-librarians of the selected schools are considerably superior to those in the unselected schools. Also, the average amount of time given to library work is somewhat greater in the selected schools. Taking into account all the evidence, one is led to conclude that the selected schools as a class are somewhat better provided with library service by part-time teacher-librarians than are the unselected schools.

Assistant pupil-librarians.—The use of pupils as assistant librarians, according to the schools of both classes reporting on the item, is common practice in the smaller secondary schools. Among the unselected schools, almost 88 per cent of those reporting, as shown in Table 22, were using pupils as assistant librarians. The practice is somewhat more common in unselected schools of medium size than in the groups of either smallest or largest schools. Among the selected schools reporting, a considerably smaller proportion were using pupil assistant librarians than of the unselected schools. Among the selected schools, those of medium size reported pupil-librarians less frequently than either the smaller or larger schools. In both unselected and selected schools the average number of pupils serving as assistant librarians increases steadily and rather markedly as the size of the schools increases. The general averages for the two classes of schools are almost equal. In respect to the average amount of time given to library duties by pupil-librarians there is, however, a marked difference between the unselected and selected schools. In the former schools the average number of hours per week reported was approximately 24, as contrasted with less than 6 in the selected schools. In general, the data indicate that the selected schools as a class depend much less upon pupils in providing library service than do the unselected schools. In terms of the effectiveness of the library service rendered, this should, and probably does, indicate superiority on the part of the selected schools.

TABLE 22.—*Distribution of unselected and selected schools according to numbers and percentages reporting assistant pupil-librarians, and average number of hours per week given to library duties*

Conditions reported	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of schools reporting assistant pupil-librarians	24	40	58	64	47	233	11	17	29	57
Percentage of schools using assistant pupil-librarians	80.0	93.0	90.6	90.1	81.0	87.6	84.6	73.9	76.3	77.0
Average number of assistant pupil-librarians per school	2.0	3.5	5.1	5.6	6.7	4.9	3.4	3.7	6.4	5.1
Average number of hours per week assistant pupil-librarians give to library duties	8.0	16.9	22.4	31.7	29.3	23.6	11.3	4.4	4.1	5.7
Number of schools reporting	30	43	64	71	58	266	13	23	38	74

TABLE 23.—*Percentage distribution of unselected and selected schools according to amount of time library is available to pupils*

Amount of time library is available	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of days per week:	(48)	(73)	(86)	(90)	(104)	(401)	(15)	(25)	(46)	(86)
Percentage of schools in which library is open less than 5 days per week	4.2	4.1	2.5	1.1	1.0	2.3	6.7	4.0	0.0	2.3
Percentage of schools in which library is open 5 days or more per week	95.8	95.9	92.5	98.9	99.0	97.7	93.3	96.0	100.0	97.7
Number of hours per day:	(45)	(68)	(99)	(91)	(104)	(398)	(14)	(24)	(50)	(88)
Percentage of schools in which library is open 3 hours or less per day	20.6	27.9	10.1	13.2	2.9	13.1	21.4	16.6	10.0	13.7
Percentage of schools with library open 7 hours or more per day	35.6	20.6	40.4	41.8	64.4	42.9	35.7	45.8	72.0	59.1
Average number of hours per day library is open	5.7	5.0	6.1	6.0	7.1	6.1	5.7	6.1	6.9	6.5

NOTE.—The numbers in parentheses show the number of schools reporting.

Amount of time library is available to pupils.—Among the smaller secondary schools with libraries the common practice is to make the library available to pupils for five days each week. (See Table 23.) In only a relatively small number of schools in each class, most of them schools enrolling 75 pupils, or fewer, is the library not available each day school is in session. In a small number of both unselected and selected schools, most of them the larger schools, the library was reported as available to pupils six days or more a week.

The average amount of time per day that the library is open to pupils is 6.1 hours for the unselected and 6.5 hours for the selected schools. In each case the number of hours

is slightly higher for the larger than for the smaller schools. Among the unselected schools slightly more than 13 per cent and among the selected schools almost 14 per cent reported the library open three hours or less a day. The percentages of schools with this short period of time daily are markedly higher in the groups of smaller schools. In the unselected schools the proportions reporting the library open three hours or less a day range from 20.6 per cent and 27.9 per cent, respectively, in Groups IA and IB to less than 3 per cent in Group IIIB, and in the selected schools the range is from 21.4 per cent in Group I to 10 per cent in Group III. An encouragingly large percentage of both unselected and selected schools reported the library open seven hours or more a day, this practice including approximately 43 per cent of the former group and 59 per cent of the latter group of schools. In both classes of schools the larger schools show a markedly higher proportion with the longer library day than do the groups of smaller schools. As a class and in all size groups the selected schools show a marked superiority over the unselected schools in the proportion keeping the library open to pupils seven hours or more a day.

In conclusion, the data on library personnel and availability of the library to pupils indicate some interesting characteristics and differences. In the first place, in smaller secondary schools enrolling fewer than 150 pupils, full-time librarians are rarely employed. This fact indicates, since it is true of both unselected and selected schools, that schools with fewer than 150 pupils do not find the employment of a full-time librarian feasible. In schools enrolling from 151 to 300 pupils a relatively small proportion employ a full-time librarian. In schools of this size the selected schools are considerably superior to the unselected schools in the proportion employing full-time librarians. Apparently in this group of medium-sized schools the selected schools have been more able than the unselected schools to overcome the factor of size. Only in high schools enrolling more than 300 pupils, as shown by Group IIIB of the unselected schools, do one-half or more follow the practice of employing full-time librarians.

The data on part-time teacher-librarians indicate clearly that this type of librarian represents the most common prac-

tice in smaller secondary schools. In general this practice is most common in schools of medium size and least common in the groups of smallest and largest schools. This difference is to be explained in the case of the largest schools by the fact that a larger proportion of them have full-time librarians. In the case of the smallest schools it doubtless means that a considerable proportion are provided with neither full-time nor part-time teacher-librarians. The data indicate little difference between unselected and selected schools either in the proportions employing part-time teacher-librarians or in the average number employed per school. The selected schools show considerable superiority, however, in the proportion of part-time teacher-librarians with special training for library work. This superiority of the selected schools is quite in harmony with the superiority shown by these schools in respect to training of both principals and teachers. Apparently these schools are in general able to command the services of better trained staffs than are the unselected schools.

The use of assistant pupil-librarians is a practice common in both classes of schools. There are also only minor differences between different size groups. According to the data, the selected schools as a class less frequently use assistant pupil-librarians and depend upon their services a markedly smaller number of hours per week than do the unselected schools. The evidence on availability of the library to pupils shows no difference between unselected and selected schools in the number of days per week that the library is open. In regard to the average number of hours per day during which the library is open, the selected schools are somewhat superior as a class. They are markedly superior to the unselected schools in the proportion of schools keeping the library open seven hours or more a day. The selected schools are only slightly inferior to the unselected schools in the proportion of schools in which the library is available for use three hours or less a day. Taken as a whole, the evidence shows that in respect to library personnel and availability of the library to the pupils the selected schools as a class are providing library service superior to that provided by the unselected schools.

5. TRANSPORTATION AND OTHER MEANS TO MAKE THE HIGH SCHOOL ACCESSIBLE

Provision for transportation.—One of the most important developments in making the opportunities of secondary education available to rural children has been the provision of public transportation facilities. It may be seen in Table 24 that of the unselected schools approximately 48 per cent and of the selected schools 71 per cent reported transportation facilities for pupils at public expense. Among the former group of schools transportation is, according to the evidence, more frequently furnished by the groups of smaller schools. Among the selected schools the reverse is true, schools in Group III furnishing transportation for pupils much more commonly than either of the groups of smaller schools.

As a class and in all corresponding size groups, the selected schools furnish transportation in a significantly larger proportion of schools than do the unselected schools. This is quite in harmony with the data on consolidation which showed a significantly larger percentage of the selected than of the unselected schools operating in consolidated districts. It is also in agreement with the data on areas of districts, which, it will be recalled, showed that the selected schools as a class served considerably larger areas than the unselected schools. From these angles the evidence indicates that the selected schools have made much more progress in the direction of making secondary education available to rural children than have the run of smaller secondary schools as represented by the unselected schools.

TABLE 24.—*Distribution of unselected and selected schools according to number of transportation routes per school and percentages of schools reporting transportation of pupils*

Number of routes per school and percentages of schools providing transportation	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1 to 5 routes	35	47	42	29	39	192	11	3	23	37
6 or more routes	3	8	13	13	11	48	2	16	22	40
Number of schools reporting transportation routes	38	55	55	42	50	240	13	19	45	77
Median number per school reporting	2.0	3.4	4.1	4.7	4.1	3.8	3.0	7.0	4.8	5.3
Percentage of all schools reporting transportation of pupils	52.8	59.7	54.1	39.3	40.3	47.5	68.4	55.9	80.3	70.6

Number and length of transportation routes.—As a class the unselected schools maintain a considerably smaller number of transportation routes per school than do the selected schools. (See Table 24.) Among the unselected schools the median number of routes per school is somewhat less than 4, and the range is from 2 in Group IA to almost 5 in Group IIIA. Among the selected schools the median number of routes per school is considerably over 5, and the range is from 3 in Group I to 7 in Group II. Among the unselected schools, those enrolling 151 to 300 pupils have the largest number of routes per school, while among the selected schools the largest number per school is found in the group enrolling 76 to 150 pupils.

For both classes of schools the length of transportation routes, as shown in Table 25, ranges from less than 5 miles to more than 25 miles, with an average length in the unselected schools of 12.3 miles and in the selected schools of 12.6 miles. The modal length of routes in the former schools is between 6 and 10 miles and in the latter between 11 and 15 miles. The unselected schools have a considerably larger percentage of routes of 10 miles or less than do the selected schools, but also a somewhat larger percentage of more than 20 miles in length.

TABLE 25.—*Distribution of transportation routes according to length in miles for unselected and selected schools*

Length in miles	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1-5	12	25	17	11	13	78	2	9	21	32
6-10	35	72	53	49	21	230	26	35	44	105
11-15	24	18	49	38	5	134	17	47	55	119
16-20	10	35	25	28	8	106	4	22	32	58
21-25	5	5	13	27	6	56	3	5	15	23
More than 25	14	27	48	26	20	135	6	9	44	59
Total number of routes represented	100	182	205	179	73	739	58	127	211	396
Median length	10.6	9.6	13.9	13.9	13.0	12.3	10.3	12.1	13.7	12.6

TABLE 26.—*Means of transportation employed and percentages of schools employing each*

Means	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Motor bus	60.9	74.2	82.2	91.1	60.6	71.8	66.7	76.2	86.3	80.5
Horse-drawn bus	4.3	7.6	1.5	.....	.....	2.4	13.3	14.3	....	5.7
Both motor and horse-drawn busses	.....	.....	.....	.....	.....	.....	.....	4.7	....	1.1
Automobile	30.4	13.6	13.0	8.9	13.5	15.2	13.3	4.7	9.8	9.2
Public carrier	2.2	4.6	2.9	.....	26.9	10.3	6.7	.....	3.9	3.5
Boat	2.2	.....	.....	.....	.....	.3	.....	.....	.....	.....
Number of schools reporting	40	60	63	45	73	281	15	21	51	87

Means of transportation.—The most common means of transporting pupils in the smaller secondary schools is the motor bus. As may be seen in Table 26, this is the means employed by almost 72 per cent of the unselected and more than 80 per cent of the selected schools. This rather significant difference between the two classes of schools is probably due again to the greater proportion of the selected schools operating in consolidated districts, where definite systems of transportation and uniform equipment are likely to be more common than in schools operating in other types of districts. This inference is further supported by the fact that more than 15 per cent of the unselected schools as compared with approximately 9 per cent of the selected schools reported the use of the automobile in transporting pupils. Horse-drawn busses are not often used by either class of schools. Public carriers, as trains and trolleys, were reported by more than 10 per cent of the unselected as compared with less than 4 per cent of the selected schools. This difference between the two classes of schools is practically all due to Group IIIB of the unselected schools, in which more than a fourth of the schools transporting pupils depend upon public carriers. Since in regard to both the number of schools furnishing transportation and the means employed the proportions of selected schools furnishing information are considerably larger than for the unselected schools, it is probable that the actual superiority of the selected schools is even greater than the data indicate.

BROOKHAVEN
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1932
BULLETIN
NO. 17
MONOGRAPH 6
CONT.

TABLE 27.—*Distribution of unselected and selected schools according to the number of pupils provided transportation at public expense*

Number	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
50 or fewer	34	42	30	19	11	136	6	8	9	23
51-100		6	20	15	14	55	4	7	13	24
101-150			1	8	4	13	1	3	9	13
151-200			1	4	5	10			2	2
201-250					5	5			6	6
251-300					5	5				
More than 300					5	5			2	2
Number of schools reporting	34	48	52	46	49	228	11	18	41	70
Median number of pupils transported	25.0	28.6	40.5	57.7	98.2	42.0	45.7	57.1	94.3	75.0
Per cent of the average enrollment transported	96.5	55.6	37.8	26.4	20.8	21.2	93.1	52.3	33.3	34.1

Number of pupils transported.—The median number of pupils per school transported at public expense is markedly smaller for the unselected than for the selected schools, as shown in Table 27. In the former schools the median number is 42, as compared with 75 for the selected schools. The percentage of the average enrollment transported is also significantly greater in the selected schools. In both classes of schools the percentages of pupils transported are markedly greater in the smaller schools and decrease steadily as the schools increase in size. The difference between the two classes of schools in the average number of pupils transported is doubtless due to the greater proportion of selected schools operating in consolidated districts. The markedly larger percentage of the average school enrollment transported in the smaller schools of both classes is probably due, in part at least, to the fact that larger proportions of the pupils in the smaller schools come from the open country than is the case in the larger schools, a larger proportion of which are located either in villages of considerable size or in small cities.

Other means of making the high school accessible.—Information was requested from both classes of schools concerning means other than transportation used to make the opportunities of the high school more accessible to children living long distances from school. Among unselected schools, three

in Group IA, two in Group IIIA, and three in Group IIIB reported the provision of dormitory accommodations and board. These facilities are not provided at public expense, but the charge is low, in most cases at cost or less.

Three of the selected schools reported dormitories for nonresident pupils where room and board were furnished at low rates. Two schools supply rooms at a small rental, and one school reported the provision of a free room. Five schools reported arrangement for room and board in private rooms where pupils might work for their accommodations. One of the larger selected schools not providing public means of transportation pays each pupil 30 cents a day to defray cost of transportation. The data indicate no significant differences between the two classes of schools in the provision of means other than transportation for making the high school accessible.

6. SUMMARY AND SIGNIFICANCE

The data on the general organization and administration of the smaller secondary schools indicate some interesting features. They show some significant differences between schools of different sizes. They also show some significant points of difference between the unselected and selected schools.

Great variation exists in the matter of organization, not only among schools of different sizes but also among schools belonging to similar size groups. In all groups of both unselected and selected schools enrolling 150 or fewer pupils the predominant practice is the one in which the high-school principal has charge of all elementary grades and the high school. In schools with 151 to 300 pupils, practice varies between a form of organization including all elementary grades and the high school and a form of organization including either the high school alone or the high school and one or two of the upper elementary grades. In both unselected and selected 4-year schools where all elementary grades are not in charge of the high-school principal, there is a considerable tendency to place in the principal's charge one or two of the upper elementary grades. This fact indicates a very desirable trend in smaller secondary schools in the direction of a

closer relation between the upper elementary grades and the high school. As a class the selected schools somewhat more frequently than the unselected schools have the form of organization in which the high-school principal is responsible for all elementary grades and the high school. This is undoubtedly due to the fact that a larger proportion of the selected schools are operating in consolidated districts. The selected schools as a class show a somewhat greater tendency toward innovating types of administrative organization.

In both classes of schools a larger proportion of the smaller than of the larger schools have the school day organized on the basis of relatively short class periods. On the other hand, the larger schools are much more often using class periods 50 minutes or more in length. As a class the selected schools show superiority over the unselected schools both with respect to the smaller proportion of schools using class periods of 40 minutes or less and in the larger proportion using class periods of 50 minutes or more in length. This difference is particularly significant, indicating, as it does, that a larger proportion of the selected schools have introduced class periods suitable for supervised study.

The data on the principal's responsibility in relation to the teaching staff show clearly that the principals of the larger schools of both classes have more responsibility than do the principals of the smaller schools. Principals in schools enrolling 75 pupils or fewer have least voice in the selection, promotion, dismissal, and assignment of duties to teachers. The data also show that the principals of the selected schools as a class have more responsibility in relation to their teaching staffs than do the principals of the unselected schools. This difference is most marked in the case of selection of teachers, a fact which may account, in large part at least, for the superior qualifications of the teachers in the selected schools.

The evidence on the distribution of the principal's time with respect to his major duties, and available only for the unselected schools, shows some interesting and significant differences between different size groups. In schools enrolling 150 pupils or fewer the typical principal teaches some high-school classes. Only in schools with more than 300

pupils do less than half of the principals teach. In schools enrolling 75 pupils or fewer, the typical principal teaches half time or more. The proportion of time devoted to teaching decreases steadily, until in the largest schools less than a fourth of the principal's time is devoted to teaching. The typical principal has clerical duties, and in schools enrolling 150 pupils or fewer he has no clerical assistance. In schools enrolling more than 150 pupils the typical principal has some regular clerical assistance.

The majority of the principals in the smaller secondary schools give some time to supervision of instruction, and almost 4 in 10 supervise instruction in the elementary grades as well as in the high school. The amount of time given to supervision of instruction is relatively little in the smaller schools but increases steadily as the schools become larger, until in the groups of largest schools the typical principal devotes one-third or more of his time to supervision, most of it being devoted to the high school. The data indicate that relatively little of the principal's time in schools enrolling fewer than 75 pupils is available for the important function of supervising instruction.

The smaller secondary schools in general provide for assemblies. These assemblies are most commonly held weekly and extend over a class period. The smaller schools more often than the larger schools have relatively short assembly periods and more often than the larger schools hold assemblies oftener than once a week. The selected schools as a class more often hold weekly assemblies than do the unselected schools and also more often have assembly periods of 50 minutes or more in length. Also, the selected schools more often than the unselected schools place entire responsibility for assembly programs on the pupils. The evidence on assemblies indicates more attention to assemblies and more emphasis upon pupil participation in the selected schools than in the unselected schools.

The evidence on library personnel and availability of the library to the pupils shows that in both classes of schools the most common practice in personnel is the part-time teacher-librarian. Full-time librarians are seldom employed in schools enrolling fewer than 150 pupils, and not very com-

monly in schools with enrollments of fewer than 300. Pupil assistant librarians are used by the majority of all groups of schools, but are most commonly used in schools of medium size. In general the smaller secondary schools are not well provided with trained library service. All evidence indicates that schools enrolling 75 pupils or fewer are least well provided with librarians.

With the exception of full-time librarians, of whom there are relatively few, but of whom a larger proportion in the unselected than in the selected schools have had special training, the data indicate that the selected schools are better provided with library personnel than are the unselected schools. A larger proportion of the selected schools have part-time teacher-librarians and a significantly larger proportion of these in the selected schools have had special training for library work. The selected schools less frequently employ assistant pupil-librarians and depend on their services a smaller number of hours a day. The selected schools also more often keep the library open seven hours or more a day than do the unselected schools. Finally, all the evidence indicates that the selected schools are superior to the unselected schools in respect both to library personnel and availability of library to pupils.

In the matter of transportation the selected schools exceed the unselected schools both in the proportion of schools furnishing public transportation and in the numbers of pupils transported. They also as a class transport a significantly larger proportion of their average pupil enrollments. All the evidence on transportation indicates that the selected schools have made significantly greater progress in the transportation of pupils at public expense. This is in keeping with the facts noted in Chapter I, that the selected schools serve larger areas. Transportation clearly serves as a means of bringing a better grade of secondary education within reach of rural children.

CHAPTER III : THE ADMINISTRATIVE AND TEACHING STAFF

1. THE PRINCIPALS

Scope of the chapter.—The present chapter will deal with the administrative and teaching personnel of the smaller secondary schools with particular reference to training, experience, tenure, teaching load, and salary. The staff of the school is admittedly important to its efficiency. In more specific terms, the school with a well-trained administrative and teaching staff that possesses a reasonable amount of experience and permanency, that is professionally interested and growing, and that is receiving adequate salaries is generally recognized as having one of the most important requisites for successful work. The school not so staffed is operating under serious handicap. In the present study much evidence is at hand concerning the major aspects of administrative and teaching personnel in the smaller secondary schools represented.

General training.—The term "principal" as used in this chapter and throughout the study, and as defined in Chapter II, refers to the person with major responsibility for the high school even though he may at the same time be in charge of all the elementary grades. So defined, the typical principal of the smaller secondary school, according to the data presented in Table 28, regardless of the size of the institution, has had four years or more of training beyond the high school. This means that he has received at least one college or university degree. The amount of training he has had beyond four years of college work increases with the size of the school.

TABLE 28.—*Distribution of principals of unselected and selected schools according to extent of training in years beyond the high school*

Number of years	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
2 or less	4					4	0.9		1		1	1.1
3	4	3	4	1		12	2.7	1	1		2	2.3
4	49	57	53	48	34	241	53.6	8	12	10	30	33.7
5	13	20	36	28	41	138	30.6	6	13	18	37	41.6
6	1	7	9	12	9	38	8.4	3	4	6	13	14.6
7 or more		3	3	7	4	17	3.8	1	2	3	6	6.7
Number reporting	71	90	105	96	88	450	100.0	19	33	37	89	100.0
Percentage with less than 4 years	11.3	3.3	3.8	1.0	0.0		3.6	5.3	6.1	0.0		3.4
Percentage with 5 years or more	19.7	33.4	45.7	55.2	61.4		42.8	52.6	57.6	72.9		62.9

Of the 450 principals of the unselected high schools reporting on the amount of training possessed, only 3.6 per cent had less than four years beyond the high school. The percentage of principals with less than this amount of training was highest in schools enrolling 40 pupils or fewer and lowest in schools with more than 300 pupils, where no principal had less than four years of training beyond the high school. In the selected schools the picture was very similar. Of the 89 principals of selected schools reporting on the item, only 3.4 per cent possessed less than four years of training beyond the high school, schools enrolling 76 to 150 pupils standing highest in this respect, with 6.1 per cent and schools enrolling more than 150 pupils lowest, with none reporting less than four years.

Among the principals of the unselected schools the modal amount of training was four years beyond the high school, 53.6 per cent being included in this group. Among the principals of the selected schools the modal amount of training was a full year higher, with 41.6 per cent having had five years of training.

The total number of principals with preparation representing five years or more of college or university training was unexpectedly large for all groups of schools. Of the

principals of the unselected schools, almost 43 per cent were in this class, with the proportion increasing steadily from approximately 20 per cent in schools of Group IA to more than 61 per cent in Group IIIB. Of the principals of the selected schools, almost 63 per cent had five years or more of college or university training. The range in these schools was from 52.6 per cent in the group of smallest to almost 73 per cent in the group of largest schools. Whether compared class with class or with respect to groups of schools of corresponding size, the principals of the selected schools show a markedly greater amount of training than the principals of the unselected schools.

The evidence on general extent of training shows that in both unselected and selected schools the proportions of principals with the greater amounts of training are largest in the largest schools. Furthermore, it shows that the relative number of principals with superior training increases steadily and markedly with each larger group of schools. This means that the larger the schools the better is their situation as measured in terms of extent of training possessed by their principals.

There is also a marked difference between the unselected and selected schools in respect to the training of the principals. Not only is the total proportion of principals with the greater amounts of training for the selected schools 20 per cent higher than for the unselected schools as a class, but the proportions in similar size groups of schools are significantly and consistently greater. These differences can be shown more concretely by giving two examples. Of the principals in Group IA and IB of the unselected schools, approximately 20 per cent and 33 per cent, respectively, had five years or more of training beyond the high school, as compared with approximately 53 per cent of the principals in Group I of the selected schools. Of the principals of unselected schools in Group II, approximately 46 per cent had five years or more of training, as compared with slightly less than 58 per cent of the principals in the corresponding size group of selected schools. This marked superiority in the training of the principals of the selected schools, it seems safe to assume, has a direct relation to other evidences of

superiority on the part of the selected schools, as will be shown in succeeding phases of the study.

Highest degree held.—As would be expected from the evidence on extent of training just reported, the data on the highest degrees held by principals show characteristics similar to those on the extent of training received, as just reported. There is a difference, however, in that the relative number in both classes of schools with advanced degrees is considerably less than the relative number with five years or more of training. This difference indicates that a considerable number of principals who had satisfied one of the requirements for an advanced degree, namely, residence, had not received it.

TABLE 29.—*Distribution of principals of unselected and selected high schools according to highest degrees held*

Degree	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
No degree	8	5	4	2	----	19	4.2	1	2	----	3	3.4
Bachelor's degree	56	69	76	68	58	327	72.0	11	19	24	54	61.4
Master's degree	6	15	23	28	33	105	23.1	4	13	14	31	35.2
Doctor's degree	----	----	----	1	2	3	.7	----	----	----	----	----
Number reporting	70	89	103	99	93	454	100.0	16	34	38	88	100.0
Percentage with bachelor's degree as highest degree	80.2	77.5	73.8	68.7	62.4	72.0	------	68.8	55.9	63.2	61.4	------
Percentage with degrees higher than bachelor's degree	8.6	16.9	22.3	29.3	37.6	23.8	------	25.0	38.2	36.8	35.2	------

The percentage of principals, as shown in Table 29, with no degrees in each group of both unselected and selected schools is almost identical with that for principals with less than four years of training. The highest degree most commonly held by the principals of the smaller secondary schools is the bachelor's degree, which is the highest degree held by 72 per cent of the principals of unselected schools and 61.4 per cent of the principals of selected schools. In the groups of smaller unselected schools a significantly smaller proportion of the principals hold degrees above the bachelor's than in the groups of larger schools. Although existing, this dif-

ference between the smaller and larger selected schools is not so marked as in the case of the unselected schools. For principals of the unselected schools the proportion with the master's degree increases steadily and markedly from approximately 9 per cent in schools with 40 pupils or fewer to almost 38 per cent in the schools with more than 300 pupils. In the selected schools the range in the proportion of principals with master's degrees is from 25 per cent in Group I to slightly more than 35 per cent in Group III.

In respect to degrees held, the evidence shows conclusively that the larger the schools the more training the principals have had. This is clearly indicated by the relative proportions holding master's degrees. That the selected schools as a class are markedly superior in this respect is evidenced by the fact that over a third of the principals of the selected schools hold master's degrees as compared with slightly less than a fourth of the principals of unselected schools. Comparisons of corresponding size groups of the two classes of schools likewise show the superiority of the selected schools. Of the principals of IA and IB of the unselected schools, 9 per cent and 17 per cent, respectively, hold master's degrees as compared with 25 per cent for Group I of the selected schools. In Group II of the unselected schools, slightly more than 22 per cent hold master's degrees as compared with more than 38 per cent in Group II of the selected schools. Whether considered as a class or with respect to groups of similar size, the superiority of the selected schools is markedly evident.

A recent study [1] of the secondary-school principals of New York State, in the data for two groups of high schools comparable in size with those in the present study, showed that the bachelor's degree was the highest degree held by 58.5 per cent of the principals of village high schools and by 58.4 per cent of the principals of high schools in supervisory districts, while 32.1 per cent of the former and 11.6 per cent of the latter held master's degrees. In comparison with the present investigation the New York State study shows percentages of principals with master's degrees similar to those for the

[1] Coxe, W. W. Study of the Secondary-School Principals in New York State. Albany, N. Y., The University of the State of New York Press, 1929. p. 5.

unselected schools, and, since as a class the village high schools are larger than those in supervisory districts, similar differences exist between smaller and larger schools. In the present study, however, a higher percentage of the principals of the unselected schools have bachelor's degrees than is shown in the New York study. In Kansas [2] in 1926, 41.5 per cent of the principals of high schools with 10 teachers or less were college or university graduates and 14.6 per cent had had one year or more of graduate work. This study shows a lower percentage of principals both with respect to bachelor's degrees and graduate work than do the corresponding size groups of unselected schools included in the present study.

TABLE 30.—*Distribution of principals of unselected and selected schools according to the year in which the certificates, diplomas, or highest degrees were received*

Year	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1910 or before	1	5	7	7	12	32	....	1	4	5
1911-1920	11	8	20	26	21	86	....	3	7	10
1921-1925	7	22	26	27	15	97	6	13	6	25
1926 or later	35	46	36	26	37	180	6	8	11	25
Number reporting	54	81	89	86	85	395	12	25	28	65
Percentage received 1926 or later	64.8	56.8	40.4	30.2	43.5	45.6	50.0	32.0	39.3	38.5
Percentage received 1921-1925	13.0	27.1	29.2	31.4	17.7	24.6	50.0	52.0	21.4	38.5
Percentage received before 1921	22.2	16.1	30.4	38.4	38.8	29.8	0	16.0	39.3	23.0

Year in which principal received certificate, diploma, or highest degree.—The year in which the principals received their certificates, diplomas, or degrees is one index to their maturity and experience. On this item, 395 principals of the unselected and 65 principals of the selected schools furnished information. The data (Table 30) show that a relatively large proportion of the principals obtained their certificates, diplomas, or highest degrees within the 5-year period closing with 1930. In this group are found 45.6 per cent of the principals of the unselected schools and 38.5 per cent of the principals of the selected schools. Only about 30 per cent

[2] OBrien, F. P. The High-School Teaching Load and Preparation of High-School Teachers. Bulletin No. 10, 1926, University of Kansas. p. 21.

of the principals of the unselected and 23 per cent of those in the selected schools received their highest degrees, diplomas, or certificates before 1921. Among both the unselected and selected schools a significantly larger proportion of the principals of the smaller than of the larger schools received the recognition of completing their training between 1926 and 1930. On the other hand, a significantly larger proportion of the principals of the larger schools received their recognition of training in the period prior to 1921. As a class the selected schools show a considerably smaller proportion of principals who received their certificates, diplomas, or degrees in 1926 or later than do the unselected schools, indicating that the selected schools tend to have a smaller percentage of relatively inexperienced principals. Taken as a whole, the data on this item afford one indication of the relatively greater maturity and experience of the principals of the larger schools and of the selected as compared with the unselected schools.

TABLE 31.—*Distribution of principals of unselected and selected schools according to number of semester hours of training in education*

Number of semester hours	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
15 or less	6	11	9	4	7	37	4	2	1	7
16-20	12	16	13	9	7	57	3	3	3	9
21-25	12	11	6	8	4	41	2	1	2	5
26-30	6	13	9	15	9	52	....	6	6	12
31-40	10	17	17	27	18	89	4	3	7	14
41-50	6	5	9	12	14	46	4	11	5	23
More than 50	7	9	22	10	19	67	2	4	6	8
Number reporting	59	82	85	85	78	389	19	30	33	82
Median number of hours	24.7	26.1	33.2	32.7	36.7	30.2	31.3	41.1	36.4	38.4
Percentage with 20 hours or less	30.5	32.9	25.9	15.3	17.9	24.2	36.8	16.7	12.1	19.5

Training in education.—The data on the number of semester hours of training in the field of education indicate rather clearly that, on the whole, the principals of the smaller secondary schools have gone beyond the minimum amount of training required in the several States. (See Table 31.) While there are some indications that some of the principals reporting the greatest number of hours did not interpret this

item correctly, the error, if any, is probably eliminated in large measure by the use of the median, since this measure is not influenced to any great extent by the few reports of unusually large amounts of training in education. The general picture is probably not far from the actual status. This assumption is supported by the general agreement of these data with those on years of training in general, as already reported.

In general, as has been found in other studies, principals of the larger schools have had more training in education than have the principals of the smaller schools. Among the unselected schools the lowest median number of semester hours is found in Groups IA and IB and the greatest number of hours in Group IIIB. The selected schools show similar but smaller differences between the groups of smaller and larger schools. As a class the principals of the selected schools exceed those of the unselected schools in the median amount of training in education received by slightly more than six semester hours. As in the other items on the training of principals, the larger schools are superior to the smaller schools. Also, the selected schools as a class are significantly superior to the unselected schools both with respect to the greater median number of hours of training in education received by principals and with respect to the smaller proportion of principals who have received only 20 semester hours or less.

TABLE 32.—*Distribution of principals of unselected and selected schools according to the number of years of teaching and administrative experience*

Number of years	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
None	2	1				3				
1–5	23	32	12	16	8	91	5	3	3	11
6–10	18	26	35	26	20	125	7	18	16	41
11–15	9	14	22	26	21	92	1	9	8	18
16–20	7	5	18	14	18	62	3	2	5	10
More than 20	12	12	17	16	27	84	3	2	7	12
Number reporting	71	90	104	98	94	467	19	34	39	92
Median experience in years	7.8	7.3	11.1	11.3	14.9	10.8	8.2	8.9	10.3	9.3
Percentage with 5 years or less	35.2	36.7	11.5	16.3	8.5	20.1	26.3	8.8	7.7	12.0

Teaching and administrative experience.—That the principals of the smaller secondary schools are as a class comparatively young is again borne out by the data on their teaching and administrative experience. The evidence concerning this (see Table 32) agrees with other data on the principal. It shows also, as earlier studies have shown, that the younger and, consequently, less experienced principals tend to be in charge of the smaller schools.

Of the principals of the unselected schools, slightly more than a fifth had five years or less of teaching and administrative experience. The data show a marked difference between those groups of schools enrolling 75 pupils or fewer and those with larger enrollments in the amount of experience possessed by the principals. Of the principals of the smaller schools, more than one in three have had five years' experience or less, while in the three groups of larger schools, taken as a whole, less than one principal in eight has had five years' or less experience. Expressing the same fact somewhat differently, the proportion of principals with five years' or less experience in unselected schools enrolling 75 pupils or fewer is approximately three times as great as that of principals in the schools enrolling more than 75 pupils.

In the selected schools, while the median amount of teaching and administrative experience possessed by principals is slightly more than a year less than for principals in the unselected schools, a markedly smaller percentage have had five years' or less experience.

Two interesting facts are brought out by the data on the experience of principals included in the present study. One of these is the fact, shown clearly by the data on both classes of schools, that there is a very significantly greater tendency for schools enrolling 75 pupils or fewer to have relatively inexperienced principals. The other fact is that, taken either as a class or by corresponding size groups, the selected schools have a considerably smaller proportion of principals with the lesser amounts of teaching and administrative experience. This again is evidence of superiority on the part of the selected schools.

Tenure of principals.—Because of the importance of the human factors in educational work and the relative com-

plexity of administrative and teaching problems and their connection with community life, a considerable degree of permanency is usually regarded as desirable in teaching and administrative positions. Considerable interest should therefore attach to evidence on length of tenure of principals represented in this study. The data on the tenure of principals, as presented in Table 33, indicate rather clearly that the administrative personnel of the smaller secondary schools tends to change with undesirable frequency. They show also, as do other studies in the field, that the tenure of principals is significantly shorter in the smaller than in the larger schools. In the group of smallest unselected schools the median number of years that principals had been in their positions was but slightly more than a fourth of that of principals in the group of largest schools. In the former case it was only 1.4 years, as contrasted with 5.5 years in the latter case. The same characteristic is shown in an even more striking manner by the relative number of principals in the different size groups of schools who had been in their positions less than three years. In Groups IA and IB more than three-fifths of the principals had been in their positions less than three years, as compared with approximately a fourth for the schools in Groups IIIA and IIIB.

TABLE 33.—*Distribution of principals of unselected and selected schools according to number of years they had been in positions held in 1930–31*

Number of years	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
First year	7	7	8	3	3	28	----	1	5	6
1 year	20	28	17	12	9	86	5	3	----	8
2	19	17	13	14	9	72	2	3	7	12
3	9	14	15	9	12	59	2	7	5	14
4	6	8	10	9	8	41	3	5	----	8
5	4	7	7	6	1	25	1	2	3	6
6–10	3	8	23	35	28	97	6	10	11	27
11–15	2	1	6	5	15	29	----	1	5	6
16 or more	----	----	3	5	10	18	----	2	3	5
Total number reporting	70	90	102	98	95	455	19	34	39	92
Median number of years in position	1.4	1.6	2.9	4.3	5.5	2.7	3.2	3.6	4.8	3.8
Percentage new in position	10.0	7.8	7.8	3.1	3.2	6.2	0	2.9	12.9	6.5
Percentage less than 3 years in position	65.9	57.8	37.3	29.6	22.1	40.9	36.8	20.6	30.8	28.3

In the selected schools the median number of years the principal had been in his position was slightly more than

one year greater than in the unselected schools. In the selected schools the range in median tenure was from 3.2 years in Group I to 4.8 years in Group III. Furthermore, the percentage of principals who had been less than three years in their positions was approximately 28 in the selected schools, as compared with approximately 41 for the unselected schools. The greatest difference between the two classes of schools is in the groups enrolling 75 pupils or fewer where the tenure of principals of the unselected schools is less than half that in the selected schools.

Finally, the data on tenure of principals indicate clearly that the tenure in the smaller schools tends to be very short and that it is exceedingly brief in schools enrolling 75 pupils or fewer. They also indicate an appreciably longer tenure for the principals of the selected schools as a class than for the principals of the unselected schools. Particularly in the groups of smaller schools, the selected schools show a markedly longer tenure of principals than is found in unselected schools of similar size. Apparently in these smaller selected schools especially, and to a lesser extent in the larger schools, the handicap of smallness has to a considerable degree been overcome with respect to attaining greater permanency in the tenure of principals. This indicates that the principalships in the selected schools as a class are more attractive positions than those in the unselected schools as a class. This may be because of better salaries or more favorable conditions for work, or both.

Teaching load of principal.—Data were presented in Chapter II showing that the principals, especially in the smaller schools, devote a considerable portion of their time to classroom instruction. Practically all principals in schools enrolling fewer than 150 pupils do some teaching, and only in schools enrolling more than 300 pupils does the number of principals who give classroom instruction become less than half the principals represented.

Two hundred and twelve of the principals of the unselected schools and 65 of the principals of the selected schools furnished information on the number of subjects taught and the number of subject-matter fields represented by these subjects. (See Table 34.) In interpreting the data the criterion used in determining a subject is a distinct daily

preparation. For example, the teaching of two classes of algebra is regarded as teaching one subject, while the teaching of algebra I and algebra II is interpreted as teaching two subjects. On this basis the median number of subjects taught by principals of the unselected schools reporting their teaching load is approximately three subjects; for principals in selected 4-year schools the median is slightly more than two; and in selected reorganized schools, somewhat more than one subject. As is to be expected, the number of subjects taught is greater for the principals in the smaller schools than for those in the larger schools. For example, in Group IA of the unselected schools the median teaching load of the principal represents four different subjects, while a considerable proportion of the principals teach five or more subjects. On the other hand, the median teaching load of principals in schools of Group IIIB represents only one subject, and practically none teaches more than three subjects. In the 4-year selected schools the situation is in general similar to that in the unselected schools, but somewhat better. In the selected reorganized schools both as a class, and for all corresponding size groups, the situation is markedly better than in either the unselected schools, or the selected 4-year schools.

TABLE 34.—*Number of different subjects and subject-matter fields taught by principals of unselected and selected schools*

Size groups of schools	Median number of subjects taught	Number of schools reporting	Median number of subject-matter fields taught	Number of schools reporting
1	2	3	4	5
Unselected:				
IA	4.0	60	2.3	60
IB	3.6	56	2.3	56
II	2.5	44	1.4	44
IIIA	2.1	34	1.0	32
IIIB	1.0	20	.6	20
Total	2.9	214	1.7	212
Selected, 4-year:				
I	3.5	8	1.7	13
II	2.6	14	1.7	15
III	.6	18	.5	18
Total	2.1	40	1.2	46
Reorganized:				
I	2.8	3	2.3	3
II	2.5	13	1.2	18
III	.6	16	.5	22
Total	1.2	32	.8	43

A subject-matter field in the present study is defined as a major division of subjects in the secondary-school program of studies, as mathematics, science, home economics, or commercial subjects. On this basis, as shown in the fourth column of Table 34, the median number of subject-matter fields represented by the subjects taught by principals of the unselected schools is slightly less than two and by principals of the selected schools slightly more than one. In the unselected schools of Groups IA and IB the teaching load of principals is markedly greater than in any other groups of schools and represents almost two and one-half subject-matter fields. As in the case of number of subjects taught, the selected reorganized schools again show the most desirable situation, the median number of subjects in the teaching load of the principals of these schools representing only one subject-matter field.

The evidence on teaching load of principals indicates some interesting differences between schools of different sizes, between the unselected as compared with the selected 4-year schools, and between the selected reorganized schools as a class and all 4-year schools. In the first place, all groups of 4-year schools enrolling 150 pupils or fewer show a heavy teaching load for principals both in respect to number of subjects taught and in respect to number of subject-matter fields represented. In both respects the larger schools show a more desirable situation. As a class the selected 4-year schools represent a more desirable teaching load for principals than do the unselected schools. As measured in relation either to number of subjects taught or to number of subject-matter fields included in the teaching load of principals, the selected reorganized schools present the more desirable condition of all the schools reporting. The difference between the unselected schools and the selected 4-year schools would appear to indicate a better planned schedule of work in the latter schools. The superiority of the selected reorganized schools is probably due in large measure to the greater possibilities of vertical assignment of work arising from the fact that the majority of the reorganized schools have secondary work organized on the basis of either five or six years.

Salaries of principals.—Data on salaries received by principals for the school year 1930–31 were supplied by 430 of the unselected schools and 91 of the selected schools. Two characteristics are prominent, especially among the unselected schools. (See Table 35.) The first is the wide range of salaries in each group of schools, and the second is the extremely low salaries received by the lowest 25 per cent of the principals in schools enrolling 75 pupils or fewer. The median salary in these schools is also low, being but slightly more than $1,800 for Groups IA and IB taken together. Three distinct salary levels are indicated by the data. On the first level are principals of schools enrolling 75 pupils or fewer. On the second level are those principals in the schools enrolling from 76 to 300 pupils where the median salaries are markedly higher than on the first level. On the third level are those principals in the schools enrolling more than 300 pupils where the median salary is more than $500 greater than the median for those groups on the second level. The selected schools show the same characteristic in median salary levels between schools of Group I, enrolling 75 pupils or fewer, and Group II, including schools enrolling from 76 to 150 pupils. Between Groups II and III the difference in median salary levels is not so marked as between Groups I and II; a difference of approximately $200 is shown.

TABLE 35.—*Distribution of principals of unselected and selected schools according to salaries received during the year 1930–31*

Salary range	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Less than $1,000		1				1				
$1,000–$1,099	4	3		1		8				
1,100– 1,199	1	1				2				
1,200– 1,299	4	1				5				
1,300– 1,399	4	3		2		9	1			1
1,400– 1,499	4	2	1	1		8				
1,500– 1,599	10	3	2			15		1		1
1,600– 1,699	7	4	4	2		17	1			1
1,700– 1,799	3	6	2			10	2			2
1,800– 1,899	1	11	5	12	2	41	3	2		5
1,900– 1,999	3	2	3	3	2	12				
2,000– 2,099	3	3	8	6	2	22	3	4	1	8
2,100– 2,199	6	7	1	2	2	19	1	2	2	5
2,200– 2,299	4	1	6	6	4	21	3	1	4	8

TABLE 35.—*Distribution of principals of unselected and selected schools according to salaries received during the year 1930–31*—Continued

Salary range	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
$2,300–$2,399	1	2	5	4		12		2	1	3
2,400– 2,499	2	5	9	2	6	24	1	2	4	7
2,500– 2,599	2	3	10	6	7	28	3	1	2	6
2,600– 2,699		4	6	3	4	17	1	3	1	5
2,700– 2,799	1	1	7	3	2	14		2	3	5
2,800– 2,899		1	6	7	5	19		2	4	6
2,900– 2,999			3	3	1	7		1	2	3
3,000– 3,099	1	1	14	8	6	30		3	3	6
3,100– 3,199			1	4	2	7		1		1
3,200– 3,299			1	3	9	13		2	2	4
3,300– 3,399	1		2	2	5	10		1	1	2
3,400– 3,499			1	2	1	4				
3,500– 3,599		1	2	2	3	8		1	3	4
3,600– 3,699			2	3	6	11		2		2
3,700– 3,799				1	1	2			1	1
3,800– 3,899				2		2				
3,900– 3,999					1	1				
4,000– 4,099				3	5	8				2
4,100– 4,199				1	1	2			1	1
4,200– 4,299			1	1	2	4				
4,300– 4,399										
4,400– 4,499				1	2	3				
4,500– 4,599				2	2	4			1	1
4,600– 4,699					1	1			1	1
4,700– 4,799					1	1				
4,800– 4,899				1	1	2				
4,900– 4,999					1	1				
5,000 and more			1		4	5				
Total number reporting	70	66	103	100	91	480	19	33	39	91
Median salary	$1,750	$1,882	$2,555	$2,667	$3,206	$2,454	$2,083	$2,650	$2,838	$2,575
First quartile	$1,505	$1,708	$2,200	$2,067	$2,572	$1,879	$1,823	$2,173	$2,443	$2,200

The range of salaries and the median salary for the principals of the unselected schools in the present study are almost identical with those for 1928–29 for high-school principals in cities of 2,500 to 5,000 given in the Research Bulletin of the National Education Association.[3] The range given in this bulletin was from below $1,200 to more than $5,000. The median salary was $2,478, as compared with $2,454 for the principals of the unselected schools. The median of $2,575 for the selected schools is, it will be noted, practically $100 above the median given in the bulletin, indicating that the principals of the selected schools are receiving better than average salaries.

[3] Salary Scales in City School Systems, 1928–29. Research Bulletin of the National Education Association, May, 1929, p. 143.

Two facts of major significance have been brought out by the data on salaries of principals of the smaller secondary schools. Both of these facts have direct bearing upon such problems as those pertaining to training, experience, and tenure. First, the differences in salaries received by principals of the groups of smaller schools as compared with those received by the principals of the larger schools are in themselves sufficient to explain the better training, greater amount of experience, and longer tenure in the larger schools. Because the salaries in the larger schools represented are large enough to attract men of relatively adequate training and experience, no great problem of securing and retaining competent leadership exists in those larger schools. On the other hand, because of low salaries, principals of the smaller schools who possess qualities of leadership and adequate training tend, as rapidly as opportunity offers, to leave the smaller schools for principalships in the larger schools where more desirable salary conditions exist.

The second fact of major significance shown by the evidence on salaries is the difference between the unselected and the selected schools. Taken either as a class or with respect to corresponding size groups, the median salary of principals of the selected schools is consistently and considerably higher than that for principals of unselected schools. Furthermore, in the former schools no instances of extremely low salaries are found, and in only one case—that of the selected schools enrolling 76 to 150 pupils—does the lower one-fourth of the principals fail to receive salaries higher than the lower one-fourth in similar size groups of unselected schools. On the whole, the differentials in salaries between unselected and selected schools as shown in the table, are sufficiently large to make for better schools in the case of the selected schools and to account for the superiority shown in these schools as a class relative to both training and tenure of principals. Because of better salaries, all size groups of selected schools are undoubtedly able to attract and hold competent leaders to a greater degree than the run of smaller secondary schools.

2. THE TEACHERS

General training.—The data on degrees held by teachers of smaller secondary schools are based on information for 1,874 teachers in unselected schools and 871 teachers in selected schools. These data show (Table 36) that the bachelor's degree represents the amount of training possessed by slightly more than four-fifths of the teachers in both classes of schools. For the unselected schools the percentage was 81.2, and for the selected schools it was 82.3.

The only groups of schools in which less than four-fifths of the teachers held bachelor's degrees were those unselected schools enrolling 150 pupils or fewer. There is a significant difference between these unselected schools and those enrolling more than 150 pupils in that a full fifth of the teachers in the smaller schools held no degree as compared with approximately a ninth of the teachers in Groups IIIA and IIIB. For all unselected schools the average proportion of teachers with no degree was slightly less than 14 per cent. In the selected schools as a class a somewhat larger proportion of teachers than in the unselected schools were holders of bachelor's degrees. Furthermore, a significantly smaller proportion held no degrees, the proportion representing only 5.5 per cent. Also, all size groups were superior to the corresponding groups of unselected schools.

TABLE 36.—*Numerical and percentage distribution of teachers of unselected and selected schools according to certificates and degrees held*

Certificate or degree held and percentage of teachers holding each	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Certificate or diploma but no degree	28	34	62	58	77	259	5	12	31	48
Bachelor's degree	95	154	279	444	550	1,522	45	178	494	717
Master's degree	4	7	8	18	56	93	3	25	76	104
Doctor's degree	----	----	----	----	----	----	----	1	1	2
Number of teachers	127	195	349	520	683	1,874	53	216	602	871
Number of schools included	72	70	62	51	37	292	16	34	52	102
Percentage without degrees	22.0	17.4	17.8	11.1	11.3	13.8	9.4	5.6	5.1	5.5
Percentage with bachelor's degrees	74.8	78.9	79.9	85.4	80.5	81.2	84.9	82.4	82.1	82.3
Percentage with master's degrees	3.2	3.6	2.3	3.5	8.2	5.0	5.7	11.6	12.6	12.1
Percentage with doctor's degrees	----	----	----	----	----	----	----	.4	.2	.1

In the unselected schools 5 per cent of the teachers held master's degrees. The proportion holding this degree in schools of Group IIIB was more than twice that of all groups of smaller schools, where the proportions were fairly constant. In the selected schools as a class more than 12 per cent of the teachers held master's degrees. The smallest proportion of teachers with master's degrees was in Group I, where it was approximately 6 per cent, or 1 per cent higher than in the unselected schools as a class. In the matter of training of teachers the data indicate a marked superiority on the part of the selected schools over the unselected schools.

In New York State [4] data for teachers in comparable high schools showed that of the teachers in village high schools 67.4 per cent were college graduates and 5.1 per cent possessed graduate degrees; for teachers in high schools in supervisory districts the figures were 71.8 per cent and 2.5 per cent, respectively. In each case these figures indicate an amount of training for teachers somewhat less than that shown in the present study for teachers of unselected schools and considerably less than shown for teachers in the selected schools.

Training in education.—The data show that as a class teachers in the smaller secondary schools have had a considerable amount of training in education. Among the groups of smaller schools of both classes, as shown in Table 37, are the largest proportions of teachers with least training in education as measured by the number of semester hours received. On the same basis the teachers of the selected schools as a class are considerably better trained than those of the unselected schools. The difference is approximately five semester hours in favor of the teachers in the former schools.

[4] Coxe, W. W., and Soper, W. W. Study of the High-School Teacher in New York State, Albany, N. Y., The University of the State of New York Press, 1931. p. 26.

TABLE 37.—*Numerical and percentage distribution of teachers of unselected and selected schools according to number of semester hours of training in education*

Semester hours	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
10 or less	6	11	13	20	30	80	6	14	14	34
11–15	22	22	50	51	85	230	9	10	42	61
16–20	22	53	73	162	142	452	14	50	109	173
21–25	17	17	51	93	104	282	6	24	109	139
26–30	10	22	37	59	80	208	5	38	72	115
31–45	5	9	23	45	88	170	13	28	96	137
46–60	4	6	2	5	28	45	6	14	32	52
61 and more	5	3	15	3	47	73	7	9	68	84
Total number of teachers on whom data were supplied	91	143	264	438	604	1,540	66	187	540	795
Medians	19.0	18.7	9.71	19.6	22.2	20.1	23.3	24.0	24.8	24.6
Percentage with 15 hours or less	30.8	23.1	23.9	16.2	19.0	20.0	22.7	12.8	10.4	11.9

The median amount of training in education for the teachers in the unselected schools was slightly more than 20 semester hours, as compared with almost 25 semester hours for those in the selected schools. In both classes of schools the median amonuts of training varied but slightly among the schools of the different size groups. Greater differences existed between different size groups in the relative proportions of teachers possessing 15 hours or less of training in education. Of the teachers of the unselected schools as a class, 20 per cent had 15 semester hours or less, as compared with approximately 12 per cent for the selected schools. In both classes of schools the largest proportions of teachers with relatively small amounts of training in education were in the smaller schools. On the basis of the amount of training in education, the teachers in the selected schools are considerably better trained as a class than are those in the unselected schools.

Teaching experience.—The data indicate that the teachers in the smaller secondary schools are comparatively young and inexperienced. For both unselected and selected schools the median amount of teaching experience, as shown in Table 38, is between three and four years, being 3.4 years in the unselected and 3.8 years in the selected schools. The amount of experience in the first four groups of unselected schools remained fairly constant, but rose markedly in the schools of Group IIIB. In the selected schools it increased

steadily and markedly in each group of larger schools. In both the unselected and selected schools in general, approximately 1 teacher in each 10 was teaching his first year. In both unselected and selected schools enrolling 75 pupils or fewer, approximately half of the teachers had two years' or less experience. In the unselected schools, approximately 44 per cent and in the selected schools almost 49 per cent of the teachers had five years' or more experience. In both cases the percentages were markedly larger in the larger schools. As a class the teachers of the selected schools show a somewhat greater amount of teaching experience than do the teachers of the unselected schools.

TABLE 38.—*Distribution of teachers of unselected and selected schools according to number of years of teaching experience*

Years	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Less than 1	12	20	43	49	36	160	12	28	56	96
1	22	25	51	80	70	248	18	33	70	121
2	21	31	39	62	74	227	7	39	78	124
3	10	26	51	66	64	217	6	16	74	96
4	15	17	43	45	65	185	3	11	65	79
5	18	14	22	37	59	150	4	16	48	68
6-10	18	33	55	106	150	362	11	55	169	235
11-15	5	9	19	33	77	143	5	23	70	98
16 or more	3	8	17	40	96	164	8	17	65	90
Total reported	124	183	340	518	691	1,856	74	238	695	1,007
Medians	2.9	2.6	2.7	3.0	4.6	3.4	2.0	3.3	4.1	3.8
Percentage 2 years or less	52.4	45.9	39.1	36.9	26.0	34.2	46.1	38.4	28.0	30.8
Percentage 5 years or more	35.5	35.0	33.2	41.5	55.3	44.1	37.8	46.6	50.6	48.7

Tenure of teachers.—The data presented on teaching experience possessed by the teachers of small high schools showed clearly their relative inexperience. The evidence on tenure shows in an even more striking manner the fact that the typical teacher in small high schools remains but a short time in one position. The median tenure for all teachers in both unselected and selected schools, as shown in Table 39, is only a fraction over one year. In the unselected schools but slightly more than 28 per cent had been more than three years in the positions held at the time the reports were made. In Group IA fewer than 1 among 10 of the teachers had been in his position more than three years. The proportion increases steadily and markedly for each

group of larger schools until it includes almost 38 per cent of the teachers in Group IIIB. What is, perhaps, of even greater significance is the fact that more than half of all teachers in both classes of schools enrolling 150 pupils or fewer had been in their positions one year or less.

If Group IA of the unselected schools is not included, there are practically no differences between the unselected and selected schools in respect to the tenure of teachers. In both classes of schools the teachers in schools enrolling 150 pupils or fewer have a markedly shorter tenure than those in the larger schools, although even in the larger schools the median tenure is much shorter than is desirable. The least desirable situation is found in schools enrolling 40 pupils or fewer, where, according to the evidence, almost three-fifths of the teachers each year are new to their positions. All the evidence on the tenure of principals and teachers, particularly the latter, in the smaller secondary schools furnishes conclusive proof of its brevity. It also shows that the smaller the schools the greater the degree of impermanency. From the evidence one may draw inferences as to the relative seriousness of the problem of tenure from the standpoint of developing continuous and constructive educational policies and programs and from the standpoint of putting into operation effective plans of supervision of instruction.

TABLE 39.—*Distribution of teachers of unselected and selected schools according to number of years in the position held in 1930–31*

Years	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Less than 1	23	34	69	98	97	321	13	59	150	222
1	49	55	97	114	150	465	25	60	138	223
2	28	37	57	99	110	331	13	31	115	159
3	13	20	43	62	66	204	6	24	82	112
4	6	12	27	44	48	137	3	13	61	77
5	5	8	10	25	39	87	4	9	30	43
6–10	0	10	32	56	112	210	9	27	74	110
11–15	0	4	5	9	31	49	2	4	28	34
16 or more	1	0	4	12	25	42	0	2	13	15
Total reported	125	180	344	519	678	1,846	75	229	691	995
Medians	0.8	1.0	1.1	1.4	1.8	1.4	1.0	1.0	1.5	1.3
Percentage, 1 year or less	57.6	49.4	48.2	40.8	36.4	42.5	50.7	51.9	41.7	44.7
Percentage, more than 3 years	9.6	18.9	22.7	28.1	37.6	28.4	24.0	24.0	29.8	28.0

Number of subjects taught.—For the unselected schools, data relating to number of different subjects taught by teachers were rather complete; these data were less satisfactory for the selected schools. One of the persistent problems in small secondary schools is the large number of subjects in which the teacher must give instruction. The data in the present study, as presented in Table 40, reemphasize this problem. In the groups of smaller schools especially, the number of subjects in the teacher's instructional load is burdensomely large. In the unselected schools in Groups IA and IB (those enrolling 75 pupils or fewer) the median teaching load represents approximately five different subjects, while the median teaching load in the comparable Group I of the selected 4-year schools is somewhat more than four different subjects. Among all groups of both unselected and selected schools, Group IIIB of the unselected schools, where the median is 2.1 subjects, is the only group in which the median number of subjects taught is less than three. The reorganized selected schools show a somewhat lower median, as a class, than either the unselected or selected 4-year high schools. The superiority shown by these schools in respect to a more desirable teaching assignment is probably due to the possibility of vertical assignment of work through five or six years instead of four, as would ordinarily be the case in the 4-year schools. This explanation is supported by the fact that the majority of the reorganized schools represented in the study are either junior-senior high schools or 6-year undivided high schools. Finally, slightly less than a fifth of all the teachers for whom information was furnished taught five different subjects, and a considerable number, especially in the smaller schools, taught six or more subjects.

TABLE 40.—*Distribution of teachers in unselected and selected schools according to number of different subjects in their teaching assignment*

Schools by size groups	Number of subjects							Number of teachers included
	1	2	3	4	5	6 or more	Median	
1	2	3	4	5	6	7	8	9
Unselected:								
IA	1	2	2	11	34	52	5.1	102
IB			6	25	62	86	4.9	179
II	1	14	49	87	99	53	4.0	303
IIIA	4	48	102	134	63	23	3.2	374
IIIB	59	218	177	85	47	9	2.1	595
Total	65	282	336	342	305	223	3.3	1,553
Selected, 4-year:								
I		3	3	3	4	8	4.3	21
II	1		7	13	12	10	4.1	43
III	2	13	24	25	21	4	3.2	89
Total	3	16	34	41	37	22	3.6	153
Reorganized:								
I				1		3		4
II	8	13	15	7	6	24	3.2	73
III	7	35	39	23	26	34	3.0	164
Total	15	48	54	31	32	61	3.1	241

Number of subject-matter fields represented in teaching load.—In terms of the number of subject-matter fields included within the teachers' instructional load and as defined in the discussion of teaching load of principals, fairly satisfactory data were available for both unselected and selected schools. (See Table 41.) With the exception of Group IA of the unselected schools, where it was approximately three, the teaching load of the majority of teachers in all groups of schools lay within one or two subject-matter fields. The median for all groups of both unselected and selected schools was approximately one, with a range from approximately two in the smaller to one in the larger schools. In general, there are no appreciable differences between the unselected schools and the selected 4-year schools. As in the case of number of subjects handled by the teacher, again the reorganized schools show a somewhat more desirable situation as a class than do the 4-year schools.

TABLE 41.—*Distribution of teachers in unselected and selected schools according to number of subject-matter fields represented in their teaching assignment*

Schools by size groups	Number of subject-matter fields						Number of teachers included
	1	2	3	4	5 or more	Median	
1	2	3	4	5	6	7	8
Unselected:							
IA	4	23	45	25	5	2.6	102
IB	17	64	61	30	7	2.1	179
II	97	134	55	13	4	1.4	303
IIIA	199	128	41	6	.....	.9	374
IIIB	434	144	17	.....	.....	.7	595
Total	751	493	219	74	16	1.1	1,553
Selected 4-year:							
I	.....	14	12	3	1	2.1	30
II	21	35	17	8	.....	1.5	81
III	135	90	19	5	.....	.9	249
Total	156	139	48	16	1	1.2	360
Reorganized:							
I	2	3	2	2	1	2.0	10
II	37	47	13	6	7	1.4	110
III	266	120	33	8	.....	.8	427
Total	305	170	48	16	8	.9	547

Relationship between teaching load and training.—The data showing the relationship between the teacher's load and major and minor fields of training (not presented in tabular form) were determined on the basis of subjects in the unselected schools and on the teacher basis for the selected schools; thus they are not directly comparable. Indirectly, however, they present similar pictures.

In the unselected schools slightly more than 52 per cent of the subjects taught were within the teacher's major field of training, approximately 19 per cent within the minor field, and approximately the same proportion outside both major and minor fields of training. Slightly more than 10 per cent were either in fields closely related to the major or minor fields or else overlapped on both. The greatest difference between the groups of smaller and larger schools was in the percentage of subjects lying outside both major and minor fields, the range being from almost one-third, in Group IA to more than 8 per cent in Group IIIB.

In the selected schools, 42.1 per cent of the teachers were giving instruction in subjects all of which were within their major fields of training. Only in Group III, with almost 52 per cent, did the percentage represent more than half of

the teachers. In Group I only 10 per cent of the teachers were giving instruction entirely within their major fields, and in Group II slightly more than 25 per cent. Less than 5 per cent gave instruction entirely within their minor fields, the percentages being very similar for all groups. Seventeen per cent of the teachers in the selected schools were teaching subjects entirely within the major and minor fields of training, the percentage running highest in the schools enrolling from 76 to 150 pupils. Seven per cent of the teachers were teaching no subjects within either major or minor fields of training. In selected schools with 150 pupils or fewer, the most characteristic teaching load was one in which the teacher taught subjects representing either the major or minor field, or both.

Although, as already stated, the data on the two classes of schools do not permit of direct comparison, by indirect comparisons similarities or differences may be inferred. When the percentage of subjects in the unselected schools represented within major or minor fields of training, or both, are compared with the percentage of teachers in the selected schools teaching within major or minor fields, or both, the two are practically identical. However, the percentage of subjects outside both major and minor fields in the unselected schools is more than twice the percentage of teachers in the selected schools teaching subjects entirely outside both major and minor fields. This fact indicates a more desirable situation in the selected schools. This difference may be explained in part, perhaps, by the fact that the average number of teachers per school in corresponding size groups is somewhat larger in the selected schools and in part by the inclusion of the reorganized schools which have shown a more desirable situation than the 4-year schools in respect to teaching load.

All studies of teachers of small high schools have shown facts similar to those of the present report and indicate the problem of teaching load from the standpoint of number of subjects taught. In Kansas [5] in schools with 10 teachers or fewer the average teaching load of both teachers and principals included three different subjects or fields of instruction.

[5] O'Brien, F. P. The High-School Teaching Load and Preparation of High-School Teachers. University of Kansas, 1926, p. 33

In schools with more than 10 teachers the majority of teachers gave instruction in one field only. In Virginia [6] the median teaching load ranged from 2.5 subjects in schools enrolling 50 pupils or fewer to 1.3 subjects in schools enrolling from 201 to 400 pupils. In the State of Washington,[7] 19 per cent of the teachers in accredited high schools of fewer than 10 teachers were teaching more than three different subjects. In schools of similar size in Pennsylvania,[8] 24.2 per cent and in California 26.6 per cent of the teachers taught more than three subjects.

Salaries of teachers.—The data on salaries received by teachers in the smaller secondary schools offer one explanation of impermanency of tenure. A considerable proportion of the teachers in both classes of schools, as shown in Table 42, are receiving extremely low salaries, many of them receiving $1,100 or less and a few as low as $600 a year. The median salary of the teachers in the unselected schools during the school year 1930–31 was $1,479. A significant increment in median salary is shown for each group of larger schools. The difference between the median salary received by teachers in Group IA and that received by teachers in Group IIIB was more than $400. In the selected schools the median salary of teachers was $1,547, or approximately $70 more than in the unselected schools as a class. The differences between the different size groups of selected schools were somewhat greater than in the case of the unselected schools. In fact, in the selected schools of Group I the median salary was considerably lower than for the corresponding groups of unselected schools, and in Group II of the former schools, although the median salary was slightly higher, the salaries received by the lower one-fourth of the teachers was slightly lower than those received by the lower one-fourth of the teachers in Group II of the unselected schools. Furthermore, Group IIIB of the unselected schools, representing considerably larger schools than those of any other group, showed also

[6] Combs, M. L. Efficiency in Relation to Size of High Schools. Richmond, Va., State Board of Education, 1928, pp. 128-129.

[7] Koos, L. V., and Woody, Clifford. The Training of Teachers in the Accredited High Schools of the State of Washington. Eighteenth Yearbook, National Society for the Study of Education, 1919, p. 216.

[8] Fitzpatrick, Edward A., and Hutson, Percival W. The Scholarship of Teachers in Secondary Schools. New York, The Macmillan Co., 1927, p. 14.

the largest median salary for teachers. The evidence shows clearly that the salary situation improves materially as the size of schools increases. Here again is a clear indication of the cause of short tenures in the smaller schools, since trained and capable teachers will naturally seek the positions paying the better salaries. This movement toward the larger schools is further encouraged by the fact that a more desirable teaching load is ordinarily to be found in the larger schools.

TABLE 42.—*Distribution of teachers in unselected and selected schools according to salaries received during the year 1930–31*

Salary range	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Less than $600	3		1			4		3		3
$600–$699	4	5		1		10	1			1
$700–$799	6	3				9	2			2
$800–$899	4	4	1	14		23	7		11	18
$900–$999	8	13	14	5	2	42	3	4	12	19
$1,000–$1,099	4	14	13	23	5	59	6	8	13	27
$1,100–$1,199	23	17	31	22	19	112	8	27	39	74
$1,200–$1,299	29	31	60	69	31	220	9	26	45	79
$1,300–$1,399	19	43	62	81	92	297	9	34	69	112
$1,400–$1,499	17	11	49	56	61	194	7	15	64	86
$1,500–$1,599	1	19	32	67	75	194	2	15	73	90
$1,600–$1,699	2	5	28	32	83	145	1	15	65	81
$1,700–$1,799		6	11	26	62	105		13	29	42
$1,800–$1,899	2	6	18	28	56	110		14	67	81
$1,900–$1,999	1	3	12	25	29	70		3	29	32
$2,000–$2,099		3	6	14	46	69		3	33	36
$2,100–$2,199			2	14	17	33		5	15	20
$2,200–$2,299		1	4	14	23	42		3	23	26
$2,300–$2,399		1	1	7	18	27	1	2	15	18
$2,400–$2,499		3	2	9	27	38		6	14	20
$2,500–$2,599			1	6	10	20			25	25
$2,600–$2,699				3	8	11		2	4	6
$2,700–$2,799				5	6	11		2	12	14
$2,800–$2,899			1		4	5			3	3
$2,900–$2,999					2	2			3	3
$3,000 and more				1	7	8			8	8
Total number reporting	123	188	344	522	683	1,860	56	199	671	926
Median salary	$1,233	$1,316	$1,383	$1,482	$1,668	$1,479	$1,211	$1,396	$1,616	$1,547
First quartile	$1,109	$1,147	$1,243	$1,295	$1,436	$1,296	$1,023	$1,231	$1,355	$1,317

Since as a class the selected schools show no marked advantage over the unselected schools relative to salaries paid teachers, and in the group of smallest schools even show salaries slightly lower, whatever superiority they possess over the unselected schools must be due to other factors than salary. It will be recalled also that the tenure of teachers is

similar in the two classes of schools. It seems most significant that the selected schools are, with salaries but slightly higher than those in the unselected schools, able to command the services of teachers more adequately trained as a class than those in the unselected schools. One is led to conclude that better trained principals and more desirable working conditions must be major factors operating in overcoming the problem of salaries.

3. SUMMARY

The data of the present study on the administrative and teaching personnel indicate, when compared with earlier data in State educational surveys and other studies, that the general and professional training of both principals and teachers in the smaller secondary schools have markedly improved within the last decade. They indicate also that certain problems relative to the administrative and teaching staff are still serious. The tenure of principals, especially in schools enrolling 75 pupils or fewer, is generally too short to permit of a consistent policy of development in those schools. A child has less chance in those schools of being graduated under the principal with whom he begins his high-school work than of being under three different principals during his high-school career. The tenure of teachers is markedly shorter than that of principals. In any year the high-school pupil in the smaller schools is more likely to find his classes conducted by teachers new to the school than by teachers who were in the school the previous year. Schools enrolling more than 75 pupils show a longer tenure of both principals and teachers, particularly the former, but, according to the data at hand, would average practically a complete change in administrative and teaching personnel every period of three to five years.

Relative to training of teachers the evidence presented has shown that in the unselected schools there is a definite line of demarcation between schools enrolling 150 pupils or fewer and those enrolling more than 150 pupils. In the selected schools the line of demarcation is more commonly between schools enrolling 75 pupils or fewer and the larger schools.

Apparently the selected schools have been better able to overcome the factor of smallness.

As a class the teachers in the selected schools have significantly better training than those in the unselected schools. This superiority is shown both in the smaller proportion without degrees and in the markedly greater proportion with master's degrees. This marked superiority of the selected schools is likewise shown in the training of principals.

A serious problem in the smaller secondary schools is the range and variety of subjects taught by both principals and teachers, especially in the smallest schools. This necessitates not only a burdensomely large number of class preparations but the teaching by many teachers of subjects for which they have had little or no preparation either in subject matter or methods of instruction. In the matter of teaching load the selected schools as a class are slightly superior to the unselected schools. The most favorable situation both in number of subjects taught by the teacher and number of subject-matter fields represented is found in the selected reorganized schools, indicating that in reorganization may be discovered a way of improving the teaching load of instructors in the smaller schools.

In the matter of salaries, a distressingly large number of both principals and teachers, in the smaller schools especially, receive unreasonably low salaries. The fact that the salaries in the smaller schools are considerably lower than in the larger schools is undoubtedly one explanation of shorter tenures in the smaller schools. The selected schools show markedly better salaries for principals than the unselected schools as a class, but very little advantage in the salaries of teachers. This fact is highly significant, since all evidence shows that the selected schools are, in spite of no material advantage in salaries, able to build up teaching staffs much better trained than those in the unselected schools as a class.

That many of the disadvantages of smaller secondary schools indicated in this chapter may in part be overcome has been shown through the comparisons of unselected and selected schools. Relative to general training and training in the field of education as concerns both principals and teachers, the selected schools have shown marked superiority

over the unselected schools. In regard to experience of both principals and teachers they show in most items some superiority over the unselected schools. In the matter of tenure of principals the selected schools hold a slight advantage and in the case of schools enrolling 75 pupils or fewer a marked advantage. In the matter of tenure of teachers there are practically no differences between the two classes of schools. In salaries of principals the selected schools as a class and group for group are significantly superior to the unselected schools. On the other hand, the salaries of teachers in the selected schools as a class are only slightly higher than those in the unselected schools, and in the groups of smallest schools are somewhat lower. Nevertheless, the selected schools are able to secure staffs of much better training than the unselected schools, even though the turnover is almost as rapid.

CHAPTER IV: SCHOOL GROUNDS, BUILDINGS, AND EQUIPMENT

1. SCHOOL GROUNDS

Size.—One of the interesting characteristics of the smaller secondary schools is the relatively small acreage contained in the school grounds. This is especially true of the smallest schools. In a comparatively large proportion of schools the acreage is so small as to preclude provision for many of the athletic sports commonly carried on by secondary-school pupils, and such provision, if made, must be on grounds outside those of the school.

In the present study data were given on size of school grounds by a high percentage of the schools represented. These data, as presented in Table 43, show that in the case of almost 69 per cent of the unselected and approximately 54 per cent of the selected schools the grounds contain 5 acres or less. The proportion of schools with the smaller acreage decreases steadily as the schools increase in size. Almost 9 in 10 of the unselected schools in Group IA have grounds of 5 acres or less as contrasted with one-half of the schools in Group IIIB. Of the selected schools in Group I more than 8 in 10 have grounds of 5 acres or less as contrasted with somewhat more than 1 in 3 of the schools in Group III. For the selected schools the data did not show the number of schools with grounds of 2 acres or less, but for the unselected schools the information was obtained and showed that a third of these schools have grounds of such small acreage. The proportions in schools enrolling 75 pupils or fewer are markedly higher than in the groups of larger schools.

TABLE 43.—*Distribution of unselected and selected schools according to the size of school grounds in acres*

Number of acres	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	IC	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
2 or less	41	28	30	25	24	148	----	----	----	----
3–5	22	39	37	32	29	159	----	----	----	----
5 or less [1]	63	67	67	57	53	307	15	22	19	56
6–10	7	8	19	27	32	93	1	10	24	35
11–15	----	1	7	6	12	26	1	----	6	7
16 or more	1	2	5	5	8	21	1	1	4	6
Median number of acres	1.7	2.8	3.5	4.1	4.9	3.4	3.0	3.7	6.6	4.6
Percentage 2 acres or less	57.8	35.9	30.6	26.3	22.7	33.2	----	----	----	----
Percentage 3 acres to 5 acres	30.9	50.0	37.8	33.7	27.5	35.6	----	----	----	----
Percentage 5 acres or less	88.7	85.9	68.4	60.0	50.2	68.8	83.3	66.7	35.8	53.8
Percentage more than 5 acres	11.3	14.1	31.6	40.0	49.8	31.2	16.7	33.3	64.2	46.2
Number of schools reporting	71	78	98	95	105	447	18	33	53	104

[1] The data for the selected schools did not show the actual distribution of school grounds containing less than 5 acres, To make direct comparison possible between unselected and selected schools, this category in the case of the unselected schools represents the sum of the 2 preceding categories.

Among the unselected schools, less than a third have grounds containing more than 5 acres, as compared with almost half for the selected schools. The comparison of similar size groups shows that the proportions of selected schools with the larger school grounds are consistently greater than those of the unselected schools. Also, the median number of acres for the selected schools exceeds the median for the unselected schools by more than an acre.

According to the data on both classes of schools, the smaller the school the more serious its limitations are relative to grounds. A large proportion of all schools enrolling 150 pupils or fewer do not possess grounds of sufficient acreage to permit providing for the athletic games and sports ordinarily fostered in the modern secondary school. The selected schools as a class are much more often provided with grounds representing the larger acreages. Also, this superiority of the selected schools over the unselected is consistently true for all size groups.

Common use of grounds with elementary grades.—The evidence shows that the typical smaller high school shares the school grounds with the elementary grades. In approxi-

mately 64 per cent of the unselected and 68 per cent of the selected schools, as shown in Table 44, both high-school pupils and elementary-grade pupils use the grounds in common. This is almost universally the practice in unselected schools enrolling 75 pupils or fewer and in selected schools enrolling fewer than 150 pupils. Of the unselected schools in Group IIIA, a considerably larger proportion share the grounds with the elementary school than of the selected schools in Group III, where a slight majority have entire use of their grounds. The largest proportion of schools in which the high-school pupils have entire use of the grounds occurs in Group IIIB of the unselected schools, a group of schools with a considerably larger median enrollment than any other group included in the study.

TABLE 44.—*Distribution of unselected and selected schools according to percentages reporting school grounds used by high school only or shared with elementary grades*

Nature of use	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Used by high school only	13.2	13.9	25.0	43.9	70.9	36.4	5.6	12.9	51.9	32.0
Shared with elementary grades	86.8	86.1	75.0	56.1	29.1	63.6	94.4	87.1	48.1	68.0
Number of schools reporting	68	79	104	96	109	456	18	31	54	103

The data show clearly that school grounds are used by both elementary-grade and high-school pupils in a large majority of schools enrolling fewer than 150 pupils. As schools increase in size beyond this figure an increasing majority have separate grounds for high-school pupils. The selected schools as a class show a somewhat larger proportion of schools in which high-school pupils share the grounds with the elementary school. The data show that this difference may be partially accounted for by the inclusion of Group IIIB of unselected schools. It is also undoubtedly due in part to the larger proportion of consolidated schools among the selected schools.

School gardens or farms.—Few schools reported a school garden or farm. The data on this point are not presented in tabular form. Of the 27 unselected schools reporting a garden or farm, 22 reported less than 10 acres; 2 reported 11 to 20 acres; 2, 41 to 80 acres; and 1 school reported a farm of 160 acres. Of the 14 selected schools reporting a school garden or farm, 12 schools reported 10 acres or less, 1 school reported 11 to 20 acres, and 1 school reported a farm of more than 40 acres. On the basis of the total number of schools represented in each case, the proportion of selected schools reporting a school garden or farm is almost twice that of the unselected schools.

2. BUILDINGS

Year of construction.—Data on the year of construction of the buildings of the smaller secondary schools indicate that they are, as a whole, comparatively new. A relatively small number, as shown in Table 45, were built entirely or in major part before 1911. Of the buildings housing the unselected schools, less than a fifth, and of those housing selected schools, approximately an eighth, were constructed before that date.

For all groups of schools a larger number of buildings were constructed during the period of 1921–1930 than during any preceding period. Among the unselected schools about one-half of the buildings were constructed entirely or in major part during this period; somewhat more than half of the selected school buildings were built between 1921 and 1930. As a class the buildings of selected schools are of somewhat more recent construction than those of the unselected schools, though the difference is not great. In both selected and unselected classes the buildings housing the larger schools tend to be of more recent construction than those housing the smaller schools.

Cost of buildings.—The median original cost of the buildings for the unselected schools was $63,577 and for the selected schools $78,677. One noticeable characteristic of construction costs of the buildings, as shown by the data in Table 46, is the exceedingly wide variation in all groups of both unselected and selected schools except the groups of smallest schools. In the unselected schools the range in Groups II and IIIA is from $25,000 or less to more than $300,000. In

the selected schools the range in Group II is from $25,000 or less to more than $300,000. Of the buildings housing the unselected schools, slightly more than two-fifths cost $50,000 or less as compared with slightly more than one-fifth of the buildings housing the selected schools. Using the item of cost as the criterion, the data indicate that the selected schools as a class are considerably better housed than the unselected schools, although it should be noted that Group IIIB of the unselected schools is markedly superior to any other group in this respect.

TABLE 45.—*Numerical and percentage distribution of unselected and selected schools according to year in which major part of building was constructed*

Year	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1900 and before	5	10	14	.....	3	32	.....	3	1	4
1901–1910	9	8	7	17	15	56	1	6	2	9
1911–1920	23	31	35	37	38	164	7	8	20	35
1921–1930	26	37	47	46	58	214	8	16	31	55
Number of schools reporting	63	86	103	100	114	466	16	33	54	103
Percentage 1900 or before	7.9	11.6	13.7	.....	2.6	6.8	.....	9.1	1.9	3.9
Percentage 1901–1910	14.3	9.3	6.8	17.0	13.1	12.0	5.3	18.2	3.7	8.7
Percentage 1911–1920	36.5	36.1	33.9	37.0	33.4	35.2	44.7	24.2	37.0	34.0
Percentage 1921–1930	41.3	43.0	45.6	46.0	50.9	46.0	50.0	48.5	57.4	53.4

TABLE 46.—*Distribution of unselected and selected schools according to cost of buildings including additions*

Cost	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
$25,000 or less	38	35	14	2	.....	89	4	5	1	10
$25,001–$50,000	16	30	24	22	2	94	6	6	6	18
$50,001–$75,000	5	5	20	18	10	58	.....	7	11	18
$75,001–$100,000	.....	2	18	17	11	48	3	5	9	17
$100,001–$125,000	.....	3	5	10	7	25	1	.....	8	9
$125,001–$150,000	.....	1	3	8	9	21	.....	2	1	3
$150,001–$200,000	.....	.....	4	9	23	36	.....	4	3	7
$200,001–$250,000	.....	.....	2	10	13	25	.....	3	8	11
$250,001–$300,000	.....	.....	1	2	6	9	.....	.....	.....	.....
More than $300,000	.....	.....	1	1	22	24	.....	.....	4	4
Schools reporting	89	76	92	99	103	429	14	32	51	97
Median cost per building	$19,411	$37,500	$60,000	$76,003	$177,174	$63,587	$37,500	$67,857	$95,827	$78,677
Median cost per high-school teacher	$8,063	$8,152	$10,714	$7,037	$9,374	$9,082	$11,029	$10,945	$9,878	$9,834

Materials used in construction of buildings.—Data were obtained from practically all schools of both the unselected and selected groups on the types of materials used in the construction of the buildings. This information is not presented in tabular form. Brick, or brick with other materials like stucco, tile, stone, or concrete, was the material used in the construction of more than 83 per cent of the buildings of unselected schools and 81 per cent of those of selected schools. Of the buildings of both unselected and selected schools, slightly more than 10 per cent were of frame construction. Frame buildings were most frequent in the groups of smaller schools. They did not occur in either Group IIIB of the unselected or Group III of the selected schools, while in Groups IA and IB of the unselected schools 29 per cent and 21.7 per cent, respectively of the buildings were frame, and in Group I of the selected schools 26.3 per cent were frame. Reinforced concrete and stucco were reported by a small percentage of both classes of schools, and seven of the unselected school buildings were constructed of stone. The evidence on materials of construction shows practically no difference between unselected and selected schools.

Service equipment.—Information on service equipment of buildings was supplied for practically all schools. In the tabulation (Table 47) of data on heating service for the unselected schools, a few cases reporting such combinations as hot air and hot water, and hot water and steam, were not included. Also one instance of both gas and electricity for lighting was omitted.

The data on service equipment in the unselected schools show a distinct line of demarcation between schools enrolling 75 pupils or fewer and the groups of larger schools. This line of difference is also clearly marked in the selected schools, though the difference is not so great. In both unselected and selected schools, those buildings serving more than 75 secondary pupils have modern service equipment in a significantly larger proportion of cases than do those serving 75 pupils or fewer.

TABLE 47.—*Distribution of unselected and selected schools according to types of service equipment*

Type of equipment	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Heating:																				
Hot air	13	18.1	25	28.1	16	16.3	19	19.6	8	7.7	81	17.6	7	36.8	6	17.6	10	17.9	23	21.1
Hot water	5	6.9	.....	.....	9	9.2	3	3.1	7	6.8	24	5.2	1	5.3	2	5.9	3	5.4	6	5.5
Steam	30	41.7	55	61.8	68	69.4	74	76.3	89	85.5	316	68.7	9	47.4	24	70.6	40	71.3	73	67.0
Vapor or vapor vacuum	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	3.4	3	2.7
Stoves	24	33.3	9	10.1	5	5.1	1	1.0	.....	.....	39	8.5	[1] 2	10.5	2	5.9	.....	.....	4	3.7
Schools reporting	72	100.0	89	100.0	98	100.0	97	100.0	104	100.0	460	100.0	19	100.0	34	100.0	65	100.0	109	100.0
Water:																				
Cistern	4	5.7	3	3.3	3	2.8	1	1.0	.....	.....	11	2.2	1	5.6	.....	.....	.....	.....	1	.9
City system	17	24.3	32	35.2	73	68.8	97	91.5	116	96.4	335	68.0	4	22.2	25	73.5	43	78.6	72	66.7
Spring	2	2.9	.....	.....	.....	.....	.....	.....	.....	.....	2	1.4	2	11.1	.....	.....	1	.9	3	2.7
Well, shallow	13	18.6	14	15.4	2	1.9	1	1.0	1	.9	31	6.3	4	22.2	1	2.9	1	.9	6	5.6
Well, deep	34	48.5	42	46.2	28	26.5	7	6.5	3	2.7	116	23.5	7	38.9	8	23.6	11	19.6	26	24.1
Schools reporting	70	100.0	91	100.0	106	100.0	106	100.0	120	100.0	493	100.0	18	100.0	34	100.0	56	100.0	108	100.0
Toilet:																				
Indoor, flush	33	47.2	60	67.4	85	81.2	101	96.2	121	100.0	400	81.6	16	88.9	31	81.2	56	100.0	103	95.3
Indoor, chemical	5	7.1	4	4.5	6	5.6	2	1.9	.....	.....	17	3.5	.....	.....	1	2.9	.....	.....	1	1.0
Outdoor	32	45.7	25	28.1	14	13.2	2	1.9	.....	.....	73	14.9	2	11.1	2	5.9	.....	.....	4	3.7
Schools reporting	70	100.0	89	100.0	105	100.0	105	100.0	121	100.0	490	100.0	18	100.0	34	100.0	56	100.0	108	100.0

[1] One 4-year school reported natural gas.

TABLE 47.—*Distribution of unselected (and selected schools according to types of service equipment*—Continued

Type of equipment	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Lighting:																				
Gas	3	4.3	1	1.2	2	1.9	----	----	----	----	6	1.2	----	----	----	----	----	----	----	----
Electricity	59	84.3	79	92.9	104	98.1	105	100.0	122	100.0	469	96.1	18	100.0	34	100.0	[1] 56	100.0	108	100.0
Kerosene	4	5.7	3	3.5	----	----	----	----	----	----	7	1.5	----	----	----	----	----	----	----	----
None	4	5.7	2	2.4	----	----	----	----	----	----	6	1.2	----	----	----	----	----	----	----	----
Schools reporting	70	100.0	85	100.0	106	100.0	105	100.0	122	100.0	488	100.0	18	100.0	34	100.0	56	100.0	108	100.0

[1] One school reported both gas and electricity.

In types of heating service this difference is to be seen between the smaller and larger schools. In Group IA of the unselected schools a third and in Group IB a tenth of the buildings were heated by stove, as contrasted with 1 per cent of the buildings in Group IIIA and none in Group IIIB. In Group I of the selected schools, slightly more than a tenth were heated by stove, as contrasted with none in Group III. In the unselected schools almost 42 per cent of Group IA and 62 per cent of Group IB were supplied with steam heat, as compared with more than 76 per cent in Group IIIA and more than 85 per cent in Group IIIB. Among the selected schools the situation was similar.

In Groups IA and IB of the unselected schools, approximately a fifth and a sixth, respectively, were supplied with water from shallow wells, as contrasted with a fraction less than 1 per cent for Groups IIIA and IIIB. For the selected schools the range was from approximately 22 per cent in Group I to 1 per cent in Group III. The data indicate but little difference between the unselected and selected schools relative to source of water supply.

The greatest difference between the service equipment of buildings serving 75 pupils or fewer and those serving larger pupil enrollments is found in the type of toilet facilities provided. In Groups IA and IB of the unselected schools, approximately 46 and 28 per cent, respectively, reported outdoor toilets, as contrasted with 13 per cent in Group II, about 2 per cent in Group IIIA, and none in Group IIIB. Among the selected schools, although more than three-fourths of the buildings of all groups were equipped with indoor flush toilets, the difference pointed out above between different-size groups was present in a lesser degree. In Group I of the selected schools, slightly more than 11 per cent reported outdoor toilet facilities, as contrasted with none in Group III.

All the selected schools and practically all the unselected school buildings were lighted by electricity. Six of the latter, all in the three groups of smaller schools, used gas for lighting purposes, seven buildings in Groups IA and IB used kerosene. and in six buildings in the same groups there were no pro-

visions for lighting. As a class the buildings of the selected schools showed a higher percentage with modern service equipment than the buildings of unselected schools, although buildings of Group IIIB of the unselected schools as a group stood highest of all groups.

Number of classrooms.—The median number of regular high-school classrooms in the unselected schools was approximately seven and in the selected schools six. (See Table 48.) In the former the median range was from 2.6 rooms in Group IA to 15.2 rooms in Group IIIB, and in the latter from 3.5 rooms in Group I to 8.6 rooms in Group III.

TABLE 48.—*Distribution of unselected and selected schools according to number of regular high-school classrooms per school*

Number of classrooms	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1–5	68	73	65	10	----	216	19	20	5	44
6–10	2	10	36	61	20	129	----	10	30	40
11–15	----	1	3	28	35	67	----	2	13	15
16–20	----	----	1	2	33	36	----	----	3	3
Over 20	----	----	----	2	23	25	----	----	2	2
Number of schools reporting	70	84	105	103	111	473	19	32	53	104
Median number of rooms	2.6	2.9	4.1	8.4	15.2	6.8	3.5	4.0	8.6	6.0

Total number of rooms used.—The total number of rooms used by high schools computed in medians ranged from 3.3 rooms in Group IA to 25.5 in Group IIIB of the unselected schools and from 6.1 rooms in Group I to 18.6 rooms in Group III of the selected schools. (See Table 49.) Of the unselected schools, more than a third and of the selected schools almost two-fifths shared some rooms with the elementary grades. In both classes of schools the proportions sharing rooms with the elementary grades were much smaller in the groups of larger schools. With the exception of Group IIIB of the unselected schools, the corresponding groups of unselected and selected schools show no great differences in respect to number of rooms available for high-school use.

TABLE 49.—*Distribution of unselected and selected schools according to total number of different rooms [1] used by the high school and number and percentage of schools sharing rooms with the elementary grades*

Number of rooms and number and percentage of schools sharing rooms	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
1-5	55	34	12	1	.....	102	7	2	1	10
6-10	14	45	51	17	1	128	9	19	3	31
11-15	1	9	32	32	7	81	2	9	15	26
16-20	....	1	6	26	18	51	....	3	9	12
21-25	....	.....	1	16	22	39	....	2	12	13
More than 25	....	.....	1	12	60	73	.....	.....	11	11
Number of schools reporting	70	89	103	104	108	474	18	34	51	103
Median number of rooms	3.3	6.1	9.5	15.4	25.5	14.3	6.1	8.9	18.6	12.0
Number of schools sharing rooms with elementary grades	24	42	38	36	23	163	9	19	13	41
Percentage of schools sharing rooms with elementary grades	34.3	47.2	36.9	34.6	21.3	34.4	50.0	55.9	25.5	39.8

[1] Classrooms and other rooms used by the high school.

Special rooms used for instruction.—Taking them as a class, more than half of the unselected schools were provided with five types of special rooms for instructional purposes and more than half of the selected schools, as a whole, were provided with six types. In both classes of schools, as shown in Table 50, schools enrolling 75 pupils or fewer are significantly less well provided with special rooms than are the larger schools. The only exception is in the case of the science laboratories; practically all schools are provided with at least one science laboratory.

Special rooms in music, shopwork, commercial work, and home economics were provided by from approximately 56 to 70 per cent of the unselected schools as a class. In each of these four types of special rooms there was a marked increase in percentages for the groups of larger schools. Only about a fifth of the schools in Group IA had special rooms for shopwork, as contrasted with three-fifths in Group IIIA and more than three-fourths of the schools in Group IIIB. Similar differences were found between the smaller schools and the larger schools with respect to home economics and commercial work. Special rooms for agriculture and art were relatively seldom provided, the range in the percentage

equipped for agriculture being from 6.2 in Group IA to more than 34 in Group IIIB and 49 in Group IIIA. For the teaching of art, approximately 3 per cent of the schools in Group IA were provided with special rooms, as contrasted with almost 46 per cent in Group IIIB.

TABLE 50.—*Percentages of unselected and selected schools providing various kinds of special rooms for instructional purposes*

Types of rooms	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Science laboratories	89.1	96.2	94.8	96.1	100.0	95.8	94.1	91.2	96.1	95.2
Shopwork	21.9	46.2	51.9	69.3	76.2	56.9	41.2	76.5	81.5	73.3
Agriculture	6.2	21.2	32.0	49.1	34.4	31.0	29.4	47.1	66.7	54.3
Home economics	34.4	48.7	65.9	89.4	88.5	69.6	58.8	88.2	98.1	88.6
Commercial work	20.3	31.2	51.9	82.7	94.3	61.8	17.6	44.1	81.5	59.1
Music	23.4	33.7	53.9	68.3	79.5	56.1	41.2	52.9	62.9	56.2
Art	3.1	3.7	10.0	19.2	45.9	19.1	5.9	14.7	42.6	27.6
Miscellaneous	1.6	13.7	35.0	35.5	22.1	23.5	.....	11.8	24.1	16.2
Schools reporting	64	80	101	104	122	471	17	34	54	105

The data of Table 51 indicate that only slightly more than half of the unselected schools in Group IA and approximately three-fifths of those in Group IB are provided with offices. Rest rooms were reported by a large proportion of all groups of selected schools and Groups IIIA and IIIB of the unselected schools. Only slightly more than half of the unselected schools in Group II reported rest rooms, as compared with more than two-thirds of the corresponding group of selected schools. Unselected schools in Groups IA and IB were of all groups least well equipped with rest rooms. Such special rooms as publications, cafeteria, health, medical, and nurses' rooms were reported by relatively small numbers of both classes of schools, the proportion being somewhat higher in the selected schools with the exception of the publications room, where the proportion was slightly in favor of the unselected schools. In general, the selected schools are better equipped with special rooms for purposes other than instruction than are the unselected schools.

Gymnasium and auditorium.—All unselected and practically all selected schools reported on gymnasium and auditorium facilities. The data show, as presented in Table 52, that only in Group IIIB of the unselected and Group III of the selected schools do a majority of the schools have separate gymnasiums. The range in the former schools is from somewhat more than a fifth in Group IA to slightly more than three-fifths in Group IIIB, and in the latter schools from somewhat more than a third in Group I to considerably more than half in Group III.

TABLE 51.—*Numbers of unselected and selected schools provided with special rooms for other than instructional purposes*

Types of rooms	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Office	38	65	98	100	118	419	14	30	53	97
Rest room	15	28	54	81	99	277	12	22	47	81
Clubroom	2	7	7	12	27	53	1	6	7	14
Publications room	----	7	11	16	43	77	1	6	8	15
Cafeteria and lunch	----	----	3	----	10	13	2	2	4	8
Health, medical, and nurses' room	----	1	2	----	12	15	1	----	4	5
Store, book, or supply room	----	----	2	----	8	10	1	3	6	10
Number of schools reporting some special rooms	44	68	100	102	119	433	17	32	55	104
Percentage of schools reporting some special rooms	61.1	73.9	91.7	95.3	96.0	85.7	89.4	94.1	98.2	95.4

TABLE 52.—*Distribution of unselected and selected schools according to numbers and percentages with gymnasiums and auditoriums*

Types of room	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Gymnasium	16	22.2	32	34.8	36	32.7	44	41.5	76	61.3	204	40.4	6	35.3	14	42.4	31	55.4	51	48.1
Auditorium	28	38.9	28	30.4	49	44.5	49	46.2	71	57.3	225	44.5	7	41.2	20	60.6	38	67.6	65	61.3
Gymnasium-auditorium	6	8.3	23	25.0	39	35.5	41	38.7	30	24.2	139	27.1	8	47.0	12	39.4	15	26.6	35	33.0
Community or town hall	2	2.8	4	4.3	5	4.5	1	.9	.....	.....	12	2.4	1	5.9	3	9.1	.....	.....	4	3.8
Number of schools reporting	72	.....	92	.....	110	.....	107	.....	124	.....	505	.....	17	.....	33	.....	56	.....	106	.....

The proportion of schools provided with separate auditoriums is somewhat larger in both classes of schools than it is for gymnasiums. Group IIIB is the only group of unselected schools in which more than half are provided with separate auditoriums. Of the selected schools, however, a majority of both Groups II and III reported separate auditoriums. In both classes of schools those enrolling 75 pupils or fewer are less often provided with these two types of special rooms than the larger schools. Among the unselected schools the groups of smaller schools are less often provided with the combination gymnasium-auditorium than are the groups of larger schools, with the exception of Group IIIB. Among the selected schools the reverse is true. The evidence shows that the selected schools as a class are considerably better provided with gymnasium and auditorium facilities than the selected schools. This superiority of the selected schools is especially marked in the case of the auditorium.

3. THE LIBRARY

Special library space.—Certain evidence concerning the library was presented in Chapter II. The concern here is with the material facilities, such as rooms, books, and periodicals. The majority of all the schools represented in the study reported a special room for library purposes. Approximately 1 in 12 of the unselected schools and 1 in 10 of the selected schools reported no special library space. In both classes of schools the largest proportions without special space for library were in the groups enrolling fewer than 150 pupils. (See Table 53.) The size of the library as measured in square feet of floor space ranged closely around 200 square feet for the groups of unselected schools enrolling 150 pupils or fewer and for the group of selected schools enrolling 75 or fewer. The libraries of selected schools in Group II were markedly larger than those in the corresponding groups of unselected schools and afforded a greater amount of floor space per pupil accommodated. The smallest amount of floor space per pupil accommodated occurred in Group II of the unselected schools and the largest amount in Group I of the selected schools. As a class the selected schools are more amply provided with library space than the unselected schools.

TABLE 53.—*Distribution of unselected and selected schools according to numbers provided with special library room, and size of library in square feet of floor space*

Floor space by square feet	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
50 or less	----	4	4	3	----	11	----	----	----	----
51-100	9	6	4	5	5	29	----	----	----	----
101-250	18	21	35	9	4	87	10	5	9	24
251-500	10	20	21	25	14	90	3	5	6	14
501-750	4	5	7	18	13	47	1	5	12	18
751-1,000	----	----	4	10	14	28	1	3	5	9
1,001-1,250	1	1	2	3	7	14	----	----	3	3
1,251-1,500	----	----	2	1	12	15	----	1	4	5
More than 1,500	----	----	1	2	19	22	----	1	6	7
Number of schools reporting	56	66	86	78	88	374	17	24	48	89
Median size of library in square feet[1]	200	231	237	460	893	375	213	500	656	528
Average number square feet per pupil accommodated at one time	23.8	20.8	16.2	23.0	21.1	19.1	29.6	26.2	22.3	24.1
Number of schools reporting no library space	14	9	6	2	----	31	2	4	3	9
Percentage of schools reporting no library space	25.0	12.1	7.0	2.6	0.0	8.3	11.8	16.6	6.3	10.1

[1] The medians are computed on the basis of the number of schools reporting special library space and not on the total number of schools reporting.

Number of volumes in the library.—The data on number of volumes in the library, excluding supplementary texts and Government bulletins, show a surprisingly wide range for each size group. (See Table 54.) In every group of schools of both classes, except Group IIIA of the unselected schools, the range in number of volumes is from less than 250 to more than 1,500. As a class the unselected schools have a considerably smaller number of volumes per school than the selected schools. The total number of volumes available to pupils in both classes of schools increases markedly and steadily with each group of larger schools. About a third of the unselected schools, as shown in Table 55, share their libraries with the elementary grades, and the proportion is but slightly smaller in the selected schools. In both classes of schools a much larger proportion of the schools enrolling 150 pupils or fewer share their libraries with the elementary grades than of the groups of larger schools.

TABLE 54.—*Distribution of unselected and selected schools according to number of volumes in high-school library, excluding supplementary texts and Government bulletins*

Number of volumes	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
250 or less	6	9	3	.....	2	20	3	2	1	6
251-500	25	22	15	5	3	70	5	5	1	11
501-750	12	19	13	9	4	57	3	2	4	9
751-1,000	8	10	19	15	4	56	2	4	8	14
1,001-1,250	1	8	7	13	6	35	.....	.....	6	6
1,251-1,500	1	3	14	7	4	29	2	.....	7	9
More than 1,500	2	3	13	39	71	128	1	12	20	33
Total number of schools reporting	55	74	84	88	94	395	16	25	47	88
Median number of volumes	381	571	896	1,321	2,500	976	500	972	1,375	1,166
Percentage of schools with 500 volumes or less	56.4	41.9	21.4	5.7	5.3	22.7	50.0	28.0	4.3	19.3
Median number of volumes per high-school pupil enrolled	14.6	11.1	8.4	6.0	5.3	.....	10.2	9.0	4.7	.....

TABLE 55.—*Distribution of unselected and selected schools according to numbers and percentages of libraries shared with elementary grades*

Practice	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Shared with elementary grades	31	35	36	29	24	155	6	14	13	33
Not shared with elementary grades	33	50	66	73	85	307	11	20	37	68
Schools reporting	64	85	102	102	109	462	17	34	50	101
Percentage sharing with grades	48.4	41.2	35.8	28.9	21.8	33.5	35.3	41.2	26.0	32.7
Percentage not sharing with grades	51.6	58.8	64.2	71.1	78.2	66.5	64.7	58.8	74.0	67.3

TABLE 56.—*Distribution of unselected and selected schools according to number of magazines received by the high-school library*

Number of magazines	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
None	8	2	3	3	2	18	.....	1	.....	1
3 or less	16	16	11	9	1	53	3	4	1	8
4-6	20	26	25	11	6	88	4	3	5	12
7-10	8	17	20	24	6	75	4	6	10	20
11-15	5	12	19	19	20	75	3	4	7	14
More than 15	1	5	13	23	61	103	1	7	25	33
Number of schools reporting	58	78	91	89	96	412	15	25	48	88
Median number per school	4.5	6.4	8.3	9.6	16.1	9.5	6.6	10.0	15.2	12.1
Percentage receiving no magazines	13.8	2.6	3.3	3.4	3.1	4.4	0.	4.0	0.	1.1

Current periodicals and newspapers.—An important feature of the high-school library of to-day, with the increasing emphasis on contemporary life and the newer methods of instruction, is the facilities available to pupils in the form of current periodicals and newspapers. While there were a few schools in each size group of the unselected schools that reported no periodicals, as shown in Table 56, the percentage was very small in all except Group IA, where it rose to approximately 14 per cent. Since a considerable proportion of the unselected schools did not report on the item, it is probable that the actual proportion receiving no periodicals is considerably greater than the data indicate. It is also probable that the almost negligible number of selected schools reporting no periodicals would be somewhat larger if data were available for all schools. The median number of periodicals per school for the unselected schools ranged from 4.5 in Group IA to slightly more than 16 in Group IIIB and from 6.6 in Group I to more than 15 in Group III for the selected schools. The selected schools as a class show considerable superiority over the unselected schools both in the smaller proportion of schools receiving no periodicals and in the larger number of periodicals received per school.

Newspapers were reported in a much smaller percentage of both classes of schools than were periodicals. On the basis of schools reporting, as shown in Table 57, the number of libraries not receiving newspapers ranged for the unselected schools from more than a third in Group IA to an eighth in Group IIIB and for the selected schools from somewhat more than a fourth in Group I to slightly more than a tenth in Group III. The average number of newspapers for both classes of schools ranged from slightly more than one in the smaller schools to approximately two in the larger schools. As a class the selected schools are considerably superior to the unselected schools in the larger proportion taking current newspapers. In the number of newspapers received per school they are slightly below the unselected schools.

TABLE 57.—*Distribution of unselected and selected schools according to number of newspapers received by the library*

Number of newspapers	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
None	18	21	18	17	11	85	4	4	5	13
1	11	23	26	25	28	113	4	9	9	22
2	12	17	21	21	25	96	4	7	18	29
3	3	9	10	16	9	47	2	3	9	14
4	3		1	2	4	10		1	4	5
5	1	3	1	1	7	13	1	1	1	3
More than 5		2	2	2	5	11		2	3	5
Number of schools reporting	48	75	79	84	89	375	15	27	49	91
Average per school	1.3	1.5	1.6	1.7	2.1	1.6	1.1	1.7	1.6	1.4
Percentage receiving none	37.5	28.0	22.8	20.2	12.4	22.5	26.7	14.8	10.2	14.3

Amount expended for books.—Information on the amount expended for books for the high-school library during 1929–30 was furnished by approximately 80 per cent of the unselected and 90 per cent of the selected schools. The two most significant facts shown by these data (Table 58) are the wide variation in amount spent by schools within each size group and the relatively small amount spent by the larger proportion of the schools. The median number of dollars expended in 1929–30 for library books ranged from $54 in Group IA to $298 in Group IIIB of the unselected schools and from $47 in Group I to $246 in Group III of the selected schools. The median amount for all schools of the former class was almost $40 less than for the latter class of schools. In general, the groups of smaller unselected schools spent a greater amount per high-school pupil than did the groups of larger schools. Among the selected schools, those in Group II spent the largest amount per high-school pupil. According to the evidence a considerable number of schools of both classes are expending encouragingly large sums for library books. For both classes of schools, however, the total amounts spent for books and the median amounts per high-school pupil are surprisingly small, too small, it would appear, to provide adequately the library materials needed by pupils and teachers. As a class the selected schools expended a larger

total amount for library books than the unselected schools. They also spent approximately a fourth more per high-school pupil enrolled than did the unselected schools.

TABLE 58.—*Distribution of unselected and selected schools according to amount spent for books added to school library, 1929–30*

Amounts spent	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
$25 or less	12	6	6	2		26		1		1
$26–$50	14	15	12	5	1	47	8	8	4	20
51–100	19	28	21	14	5	87	4	4	6	14
101–150	3	14	14	18	7	56	2	5	3	10
151–200	6	5	13	13	10	47	1	1	5	7
201–250		2	7	12	8	29	1	4	7	12
251–300	1	1	6	8	17	33		2	9	11
301–350		1	3	4	6	14		1	2	3
351–400			2	2	8	12		1	2	3
401–450			1	4	1	6			1	1
451–500			1	2	9	11		1	5	6
More than $500		1		4	23	28		2	6	8
Number of schools reporting	55	73	86	88	95	397	16	31	49	96
Median number of dollars	$54	$78	$114	$169	$298	$133	$47	$125	$246	$171
Median amount per high-school pupil	$2.09	$1.52	$1.06	$0.73	$0.61	$0.69	$0.96	$1.14	$0.84	$0.89

4. OTHER EQUIPMENT

Equipment for visual education.—A large proportion of both classes of schools provided information on equipment for visual education. Of the unselected schools, approximately 28 per cent reported motion-picture machines as compared with almost 39 per cent of the selected schools. (See Table 59.) Among the former class of schools there was a great difference between the smaller and larger schools in the proportion possessing motion-picture machines. Of the schools in Groups IA and IB, relatively few had such equipment, as contrasted with almost two-fifths of the schools in Group IIIA and considerably more than two-fifths of those in Group IIIB. Among the selected schools the proportion possessing motion-picture machines was practically the same for all size groups. As a class the selected schools are much more often supplied with this type of equipment for visual education.

Approximately 47 per cent of the unselected and 63 per cent of the selected schools reported still-picture machines. As in the case of the motion-picture machine, the smaller unselected schools were seldom equipped with still-picture machines, while a considerable majority of the schools enrolling more than 150 pupils were so equipped. There were also marked differences between the different groups of selected schools, but they were not so great as in the case of the unselected schools. The evidence shows that both classes of schools enrolling 75 pupils or fewer, and especially the unselected schools, are very poorly provided with still-picture machines. The selected schools as a class are markedly better provided with the still-picture type of equipment for visual education than are the unselected schools. The data also indicate that of the schools not possessing picture machines the selected schools are much more often able to obtain the use of such aids than the unselected schools.

TABLE 59.—*Numerical and percentage distribution of unselected and selected schools according to equipment for visual education*

Equipment	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Motion-picture machines:	(70)	.....	(83)	.....	(98)	.....	(102)	.....	(118)	.....	(471)	.....	(18)	.....	(34)	.....	(55)	.....	(107)	.....
Number and percentage of schools having	6	8.6	13	15.6	24	24.5	35	39.3	53	44.9	131	27.8	7	38.9	13	38.2	22	40.0	42	38.6
Number and percentage of schools not having	64	91.4	70	84.4	74	75.5	67	60.7	65	55.1	340	72.2	11	61.1	21	61.8	33	60.0	65	61.4
Still-picture machines:	(69)	.....	(83)	.....	(98)	.....	(97)	.....	(118)	.....	(465)	.....	(16)	.....	(34)	.....	(53)	.....	(103)	.....
Number and percentage of schools having	6	8.7	12	14.4	45	45.9	60	61.9	94	79.7	217	46.7	4	25.0	22	64.7	39	73.6	65	63.1
Number and percentage of schools not having	63	91.3	71	85.6	53	54.1	37	38.1	24	20.3	248	53.3	12	75.0	12	35.3	14	26.4	38	36.9
Provisions in schools not possessing picture machines:	(64)	.....	(67)	.....	(70)	.....	(62)	.....	(49)	.....	(312)	.....	(14)	.....	(21)	.....	(29)	.....	(64)	.....
Able to obtain use readily	6	9.4	21	31.3	30	42.9	37	59.7	37	75.5	131	42.0	7	50.0	17	80.9	16	55.2	40	62.5
Not able to obtain use readily	58	90.6	46	68.7	40	57.1	25	40.3	12	24.5	181	58.0	7	50.0	4	19.1	13	44.8	24	37.5

NOTE.—The numbers in parentheses show the number of schools reporting.

TABLE 60.—*Numbers and percentages of unselected and selected schools furnishing free textbooks*

Practice	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Textbooks furnished free	26	28	36	35	[1] 49	174	10	16	31	57
Textbooks not furnished free	44	51	69	69	69	302	9	18	24	51
Number of schools reporting	70	79	105	104	118	476	19	34	55	108
Percentage of schools furnishing free textbooks	37.1	35.4	34.6	33.3	41.5	39.1	52.6	47.1	56.4	52.8

[1] 2 of these reported that they furnish a part of the textbooks free; 1 school reported that free textbooks were furnished to children of indigent parents.

Free textbooks.—Slightly more than a third of the unselected and considerably more than half of the selected schools reported furnishing free textbooks to pupils. (See Table 60.) According to the evidence, a significantly larger proportion of the selected schools have adopted the plan of free textbooks than of the unselected schools. In both classes of schools there were only small differences between different size groups in the proportions of schools providing free textbooks.

5. CONCLUSIONS

The evidence on school grounds, buildings, and equipment points clearly to two major conclusions. The first of these is that the size of the school is an important factor in determining what the school has in the way of grounds, buildings, and general equipment. Limitations are especially marked in schools enrolling 75 pupils or fewer. The second is that in respect to practically all items the selected schools as a class are superior to the unselected schools.

The smaller the schools the more often do they have grounds of inadequate acreage and the less frequently do they have grounds of the larger acreages. The smaller schools are much more likely to have buildings of frame construction and buildings lacking one or more features of modern service equipment than are the larger schools. The number and variety of special rooms, both for instruction and for purposes other than instruction, increase steadily

as the size of the schools increases. Finally, in respect to practically every item, the smaller the schools the greater the limitations in physical equipment. This is true of both unselected and selected schools; but in most instances the differences between schools of different sizes are less marked in the selected schools than in the unselected schools. This fact indicates that the selected schools have been able to overcome to a greater degree than the unselected schools whatever limitations may be due to smallness.

The most marked superiority of the selected schools is shown in size of school grounds, cost of buildings, gymnasium and auditorium facilities, special library space, amount expended for library books, provision of equipment for visual education, and provision of free textbooks. The selected schools are somewhat superior to the unselected schools in the proportion of buildings of recent construction, service equipment in buildings, special rooms, number of books in the library, and the proportion of schools provided with current periodicals and newspapers. On the whole the two classes of schools differ but little in respect to number of classrooms available for high-school pupils. Finally, in respect to no item are the selected schools as a class significantly inferior to the unselected schools, although they are markedly superior in several items.

CHAPTER V : THE CURRICULUM

1. FINDINGS OF EARLIER STUDIES AND POINT OF ATTACK IN PRESENT INVESTIGATION

Earlier findings.—Several studies, including a total of several hundred small high schools and reported in the *Sixth Yearbook* of the Department of Superintendence and Part I of the *Thirtieth Yearbook* of the National Society for the Study of Education, give data on the subjects contained in the programs of studies of small high schools. The conclusions of those studies offer a point of departure from which to check on the data of this report. One study of 196 small high schools representing 44 States and made in 1927 [1] concludes that "English, algebra, geometry, history, general science, and Latin are the subjects most frequently offered." Comparison in the same study of the data of schools just mentioned with data from three groups of small high schools totaling 1,351 schools, and collected between 1920 and 1923, led to the following conclusion:

> While the subjects offered in the small high schools in 1927 show no significant difference from the subject offerings in previous studies of small high schools, nevertheless there seems to be an indication of (1) fewer traditional requirements in English and algebra, (2) a rather marked decrease in the study of Latin, (3) a slight decrease in French, (4) the reappearance of German, (5) an increase in typewriting, (6) a decrease in drawing, and (7) the introduction of physical education as a regular subject in the curriculum.

A more recent study comes to the following conclusion: [2]

> Comparison of recent statistics with those of approximately a decade ago indicate little change in the general features of the rural high-school curriculum. In a minor way, however, encouraging changes seem to be taking place. Latin and other foreign languages have apparently decreased in importance as required subjects; mathematics has lost some ground as a common requirement for all pupils; ancient history and certain special courses in history, such as English history, have somewhat declined in importance. Such social studies as community

[1] The Development of the High-School Curriculum, Sixth Yearbook, Department of Superintendence, 1928, pp. 97–98.

[2] The Status of Rural Education, Thirtieth Yearbook, Part I. National Society for the Study of Education, 1931, p. 141.

civics and courses dealing with social and economic problems and general science as an introductory course in science have gained in frequency in the rural high-school curriculum. Practical arts, other than manual training, and agriculture and homemaking have become more common in programs of studies. Commercial subjects are receiving much emphasis.

Point of attack in the present investigation.—In the present study of the smaller secondary schools no attempt was made to gather data on the total number and the nature of the subjects contained in the curriculum offerings of these schools. A check is made on the conclusions quoted by approaching the curriculum problem in the smaller secondary schools from three angles: (1) The amount and nature of *changes* that have been taking place within a period of five years as indicated by the subjects added to or dropped from the curriculum offerings within that period, (2) the nature of the requirements for graduation as indicated by the subjects specifically required of all pupils for graduation, and (3) the practices followed for increasing the curriculum opportunities of pupils.

Curriculums or sequences of courses offered.—Information was secured from the selected schools only showing the different curriculums or sequences of courses offered in schools of different sizes. The data show (Table 61) that these schools most frequently offer the academic and general curriculums. Curriculums or sequences in agriculture, home economics, and commercial subjects are offered by approximately half the schools. Other curriculums offered by relatively few of the schools enrolling more than 75 pupils are manual or technical (nontrade), industrial or technical (trade), and teacher training. A general vocational curriculum was reported by one school of Group III. The average number of curriculums or sequences offered by schools of Group I was 2; by schools of Group II, 2.7; and by schools of Group III, 3.9. Judging from the schools reporting, an additional curriculum or sequence appears in the offerings of the smaller secondary schools for each increment in enrollment of approximately 75 pupils.

TABLE 61.—*Curriculums or sequences of courses offered by the selected schools*

Curriculums or sequences	Selected schools by size groups							
	I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9
Academic	10	55.5	17	50.0	36	76.6	63	63.6
General	9	50.0	27	76.5	37	78.7	73	73.7
Scientific	.....	.....	.....	.....	1	2.1	1	1.1
Agriculture	7	38.8	14	41.2	28	59.7	49	49.4
Home economics	7	38.8	17	50.0	31	65.9	55	55.5
Manual or technical (nontrade)	.....	.....	2	5.9	9	19.1	11	11.1
Industrial or technical (trade)	.....	.....	1	2.9	1	2.1	2	2.1
General vocational	.....	.....	.....	.....	1	2.1	1	1.1
Teacher training	.....	.....	3	8.8	2	4.2	5	5.5
Commercial	2	11.1	10	29.4	36	76.6	48	48.6
Schools reporting	18	.....	34	.....	47	.....	99	.....
Average number of curriculums per school	2.0	.....	2.7	.....	3.9	.....	3.1	.....

2. CHANGES IN CURRICULUM OFFERINGS

Subjects introduced.—The extent to which new subjects are added to the offering, or subjects already in the offering dropped, gives some indication of the degree of change that is taking place. The nature of the subjects added and dropped throws some light on curriculum trends or tendencies. Information was furnished by 397 unselected and 86 selected schools relative to the subjects added to their offerings within a period of five years. These data show some interesting facts both as to the number of subjects added and the subject-matter fields in which the greatest amount of change had taken place within the 5-year period of 1926 to 1931. Table 62 gives the percentages of schools of different sizes that added the different subjects to their offerings. Subjects reported by less than 3 per cent of the schools are not included.

In the field of English, relatively few schools reported any significant changes, and the majority of those reporting changes were the larger schools. Two additions to the offerings in English were public speaking and news writing or journalism. The former was reported by somewhat less

than 1 school in 10 of both unselected and selected schools and the latter by approximately half as many schools. The introduction of these subjects indicates a slight tendency away from the formal types of secondary-school English. Mathematics showed but little change, although a relatively small number of the unselected schools reported the addition of solid geometry and trigonometry.

TABLE 62.—*Subjects introduced into the curriculum within the last five years and percentages of schools introducing them*

Subject	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Public speaking	....	9.7	3.4	11.6	14.1	8.8	7.7	7.1	11.1	8.1
News writing, journalism	....	....	....	6.3	8.1	3.5	....	3.6	4.4	3.5
French	....	4.7	2.2	6.3	6.1	4.3	....	....	2.2	1.2
Spanish	4.5	1.4	2.2	5.3	4.0	3.5	....	3.6	....	1.2
Solid geometry	....	4.7	6.7	4.2	1.0	3.5	....	....	....	....
Trigonometry	2.3	....	5.6	4.2	5.0	3.8	....	....	2.2	1.2
General science	4.5	8.3	7.9	9.5	6.1	7.5	7.7	3.6	6.7	5.8
Chemistry	6.8	4.7	4.5	7.3	6.1	5.8	7.7	3.6	4.4	4.7
Biology	11.4	12.5	8.9	9.5	9.1	9.8	7.7	14.7	6.7	8.1
Home economics	18.2	26.4	25.8	28.4	35.3	28.1	7.7	53.6	35.6	37.2
Agriculture	15.9	16.7	21.3	23.2	19.2	19.8	7.7	39.3	26.7	27.9
World history	2.3	4.7	3.4	4.2	4.0	3.8	....	....	2.2	1.2
Civics	15.9	13.9	3.4	7.3	12.1	9.8	....	....	4.4	2.3
Problems of democracy	2.3	8.3	9.0	11.6	7.1	8.3	....	7.1	2.2	3.5
Economics	6.8	12.5	10.1	7.3	12.1	10.3	7.7	10.7	6.7	8.1
Sociology	4.5	9.7	6.7	1.0	6.1	5.5	7.7	14.3	....	5.8
Vocational civics (occupations)	13.6	11.1	10.1	8.4	5.0	9.0	7.7	14.3	....	8.1
Geography	....	13.9	13.5	7.3	6.1	8.8	7.7	....	....	1.2
Guidance	....	6.9	7.9	4.2	5.0	5.3	7.7	3.6	15.6	10.5
General social science	....	....	....	1.0	2.0	.8	....	10.7	4.4	5.8
Drawing and art	4.5	4.7	3.4	12.6	16.2	9.0	15.4	3.6	6.7	7.0
Music	13.6	12.5	11.2	24.2	29.3	19.3	23.1	28.6	20.0	23.3
Manual training	4.5	12.5	14.6	17.9	27.3	17.0	7.7	7.1	6.7	7.0
Practical arts and shop	....	5.6	12.4	2.1	2.0	4.8	....	14.3	6.7	5.8
Mechanical drawing	....	2.8	2.2	7.3	7.1	4.5	7.7	3.6	2.2	3.5
Commercial	....	6.9	....	21.0	4.0	7.3	7.7	....	2.2	2.3
Typewriting	36.4	19.4	20.2	9.5	9.1	16.5	15.4	3.6	8.9	8.1
Stenography	22.7	12.5	21.3	9.5	9.1	14.0	7.7	3.6	....	2.3
Bookkeeping	25.0	20.1	23.6	9.5	11.1	16.8	15.4	....	2.2	3.5
Commercial law	31.8	4.2	14.6	7.4	12.1	12.0	7.7	7.1	4.4	5.8
Business administration and organization	4.5	....	8.9	6.3	3.0	4.5	....	....	....	....
Commercial arithmetic	....	11.1	12.4	3.2	5.0	6.8	....	3.6	2.2	2.8
Junior business training	....	18.1	7.9	10.5	23.2	13.3	15.4	25.0	35.6	29.1
Physical education	11.4	4.7	5.6	10.5	10.1	8.3	7.7	3.6	8.9	7.0
Health and physiology	4.5	1.4	7.9	3.2	11.1	6.0	7.7	....	8.9	5.8
Number of schools reporting	44	72	89	95	99	399	13	28	45	86
Average number introduced per school	2.3	3.5	3.7	3.5	4.1	3.6	2.6	3.3	3.2	3.1

In the field of science the only changes made by any appreciable number of schools were in the addition of chemistry, biology, and general science. Approximately a tenth of the

unselected and somewhat fewer of the selected schools had added biology. Of the former, approximately 8 per cent and of the latter almost 6 per cent had added general science to their curriculum offerings; chemistry had been added by slightly smaller numbers of each class of schools.

The fields of home economics and agriculture showed the most significant growth of all in the numbers of both classes of schools that had added these subjects to their curriculum offerings. This growth has undoubtedly been due in large part to the stimulation of Federal and State aid for the teaching in these fields. Home economics had gained a place within the 5-year period in more than a fourth of the unselected and more than a third of the selected schools. No other subjects had been introduced by such a large percentage of schools. Agriculture held second place, having been introduced by slightly less than a fifth of the unselected and considerably more than a fourth of the selected schools.

In the fields of social science and history, economics showed the largest gain with its introduction by slightly more than 1 in 10 of the unselected and 1 in 12 of the selected schools. Vocational civics and occupations had been added by a slightly smaller proportion of the former schools and by the same proportion of the latter. Guidance had been placed in the curriculum by approximately 5 per cent of the unselected and somewhat more than twice as large a proportion of the selected schools. Other social science subjects that had been added by a considerable number of schools were civics, problems of democracy, and sociology. General social science had been introduced by a small number of schools.

In the field of fine arts, music showed significant gain, having been added to the curriculum offerings of almost a fifth of the unselected and slightly less than a fourth of the selected schools. Drawing and art had been added by 1 in 11 of the former schools and 1 in 14 of the latter. The addition of these subjects is significant as indicating some tendency on the part of the smaller schools to recognize the fine arts, important fields in the secondary-school curriculum that in the past have had but little place in the work of the small high schools.

In fact, the data of the present study indicate that Miss Heffernan's conclusion on the status of music in the small high schools of California is equally applicable to small high schools in general:[3] "Music is just emerging from the extra-curricular status in our smaller secondary schools."

In the constructive arts, manual training showed a gain of a place in 17 per cent of the unselected and in less than half that percentage of the selected schools. Practical arts and shop had been introduced by approximately 5 per cent of the former and 6 per cent of the latter schools. Mechanical drawing had been introduced by a slightly lower percentage of each class of schools.

Among the commercial subjects a number had been introduced by a significant percentage of the unselected schools, especially the smaller schools. Subjects introduced by the smaller schools in largest relative numbers were typewriting, stenography, bookkeeping, and commercial law. Junior business training had been introduced by more than 13 per cent of the unselected and 29 per cent of the selected schools. In each instance the largest percentage of introductions was in the larger schools.

Physical education showed encouraging gains with an introduction into the curriculum offerings of about 1 in 12 of the unselected and 1 in 14 of the selected schools. Together with health work introduced in a slightly smaller number of schools, this evidence indicates some increasing attention to this phase of education in the smaller secondary schools.

The analysis of the data on subjects added to the curriculum offerings within the 5-year period indicates that some changes are taking place in the offerings of the smaller secondary schools. It also shows that there has been a considerable tendency to introduce the newer and more practical subjects, and that the introductions made have included a relatively wide variety of subjects and subject-matter fields. The rate of change is indicated by the average number of changes per school. In the unselected schools the range was from 2.8 subjects in Group IA to more than 4 in

[3] The Status of Rural Education, Thirtieth Yearbook, Pt. I, National Society for the Study of Education, 1931. p.140.

Group IIIB, and in the selected schools from 2.6 subjects in Group I to 3.3 subjects in Group II.

As a class the unselected schools had introduced an average number of subjects per school slightly higher than that of the selected schools. The data indicate some rather significant differences between the two classes of schools. In all commercial subjects except junior business training, where the reverse was true, a much larger proportion of unselected than of selected schools had made introductions. This significant difference is probably to be explained by the introduction of these subjects in the selected schools prior to the period covered by the data.

In the fields of agriculture, home economics, and music, on the other hand, introductions had been made by a significantly larger proportion of the selected schools than of the unselected schools. This indicates in the former schools a greater trend toward both the newer practical subjects and the newer subjects of the appreciational types. Both classes of schools give evidence of an encouraging tendency toward physical and health education.

Subjects dropped.—Data on the subjects dropped within the last 5 years were supplied by 311 unselected and 68 selected schools. Comparison of the average number dropped per school with the average number added shows that approximately 2 subjects were added to the curriculum for each subject dropped during the period under consideration.

Although the total number of subjects dropped by both classes of schools was large, as shown in Table 63, most of them were dropped by a relatively small number of schools. In but few instances was the percentage of schools dropping a subject sufficiently large to indicate clearly a definite trend. In the field of languages, however, the percentages were large enough to indicate at least a tendency. Of the unselected schools more than a tenth reported the dropping of Latin, as did almost a fifth of the selected schools. In addition, small numbers of both classes of schools reported specifically the dropping of Latin 3 and Latin 4. In both classes of schools the largest proportions dropping Latin were in the group of smallest schools. The dropping of French was reported by about a twelfth of the unselected and an

eighth of the selected schools. The dropping of Spanish and of German was reported by a smaller number of each class of schools. Altogether the data indicate a tendency toward less emphasis on language in the smaller secondary schools. This conclusion is supported by the fact that but a very small percentage of schools reported the introduction of languages.

TABLE 63.—*Subjects dropped from the curriculum within the last 5 years and percentages of schools dropping them*

Subject	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Latin	29.4	18.3	8.8	6.1	1.5	10.6	35.7	21.7	9.7	19.1
Latin 3	....	3.3	2.9	3.7	8.8	4.2	....	8.7	6.5	3.9
Latin 4	....	1.7	5.9	3.7	8.8	4.5	....	8.7	3.2	4.4
Spanish	5.8	6.7	4.4	2.5	8.8	5.5	7.1	4.3	3.2	4.4
French	2.9	11.7	5.9	7.4	11.8	8.4	....	21.7	9.7	11.8
German	11.8	1.7	1.5	2.5	10.3	4.8	....	....	3.2	1.5
Solid geometry	....	11.7	8.8	3.7	5.9	6.4	....	4.3	....	1.5
Botany	2.9	11.7	2.9	2.5	2.9	4.5	....	4.3	3.2	2.9
Physical geography	....	13.3	5.9	7.4	13.2	8.7	....	4.3	12.9	5.9
Agriculture	....	13.3	4.4	4.9	8.8	6.8	14.2	13.0	....	7.4
Ancient history	2.9	10.0	11.8	4.9	5.9	7.4	7.1	4.3	12.9	8.8
Economics	....	1.7	2.9	9.9	5.9	4.8	7.1	4.3	....	2.9
Commercial arithmetic	....	5.0	1.5	6.1	2.9	3.5	21.4	....	6.5	7.4
Commerical law	....	1.7	5.9	3.7	4.4	3.5	14.2	....	3.2	4.4
Manual training	....	1.7	4.4	4.9	2.9	3.2	7.1	....	....	1.6
Teacher training	....	....	....	....	2.9	.6	....	13.0	12.9	10.3
Number of schools reporting subjects dropped	34	60	68	81	68	311	14	23	31	68
Average number of subjects dropped per school	1.0	1.7	1.3	1.3	1.8	1.5	2.1	1.8	1.6	1.8

In the social science group, ancient history was the subject most frequently dropped. It was so reported by more than 7 per cent of the unselected and almost 9 per cent of the selected schools. Few schools reported adding of ancient history to the curriculum. Agriculture showed a tendency to change both ways. A considerable number of schools of both classes reported dropping it, but this number represented less than one-third the percentage reporting its introduction into the curriculum. Economics also showed a similar tendency with the instances of introduction more than twice as frequent as those of dropping. The teacher-training course showed considerable loss, particularly among the selected schools; there were no gains. Many other subjects were reported dropped by very few schools each. The greatest differences between the unselected and selected

schools were in the much larger percentages of the latter schools dropping Latin and teacher-training courses. Also considerable percentages of the selected schools enrolling 75 pupils or fewer dropped commercial arithmetic and commercial law as compared with none of the unselected schools of corresponding size groups.

3. REQUIREMENTS FOR GRADUATION

Subjects required.—A large percentage of all groups of schools gave information on the subjects required of all pupils for graduation. As would be expected, the data indicate considerable uniformity in practice. However, some interesting variations are indicated. (See Table 64.)

Practically all schools required three years of English; considerably more than half of the unselected schools and more than a fourth of the selected schools required four years of English. Foreign languages were required by a relatively small percentage of the schools. Since many schools only reported languages or modern languages without designating the particular language required, it was impossible to compute accurately the percentages for each language separately. Latin, with 8 per cent in the unselected and 6.5 per cent in the selected schools, was most often required. In both classes the smaller schools showed a significantly larger percentage requiring both Latin and other foreign languages for graduation than did the groups of larger schools.

Almost a third of the schools reported mathematics as required for graduation without stating specifically the subjects. In the light of the fact, however, that algebra and geometry were the subjects specifically mentioned by from one-fourth to one-half of the schools, it is probably a safe assumption that the general term may be interpreted as meaning algebra and plane geometry in most instances. This assumption is also supported by general practice in requirements in mathematics. On this assumption algebra and geometry were required for graduation in from 60 to 90 per cent of the schools. The groups of smaller schools required each more generally than did the larger schools, and among the selected schools they were less commonly required than among the unselected schools.

The data on requirements in science indicate that some work in science is required for graduation in the majority of schools, but that this requirement is less general than in the case of mathematics and that the amount required is ordinarily somewhat less. General science was specifically mentioned by the largest percentage of unselected schools as a required science and biology by the largest percentage of selected schools. Approximately 22 per cent of the former required general science and 13 per cent of the latter, while 14 per cent of the former and approximately 17 per cent of the latter required biology. Physics and chemistry were the other two science subjects most frequently required by all groups of schools.

TABLE 64.—*Subjects required for graduation by unselected and selected schools and percentages of schools requiring them*

Subjects required	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
English										
3 years	100.0	98.5	94.8	95.7	99.0	97.7	100.0	100.0	98.2	99.1
4 years	54.0	57.5	61.9	62.8	50.0	57.2	63.1	17.7	20.0	26.9
Latin, 2 years	20.6	12.6	5.0	5.3	1.8	8.0	10.5	8.7	3.6	6.5
Languages	3.2	3.4	.....	4.3	1.9	2.4	5.3	5.9	5.5	5.6
Modern language	7.9	2.3	1.0	2.1	1.9	2.6	5.3	2.9	3.6	3.7
French, 2 years	.....	1.1	7.0	3.2	.....	2.4	5.3	2.9	3.6	3.7
Mathematics	38.1	34.5	34.0	33.0	27.4	32.8	5.3	23.5	34.5	25.9
Algebra	50.8	50.6	43.9	38.3	37.4	40.8	47.4	44.1	25.5	35.2
Geometry and plane geometry	41.3	42.5	28.0	30.8	28.0	30.6	42.1	29.4	12.7	23.2
Science	34.9	44.8	37.9	44.7	34.3	41.7	36.8	38.2	36.4	37.0
General science	29.7	26.4	19.0	20.2	17.9	21.9	10.5	14.7	12.7	12.9
Physics	14.3	26.4	1.0	6.4	2.8	9.3	15.8	2.9	9.1	7.4
Chemistry	.....	11.5	3.0	2.1	.9	3.5	15.8	2.9	10.9	9.3
Biology	17.5	21.8	16.0	11.7	5.7	13.9	26.3	14.7	14.5	16.7
Home economics or homemaking	3.2	3.4	7.0	9.6	1.9	5.1	10.5	11.8	10.9	11.1
Agriculture	9.5	9.2	2.0	.....	.....	3.3	15.8	2.9	7.3	7.4
Social science	17.5	9.2	13.0	11.7	19.3	13.9	10.5	14.7	16.4	14.8
History	43.9	35.6	41.9	36.2	31.1	37.0	36.8	38.2	27.3	32.4
United States or American history	50.8	54.0	52.9	48.6	48.2	50.8	47.4	35.3	51.9	45.4
Ancient history	9.5	5.7	2.0	1.6	.....	3.1	5.3	2.9	1.8	2.8
Modern or European history	9.5	12.6	10.0	6.4	3.8	7.9	10.5	2.9	1.8	3.7
General or world history	9.5	6.9	3.0	4.3	.....	4.2	5.3	5.9	7.3	6.3
Civics	28.6	45.8	33.0	39.4	40.6	38.1	26.3	26.2	27.3	26.8
Problems of democracy (social problems)	7.8	14.8	10.0	4.3	2.8	7.8	5.3	11.8	10.9	10.2
Economics	9.5	3.4	.....	4.3	1.8	3.3	5.3	8.7	7.3	7.4
Vocational civics or study of vocations	.....	3.4	3.0	2.1	.9	2.0	5.3	.....	3.6	2.8
Geography	4.8	5.7	3.0	.....	.....	2.4	.....	5.9	1.8	2.8
Music	.....	2.3	3.0	.....	.9	1.3	5.3	.....	3.6	2.8
Manual training or shop	.....	.....	3.0	1.1	1.9	1.3	5.3	5.9	3.6	4.6
Commercial arithmetic	7.9	1.1	.....	1.1	.....	1.6	.....	.....	5.5	2.8
Physical education	7.9	9.2	11.0	12.7	11.3	10.6	5.3	11.8	23.6	16.7
Health and physiology	7.9	6.9	8.0	6.4	11.3	8.2	.....	5.9	9.1	6.5
Average number required per school	8.38	8.84	7.42	6.18	6.42	7.33	8.31	8.58	7.80	8.23

Home economics or homemaking was a required subject by 5 per cent of the unselected and 11 per cent of the selected schools, and agriculture by somewhat smaller percentages.

Social science and history, reported in general terms as requirements for graduation, include approximately half the schools. United States or American history was specifically reported as a requirement by approximately half of all unselected and 45 per cent of the selected schools, and civics by somewhat more than a third of the former and a fourth of the latter schools. Ancient history, required by but a small percentage of all schools, was more commonly a required subject in the group of smaller schools. Problems of democracy and economics were required in a considerable number of both classes of schools.

Physical education was required for graduation in slightly more than a tenth of the unselected and a sixth of the selected schools, while health and physiology were required by considerably smaller numbers of both classes of schools. The relatively small percentage of schools requiring these subjects indicates that physical and health education are not yet regarded in the smaller secondary schools as essentials of a secondary education.

All other subjects were required by relatively small numbers of schools. Taken as a whole, the data show that the major requirements are in the fields of English, mathematics, science, history, and civics. They also show that there is much variation in practice among schools in the nature of minor requirements. In general, about half the pupil's work is required, with a tendency for the smaller schools to require a larger percentage than do the larger schools. Among the selected schools as a class, the average number of subjects required for graduation is somewhat higher than among the unselected schools as a class. On the other hand, the selected schools considerably less often require specific subjects for graduation than do the unselected schools. In this they show a more progressive tendency than do the unselected schools as a class.

4. SPECIAL PLANS FOR INCREASING EDUCATIONAL OFFERINGS

Extension of curriculum opportunities.—Information was supplied by 76 of the selected schools indicating the extent

to which plans were in operation for increasing curriculum opportunities of the pupils and the nature of these opportunities. Of the schools furnishing data, 48, or 63 per cent, reported plans in operation and 28, or 37 per cent, reported no plan in use. Agriculture and home economics or homemaking were, with the exception of music, most frequently mentioned as the subjects provided for out-of-school study. Further analysis of the statements made by the schools reporting indicated that this work was usually of the nature of home projects carried on in connection with the regular school work in those fields. Other subjects or fields in which opportunities for outside work were afforded and mentioned by from one to three schools each were the Bible, 4-H club work, commercial courses, military training, correspondence courses, shopwork, and cooperative industrial courses. Outside work in music was the most frequently mentioned, being reported by slightly more than a fourth of the schools.

Credit for work done outside of school.—With the exception of the work in agriculture and home economics, which was done ordinarily under the supervision of the teachers of those subjects, a variety of practices obtained in the control of credit for work done outside of school. The various statements explanatory of the practices followed indicated considerable effort to maintain satisfactory standards in the work given credit.

In music particularly, rules set up by the State were observed by a number of schools. These rules usually stipulated a regularly certified teacher and the passing of an examination. A few typical illustrations will give the main features of practice as reported: "Pupil keeps a detailed record of work which is submitted for checking and grading." "Students are given regular credit for correspondence courses by passing satisfactory examinations." "Credit is based upon examination and notebook work." "Thirty-six lessons in music and one and one-half hours of practice five days a week entitles a pupil to one unit of credit toward graduation."

The itinerant teacher.—Some of the smaller high schools increase the curriculum opportunities of their pupils by grouping together and employing an instructor who gives a portion of his time each week to each school. This has been

done most frequently in such special subjects as agriculture, practical arts, and homemaking. The high school at Glasgow, Mont., one of the selected schools visited, had an especially noteworthy plan of this type in the teaching of music. The instructor gave one-half of his time to the Glasgow school. He led and trained a band of 60 pieces and an orchestra of 50. Once a week he met for special instruction the groups of pupils studying the different types of band and orchestral instruments, as brass, reed, and string. This plan gave opportunity for the study of music and the mastery of a musical instrument to a large number of pupils.

The alternation of subjects.—The alternation of subjects to increase the total number of subjects available to the pupils of a high school has long been practiced. Data on the alternation of subjects furnished by the selected schools showed 116 instances of alternation. The alternations reported included 37 different alternating pairs of subjects, most of them occurring but once. Two of the smaller 4-year schools reported the alternation of all subjects in the third and fourth years. The average number of alternations per school was two for the schools of Group I, two for schools of Group II, and less than one for schools of Group III. The subjects most frequently alternated in all size groups were physics and chemistry, third-year and fourth-year Latin in the larger schools, and third-year and fourth-year English, and algebra and geometry in the smaller schools and those of medium size.

Cooperative industrial courses.—Two noteworthy plans in the smaller secondary schools for increasing the curriculum opportunities of high-school boys and adapting their courses to their needs were those of the Wallingford High School in Vermont and the Flathead County High School in Kalispell, Mont. Both of these schools were using the cooperative industrial plan, but with interesting differences between the two schools in the organization of the plan.

In the Wallingford High School as organized the boy spent alternate weeks in school and in the vocational training in local industries. At the time the school was visited boys were receiving training in machine shop, plumbing, engineer-

ing, woodwork, and finishing. The director of the work, who was immediately responsible for its supervision and the development of the courses pursued, was a man, formerly a teacher, employed in one of the local industries. In the work of the boys in school, emphasis was placed on practical English, mathematics, and civics.

The cooperative industrial plan in the Flathead County High School was initiated in the fall of 1929 with 23 boys enrolled. This number increased to 43 the second year. By September, 1931, 90 different boys had taken the work in 18 different vocations. The work was directly in charge of the director of vocational education, who was allowed two hours a day for it and who supervised the boys through individual conferences and visitation and linked up the work with a definite program of vocational guidance. In the Flathead plan the boy spends half of the day in school and the other half in the vocation. The objectives of the work, as stated in the November, 1929, monthly published by the faculty of the school, are:

> (1) To give boys an opportunity to learn a vocation under the supervision of a person actively engaged in that vocation; (2) to give each boy an opportunity to discover the kind of work for which he is suited; and (3) to place the boys under the supervision of employers who give them personal attention, and incidentally teach the boys many good habits in character and citizenship.

5. CONCLUSION

The data on the curriculum in the present study in general support the conclusions from other studies quoted at the beginning of the chapter. There are rather clear indications that the main body of the curriculum in the smaller secondary schools has remained relatively constant. On the other hand, there is rather definite indication of some trend toward a curriculum more closely related to the conditions and problems of modern life and toward subjects of a practical character. This trend is shown in the addition of such subjects as economics, problems of democracy, study of occupations, commercial subjects, agriculture, and home economics, etc. A lesser trend toward the appreciational subjects is indicated by the relatively large number of schools

that have recently added music to the curriculum and the smaller number that have added the study of art.

In most of the older fields of study in secondary education there were but minor differences between the two classes of schools in the percentages that had made introductions of the different subjects representing those fields. However, most of the introductions in modern foreign languages and mathematics had been in the unselected schools. In the case of the newer practical subjects the selected schools had in general much more often made introductions than had the unselected schools. A larger percentage of the unselected schools had, however, introduced all commercial subjects, with the exception of junior business training. The proportion of selected schools introducing music into the curriculum offerings was considerably greater than the proportion of unselected schools. Taken as a whole, the data on changes in curriculum offerings show a considerably greater tendency in the selected schools than in the unselected toward subjects of the newer types. Also the selected schools show a lesser tendency than the unselected schools to require specific subjects of all pupils for graduation.

CHAPTER VI : METHODS OF INSTRUCTION

1. CHARACTERISTICS OF THE METHODS EMPLOYED

The critical appraisal of secondary-school methodology.—Methods of instruction are as important in the realization of the modern purposes of education as is the content of instruction. Within the last decade especially much attention has been paid by writers and students of secondary-school methodology to the character and use of newer methods of instruction. The traditional plan of study and preparation by the pupils outside of class and the use of the class period almost entirely for recitation and testing has been brought severely to task.

Findings of earlier studies on methods in small high schools.—Practically all special studies of the rural or small high school that have dealt with the subject have emphasized the formal character of the methods of instruction that are being employed. They have pointed out the prevalence in these schools of the textbook-recitation procedures. Rufi [1] came to the conclusion that it was "conservative to say that 95 per cent of all the material presented and studied in all of the courses in all of these schools is found between the covers of the textbook used. Not one recitation was found in which reference or supplementary material played a dominant part. . . . No cases were found where the teacher either urged, expected, or required the brighter pupils to do work not assigned to the entire group." Ferriss [2] in his study of the small high schools of New York State in 1921, in reporting on classroom instruction, wrote: "As a whole, . . . the work of the classroom was of a formal, abstract type. Few supplementary materials were used in the way either of readings or of devices to make teaching more concrete. . . . Almost no use was made of the assignment as an integral part of the teaching process."

[1] Rufi, John. The Small High School. Bureau of Publications, Teachers College, Columbia University, 1926, p. 95.

[2] Ferriss, Emery N. The Rural High School. Joint Committee on Rural Schools, Ithaca, N. Y., 1922, pp. 145-146.

Because of these earlier descriptions of the methods employed in small high schools, particular attention was given in the present study to discover, in so far as it was possible, the present status in the smaller secondary schools of the newer types of method. In the visits to selected schools also a serious effort was made to learn to what extent the schools visited were departing from the old form of recitation and, where changes were taking place, what the nature of the changes was.

2. METHODS USED IN SCHOOLS INVESTIGATED

Character of the information sought.—All but 30 of the unselected and 11 of the selected schools supplied information on the various newer types of methods of instruction that were being used. In order to obtain a basis for determining to what extent each was employed, information was sought from each school on the frequency with which different methods were being used by asking whether they were employed in the school "occasionally," "frequently," or "constantly." The schools were also asked to report those that were being used most successfully. It was assumed that, if all schools reported under the three categories, the result would be a fairly accurate picture of the proportion of schools using the different forms of instruction representing departures from the traditional recitation. The results should indicate also to what extent the schools were employing each of the newer techniques reported.

Newer methods of instruction reported.—The data obtained (Table 65) indicate that 11 of the newer methods were being employed to a greater or lesser extent by from 48 to 88 per cent of the unselected schools. Ranked in the order of the relative percentage of schools employing them, as based on the reports from the unselected schools, the 11 types of newer methods were: The use of the library in classroom work; supervised study; field trips in general subjects; the problem method; observation and study of local occupations, institutions, etc.; projects in general subjects; socialized class procedures; field trips in vocational subjects; long-unit assignments; and the use of lantern slides.

Each of the 11 types of newer methods most frequently mentioned by the unselected schools was also reported by more than half of the selected schools. Seven of them were reported by larger percentages of the latter than of the unselected schools and four by slightly smaller percentages. In general, a larger proportion of the selected than of the unselected schools reported the use of the newer forms of instruction. The differences between the two classes of schools were most pronounced in the groups enrolling 75 pupils or fewer.

Newer methods used frequently or constantly.—Of more significance than the total percentages of schools reporting *some* use of the various newer types of instruction are those showing the percentages of schools employing them *frequently* or *constantly*.

TABLE 65.—*Numbers and percentages of schools reporting use of certain methods of instruction*

Method emphasized	Unselected schools by size groups												Per cent using frequently or constantly	Selected schools by size groups								Per cent using frequently or constantly
	IA		IB		II		IIIA		IIIB		Total			I		II		III		Total		
	Number	Per cent	Number	Per cent	Number	Percent	Number	Per cent	Number	Per cent	Number	Per cent		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Problem method	41	64.1	66	75.0	72	69.9	72	70.6	89	75.4	340	71.6	41.3	15	93.8	24	72.7	30	61.2	69	70.4	51.0
Projects in general subjects	37	57.8	56	63.6	66	64.1	69	67.6	85	71.2	313	65.9	37.5	13	81.3	21	63.6	34	69.4	68	69.4	40.8
Projects in vocational subjects	18	28.1	38	43.2	60	58.3	78	76.5	82	69.5	276	58.1	44.4	8	50.0	24	72.7	46	93.9	78	79.6	73.5
Field trips in general subjects	48	75.0	69	78.4	73	70.9	83	81.4	93	77.9	366	77.1	19.8	12	75.0	23	69.7	38	77.5	73	74.5	28.6
Field trips in vocational subjects	22	34.4	34	38.6	58	56.3	77	75.5	87	73.7	278	58.5	33.3	10	62.5	22	66.7	39	79.6	71	72.4	54.1
Use of library in classroom work	54	84.4	77	87.5	88	85.4	90	88.2	111	94.1	420	88.4	76.8	12	75.0	28	84.8	48	97.9	88	89.8	77.5
Use of lantern slides in classroom work	6	9.4	20	22.7	49	47.6	63	61.8	91	77.1	229	48.2	17.9	5	31.3	21	63.6	33	67.3	59	60.2	16.3
Use of moving pictures in classroom work	5	7.8	11	12.5	24	23.3	34	33.3	45	38.1	119	25.1	7.1	5	31.3	14	42.4	20	40.8	39	39.8	10.2
Observation and study of local occupations, institutions, etc.	37	57.8	53	60.2	58	56.3	80	78.4	91	77.1	319	67.2	20.7	10	62.5	18	54.5	35	71.4	63	64.3	27.6
Supervised study	48	75.0	73	92.9	83	80.6	89	87.3	94	79.7	387	81.5	67.2	13	81.3	29	87.8	48	97.9	90	91.8	84.7
Dalton plan or modification	4	6.3	10	11.4	12	11.7	13	12.7	22	18.6	61	12.8	7.1	2	12.5	8	24.2	19	38.8	29	29.6	17.4
Socialized classroom procedure	35	54.7	56	63.6	61	59.2	62	60.8	84	71.2	298	62.7	37.5	8	50.0	19	57.5	33	67.3	60	61.2	40.8
Long-unit assignments	23	35.9	33	37.5	57	55.3	60	58.8	73	61.9	246	51.8	32.0	7	43.8	16	48.5	36	73.4	59	60.2	44.8
Contract or Morrison plan	1	1.6	....	....	3	2.9	1	.9	1	.8	5	1.1	1.1	....	....	2	6.0	1	2.0	3	3.1	3.1
Miscellaneous	5	7.9	2	2.2	2	1.8	3	2.7	4	3.2	16	2.5	....	3	18.7	1	3.0	4	8.2	8	8.2	....
Total number of schools reporting	64	....	88	....	103	....	102	....	118	....	475	....	....	16	....	33	....	49	....	98	....	....

The percentages of unselected and selected schools so using the methods are shown in appropriate columns in Table 65. These figures indicate rather clearly that in the case of most of the types of methods the majority of the schools reporting some use have not adopted them in general practice.

On the basis of frequent or constant use, only two features of the newer methods were reported by the majority of the unselected schools, and these were the use of the library in classroom work and supervised study. Others mentioned by from 32 to 44 per cent of the schools were projects in vocational subjects, the problem method, projects in general subjects, socialized classroom procedures, field trips in vocational subjects, and the long-unit assignment.

On the basis of frequent or constant use, five features of the newer methods were reported by the majority of the selected schools. Those included were supervised study, the use of the library in classroom work, projects in vocational subjects, field trips in vocational subjects, and the problem method. Other features mentioned by from 28 to 45 per cent of the selected schools were: The observation and study of local occupations and institutions, field trips in general subjects, projects in general subjects, socialized classroom procedures, and the long-unit assignment. As a class the selected schools, both as to percentage of schools and as to number of features included, were making more use of the newer techniques of instruction than were the unselected schools as a class. The greatest differences between the two classes of schools were in the relative percentages using projects and field trips in vocational subjects, the Dalton plan or a modification, and the long-unit assignment. A significantly larger percentage of the selected than of the unselected schools were employing these features either frequently or constantly.

For both unselected and selected schools the greatest differences between those reporting some use of a feature and those reporting frequent or constant use were in field trips in general subjects; observations and study of local occupations, institutions, etc.; and the use of lantern slides and moving pictures in teaching. While the use of field trips in general subjects was reported by approximately three-fourths of the

unselected and selected schools, only 20 and 29 per cent, respectively, reported their frequent or constant use. Likewise, the use of observation and study of local occupations, etc., was reported by over three-fifths of the unselected and selected schools, but only 21 per cent of the former and 28 per cent of the latter reported their frequent or constant use. Even greater differences were indicated between the percentage of schools making some use of lantern slides and moving pictures and the percentage employing these features either frequently or constantly.

3. METHODS REPORTED AS UNUSUALLY SUCCESSFUL

Methods reported as unusually successful in unselected schools.—Information was obtained with reference to the features of the newer methods that were found to be especially successful. According to the data reported in Table 66, supervised study ranked highest, being reported as especially successful by almost one-third of the unselected schools. Among these schools the use of the library in classroom work ranked second and the use of the problem method third, with approximately 27 and 19 per cent, respectively, so reporting. Other features reported as unusually successful in smaller percentages of the unselected schools were the use of projects and field trips in vocational subjects, projects in general subjects, socialized classroom procedures, and the long-unit assignment.

Methods reported as unusually successful in selected schools.—Among the selected schools supervised study was reported as especially successful by more than half of the schools; projects in vocational subjects ranked second and the problem method third, being so reported, respectively, by 49 and 29 per cent of the schools. Other features reported as unusually successful by smaller percentages of the selected schools were: The observation and study of local occupations, etc.; field trips in general subjects; socialized classroom procedures; projects in general subjects; long-unit assignments; and field trips in vocational subjects.

TABLE 66.—*Numbers and percentages of schools reporting unusually successful use of certain procedures of instruction*

Procedures	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Problem method	11	17.2	15	17.0	15	14.6	22	21.6	25	21.2	88	18.5	8	50.0	9	27.2	11	22.4	28	28.6
Projects in general subjects	9	14.1	12	13.6	10	9.7	12	11.8	15	12.7	58	12.2	4	25.0	10	30.3	8	16.4	22	22.4
Projects in vocational subjects	5	7.8	5	5.7	25	24.3	20	19.6	28	23.7	83	17.5	7	43.8	13	39.3	28	57.1	48	48.9
Field trips in general subjects	8	12.5	5	5.7	9	8.7	6	5.9	9	7.6	37	7.8	3	18.7	4	12.1	7	14.3	14	14.3
Field trips in vocational subjects	3	4.7	6	6.8	13	12.6	20	19.6	11	9.3	53	11.2	4	25.0	7	21.3	16	32.8	27	27.6
Use of library in classroom work	17	26.6	20	22.7	28	27.2	36	35.1	29	24.6	130	27.4	3	18.7	7	21.3	22	44.9	32	32.6
Use of lantern slides in classroom work	1	1.6	3	3.4	9	8.7	7	6.9	11	9.3	31	6.5	1	6.2	3	9.1	4	8.2	8	8.2
Use of moving pictures in classroom work					1	.9	5	4.9	8	6.8	14	2.9	2	12.5	2	6.0	1	2.0	5	5.1
Observation and study of local occupations, institutions, etc			7	7.9	3	2.9	8	7.8	6	5.1	24	5.1	2	12.5	3	9.1	7	14.3	12	12.2
Supervised study	46	25.0	19	21.7	33	32.0	35	34.3	44	37.2	147	30.9	11	68.8	15	45.5	25	51.0	51	52.0
Dalton plan or modification	1	1.6	2	2.3					5	4.2	8	1.7	1	6.2	4	12.1	4	8.2	9	9.2
Socialized classroom procedure	13	20.3	10	11.4	15	14.6	4	3.9	17	14.4	59	12.4	3	18.7	3	9.1	9	18.2	15	15.3
Long-unit assignments	5	7.8	5	5.7	11	10.7	20	19.6	11	9.3	52	10.9	5	31.3	6	18.2	15	30.6	26	26.5
Contract or Morrison plan	1	1.6			2	1.9					3	.6			1	3.0	1	2.0	2	2.0
Miscellaneous	2	3.2	1	1.1	1	.9	1	.9			3	1.0	1	6.2					1	1.0
Total number reporting	64		88		103		102		118		475		16		33		49		98	

Doubtless the numerical and percentage frequencies in Table 66 are higher than careful examination in the schools represented would justify. Such examination would undoubtedly find some of the practices not measuring up to the favorable impression entertained for their practices by those in charge of the schools. However, this discrepancy would apply as often in unselected as in selected schools. We may assume, therefore, that these novel procedures are much more often used in the selected than in the unselected schools.

Status of long-unit assignment in selected schools visited.—In 8 of the 15 selected schools visited, some form of the long-unit assignment was being used in some or all subjects. In every case no one particular plan was being accepted as a whole, but modifications were being sought that would best fit the needs of the teachers and the school.

In the high school at Hanover, Mass., for example, the long-unit assignment was employed only in home economics and agriculture, while in the high school at New Milford, Conn., it was also used in commercial courses and to a lesser extent in United States history and mechanical drawing. In the high school at Morgantown, W. Va., where adoption was voluntary, five teachers were using the long-unit assignment, and in the high school at Point Marion, Pa., it was being used in 80 per cent of the classes having been adopted after a year of study of the Morrison technique by the teachers. In the high school at Glasgow, Mont., and Johnstown, Colo., and in the Flathead County High School at Kalispell, Mont., modifications of the Morrison plan were in almost general use.

In all these schools mimeographed copies of the assignments were carefully worked out and placed in the hands of the pupils. In the Flathead County High School the teacher of American history was trying out the plan of placing each unit assignment on a folding blackboard and modifications in the assignment were being made at different stages in its development as seemed desirable to pupils and teacher.

In the high school at Frederic, Wis., a modification of the contract plan was in use with three levels of assignments. The basic assignment was known as the "C contract" and was planned for the pupil of average ability or less. For the more capable pupils, opportunities for enrichment and the

following out of special interests were provided through the "B" and "A" contracts or assignments. In all these schools much attention and study was being given to the use of the newer methods and techniques of instruction, and the visitor witnessed several noteworthy examples of the use of such features as the problem method, the project, the socialized classroom procedure, the study of local occupations and institutions, and supervised study.

Supervised study.—Approximately 85 per cent of the selected schools reported the use of supervised study, and of these slightly more than half reported the divided recitation or study plan. Of the schools reporting supervised study, 28 furnished special statements descriptive of their practices. Some of these are worthy of mention as interesting departures from ordinary practices. "One period in four is taken for supervised study." "We have four periods and nearly all our work is done in the classroom. Very little outside work is assigned." "Units outlined, students work with teacher supervising; about two days each week are used for discussions." "Supervised study in Smith-Hughes work only." "Supervised study only in preparation of units on the modified Dalton plan."

The principal of the 6-year high school at Greencastle, Ind., wrote:

> We have 60-minute periods during which all required work is done. Everything outside class is optional. We do not read part time and tell it back to the teacher. Our plan is to teach by units and study, discuss, etc. . . . The greatest accomplishment in our reorganization plan is the elimination of study periods and study halls. There are five 60-minute periods and a 35-minute activity period in the school day. Each pupil carries four studies and during the fifth period, which may be any one of the five, takes physical education two days a week and elects band, orchestra, glee club, debating, special courses in art, music, home economics, shop, laboratory, library, office, etc., for the other three days. In this way every pupil is always under the direct charge of a teacher in some class.

4. ADAPTATION OF WORK TO INDIVIDUAL DIFFERENCES IN THE SELECTED SCHOOLS

Means of adaptation employed.—In the preceding discussion of the use of the long-unit assignment some mention was made of its use in individual schools in adapting the work to

pupils of differing abilities. Information on the adaptation of work to individual differences was obtained from the selected schools only. All but six of these schools supplied information on the various ways and means employed in the adaptation of work to individual differences. The data as given in Table 67 indicate that but a relatively small percentage of these schools were employing any one method and that many of the schools were only occasionally using the means employed.

Methods reported by from 20 per cent to 34 per cent of the schools as used occasionally were: Additional credit for additional work, the unit type of instruction, adjustment through number of courses carried, provision of additional opportunities for superior pupils, special coaching of slow or failing pupils, and differentiation of teaching content. An opportunity period in the daily program and additional credit for superior work were mentioned, respectively, by 12 and 19 per cent of the schools. The methods reported by the largest percentage of schools as used occasionally were also reported by the largest percentage as being used frequently, but in each case (with the exception of the unit type of instruction, where it remained the same) by a considerably smaller percentage of schools. With the exception of additional credit for additional work and additional credit for superior work, where the reverse was true, the percentage of schools reporting the frequent use of the several methods of adaptation was greatest in the larger schools.

TABLE 67.—*Numbers and percentages of selected schools reporting occasional, frequent, and school-wide use of certain adaptations of work to individual differences*

Adaptation	Used occasionally					Used frequently					School-wide use				
	I	II	III	Total		I	II	III	Total		I	II	III	Total	
	Number	Number	Number	Number	Per cent	Number	Number	Number	Number	Per cent	Number	Number	Number	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Differentiation in teaching content	8	10	16	34	31.2	2	4	11	17	15.6		6	15	21	19.3
Provision of additional opportunities for superior pupils	4	12	16	32	29.3	2	6	16	24	22.0	4	7	12	23	21.1
Special coaching of slow or failing pupils	9	12	16	37	33.9	1	7	12	20	18.3	2	1	13	16	14.7
Adjustment through number of courses carried	8	10	14	32	29.3	1	5	12	18	16.5	1	3	13	17	15.6
Unit type of instruction	5	7	16	28	25.7	4	6	18	28	25.7		3	8	11	10.1
Additional credit for additional work	2	8	12	22	20.2	5	3	7	15	13.8		3	3	6	5.5
Additional credit for superior work	2	8	11	21	19.3	3	2	5	10	9.1	2	1	2	5	4.6
Opportunity period in daily program	1	6	6	13	11.9	1	1	4	6	5.5	2	3	7	12	11.0
Semiannual promotions	1	2	3	6	5.5	....	1	....	1	.9	....	....	5	5	4.6
Ability grouping	....	....	1	1	.9	....	....	1	1	.9	....	....	....	....	.....
Conference periods	1	....	....	1	.9	....	....	....	....	.....	....	....	....	....	.....
Contacts	....	....	....	....	.....	....	1	....	1	.9	....	....	....	....	.....
Special promotions	....	....	....	....	.....	....	....	1	1	.9	....	....	....	....	.....
Number of schools reporting some adaptations	17	34	52	103	.....	17	34	52	103	.....	17	34	52	103	.....

The school-wide use of any of the methods of adaptation or work to individual differences was reported by a relatively small percentage of the schools. Those reported by 10 per cent to 21 per cent were the unit type of instruction, an opportunity period, special coaching, adjustment through number of courses carried, differentiation in content, and provision of additional opportunities for superior pupils.

Among the schools visited, noteworthy developments in the adaptation of work to individual differences were found in the Flathead County High School at Kalispell, Mont. The cooperative-industrial plan for boys has been described in connection with the discussion of the curriculum. In addition to this plan, other adaptations were in use. A course in advanced physical geography, for which the local environment is richly provided, had been developed for the weaker pupils in the junior and senior years. During the last 12 weeks of the year superior pupils in chemistry, in addition to the regular requirements, did some work in qualitative analysis and were provided with an excellent bibliography of supplementary readings from periodicals, popular books on science, and supplementary textbooks. Mention should also be made at this time of a project carried on by the juniors in English which stimulated pupils to do superior work not only in English composition but in art. Each year the class prepares a typewritten bound volume of the best writings done by the class with drawings illustrating each. This volume is placed in the library as a permanent acquisition of the school.

TABLE 68.—*Numbers and percentages of selected schools making special provision for slow and failing pupils*

Provision made	Selected schools by size groups							
	I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9
Schools reporting some special provision	10	52.6	16	47.0	28	50.0	54	49.5
Special classes [1]	2	10.5	2	5.9	5	8.8	8	8.3
Opportunity room	1	5.3	3	9.8	4	7.1	8	7.3
Opportunity period			1	3.0	3	5.4	4	3.7
Conference periods	3	15.8	1	3.0	1	1.8	5	4.6
Individual help by teachers	1	5.3	3	8.8	5	8.8	9	8.3
Ability grouping			1	3.0	4	7.1	5	4.6
Minimum work outlined in each course			3	8.8	1	1.8	4	3.7
Miscellaneous [2]	2	10.5	2	5.9	6	10.7	10	9.2

[1] Percentages are based on the number of schools reporting special provisions.
[2] Provisions mentioned by 1 or 2 schools each are: One-half unit course beginning at midyear for failures; contract plan, including A, B, and C assignments; extra library work for superior pupils; reinforcement period each week in each subject during October and December; and voluntary-help classes.

Special provision for slow or failing pupils.—Information was obtained from the selected schools only on special provisions made for slow or failing pupils. Of these schools, as shown in Table 68, almost half reported special provision for slow or failing pupils. No large percentage of those reporting mentioned any single provision. Special classes, individual help by teachers, and an opportunity room were among the provisions most frequently mentioned. Conference periods, opportunity periods, ability grouping, and minimum work in each course were each reported by a number of schools. Other provisions were mentioned by one or two schools each. To guard against failure, 38 of the selected schools gave special attention to the pupil's program of work. Conferences with the principal or a teacher were reported by 19 schools. Conferences with the home-room teacher and every pupil assigned to a teacher or adviser were each mentioned by a small number of schools. Other procedures mentioned were: Each pupil's work checked over by a faculty committee, regular monthly check up, slow pupils and those doing failing work carry lighter schedule, careful study of each pupil at the beginning of the year and the planning of the pupil's program at the end of each year for the following year's work.

5. CONCLUSION

The evidence obtained in the present investigation indicates that the conclusions of earlier studies on the status of methods in smaller high schools, quoted at the beginning of the chapter, no longer represent accurately conditions in the smaller high schools. The evidence shows, even when conservatively interpreted, that a considerable proportion of these schools are to some extent at least trying out practices that represent departures from the recitation plan of teaching and the daily textbook assignment. A relatively large proportion of the schools have been giving some attention to the use of the newer techniques, and a significant number have introduced some of them into their regular teaching practice in some or all subjects.

The data also indicate that the selected schools are employing the newer techniques much more often than the unselected schools. The evidence on schools using newer methods frequently or constantly show in respect to every item but one either some or marked differences in favor of the selected schools, indicating that the selected schools have much more often introduced the newer methods into regular school practice. Information on the selected schools only indicates that a considerable proportion of these schools are using one or more means for adapting their work to pupils of different abilities.

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CHAPTER VII : SUPERVISION OF INSTRUCTION AND PROFESSIONAL GROWTH OF TEACHERS

1. IMPORTANCE OF SUPERVISION AND PLACEMENT OF SUPERVISORY RESPONSIBILITY

The importance of supervision.—A knowledge of the general and professional training of teachers is important to the evaluation of a school. Of equal or even greater significance are those features of a school which indicate professional vitality and growth of the teaching staff. These are usually, if not always, present where the school staff are studying problems of learning and teaching, or where some evidence is shown of experimentation with newer methods and the organization of teaching content. These characteristics give promise on the part of the staff of a continuously increasing knowledge and understanding of the materials, principles, and techniques of the teaching profession, of an alertness to its problems and a dynamic interest in them, as well as of increasing expertness in the use of the better practices of the profession.

A large percentage of the unselected and all the selected schools furnished information relating to the various means and methods used in the supervision of instruction and in the improvement of teachers in service. Much smaller percentages of both classes of schools reported on the item of persons other than the principal responsible for supervision of instruction and the professional improvement of teachers.

Persons other than the principal supervising instruction.—Slightly more than half of the unselected schools and 60 per cent of the selected schools reported on the item of supervision of instruction by persons other than the principal. It seems safe to assume that, in the majority of the schools not reporting, no person other than the principal gave attention to supervision. If this assumption is correct, the actual percentage of schools with no supervision of instruction other than by the principal is larger than that given in Table 69,

since the percentages there given are based on the number of schools reporting.

Of the unselected schools reporting, approximately 44 per cent had no supervision other than that given by the principal. Of the schools enrolling more than 150 pupils, a smaller proportion belonged to this group than of the schools with 150 pupils or fewer. Also the proportion of larger schools reporting was greater than of the smaller schools. Both facts indicate that in schools with fewer than 150 pupils other supervision than that given by the principal is less common than in the larger schools. In this connection it should be recalled that in this same group of schools the principal devotes the largest proportion of his time to teaching and care of the study hall and least to the supervisory function. In the selected schools, approximately 34 per cent of the schools reporting had no supervision other than by the principal. The differences between different size groups were not so marked as in the case of the unselected schools. The evidence indicates that the selected schools have supervision other than that given by the principal considerably more often than the unselected schools.

TABLE 69.—*Numbers and percentages of unselected and selected schools in which certain officers other than the principal are reported to be responsible for the supervision and improvement of instruction*

Officer	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
None	5	17	41	20	35	118	43.9	3	12	9	24	33.8
Superintendent	7	11	21	34	35	108	40.1	8	10	10	28	39.4
Assistant principal	2	2	----	2	13	19	7.1	----	----	9	9	12.7
Dean	----	----	----	----	3	3	1.1	----	----	1	1	1.4
General and special supervisors	1	2	3	5	9	20	7.4	1	1	10	12	16.9
Department heads	----	----	----	----	----	----	----	----	----	3	3	4.2
Nurse	----	----	1	----	----	1	.4	----	----	----	----	----
County superintendent	----	----	----	----	----	----	----	1	----	3	4	5.6
Assistant superintendent	----	----	----	----	----	----	----	----	----	3	3	4.2
Number of schools reporting	15	32	66	61	95	269	------	12	23	36	71	------

The person other than the principal most frequently responsible for supervision is the superintendent, reported by approximately 40 per cent of both unselected and selected schools. General or special supervisors are second in frequency, but with a much smaller proportion of the schools reporting them, the percentage for unselected schools being only 7.4 and for the selected schools 16.9. Assistant principals give some time to supervision of instruction in approximately 7 per cent of the unselected and 13 per cent of the selected schools. Supervision by the county superintendent, the assistant superintendent, and heads of departments was reported by a small number of the largest selected schools, and supervision by a dean by three of the largest unselected and one of the largest selected schools.

A relatively small proportion of both classes of schools gave information as to the amount of time per week these various officers devote to supervision. The figures reported and shown in Table 70 were probably estimates, but indicate that in the majority of cases the superintendent gave 5 hours or less a week, a greater number of hours being more frequently found in the larger than in the smaller schools. Assistant principals, found with few exceptions only in the larger schools, tended to give a somewhat greater number of hours than did the superintendents. Supervisors, also rarely occurring in the groups of smaller schools, tended to give 6 hours or more a week to supervision, and department heads less than 5 hours. Although based on relatively small proportions of both classes of schools, and hence not conclusive, the evidence indicates that the amounts of time devoted to supervision by the several officers other than the principal tend to be greater in the selected schools. It will be recalled also that the former schools more often than the latter had supervision by persons other than the principal.

TABLE 70.—*Numbers and percentages of unselected and selected schools according to number of hours per week given to supervision by officers other than the principal*

Number of hours	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Superintendent:												
5 or less	3	7	8	9	19	46	36.8	3	4	3	12	33.3
6–10	1	1	7	10	3	22	17.6					
11 or more	2	1	1	11	1	16	12.8		3	5	8	22.2
Assistant principal:												
5 or less	1	2			2	5	4.0					
6 or more				2	8	10	8.0			6	6	16.7
Supervisors:												
5 or less	1	2		1	8	12	9.6	1		3	4	11.1
6 or more				4	10	14	11.2		1	7	8	22.2
Department heads:												
5 or less										3	3	8.3
Assistant superintendent:												
5 or less										2	2	5.5
Number of schools reporting	8	13	16	37	51	125		6	8	22	36	

2. THE SUPERVISORY PROCEDURES EMPLOYED

General character of findings.—All but 15 of the unselected and all the selected schools supplied data relating to the procedures used in the supervision of instruction and the improvement of teachers in service. These data, which are shown in Table 71, indicate that a considerable variety of supervisory procedures are used in the smaller secondary schools as a class. They also indicate that rather a surprisingly large number are each used by more than half of the schools.

Specific procedures employed in unselected schools.—Among the unselected schools the personal conference with more than 97 per cent held first place in frequency of mention. Its use was also uniform, the amount of variation among schools of the different groups being less than 9 per cent. Participation by teachers in local teachers' meetings was a practice in more than four-fifths of the schools. Schools enrolling fewer than 75 pupils used this method somewhat less commonly than did the larger schools, especially those enrolling more than 150 pupils. Study of the causes of

pupil failures, reported by slightly more than three schools in four, ranked third in the number of schools mentioning its use as a means of improving instruction. The smaller schools, especially those of Group IA, employed this means less frequently than did the larger schools. Other means employed in more than half of the unselected schools were the determination of aims and objectives for subjects taught, the reorganization and adaptation of courses of study, stimulating the use by teachers of teaching aids, the analysis of pupils' learning difficulties, classification and adjustment of pupils, and the development of new-type tests and examinations.

TABLE 71.—*Percentages of unselected and selected schools reporting the use of the various methods of supervising instruction and improving teachers*

Method used	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Conferring personally with teachers	91.2	94.4	98.2	99.0	100.0	97.1	84.2	64.7	58.9	65.1
Participating in local teachers' meetings	68.1	80.0	81.8	95.1	94.2	85.7	73.7	70.6	78.5	75.2
Determining aims and objectives for subjects taught	35.3	50.0	52.8	60.8	74.4	56.7	36.8	50.0	66.1	55.9
Reorganizing or adapting courses of study	36.8	55.6	47.3	57.9	62.5	53.3	42.1	58.8	60.1	59.6
Developing lesson plans	44.1	47.8	46.4	47.1	52.5	48.0	57.9	41.2	58.9	53.2
Rating textbooks	27.9	34.4	33.6	36.3	33.3	33.5	10.5	26.5	33.9	27.5
Stimulating use of teaching aids	47.1	61.1	60.9	65.7	67.7	61.2	63.1	67.6	64.3	65.1
Observing by teachers of the work of other teachers	25.0	31.1	50.9	43.1	54.2	42.9	47.4	41.2	69.6	56.9
Demonstrating teaching by principal or supervisors	8.8	16.7	17.3	14.7	20.8	16.3	26.3	8.8	35.7	25.7
Self-rating on teaching efficiency	10.3	28.9	27.2	28.4	31.6	26.5	36.8	17.6	42.8	33.9
Analyzing pupils' learning difficulties	48.5	61.1	49.1	57.9	49.4	53.1	52.6	44.1	50.0	48.6
Studying causes of pupil failures	62.3	73.3	73.7	84.3	81.6	76.3	63.1	55.8	66.1	62.4
Classifying and adjusting pupils	41.2	45.6	51.8	65.7	71.6	56.9	31.6	41.2	64.3	51.4
Developing new-type tests and examinations	32.3	51.1	53.7	61.8	65.8	54.9	47.4	61.7	50.0	53.2
Directing teachers in experimental study	13.2	18.9	14.5	25.5	32.5	21.8	10.5	20.6	35.7	26.6
Developing the unit plan in teaching	14.7	30.0	32.7	51.0	50.0	37.8	21.0	44.1	48.2	42.2
Encouraging attendance at summer sessions	60.9	67.8	73.7	86.8	82.5	75.1	78.9	67.6	66.1	68.8
Encouraging professional reading	63.8	68.9	80.0	81.4	84.3	77.4	78.9	70.6	64.3	68.8
Encouraging membership in teachers' organizations	77.9	81.1	88.0	86.8	98.1	84.5	84.2	70.6	71.4	73.4
Number of schools reporting	68	90	109	102	121	490	19	34	56	109

Among the procedures used by fewer than half of the unselected schools the development of lesson plans and the observation by teachers of the work of other teachers stood

highest with mention in each instance by somewhat less than one-half of the schools. The latter, particularly, was much more frequently mentioned by schools enrolling 75 or more pupils.

The development of the unit plan of teaching as a means of improving instruction was mentioned by almost two-fifths of the unselected schools reporting and directing teachers in experimental study by somewhat more than one-fifth. Both of these were much less frequently used in schools enrolling fewer than 150 pupils. Demonstration teaching by principals or supervisors was of all major means least common in all groups of schools.

Comparison of selected and unselected schools.—In general the picture, as to the means used in supervision and the improvement of teachers and teaching in the selected schools was similar to that in the unselected schools. In some cases the relative number of selected schools using a certain procedure tended to run lower and in others higher than in the unselected schools. There were some rather marked differences, however, between the two classes of schools in the proportions reporting the use of certain procedures. The unselected schools mentioned personal conferences and the study of pupil failures considerably more often than the selected schools. On the other hand, the latter schools more often mentioned the observation by teachers of the work of other teachers and demonstration teaching by the principal or supervisors. Extreme differences between the proportions of smaller and larger schools reporting certain supervisory procedures were less frequent in the selected than in the unselected schools, thus indicating greater similarity among the different groups of selected schools than in the case of the unselected schools. Taken as a whole, however, the proportions reporting some use of the several supervisory procedures were very similar in the two classes of schools.

3. SUPERVISORY PROCEDURES EMPHASIZED

General situation as to procedures given special attention.—As a basis for determining which means of improving instruction and teachers were receiving most attention, the

schools were asked to report those to which they were giving special emphasis. The results, as shown in Table 72, indicate rather clearly that only a few of the means reported as being used are in any sense outstanding because of such special emphasis. A few, however, do stand out. In general there is little difference between the unselected and selected schools, though there are rather significant differences in respect to two items—the development of new-type tests and examinations and the development of the long-unit assignment. These are, according to the evidence, much more frequently used in the selected schools. These two differences are significant, since they show a much greater tendency in the selected schools to adopt in their supervisory practices two of the most frequent present-day innovations in the supervision of instruction.

TABLE 72.—*Total percentages of unselected and selected schools reporting special emphasis on certain methods of supervisory instruction and improving teachers* [1]

Methods emphasized	Unselected schools	Selected schools
Conferring personally with teachers	70.6	69.7
Participating in local teachers' meetings	26.1	24.8
Determining aims and objectives for subjects taught	8.2	10.1
Reorganizing or adapting courses of study	6.7	7.3
Developing lesson plans	11.4	13.8
Rating textbooks	1.8	2.8
Stimulating use of teaching aids	9.2	16.5
Observing by teachers of the work of other teachers	3.9	2.7
Demonstrating teaching by principal or supervisors	1.2	1.8
Self-rating on teaching efficiency	1.6	2.7
Analyzing pupils' learning difficulties	9.3	8.2
Studying causes of pupil failures	18.0	19.3
Classifying and adjusting pupils	10.0	9.2
Developing new-type tests and examinations	10.2	21.1
Directing teachers in experimental study	3.5	3.7
Developing the unit plan in teaching	6.9	22.9
Encouraging attendance at summer sessions	13.9	24.8
Encouraging professional reading	14.5	22.0
Encouraging membership in teachers' organizations	16.1	30.3
Schools reporting	490	109

[1] Because the percentages are not significantly different for different groups of schools, only the total percentages are given.

Specific procedures emphasized.—The personal conference as a means of improving instruction and teachers far exceeded all others in the proportion of schools reporting special emphasis on it. It was so mentioned by 70 per cent of both the unselected and selected schools. Participation in local teachers' meetings, reported by approximately a fourth of both classes of schools, ranked second.

The development of new-type tests and examinations was given special emphasis by only 10 per cent of the unselected as compared with 21 per cent of the selected schools. The other item in which there was the greatest difference between the two classes of schools, namely, the development of the unit or long-assignment plan in teaching, was reported as receiving special emphasis in relatively few of the unselected as contrasted with almost a fourth of the selected schools. The emphasis on this feature in the selected schools correlates with the fact that 8 of the 15 selected schools visited were using some form of the unit plan in some or all subjects.

The determination of aims and objectives for subjects taught and the reorganization or adaptation of courses of study were each mentioned as receiving special attention by a relatively small percentage of the unselected and a slightly larger percentage of the selected schools. While the percentages are not large, they do seem significant as indicating some serious attention in a number of schools to these relatively new developments in secondary-school work. Analysis of pupils' learning difficulties and the study of the causes of pupil failure, reported, respectively, by 9.3 per cent and 18 per cent of the unselected and 8.2 per cent and 19.3 per cent of the selected schools as receiving emphasis, are indications of increasing special attention to the learning aspect of high-school work.

Mention should be made of a noteworthy program for improving instruction and teachers in service in rural high schools carried on during 1931–32 in Lewis County, a rural county in northern New York. The principal and teachers of the Camden High School, one of the selected schools located in a county adjoining Lewis County, participated by meeting with the teachers in Lewis County and cooperating in the program. Under the leadership of the four district superintendents of this county, all high-school teachers and principals met in the fall at two convenient centers for a day's conference on the use of the unit plan of teaching. At this conference the unit plan was presented and three books chosen for special study through the year. Groups of teachers and principals, representing in each

instance two or more neighboring schools, were formed for monthly meetings and discussions under the direction of a chairman. Each teacher during the year developed and taught one or more units, and in several instances special attempts were made to correlate units in different subject-matter fields. In the spring two conferences were again held, at which some of the work of the year was exhibited and at which time teachers reported on their study and use of the unit method and the problems they had met. After the manner described, during the year's program all teachers and principals in more than 10 small high schools studied the unit plan of teaching and gained some experience in its use.

4. OTHER METHODS OF PROMOTING THE PROFESSIONAL GROWTH OF TEACHERS

Character of methods employed.—Three methods of promoting the professional growth of teachers in service not directly related to classroom work are attendance at summer sessions, professional reading, and membership in teachers' organizations.

Attendance at summer sessions was reported as a means of improving the teachers by three-fourths of the unselected and a somewhat smaller proportion of the selected schools. (See Table 71.) Among the former this means was less frequently mentioned by the groups of smaller schools, while the reverse was true in the latter schools. Professional reading by teachers was encouraged in approximately 8 in 10 of the unselected and 7 in 10 of the selected schools, and membership in teachers' organizations by more than four-fifths of the former schools and slightly less than three-fourths of the latter. These three means of teacher improvement received emphasis in from 14 per cent to 16 per cent of the unselected and in from 22 per cent to 30 per cent of the selected schools. In the selected schools teachers were much more often encouraged to use these means of professional improvement than in the unselected schools.

Other special means or methods of improving instruction reported by one to three schools only were the parent-teacher

association meetings, the study of marking systems, and marking, Saturday classes in a teachers college, the study of pupils' home conditions, and the study of the physical defects and nervousness of pupils.

8. SUPERVISORY PROCEDURES IN SELECTED SCHOOLS VISITED

Teachers' meetings and demonstration teaching.—Among the selected schools visited a number of specific plans for improving instruction were found in use. Some description of these should help to make more concrete the analysis of data reported on the inquiry forms.

In the junior high school at Sandy, Utah, teachers' meetings for administrative purposes and those for professional study and discussions were kept distinct. Individual teachers under the guidance of the principal were either studying special problems related to their work or developing various plans of teaching to be used in their classrooms. Professional books were reviewed by teachers in faculty meetings and questions or problems raised were then discussed. In this school, teachers observing demonstration teaching recorded their observations on a special form, which was then used as a basis for the discussion that followed the demonstration.

The use of supervisory bulletins.—The use of the mimeographed bulletin, through which the principal brings to the attention of the teachers important materials, problems, or suggestions pertaining to teaching or to the general life of the school, was common among the schools visited. A few illustrations indicating the nature of these bulletins will show some of the purposes which they served.

A supervisory bulletin issued by the principal of the high school at Frederic, Wis., discussed the application of the mastery technique to the contract unit of instruction. Among the topics treated in this bulletin with specific illustrations were suggested procedures for determining general and specific objectives, the choice of learning activities, methods of providing for individual differences, the steps in the Morrison technique, and ways in which the teacher might evaluate his own work.

Bulletins illustrative of the mimeographed material issued to teachers by the principal of the Flathead County High School at Kalispell, Mont., are as follows:

1. A suggested bibliography of professional reading for the year 1931–32. This bulletin emphasized the need and value of reading both for meeting specific teaching problems and as a means of both professional and general growth. It gave a small list of recent professional books with which all high-school teachers should be familiar, a small list of periodicals devoted to junior and senior high school problems, and following these a classified list of more than 125 volumes dealing with all phases of secondary-school work and calling attention to the professional library of the school.

2. A bulletin on the home-room organization, setting forth the major functions of the home room in the school, plans for its organization, and a suggested list of helpful books on the home room.

3. A short bulletin on the philosophy and practice of marking.

4. A code for homes and nonresident school girls, drawn up by one of the parent-teacher associations of Montana.

A somewhat different type of bulletin was found in use in the high school at Pendleton, Ind. This bulletin dealt with items like the opportunities for doing valuable things in education in a small town, the personal relationship between pupils and teachers, points needing attention in the management and work of the classroom and school, suggestions relating to instruction and the conduct of pupils, and other items needed by the teacher in becoming adjusted to his work and his environment.

6. CONCLUSION

All information pertaining to supervision and the improvement of instruction and teachers in the smaller secondary schools indicates that considerable attention is being given to the study of teaching problems. In general the smaller schools are less frequently using certain means and methods than the larger schools. The data also indicate that a considerable variety of procedures are being employed by a significant percentage of schools in all size groups. Of special significance is the use by considerable numbers of the schools of newer means and procedures, such as the analysis of pupil-learning difficulties, the development of new-type tests and examinations, the determination of aims and objectives for

subjects taught, the reorganization and adaptation of courses of study, and the development of the long-assignment unit plan in teaching. Attention to these features in any considerable number of schools indicates an emphasis in instruction and innovations in methods of teaching and subject-matter organization rarely found in small high schools a decade ago.

CHAPTER VIII : THE EXTRACURRICULUM AND RELATED ACTIVITIES

1. GENERAL CHARACTERISTICS OF THE PROGRAM OF EXTRACURRICULUM AND RELATED ACTIVITIES

Desirable characteristics of a program.—One of the characteristic features of the secondary school of to-day is its program of extracurriculum and related activities. Such activities are generally accepted as an essential aspect of the modern secondary school's educational program. It is also generally agreed that an adequate program should include a wide variety both of athletic and of nonathletic activities appealing to the special interests and meeting the varied needs of the school population. An analysis of the situation in the smaller secondary schools should show the extent to which these schools foster such activities and the character of those fostered. In addition, it should throw some light on the limitations and possibilities of the smaller schools in providing for this aspect of secondary education.

Information on extracurriculum and related activities was obtained from a large percentage of the unselected and all but two of the selected schools. These data indicate that the smaller schools as a class are giving considerable attention to this phase of the secondary-school program.

Changes in the program of the smaller schools.—Comparison of the data of the present study with similar data gathered a few years earlier indicate that, while the types of activities most commonly fostered by small schools have remained much alike over a period of years, certain types of changes have apparently been taking place. Among these changes are: (1) An increased percentage of schools carrying on extracurriculum programs, (2) an increase in the variety of activities fostered, and (3) an increase in the extent to which these activities are given a place in the regular program of the school. Data from 815 small high schools gathered in 1921 and 1924 in a previous study [1] showed that approximately 24

[1] Ferriss, E. N. The Rural High School: Its Organization and Curriculum. United States Office of Education Bulletin, 1925, No. 10, pp. 40–41.

per cent of the schools had no activities or none except athletics, Boy Scout, Girl Scout, or Camp Fire Girl organizations. No activity other than athletics was found in as many as 60 per cent of the schools, and in 9 per cent only of the schools were such activities provided for within the regular school day. In the present study, schools enrolling fewer than 75 pupils show both the smallest range of activities and in general the lowest percentage of schools fostering any single activity. Yet, even these smallest schools show a higher percentage fostering various activities than was found in the earlier study.

Nonathletic activities.—Of the nonathletic activities, four were found in more than half of both the unselected and selected schools. (See Table 73.) These were the glee club, orchestra, school paper, and the dramatic club. Only the first of these was found in the majority of unselected schools enrolling 75 pupils or fewer, while two, the glee club and the school paper, were found in the majority of the corresponding group of selected schools. Additional types of activities fostered by a fourth to somewhat more than a third of the unselected schools were the band, Boy Scouts, 4-H clubs, debating club, school annual, and literary club. The debating club and the school annual were each found in but a relatively small proportion of the schools with fewer than 75 pupils. Among the selected schools of the same size were found all the activities mentioned, with the exception of the literary club, and in addition the homemaking club and the agriculture club.

TABLE 73.—*Numbers and percentages of unselected and selected schools reporting various types of extracurriculum activities*

Type of activity	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Glee club or chorus	18	34.6	48	63.2	78	75.0	84	90.3	99	86.1	327	74.3	11	57.8	27	81.8	49	89.1	87	81.3
Orchestra	16	30.8	28	36.8	60	57.7	72	77.4	97	84.3	273	62.0	7	36.8	22	66.7	42	76.4	71	66.4
School paper	15	28.8	32	42.1	52	50.0	56	60.2	89	77.4	244	55.5	10	52.6	19	57.6	33	60.0	62	57.9
Dramatic club	22	42.3	34	44.7	51	49.0	54	58.0	76	66.1	237	53.9	8	42.1	8	24.2	39	70.9	55	51.4
Band	2	3.8	16	21.1	31	29.8	45	48.4	76	66.1	170	38.4	5	26.3	16	48.5	30	54.7	51	47.7
Boy Scouts	11	21.1	18	23.7	49	47.1	40	43.0	51	44.3	169	38.4	5	28.3	15	45.5	29	58.9	49	45.8
Agriculture club	4	7.7	12	15.8	27	26.0	35	37.6	26	22.6	104	23.6	7	36.8	11	33.3	29	52.9	47	43.9
4-H club	20	38.4	26	34.2	44	42.3	30	32.2	25	21.7	145	32.9	10	52.6	15	45.5	17	30.9	42	39.2
Homemaking club	2	3.8	9	11.8	26	25.0	28	30.1	42	36.5	107	24.3	5	26.3	5	15.2	28	50.9	38	35.5
Debating club	7	13.5	17	22.4	39	37.5	46	49.4	60	52.2	169	38.4	5	26.3	5	15.2	26	47.3	36	33.6
School annual	6	11.5	7	9.2	27	26.0	24	25.8	60	52.2	124	28.2	2	10.5	9	27.3	23	41.8	34	31.8
Literary club	14	26.9	26	34.2	23	22.1	21	22.6	46	40.0	130	29.5	5	26.3	1	3.0	15	27.3	21	19.6
Hi Y club	1	1.9	6	7.9	17	16.3	22	23.7	54	47.0	100	22.7	.....	.....	2	6.0	17	30.9	19	17.8
Girl Scouts	4	7.7	4	5.3	22	21.1	30	32.3	30	26.1	90	20.5	.....	.....	6	18.2	13	23.6	19	17.8
Science club	5	9.6	3	3.9	14	13.5	20	21.6	40	34.8	82	18.6	1	5.3	1	3.0	14	25.5	16	14.9
Girl Reserves	1	1.9	1	1.3	6	5.8	11	11.8	.....	.....	19	4.3	1	5.3	3	9.1	7	12.7	11	10.3
Camp Fire Girls	2	3.8	6	7.9	15	14.4	9	9.7	14	12.2	46	10.4	1	5.3	4	12.1	5	9.1	10	9.3
Foreign language club	1	1.9	2	2.6	4	3.8	12	12.9	27	23.5	46	10.4	.....	.....	2	6.0	4	7.3	6	5.6
Athletic club	.....	.....	5	6.6	7	6.7	5	5.4	8	7.0	25	5.7	1	5.3	1	3.0	3	5.5	5	4.7
Art club	.....	.....	1	1.3	.....	.....	.....	.....	11	9.6	12	2.7	1	5.3	.....	.....	3	5.5	4	3.7
Commercial club	.....	.....	.....	.....	.....	.....	6	6.5	.....	.....	6	1.4	.....	.....	2	6.0	2	2.7	4	3.7
Lone Scouts	.....	.....	.....	.....	1	.9	.....	.....	3	2.6	4	.9	2	10.5	2	6.0	.....	.....	4	3.7
Handicraft club	.....	.....	.....	.....	.....	.....	3	3.2	.....	.....	3	.6	.....	.....	.....	.....	3	5.5	3	2.8
Honor society	1	1.9	.....	.....	2	1.9	.....	.....	2	1.7	5	1.1	.....	.....	2	6.0	1	1.8	3	2.8
Library club	.....	.....	.....	.....	.....	.....	2	2.2	.....	.....	2	.4	.....	.....	2	6.0	1	1.8	3	2.8
Nature study club	.....	.....	.....	.....	.....	.....	1	1.1	.....	.....	1	.2	.....	.....	.....	.....	3	5.5	3	2.8
Local and miscellaneous clubs	.....	.....	6	7.8	8	7.7	14	15.1	51	45.2	80	18.0	1	5.3	17	51.5	41	74.5	59	55.1
Number of schools reporting	52	.....	76	.....	104	.....	93	.....	115	.....	440	.....	19	.....	33	.....	55	.....	107	.....
Average number per school	2.9	.....	4.0	.....	5.9	.....	7.2	.....	8.6	.....	6.2	.....	4.6	.....	6.0	.....	8.7	.....	7.1	.....

Among both unselected and selected schools, those enr
75 or fewer pupils differed from the groups of larger sc
They not only fostered a smaller variety of activities,
with few exceptions each activity fostered was found
smaller proportion of the schools. These differences
less marked in the selected than in the unselected sch
Two examples of extreme differences between the propor
of schools in different size groups offering an activity occ
among the unselected schools in the case of the band an
homemaking club. The former was rarely found in sc
belonging to Group IA, but occurred in considerably
than three-fifths of those in Group IIIB. Likewise,
homemaking club was rarely fostered in the schools of G
IA, as contrasted with more than one-third of the schoo
Group IIIB.

The larger unselected and selected schools not only sh
significantly larger proportions of schools offering the
common activities, but also a significantly wider variet
activities in their total offerings. The selected schoo
general showed a higher proportion providing each act
than the unselected schools. They also showed sm
differences between the groups of smaller and larger sc
in the proportions providing each activity. Apparently
smaller selected schools have in this respect been abl
overcome the limitations of smallness to a greater ex
than the corresponding groups of unselected schools.
range in the average number of activities per school
from slightly less than 3 in Group IA to somewhat less
9 in Group IIIB and among the selected schools from app
mately 5 in Group I to almost 9 in Group III.

Athletic activities and games.—Seven types of athletic ga
and activities were fostered by from somewhat more th
fourth to practically all unselected and from a thir
approximately all selected schools. These were, as show
Table 74, football, baseball, track, tennis, basket ball, v
ball, and indoor baseball. Of these games, basket
track, and baseball were most frequently mentioned,
basket ball heading the list both in the total number of sc
in which the game was played and also in the similarity an

all size groups in the proportion of schools fostering the game. Approximately 95 per cent of the unselected and 93 per cent of the selected schools reporting included basket ball. Among the unselected schools the range in the percentage of schools reporting this game was from 88 in Group IA to 99 in Group IIIB. Among the latter schools the range was from 84 per cent in Group I to 98 per cent in Group III. The greatest difference between smaller and larger schools occurred in the case of football, which was played in a relatively small percentage of all schools enrolling 75 pupils or fewer and in a large majority of all schools enrolling more than 150 pupils. This game was played in only 13 per cent of the unselected and 16 per cent of the selected schools enrolling 75 pupils or fewer. Undoubtedly this is a clear case of a limitation due to smallness. The data indicate that the smaller schools, and especially those enrolling 75 pupils or fewer, have not generally recognized as yet the possibilities of volley ball and indoor or soft-ball baseball.

Other games, such as soccer, hockey, and golf, were played in relatively small numbers of the larger schools of both classes. In each instance these newer athletic activities in the secondary school were offered by a larger proportion of selected than of unselected schools. This fact indicates a desirable tendency in the more progressive smaller schools to promote athletic interests that may be continued after school days more readily than the older forms of high-school athletics. Furthermore, as a class the selected schools were offering a somewhat more varied program of games and athletics than the unselected schools as a class.

TABLE 74.—*Numbers and percentages of unselected and selected schools reporting various kinds of games and athletics*

Games and athletics	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Football	6	8.8	14	16.1	59	54.6	91	87.5	107	93.9	277	57.6	3	15.8	9	27.3	38	69.1	50	46.7
Baseball	40	58.8	73	83.9	79	73.1	60	57.7	51	44.7	303	63.0	17	89.4	25	75.8	39	70.9	81	75.7
Track	21	30.8	46	52.9	64	59.3	76	73.1	100	87.7	307	63.8	7	36.8	17	51.5	47	85.5	71	66.4
Tennis	25	36.7	26	29.9	49	45.4	43	41.3	66	57.9	209	43.5	8	42.1	14	42.4	29	52.9	51	47.7
Basket ball	60	88.2	81	93.0	101	93.5	101	97.1	113	99.0	456	94.8	16	84.2	29	87.9	54	98.2	99	92.5
Volley ball	19	27.9	29	33.3	27	25.0	41	39.4	48	42.1	164	34.1	8	42.1	15	45.5	22	40.0	45	42.1
Swimming					1	.9			5	4.4	6	1.2					1	1.8	1	.9
Handball	1	1.5	6	6.9	7	6.5	4	3.8	11	9.6	29	6.0	1	5.3	3	9.1	8	14.8	12	11.2
Indoor baseball	12	17.6	15	17.2	24	22.2	35	33.7	49	42.9	135	28.1	5	26.3	11	33.3	18	32.7	34	31.8
Soccer	1	1.5	1	1.2	4	3.7	5	4.8	7	6.1	18	3.7	1	5.3	3	9.1	6	11.0	10	9.3
Wrestling	1	1.5					2	1.9			3	.6			1	3.0	3	5.5	4	3.7
Boxing	1	1.5							[1] 6	5.3	7	1.5					3	5.5	3	2.8
Horseshoes			1	1.2			2	1.9	3	2.6	6	1.2					4	7.3	4	3.7
Hockey	1	1.5	1	1.2			2	1.9	7	6.1	11	2.3			1	3.0	3	5.5	4	3.7
Golf							1	.9	7	6.1	8	1.7					4	7.3	4	3.7
Winter sports							1	.9			1	.2					1	1.8	1	.9
Hiking							1	.9			1	.2								
Touch football									2	1.8	2	.4					1	1.8	1	.9
Archery									2	1.8	2	.4					1	1.8	1	.9
Dancing									1	.8	1	.2					1	1.8	1	.9
Bowling									2	1.8	2	.4								
Miscellaneous			2	2.4					[2] 3	2.6	3	.6			[3] 3	9.1	5	9.1	8	7.5
Number of schools reporting	68		87		108		104		114		481		19		33		55		107	
Average number per school	2.8		3.4		3.8		4.5		5.2		4.1		3.5		4.0		5.2		4.5	

[1] Wrestling and boxing.

[2] Rifle and gymnasium.

1. COMPETITIVE ACTIVITIES IN THE SMALLER SCHOOLS

Competitive athletic activities.—The only activity in which more than three-fourths of the schools of both classes and all size groups competed with other schools was basket ball. (See Table 75.) Interscholastic baseball was played by slightly more than a half of the unselected and somewhat less than three-fourths of the selected schools, and, with the exception of Group IA of the former schools, was a more common competitive sport in the smaller than in the larger schools. On the other hand, football was seldom a competitive sport among schools with enrollments of 75 or fewer and was second in popularity among the schools enrolling more than 150, ranking next to basket ball. Track and cross-country for all schools ranked third in popularity, and, although most common among the groups of larger schools, was fairly well represented in all size groups. In general there was considerable similarity in the proportions of unselected and selected schools engaging in the different competitive athletic sports. The most significant difference was in soccer, which was much more common in the selected schools. Also it had some representation in all size groups of selected schools, but was not reported in any group of unselected schools enrolling fewer than 150 pupils.

TABLE 75.—*Numbers and percentages of unselected and selected schools reporting competitive athletic and nonathletic activities*

Type of activity	Unselected schools by size groups												Selected schools by size groups							
	IA		IB		II		IIIA		IIIB		Total		I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Football	3	5.2	11	12.8	47	47.0	84	80.7	100	86.2	245	52.9	2	10.5	8	24.2	38	69.1	48	44.9
Baseball	26	44.8	61	70.9	64	64.0	43	41.3	43	37.1	237	51.2	15	78.9	24	72.7	35	63.6	74	69.2
Basket ball	47	81.0	76	88.4	85	85.0	97	93.2	103	88.8	408	88.1	18	94.7	29	87.9	52	94.5	99	92.5
Track and cross-country	15	25.9	35	40.7	48	48.0	69	61.3	76	65.5	243	52.5	8	42.1	16	48.5	40	72.7	64	59.8
Tennis	4	6.9	4	4.6	16	16.0	16	15.4	31	26.7	71	15.3	2	10.5	1	3.0	15	27.3	18	16.8
Soccer							4	3.8	2	1.7	6	1.3	1	5.3	3	9.1	5	9.1	9	8.4
Debate	4	6.9	19	22.1	22	22.0	36	34.6	48	41.4	129	27.9	3	15.8	4	12.1	23	41.8	30	28.0
Declamation and oratory [1]	6	10.3	24	27.9	31	31.0	32	30.8	44	37.9	134	28.9	3	15.8	5	15.1	18	32.7	26	24.3
Dramatics							10	9.6			10	2.2	1	5.3	2	6.0	5	9.1	8	7.5
Music [2]	3	5.2	12	13.9	19	19.0	34	32.7	31	26.7	99	21.4	3	15.8	7	21.2	5	9.1	15	14.0
Essay and literary	9	15.5			5	5.0	9	8.6	5	4.3	28	6.0					8	16.4	8	8.4
Volley ball	3	5.2	24	27.9			3	2.9	1	.9	31	6.7	1	5.3	3	9.1	5	9.1	9	8.4
Hockey			2	2.3	16	16.0	4	3.8	2	1.7	24	5.2					3	5.5	3	2.8
Swimming			1	1.2					5	4.3	6	1.2								
Commercial contest			1	1.2	4	4.0	9	8.6	8	6.9	22	4.8					8	14.5	8	7.5
Spelling			4	4.6							4	.9	1	5.3			4	7.3	5	4.7
Agriculture and home economics			2	2.3	2	2.0	6	5.8			10	2.2	2	10.5	2	6.0	4	7.3	8	7.5
Winter sports							1	1.0			1	.2					1	1.8	1	.9
Scholarship					6	6.0	10	9.6			16	3.5	2	10.5			1	1.8	3	2.8
Miscellaneous [3]					6	6.0			16	13.8	25	5.4	2	10.5	4	12.1	11	20.0	17	15.9
Golf									12	10.3	12	2.6					4	7.3	4	3.7
Journalism									4	3.4	4	.9								
Number of schools reporting	58		86		100		103		116		463		19		33		55		107	
Average number of activities per school	2.0		3.2		3.7		4.5		4.6		3.8		3.4		3.3		5.3		4.3	

[1] Includes forensics, public speaking, and reading.
[2] Music, orchestra, and glee club were tabulated under one head as "music."
[3] Under miscellaneous were listed rifle, athletics, wrestling, school paper, Latin, and mathematics.

Competitive nonathletic activities.—Among the nonathletic competitive activities, as shown in Table 75, declamatory and oratorical contests and debating held, respectively, first and second places in popularity in both classes of schools, with music ranking third. The proportion of schools competing in each of these activities was in both classes of schools less than a third. The proportions of unselected and selected schools holding competitions in declamation and oratory and debating were practically the same. Competitions in music were considerably more often reported in the unselected schools. Markedly larger proportions of the unselected schools enrolling more than 150 pupils than of the smaller schools reported interscholastic debates and contests in music. A similar difference exists in the selected schools in the case of debate. The most marked differences between the two classes of schools were in competitions in dramatics and agriculture and home economics, reported much more frequently by selected schools, and in music, much more frequently reported by unselected schools. In general the selected schools fostered competitive activities more commonly than the unselected schools, though the differences were not marked. Judging from the data, both classes of schools placed relatively little emphasis on competitions in nonathletic activities.

Competitive activities for girls.—All but seven of the selected schools supplied information relative to the practice of interscholastic competitions for girls. Corresponding data were not available for the unselected schools. Of the selected schools reporting, as shown in Table 76, approximately three-fifths had interscholastic athletic competitions for girls and somewhat more than a third nonathletic competitions. Basket ball ranked first among athletics, with more than half of the schools reporting interscholastic games for girls. Track and tennis were each reported by relatively small percentages of schools. Volley ball, hockey, and indoor baseball were each mentioned by several schools.

TABLE 76.—*Numbers and percentages of selected schools reporting interscholastic competitions for girls in certain athletic and nonathletic activities*

Activity	Selected schools by size groups				
	I	II	III	Total	Per cent
1	2	3	4	5	6
Athletic activities:					
Basket ball	10	18	26	54	52.9
Track and field	2	7	7	16	15.7
Tennis	1	1	9	11	10.9
Indoor baseball	3	-------	1	4	3.9
Volley ball	1	3	2	6	5.8
Hockey	-------	1	3	4	3.9
Field ball	-------	1	1	2	2.0
Baseball	-------	1	1	2	2.0
Miscellaneous	-------	1	2	3	2.9
Number of schools reporting competitive activities	11	22	30	63	61.8
Total number of schools reporting	17	33	52	102	----------
Nonathletic activities:					
Public speaking	1	4	13	18	18.0
Music	1	3	13	17	17.0
Debating	1	2	12	15	15.0
Dramatics	1	1	4	6	6.0
Literary and scholarship	1	-------	8	9	9.0
Commercial work	-------	-------	4	4	4.0
School publications	-------	-------	3	3	3.0
Home economics	1	-------	2	3	3.0
Miscellaneous	1	2	9	12	12.0
Number of schools reporting competitive activities	3	9	25	37	37.0
Total number of schools reporting	15	33	52	100	----------

Among the nonathletic activities in which interscholastic competitions for girls were provided, public speaking was first and music second, each being mentioned by somewhat less than a fifth of the schools. Debating was reported by a somewhat smaller proportion of the schools. Other types of nonathletic activities in which girls competed with other schools in a significant number of cases were dramatics, literary activities, commercial work, home economics, scholarship, and school publications.

3. *ADMINISTRATION AND CONTROL OF ACTIVITIES IN SELECTED SCHOOLS*

Sources of funds.—Information on the administration and control of activities was available for the selected schools only. Since it applies to schools which data presented thus far in the study have shown to be superior in most respects to the run of smaller schools, it should be valuable as indicating practices somewhat in advance of those ordinarily found in the smaller schools.

Among the selected schools funds for carrying on athletic and nonathletic activities were secured from various sources. (See Table 77.) For the support of athletics, practically all the schools depended in part on receipts from games and special programs presented by the pupils. Proceeds from pupil-activity tickets were used by about two-fifths of the schools, grants of funds by the board of education by slightly more than a fourth, and membership dues in the athletic association by approximately a fourth of the schools. Approximately 1 school in 10 reported the undesirable practice of subscriptions from patrons and friends of the school as a source of funds for the support of athletics. Cafeteria lunches, food and confectionery sales, magazine subscriptions, dinners, and school carnivals were each reported by a small number of schools as sources of funds for carrying on athletics. The sources of funds for the support of nonathletic activities were in general the same as those for athletics and, with the exception of proceeds from membership dues in the athletic association, held the same relative ranks as to the proportion of schools depending on them. The relatively large proportion of schools reporting the desirable practice of funds regularly granted by the boards of education for the support of these educational activities is encouraging.

TABLE 77.—*Numbers and percentages of selected schools reporting various sources of funds for the support of athletic and nonathletic activities*

Sources of funds	Athletic activities		Nonathletic activities	
	Number	Per cent	Number	Per cent
1	2	3	4	5
Receipts from games and special pupil programs	101	98.1	71	78.0
Pupil dues for school activities tickets	42	40.8	30	33.0
Membership dues in athletic association	26	25.2	5	5.5
Grant of funds by board of education	27	26.2	30	33.0
Subscriptions from patrons and friends of the school	10	9.7	11	12.1
Proceeds from bookstore	1	1.0	2	2.3
Food, candy, and ice cream sales	2	2.0	4	4.6
Miscellaneous	4	4.0	7	7.7
Number of schools reporting	103	----------	91	----------

Control of finances.—In the selected schools the control of finances for both athletic and nonathletic activities, as shown in Table 78, was most commonly vested in the principal,

almost three-fifths of the schools so reporting for athletics and a half for nonathletic activities. In approximately a third of the schools the general school treasurer had charge of funds for athletics, and in a similar proportion of the schools the same person had control of the funds for nonathletic activities. For both classes of activities the placement of control in the treasurers of the various pupil organizations represented the third most common practice, while control of funds by a faculty committee or a member of the faculty held fourth place. Other types of control reported by relatively small numbers of schools were the general school committee, the pupil board of control, the superintendent, the board of education, club sponsors, and the faculty.

TABLE 78.—*Numbers and percentages of selected schools reporting various types of control of finances of athletic and nonathletic activities*

Type of control	Selected schools by size groups							
	I		II		III		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7	8	9
Athletic activities:								
Principal	9	47.4	22	64.7	33	58.9	64	58.7
General school treasurer	5	26.3	7	20.6	21	37.5	33	30.3
Treasurer of the several pupil organizations	4	21.1	3	8.8	12	21.4	19	17.9
Faculty committee or member	1	5.3	5	14.7	5	9.4	11	10.0
General school committee	2	10.5	[1] 3	8.8	5	9.4	10	9.4
Athletic association			1	2.9	1	1.9	2	1.8
Board of education	1	5.3					1	.9
Faculty					1	1.9	1	.9
Pupil board of control					1	1.9	1	.9
Student officers			1	2.9			1	.9
Superintendent	1	5.3	1	2.9	2	3.8	4	3.8
Treasurer of the town	1	5.3					1	1.9
Schools reporting	19		34		53		106	
Nonathletic activities:								
Principal	6	31.6	15	44.1	29	54.7	50	50.5
General school treasurer	4	21.1	5	14.7	23	43.4	32	32.3
Treasurer of the several pupil organizations	3	15.8	[2] 13	38.2	14	26.4	30	30.2
Faculty committee or member	1	5.3	3	8.8	5	9.4	9	9.0
General school committee	1	5.3	[3] 4	11.8	6	11.3	11	11.0
Board of education	1	5.3					1	1.0
Board of education treasurer			1	2.9			1	1.0
Club sponsors					1	1.9	1	1.0
Faculty					1	1.9	1	1.0
Pupil board of control					1	1.9	1	1.0
Student officers			1	2.9			1	1.0
Superintendent	1	5.3	1	2.9	2	3.8	4	4.0
Schools reporting	15		31		53		99	

[1] School 21 includes 1 faculty member.
[2] School 26 assisted by faculty adviser.
[3] School 27 includes staff adviser or sponsor.

Control of finances in schools visited.—Of the 15 selected schools visited, 7 had centralized the control of finances for athletics and extracurriculum activities in a general pupil treasurer acting under the advice and guidance of a faculty sponsor, and 1, the high school at Wallingford, Vt., had a member of the faculty as general school treasurer, with whom each pupil organization carried an account through its pupil treasurer. In the Wallingford plan there was also a school purchasing agent. Each pupil organization sent its order to the purchasing agent, who issued a requisition made out and charged to the organization. This requisition was signed by the president of the organization and its treasurer and faculty adviser. A purchasing order had to be approved by either the principal or assistant principal and signed by the purchasing agent.

In the Flathead County High School, Kalispell, Mont., the control of finances was centralized in a general pupil treasurer working under the guidance of a faculty auditor. Each pupil activity had its treasurer, who handled the finances of his own organization and deposited funds with, or drew upon, the general treasurer. An annual budget for activities in which each activity was given its allotment was prepared each fall by the pupil council. In the high school at Point Marion, Pa., all activity funds were turned in to the general treasurer and each activity through its treasurer, as need arose, drew on the general treasurer by check countersigned by the faculty sponsor of the activity. Each activity had a bank passbook.

Limitations on number of activities.—Variations in practice with regard to the number of activities in which a pupil may participate were so wide and so numerous that it was practically impossible to form any generalizations. The amount of variation ranged from no limitations to a passing mark in all subjects. Some schools required pupils to participate in at least two activities, while others limited the number to two or three activities during any semester. Illustrative statements will help to indicate the variation in practices: "One athletic and one library activity; musical activities not included"; "only one club"; "one club, two sports"; "not

more than two except by special permission"; "three activities if scholarship is satisfactory"; "two athletic activities"; and "no general rule—each case considered separately."

In 5 of the 15 schools visited a point system was used as a means of recognizing the pupil's participation in activities and as a means of preserving a desirable balance in the pupil's school life. Two examples will give the major features of the plans in use.

In the Flathead County High School merit points were given the pupil for both classroom and extracurriculum activities according to a definite point system. Merit points gained in extracurriculum activities should "not exceed by more than 5 those gained in the classroom." Twenty points per semester were required for a place on the honor roll and 30 points for a place on the "high honor roll." Ten points were the maximum that could be secured in one activity during a semester, and 15 were the maximum that could be secured in any one field, as music, athletics, etc. The high school at Point Marion, Pa., had a system of quality points and activity points, the quality points being earned in the classroom and the activity points by participation in extracurriculum activities. The proper balance between quality points and activity points was represented by the ratio of 10 to 1. Whenever in the case of an individual pupil the ratio showed an excess of either kind of points, a decreasing scale of values in the type showing excess operated until the proper balance was again reached or approximated.

Eligibility for participation in interscholastic competitions in selected schools.—Practice with regard to eligibility for participating in interscholastic contests, both athletic and nonathletic, were much better standardized in the selected smaller secondary schools than practices with regard to general participation in such activities. An age limit of 20 to 21 years was an item of eligibility reported by a considerable proportion of these schools. A passing mark in all subjects or a passing mark in three subjects was reported by large and approximately equal number of schools. Not over eight semesters or less than four years in school were items of eligibility frequently noted. Satisfactory conduct, living

up to training rules, and good citizenship or sportsmanship were given by approximately a fourth of the schools reporting. An approximate fifth reported the observance of State eligibility rules, the rules of the State athletic association, the interscholastic association, or other similar organizations for the control of athletics and other competitive contests in secondary schools.

Control of extracurriculum activities and athletics.—Of 105 selected schools supplying information on the status of the coaches of athletics, all reported that the coach was a regular member of the school faculty.

Athletics was most commonly controlled through faculty sponsors appointed either by the high-school principal or by the superintendent. In a relatively small number of cases the faculty sponsor was chosen by the pupils. Control through a faculty committee was second in frequency of mention and control through a pupil council or board was third, the latter being much more common among the larger schools. In 10 of the larger schools the administration and control of athletics was a responsibility of the director of extracurriculum activities. Other types mentioned by relatively few schools were control by the principal or headmaster, by pupil managers, by the superintendent, by the physical director or coach, and by the pupil body under faculty guidance. Practically the only differences between the control of nonathletic activities and those given for athletics were that in the latter the coach dropped out of the picture and the director of extracurriculum activities was responsible in a larger number of schools.

Supervision and control of pupil social affairs.—Data are available from 106 of the selected schools relating to the supervision and control of the social affairs of pupils. These data are not shown in tabular form. The most striking characteristic of this phase of the study was the uniformity in practice in schools of the different size groups. In more than four-fifths of the schools the supervision and control of the social affairs of pupils were in the hands of the class advisers as sponsors. In almost a fourth of the schools this responsibility was vested in a faculty committee or member.

In 15 schools, most of them in Group III, the dean of girls was responsible for the supervision and control of this phase of the pupil's school life. In about a third of the schools, most of them the larger schools, school patrons served as chaperones of the social affairs of pupils. In the case of a few schools other persons had the responsibility for the conduct of pupil social affairs, as the boys' adviser, the faculty, faculty chaperones, the girls' adviser, the home-room teacher, the principal, and the pupil social committee.

In the high school at Glasgow, Mont., all pupil social functions were under the general charge of the dean of girls, and a definite set of rules for these functions had been formulated. Whenever any pupil organization desired a social activity, they appointed, with the advice and consent of their adviser, a committee which met with the dean of girls to make the necessary arrangements. This committee, with the aid of the dean of girls, appointed six special committees to handle the details. These special committees ordinarily included committees on entertainment, decorations, refreshments, clean-up, finance, and reception and chaperones. All pupil functions were required to be chaperoned by at least two faculty members, exclusive of the dean, principal, or superintendent, and parent chaperones were obtained whenever possible. Functions were held ordinarily on Friday evenings or on evenings preceding holidays or vacations. Emphasis was placed on reasonable cost and the provision of forms of entertainment that would include all members of the group.

4. PUPIL PARTICIPATION IN HIGH-SCHOOL GOVERNMENT

Characteristics of pupil participation.—Information on the characteristics of pupil participation in high-school government was furnished by an even hundred of the selected schools. Similar data are not available for the unselected schools. Although the practices reported are not at all unusual in large urban high schools, they are probably much less common in the smaller schools, and should offer many valuable suggestions to principals and teachers of the smaller schools.

Of the schools reporting, as shown in Table 79, 7 in 10 used the home-room plan as the basic unit of pupil organization and government. Almost two-fifths of the schools reported pupil councils, and slightly more than a fifth reported pupil traffic officers. Pupil school monitors and pupil discipline committees were each reported by a considerable number of schools. The major features reported were found in about the same proportion of schools in each of the three size groups. In the case of some schools descriptive statements were given indicating some special feature of government in the school. The following are illustrative: "A citizenship committee to credit with points for good acts and to give demerit points for undesirable conduct"; "a point-system contest between all classes in scholarship and citizenship"; "pupil host and hostess to greet visitors, and a special activity committee appointed by student council"; "each student has a citizenship record made up by the different teachers"; "pupil-managed study hall for pupils having no marks below 'C'"; "pupils in charge of the study hall."

TABLE 79.—*Numbers and percentages of selected schools reporting various types of organization for pupil government*

Type of organization	Selected schools by size groups				
	I	II	III	Total	Per cent
1	2	3	4	5	6
The home room	6	23	41	70	70
A pupil council	4	11	24	49	49
Pupil traffic officers	3	1	18	22	22
Pupil monitors	1	3	6	10	10
Teachers	1	1	5	7	7
Pupil discipline committee	1	1	3	5	6
Miscellaneous	2	3	0	5	5
Number of schools reporting	14	32	54	100	

Pupil participation in schools visited.—Of the 15 schools visited, 10 had general pupil associations and councils and 9 used the home-room plan.

In regard to the general organization of pupils for participating in their own government there were interesting differences among these schools. In the high school at Walling-

ford, Vt., every pupil was a member of the general pupil association. The president of the pupil council was elected by the entire school; other members of the council represented the several classes and home rooms and reported back to these classes and home rooms all business transacted by the council. The council selected the chief of police, who was responsible for the traffic system and the supervision of the noon hour, during which period about 50 nonresident pupils lunched in the high-school building. Cases of discipline were either tried before a jury of pupils or before a school justice. There were three of these justices, two being teachers and one the principal. An offender could choose whether he would appear before the group of pupils or before a faculty justice.

In the high school at Masontown, W. Va., pupil participation in government included all activities except those of the classroom. There was a general pupil association with a president, vice president, secretary, and treasurer. There was a pupil cabinet of 17 members, with representatives from each class including grades 7 to 12. Pupil affairs were controlled through six different committees, the chairmen of which were in some cases appointed by the president of the general association and in some cases by the committee itself. These committees were: (1) The cleanliness committee, responsible for school buildings and grounds; (2) the assembly committee, responsible for planning the weekly assembly programs and conducting the assembly; (3) the athletic committee; (4) the lunch-room committee; (5) the traffic committee, responsible for plans for the passing of pupils and order in passing; and (6) the publicity committee, which was responsible for keeping the school public and the community informed with regard to the school and its activities.

In the Flathead County High School the pupil council had general supervisory power over all interscholastic activities but this power did not include the coaching or directing of such activities. It was responsible for building and encouraging school spirit, the appointment of yell leaders, and the conduct of school mixers, dances, carnivals, and "pep" rallies.

Every new pupil organization was required to present its constitution to the council for approval, and a copy was kept on file by the secretary of the council. Any unusual undertaking to raise funds must first have the approval of the council. The pupils of the Point Marion High School operated under a written constitution, with legislative powers vested in a congress composed of a pupil council and the faculty and executive powers in the pupil officers and the principal.

An interesting and noteworthy organization for pupil participation in government for small schools was found in the junior high school at Sandy, Utah. Some idea of the organization may be given, perhaps, by mentioning a few of the major items. The pupil association of the school was called the "Trail Blazers of America," and the seventh-year pupils were known as recruits, eighth-year pupils as frontiersmen, and ninth-year pupils as path breakers. Each year had its own colors and for each pupil there was placed on a permanent record, in the appropriate color, symbols representing each activity or service performed for which the pupil had received an award during the year.

The basis for pupil organization was the home room, and the pupil council was made up of three representatives from each home room. In addition there were nine special councils working under the general council. These special councils and their functions were:

(1) The presidents' council, composed of all the presidents and vice presidents responsible for the general problems of the various rooms.

(2) The host and hostess council responsible for receiving and taking care of all visitors and teaching etiquette to classes. Each week this council met for a lesson on etiquette and took the lesson back to the classes.

(3) The clean-school council, responsible for the appearance of building and grounds.

(4) The safety council, responsible for enforcing rules passed by the general council, taking care of traffic, and sponsoring safety work in both the elementary and junior high schools.

(5) The scholarship council, with representatives from each room and with the object of improving scholarship.

(6) An attendance council, with the object of improving attendance.

(7) The secretary's council, responsible for checking pupil records.

(8) A cashier's council, affiliated with the local bank and having charge of pupil savings.

(9) The Trail Blazers' council, responsible for handling awards to pupils for activities and service rendered.

5. CONCLUSION

The data on extracurriculum and related activities show clearly that the smaller secondary schools are giving considerable attention to this phase of secondary education. They show also that, in general, the smaller the schools the more limited the range of activities offered and the smaller the proportion of schools fostering each activity. Interscholastic competitions in athletic activities are markedly more frequent in the smaller secondary schools than competitions in nonathletic activities. As a class the selected schools foster a larger number of both athletic and nonathletic activities per school than the unselected schools. Also, the selected schools more frequently reported the types of athletic activities newer to secondary schools.

Data on the selected schools only show that these schools have made considerable progress toward centralization of control of both athletic and nonathletic activities. Their athletic coaches are members of the faculty. The data on these schools also show that a considerable proportion of the schools have taken a desirable step in the direction of a sound basis for pupil activities through grants of funds from the board of education for their partial support. A large proportion of the schools are definitely organized for the supervision and control of pupil social activities. Likewise, in the matter of pupil participation in high-school government a considerable proportion of the selected schools show significant departures from the traditional practices of smaller schools.

CHAPTER IX : PUPIL ACCOUNTING AND GUIDANCE

1. RECORDS AND TESTING

School-record data relating to pupils.—The gathering and recording of data on pupils and their use in dealing with the many problems of pupil adjustment, both in relation to work being done and in relation to planning for future activity, are important features of modern secondary education. Approximately 73 per cent of the unselected and 91 per cent of the selected schools supplied information relative to the data on pupils kept in the school records. This marked difference between the two classes of schools is probably highly significant, since it is doubtless a safe assumption that the schools not reporting are more likely to be those least active in the keeping of data concerning pupils.

The information, as given in Table 80, shows that data on 13 different items are kept in the pupil records of more than a fifth of the schools reporting. Data on only five of these items, however, are reported as being kept in the records of more than half the unselected schools. Three of these items, kept in the records of more than three-fourths of the unselected schools, are the traditional ones on scholarship, place of residence, and occupation of father. The other two, relating to the intelligence and health of the pupil (particularly the former), represent the newer types of pupil data. Other types of data concerning pupils kept by from slightly less than a third to almost half of the unselected schools are those pertaining to personal traits of pupils, pupils' interests, nationality, race, home conditions, vocational plans, and educational plans. Approximately one in five of these schools report data on the pupil's occupational experience.

TABLE 80.—*Percentages of unselected and selected schools reporting certain types of data regarding pupils to be kept in school records*

Nature of data	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Personal traits	25.0	29.2	26.8	31.5	34.4	30.0	18.8	40.6	50.0	42
Interests	31.8	30.7	28.0	30.3	34.4	31.1	18.8	43.7	50.0	43
Scholarship	81.8	86.1	85.4	89.9	92.5	87.9	93.8	90.6	100.0	96
Intelligence	47.7	52.3	57.3	70.8	64.3	59.5	68.8	62.5	86.5	76
Health	75.0	61.5	84.6	60.7	63.4	64.6	87.5	75.0	78.7	79
Nationality	47.7	40.0	46.3	47.2	46.2	45.6	56.3	34.4	63.5	53
Race	43.2	33.8	48.8	44.9	39.8	42.1	50.0	34.4	65.4	53
Place of residence	75.0	75.4	78.0	78.6	86.0	79.4	75.0	75.0	90.4	83
Home conditions	34.1	27.7	34.1	34.8	30.1	32.2	37.5	21.9	40.4	34
Occupation of father	79.5	72.3	80.5	79.8	76.3	77.7	68.8	65.6	88.5	78
Vocational plans of pupils	36.4	44.6	36.6	56.2	53.7	46.9	50.0	40.6	76.9	61
Educational plans of pupils	43.2	49.2	42.7	50.6	52.7	48.3	37.5	40.6	73.1	57
Occupational experience of pupils	22.7	21.5	10.0	24.7	22.6	20.4	18.8	3.1	44.2	27
Number of schools reporting	44	65	82	89	93	373	16	32	52	100

Of the 13 different items mentioned, 9 are reported by more than half of the selected schools. In addition to the five reported by more than half of the unselected schools are those relating to nationality, race, vocational plans of pupils, and educational plans of pupils. Data on personal traits, pupils' interests, and home conditions are reported by from a third to more than two-fifths of the selected schools, while more than a fourth report data on the pupils' occupational experience. Other data mentioned by a few of the selected schools enrolling more than 150 pupils are those showing the pupil's athletic record, character rating, and record in extracurriculum activities. On each of the 13 items pertaining to pupils a larger proportion of the selected than of the unselected schools report that data are kept in the records. In general the difference is most marked in the case of the newer types of data. All the evidence indicates that as a class the selected schools are superior to the unselected schools in the extent to which they have on record information concerning pupils.

Four of the selected schools visited were employing definite forms for checking pupils' personal traits. Two examples will serve to indicate the character of the forms used. In the high school at Wallingford, Vt., each teacher gave a 3-point

ranking to pupils in his classes on a form including six major traits. Each of these major traits was subdivided into five to nine specific items. The major traits included were control, responsibility, courtesy, work and study habits, talents well suited to the work, and special ability shown in the work. In the high school at Glasgow, Mont., each teacher made a 3-point ranking of each pupil on a personality blank by checking the appropriate descriptive words in each of four categories. Each category included 12 of these descriptive terms.

Intelligence testing and rating.—In the case of both unselected and selected schools the percentage reporting the use of intelligence tests was very similar to the percentage reporting intelligence as an item in the pupil record. According to the evidence, as shown in Table 81, approximately half of the former and three-fourths of the latter administer mental or intelligence tests. In the unselected schools intelligence tests are much more frequently employed by the larger schools than by the smaller; in the selected schools the same difference is found, but it is less marked. In general the selected schools are using intelligence tests much more commonly than the unselected schools.

In both classes of schools those employing mental tests were using them most frequently in the ninth or freshman year. A larger proportion of the unselected than of the selected schools reported this practice. The second most frequent practice was to use them in the twelfth or senior year. The giving of the tests in the senior year was more frequently the practice in the selected than in the unselected schools. Approximately half of the unselected and three-fifths of the selected schools reported giving the tests to pupils of the tenth and eleventh years. In general the evidence shows no significant differences between the two classes of schools in the distribution of intelligence testing over the different years of the pupil's high-school course.

TABLE 81.—*Percentages of unselected and selected schools reporting certain uses of intelligence tests*

Class	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Freshman	84.6	70.7	82.5	83.1	84.9	81.7	66.7	85.7	72.3	74.7
Sophomore	69.2	51.2	57.9	41.5	38.4	48.5	53.3	76.2	57.4	61.4
Junior	73.1	51.2	59.8	43.1	39.7	50.0	53.3	71.5	53.2	57.8
Senior	76.9	61.0	66.7	53.8	52.0	59.5	80.0	76.2	57.4	66.2
Percentages of schools included in the study reporting the use of mental tests	36.1	44.6	51.8	61.3	58.9	51.9	78.9	61.8	83.9	76.1

Use made of results of intelligence testing.—Only slightly more than two-fifths of the unselected schools reported on the use made of the results of intelligence testing as compared with almost four-fifths of the selected schools. This fact should be kept in mind in comparing the percentages of the two classes of schools reporting the various uses made of test scores. While the actual percentages, as shown in Table 82, are higher for the unselected schools, the proportionate percentages in terms of the total number of schools reporting the use of intelligence tests would with one exception be higher for the selected schools. By far the most frequent use made of the results of mental tests by the smaller secondary schools reporting is the adjustment of work to ability levels. Of the unselected schools, more than three-fourths and of the selected schools more than three-fifths mentioned this use. The use of the results in locating the weakness and strength of the pupil and to assist in marking the pupil were each mentioned by a relatively small proportion of both unselected and selected schools. The use of the results as general aids to teachers and as a basis for guidance were each mentioned by similar percentages of both classes of schools. The use of the results as a basis of promotion to higher institutions was reported by relatively few of both unselected and selected schools. In each instance the latter use was practically limited to the larger schools. The data indicate that with the exception of adjustment of work to ability levels the smaller secondary schools as a class are

making but limited use of the results of intelligence testing. Judging from the data and the proportions of schools of each class reporting on the item, there are no marked differences between the unselected and selected schools in the kinds of use made of test scores.

TABLE 82.—*Numbers and percentages of unselected and selected schools reporting certain uses of results of intelligence tests*

Nature of use	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Adjust work to ability levels	13	30	35	37	48	163	76.8	4	15	31	50	62.5
Find pupil weakness and strength	2	9	2	7	9	29	13.7	2	1	2	5	6.3
Assist in marking	1	5	4	5	3	18	8.6	1	1	2	4	5.0
General aid to teachers	2	2	5	5	1	15	7.1	2	....	4	6	7.5
Promotion to higher institutions	....	1	1	3	6	11	5.2	....	....	2	2	2.5
Guidance (vocational education)	1	3	4	5	6	19	9.0	....	3	2	5	6.3
Number of schools reporting	18	39	46	49	60	212	.....	15	21	44	80	.....

Use of achievement, aptitude, and other types of standardized tests.—Standardized tests, such as those measuring achievement, aptitudes, etc., are less frequently employed in the smaller schools than intelligence tests, according to the information received. Of the unselected schools, 38.6 per cent and of the selected schools 55.9 per cent reported the use of such tests. (See Table 83.) As in the case of intelligence tests, the data indicate that a markedly greater proportion of the selected than of the unselected schools are employing these newer instruments of measurement. Relatively small numbers of both classes of schools furnished information on the specific uses made of these tests, although the proportion was again considerably greater in the case of the selected schools. The uses most frequently reported were: To adjust instruction, to assist in grading, and to help in determining marks or achievement. To assist in guidance was mentioned by a small number of both classes of schools. Two uses mentioned only by selected schools, 10 schools each, were: (1)

Use as a basis for comparisons with other schools and established norms and (2) use as a basis for diagnosis of the work being done. In special uses common to both classes of schools there are no significant differences between the unselected and the selected schools. However, the selected schools reported a wider variety of uses. It will be recalled, also, that a significantly larger proportion of the selected schools reported the use of these types of standardized tests.

TABLE 83.—*Numbers and percentages of unselected and selected schools reporting use of achievement, aptitude, and other standardized tests and the number reporting uses made of test results*

Item	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of schools using	21	29	38	49	58	195	10	19	32	61
Percentages of schools using	29.2	31.5	34.5	46.2	46.7	38.6	52.6	55.9	57.1	55.9
Number of schools reporting special uses of test results:										
Adjust instruction	10	13	18	18	31	90	5	5	17	27
Assist in grading	4	12	10	18	17	61	3	3	6	12
Determine marking or achievement	----	5	12	10	13	40	----	2	5	7
Serve as a basis for comparisons with other schools and established norms	----	----	----	----	----	----	2	3	5	10
Assist in guidance	1	1	----	1	4	7	1	----	4	5
Aid in diagnosis of work	----	----	----	----	----	----	2	3	5	10

Information on pupils after graduation.—Somewhat more than 90 per cent of both classes of schools reported concerning their practices in gathering information on pupils after graduation. Of the unselected schools reporting on the item, almost a third, and of the selected schools more than half, gathered such information. (See Table 84.) This difference between the two classes of schools shows that a markedly larger proportion of the selected than of the unselected schools are keeping informed with regard to their graduates. Data on the number of years after graduation during which information is gathered indicate no standard practice in the smaller secondary schools. Among the unselected schools reporting, periods of one year and four years or more were most frequently mentioned and by about the same number of schools for each practice. Among the selected schools

reporting, the gathering of information over a period of four years or more was by far the most common practice. More than a fourth of the selected schools reporting gathered information on graduates for this longer period of time, as compared with less than 7 per cent of the unselected schools. The data indicate not only that a significantly larger proportion of the selected schools than of the unselected schools keep informed on pupils after graduation, but that a markedly larger proportion keep informed for a period of four years or more.

TABLE 84.—*Distribution of unselected and selected schools according to the number and percentages reporting the gathering of information concerning pupils after graduation and the nature of the information gathered*

Item	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Number of schools gathering information	12	20	34	32	45	143	.....	10	14	31	55	.....
Percentage of schools gathering information	17.9	24.1	36.6	33.3	36.6	31.0	.....	62.5	42.4	57.4	53.4	.....
Number of years after graduation information is gathered:												
1 year	----	2	7	13	7	29	6.3	2	2	6	10	9.7
2 years	3	2	1	4	8	18	3.9	2	3	2	7	6.8
3 years	1	1	2	----	2	6	1.3	1	1	1	3	2.9
4 years or more	4	5	7	5	10	31	6.7	5	6	17	28	27.2
Nature of information:												
Further education	1	2	7	16	8	34	7.3	6	4	14	24	23.3
Occupations followed	4	2	8	12	9	35	7.6	5	8	9	22	21.4
Success in occupations	----	----	----	----	----	----	----	1	4	6	11	10.7
Special achievements and honors	6	12	17	6	29	70	15.1	----	2	1	3	2.9
Place of residence	1	1	2	2	8	14	3.0	2	3	2	7	6.8
Success in college	----	----	----	----	----	----	----	1	3	4	7	6.8
Total number of schools reporting	67	83	93	96	128	462	.....	16	33	54	103	.....

The nature of the information gathered concerning pupils after graduation was reported by relatively small numbers of both classes of schools, although the proportion of selected schools reporting on each item was in general significantly greater than the proportion of unselected schools. Four types of information were mentioned by the unselected schools, the most frequently mentioned being information on special

achievements and honors. Six types of information were reported by the selected schools, the most frequently mentioned being further education, occupations followed, and success in occupations. The first two were reported by almost three times as large a proportion of the selected as of the unselected schools, and no unselected school reported information on success in occupation. Success in college is another item reported by no unselected schools, but by almost 7 per cent of the selected schools.

The data on the follow-up of pupils after graduation indicate that of smaller secondary schools in general, as based on the practices of the unselected schools, less than a third gather information on graduates. According to the data the practices of the selected schools are markedly superior to those of the run of smaller schools. Among the selected schools more than half reported the gathering of information on graduates. Also these schools much more often gathered such information for a period of at least four years. Finally, they gathered information on a greater number of items than the unselected schools.

TABLE 85.—*Distribution of unselected and selected schools according to the numbers and percentages reporting the gathering of information on pupils who drop out of school*

Item	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Number of schools that gather information	7	13	19	19	36	94	2	8	17	27
Percentage of schools that gather information	10.3	16.1	20.4	19.8	29.5	20.4	12.5	23.5	30.9	25.7
Period of time over which information is gathered:										
1 year	2	3	4	6	9	24	.....	2	7	9
2 years or more	3	2	3	2	3	13	2	4	6	12
Total number of schools reporting	68	81	93	96	122	460	16	34	55	105

Information on drop-outs.—That the smaller secondary schools as a class give relatively little attention to pupils who have dropped out of school is indicated by the data on this item. Although more than 90 per cent of both unselected

and selected schools supplied information, only about a fifth of the former and a fourth of the latter reported the gathering of information on pupils who had dropped out of school. (See Table 85.) Relatively few of those reporting stated for how long a period information was gathered. One year was most frequently mentioned by the unselected schools replying and two years by the selected schools, indicating that the latter tend to follow up drop-outs for a longer period than do the unselected schools. In both classes of schools those enrolling 75 pupils or fewer much less frequently reported the follow-up of drop-outs than did the larger schools.

Information concerning persons of high-school age but not attending high school.—Approximately two-fifths of the unselected and a half of the selected schools reported the gathering of information on persons of high-school age who are not attending high school. Although the difference is not so marked as in the case of some of the other items, the data again show a considerably larger proportion of the selected schools than of the unselected gathering such information. (See Table 86.)

TABLE 86.—*Numbers and percentages of unselected and selected schools reporting the gathering of information concerning persons of high-school age not attending high school and types of effort made to interest such persons in high school*

Item	Unselected schools		Selected schools	
	Number	Per cent	Number	Per cent
1	2	3	4	5
Schools gathering information	192	42.7	54	50.6
Types of effort made:				
Personal visits by principal or other school officials	16	3.6	31	29.2
Contacts with parents	14	3.1	2	1.9
Explanation of advantages of high school	24	5.3	3	2.8
Appeal through personal interests	88	19.6	5	4.7
Appeal through extracurriculum activities and athletics	9	2.0	1	.9
Emphasis on school attractions	4	.9		
Adjustments in the curriculum	11	2.4	3	2.8
Appeal through service organizations	8	1.8	2	1.9
Evening and part-time classes			6	5.6
Total number of schools reporting	450		106	

A rather large proportion of the schools reporting the possession of such information also furnished data on the nature

of the effort made to interest such persons in attending high school. Eight types of effort were reported by each class of schools. Among the unselected schools, appeal through personal interests was by far the most commonly used and was mentioned by slightly less than one-fifth of these schools reporting. No other type of effort was reported by any considerable proportion of the unselected schools. The other types mentioned were personal visits by the principal or other school officials, contacts with parents, explanation of the advantages of the high school, appeal through extracurriculum activities and athletics, emphasis on school attractions, curriculum adjustments, and appeal through service organizations.

There were three marked differences between the unselected and selected schools in the types of effort made. By far the most frequent type reported by the unselected schools was appeal through personal interests. This was seldom reported by selected schools. On the other hand, close to a third of the selected schools reported personal visits by the principal or other school officials, as contrasted with less than 4 per cent in the case of the unselected schools. Evening and part-time classes mentioned by a number of the selected schools were not reported by any of the unselected schools. Comparison of the total percentages of the two classes of schools reporting the several types of effort shows that a considerably larger proportion of the selected than of the unselected schools are making some type of effort to interest in high school persons of high-school age but not in attendance.

2. PHYSICAL EXAMINATION

Importance of the physical examination.—Practically all authorities on secondary education at the present time are agreed on the importance of physical education including health in the secondary-school program. One of the essentials in this program is the physical examination. Without the physical examination it is impossible to adapt the physical education program intelligently or effectively to the needs of the pupil or to advise the pupil relative to participation in physical activities.

Health officers employed by schools.—The data on health officers employed indicate that a considerable proportion

of the smaller secondary schools are not provided with a trained health personnel. Of the unselected schools, as shown in Table 87, more than a third reported no regularly employed health officer. Very few reported a full-time physician, and the majority of those reporting such an officer were schools in Group IIIB. A full-time nurse, reported by almost a tenth of these schools, was seldom found in schools enrolling fewer than 150 pupils. Slightly more than 4 in 10 of the unselected schools reported the services of a part-time physician. Slightly fewer than 3 in 10 employed a part-time nurse and about 1 in 8 a part-time dentist. Slightly less than a fourth were provided with both a physician and a nurse for part time.

TABLE 87.—*Percentages of unselected and selected schools reporting the employment of health officers*

Officers	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Schools not reporting any health officer	43.1	35.9	40.9	34.6	30.6	36.4	31.6	26.5	25.0	26.6
Full-time officers:										
Physician	----	----	1.8	1.9	6.5	2.4	----	----	----	----
Nurse	----	1.1	5.5	12.1	21.8	9.3	----	14.7	10.7	10.0
Part-time officers:										
Physician	40.3	50.0	43.6	41.1	36.3	42.0	42.1	50.0	50.0	48.6
Nurse	38.9	----	36.4	36.4	35.3	29.9	52.7	41.2	53.6	49.5
Dentist	----	10.9	14.5	16.8	13.6	12.1	5.3	20.6	26.8	21.1
Both physician and nurse	12.5	27.2	26.4	24.3	26.6	24.2	15.8	20.6	21.4	20.1

As judged by the proportion of schools employing a trained health officer of some type, the selected schools as a class are considerably better provided than are the unselected schools. Somewhat more than a fourth of these schools did not report any regularly employed health officer, as compared with more than a third of the unselected schools. None of the selected schools reported the employment of a full-time physician, but 1 in 10 was provided with the services of a full-time nurse. Part-time health officers, such as physician, nurse, and dentist, were much more frequently employed in the selected schools than in the unselected schools. The differences between the two classes of schools are particularly marked in the case of the nurse and the dentist, both of these officers being employed in notably larger proportions of the selected schools. A

somewhat smaller proportion of the selected than of the unselected schools reported the services of both physician and nurse for part time. Taken as a whole, the data on health personnel indicate clearly that the smaller secondary schools as a class are inadequately provided with trained health officers. They also show that on the whole the situation is considerably better in the selected than in the unselected schools, which in turn probably represent conditions somewhat more desirable in character than exists in the run of smaller secondary schools.

Of the selected schools, 53 reported the cooperation of other health agencies with the school in carrying out its health program. Comparable data were not available for the unselected schools. Since these data represent practices of schools already shown to be in many respects superior to the run of smaller schools, they should offer suggestions or possibilities to schools not provided with health officers. In the case of 15 schools the county nurse helped the school in its health program. Sixteen schools worked with the county health board or health department and six schools worked with borough, township, or district health officers. Three schools received assistance from the city or village board of health and its officers and six schools received assistance from the Red Cross nurse. Other types of assistance mentioned were a health course specified by the State, the Iowa dental plan, special cases referred to county health officers, State board of health, and a nurse employed jointly by the county health department and the local board of education.

Provision for regular physical examinations.—All but 28 of the unselected and all the selected schools supplied information relative to the giving of physical examinations to pupils. Of the unselected schools, as shown in Table 88, almost 6 in 10 and, of the selected schools approximately 7 in 10 reported regular physical examinations. According to the evidence, a considerably larger proportion of the latter than of the former schools make regular physical examinations of pupils. In both classes of schools the proportions of schools giving such examinations are similar for all size groups.

TABLE 88.—*Numbers and percentages of unselected and selected schools reporting the making of regular physical examinations and school years in which examinations are made*

Item	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Numbers reporting regular physical examinations	38	53	57	60	69	275	13	23	38	74
Percentages reporting regular physical examinations	52.9	61.2	57.0	59.4	53.6	57.7	68.4	67.6	67.9	67.9
Percentages of schools giving physical examinations in different school years:										
Seventh and eighth grades [1]							10.6	23.4	46.4	33.0
Freshman year	45.6	57.7	51.0	48.5	50.0	50.5	57.9	61.7	62.5	61.5
Sophomore year	39.7	46.2	46.0	39.6	39.2	41.9	47.4	58.8	44.6	49.5
Junior year	39.7	46.2	46.0	39.6	37.5	41.5	47.4	52.9	48.2	49.5
Senior year	30.9	43.6	47.0	38.6	35.8	39.4	47.4	52.9	44.6	47.7
Total number of examination periods reported	114	151	190	168	195	818	40	85	138	263
Average per school	1.7	1.9	1.9	1.7	1.6	1.7	2.1	2.5	2.5	2.4
Total number of schools reporting	68	88	100	101	110	477	19	34	56	109

[1] Since the inquiry called for data on physical examinations in the high school only, the unselected schools and [illegible]ar selected schools did not report on practices in the seventh and eighth grades. The data presented on these grades represent practices in the reorganized selected schools only. The percentages, however, are computed on the basis of all schools reporting.

According to the data, physical examinations of pupils are most frequently made in the ninth or freshman year and least frequently in the twelfth or senior year. Physical examinations in the ninth or freshman y[illegible] represent the practice in approximately nine-tenths of both unselected and selected schools reporting examinations. In both classes of schools the proportions making examinations in the other three years of the high school are considerably lower but fairly uniform. A large proportion of the reorganized selected schools reported physical examinations in the seventh and eighth grades. Since the information requested called for practices in the high school, 4-year schools did not report practices for these grades.

The data on physical examinations show that the selected schools considerably more often provide regular physical examinations. Also in the selected schools the average pupil receives a greater number of examinations during his high-school course. The average number of examinations ranged from 1.6 to 1.9 in the unselected and from 2.1 to 2.5 in the

selected schools. Although the proportion of smaller secondary schools making regular physical examinations is encouragingly high, the evidence indicates that much is yet to be done before the physical and health programs in those schools can be made adequate to modern needs. The first step would appear to be one or more regularly employed trained health officers in every school.

Use of findings of physical examinations.—A relatively small proportion of both classes of schools gave specific information regarding the uses made of the findings of physical examinations. This fact indicates that the majority of the schools are not to any considerable extent utilizing the findings of such examinations. As shown in Table 89, their use as a basis for remedial work was most commonly mentioned. This use was reported by almost two-fifths of the unselected and slightly more than a third of the selected schools. The second most common use, reported by one in four of the selected schools and not reported by any of the unselected schools, was as a basis of report to parents. As a basis for determining fitness for athletics it was reported by less than a tenth of both classes of schools. The small proportion of schools mentioning this use indicates that one of the important uses of the findings of physical examinations is seldom made in the smaller secondary schools. Other uses mentioned by small numbers of both classes of schools were: Basis for adjustment of school work, for inoculations or vaccinations, and for follow-up work. The only significant difference between the two classes of schools in the use of the findings of physical examinations is their use in the selected schools as a basis for a report to parents.

TABLE 89.—*Numbers and percentages of unselected and selected schools reporting certain uses of findings of physical examinations*

Use	Unselected schools by size groups [1]							Selected schools by size groups [2]				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Basis for remedial program	25	29	44	43	52	193	38.2	7	12	18	37	33.9
Report to parents	----	----	----	----	----	----	----	3	8	16	27	24.8
Adjustment of school work	1	3	2	7	7	20	3.9	----	3	4	7	6.3
Basis for determining fitness for athletics	3	10	17	8	7	45	8.9	----	3	6	9	8.2
Inoculations or vaccinations	1	2	1	----	----	4	.8	----	----	1	1	.9
Basis for follow-up work	----	----	----	----	7	7	1.4	----	2	2	4	3.6

[1] Among the unselected schools, 2 in Group IA, 5 in Group IIIA, and 5 in Group IIIB reported medical aid to indigent children only.

[2] Among the selected schools, 3 reported use for information of teacher; 2 reported use as basis for determining participation in extracurriculum activities; and 1, basis of reports to State department of health.

3. GUIDANCE

Phases of guidance included.—In the present study, guidance as such has been examined with respect to only two major aspects—educational or curriculum guidance and vocational guidance. Other aspects of guidance of the smaller secondary schools have been implied though not expressly pointed out in other portions of this investigation, among them chapters dealing with the organization and control of extracurriculum activities, the conduct of pupil social affairs, and pupil participation in school government.

Educational guidance.—In reply to the query as to whether they possess a definite plan of educational guidance, 25.7 per cent of the unselected and 44.9 per cent of the selected schools replied that they had such a program. The groups of smallest schools in each case show the smallest percentage with guidance plans and the groups of largest schools the largest percentage.

In regard to the school year in which emphasis is given to educational guidance the replies indicate a variety of practices. A considerable number of schools, as shown in Table 90, apparently give emphasis through two or more years. However, the ninth and twelfth years or grades are the points most frequently mentioned as those in which emphasis is given to educational guidance. Emphasis in

the ninth year was reported by somewhat more than three-fifths of both classes of schools and emphasis in the twelfth year by fairly similar proportions. Emphasis in the tenth and eleventh years was reported by numbers of both classes of schools clustering closely about a half of the schools. Slightly more than 8 per cent of the selected schools emphasized educational guidance in the seventh and eighth grades. These were all reorganized schools.

TABLE 90.—*Percentages of unselected and selected schools reporting a definite plan of guidance and grades in which emphasis is given to guidance*

Schools reporting plan of guidance and grades in which emphasized	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	III A	III B	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Schools reporting definite plan of educational guidance	16.7	22.8	24.5	21.5	37.9	25.7	15.8	35.3	46.7	44.9
Grades in which educational guidance is given emphasis:										
Seventh and eighth [1]								25.0	2.4	8.2
Ninth	[2] 75.0	57.1	63.0	60.9	68.1	64.6	66.7	58.3	61.8	61.2
Tenth	58.3	28.5	44.4	43.5	57.4	47.7	66.7	58.3	41.7	46.9
Eleventh	33.3	57.1	48.1	52.2	53.2	50.8	100.0	75.0	44.1	55.1
Twelfth	33.3	71.4	66.7	60.9	59.6	60.8	100.0	58.3	61.8	69.4
Schools reporting definite plan of vocational guidance	25.0	20.7	30.0	32.7	27.1	29.9	36.8	38.2	50.0	44.0
Grades in which vocational guidance is given emphasis:										
Seventh and eighth [1]								15.4	7.1	8.3
Ninth	[2] 55.6	73.7	54.5	51.4	69.6	60.9	42.8	46.2	71.4	60.4
Tenth	38.8	47.8	30.3	20.0	37.0	33.1	28.6	23.1	46.4	37.5
Eleventh	27.8	26.3	30.3	37.1	43.5	35.5	14.3	38.5	39.3	35.4
Twelfth	50.0	52.6	45.4	45.7	45.6	45.0	28.6	53.8	50.0	47.9

[1] Since the inquiry called for information on the high school only, the data in the table on the seventh and eighth grades represent the reorganized selected schools only.
[2] Percentages are computed on basis of schools reporting guidance plans.

Vocational guidance.—The percentages of schools reporting a definite plan of vocational guidance was practically the same as for educational guidance. Approximately a third of the unselected schools and two-fifths of the selected schools reported such a plan. (See Table 90.) As in educational guidance, the ninth and twelfth grades represent the points at which emphasis is most frequently given to vocational guidance, although somewhat more than a third of both classes of schools reported emphasis also in the tenth and eleventh grades. As in the case of educational guidance, again, a considerable proportion of the reorganized selected

schools reported special attention given in the seventh and eighth grades. The evidence shows in respect to both educational and vocational guidance that the selected schools as a class are much more often organized for this important aspect of secondary education than are the unselected schools.

Responsibility for the administration of guidance.—Data supplied by 272 unselected and 81 selected schools with plans of educational and vocational guidance show that the officer most frequently responsible in the smaller schools for the administration of the guidance function is the principal. This was the case in approximately three-fourths of both classes of schools, as shown in Table 91. The home-room teacher had major guidance responsibilities in somewhat less than two-fifths of the unselected and in a somewhat larger proportion of the selected schools. The other two most frequent assignments of responsibility in both classes of schools were the classroom teacher and the vocational teacher. The classroom teacher was considerably more often reported as having major responsibility for guidance by the unselected than by the selected schools, while the reverse is true for the vocational teacher. With these two exceptions the assignment of responsibility for the administration of guidance is very similar in the two classes of schools.

TABLE 91.—*Numbers and percentages of unselected and selected schools reporting certain officers as chiefly responsible for the administration of pupil guidance*

Officer	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II E	III A	III B	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Home-room teacher	2	12	15	23	50	102	37.5	....	8	27	35	43.2
Principal	19	29	36	45	72	201	73.9	9	17	36	62	76.5
School guidance counselor	2	1	7	1	10	21	7.7	....	1	4	5	6.2
Vocational teacher	3	9	12	14	21	59	21.7	2	5	15	22	27.1
Classroom teacher	11	16	24	20	29	100	36.8	2	4	15	21	25.9
Community counselor	1	1	1	3	3	9	3.3	....	....	....	....	....
Guidance committee	....	....	....	....	2	2	.7	....	....	3	3	3.7
Superintendent	2	3	2	4	4	15	5.5	....	....	5	5	6.2
Dean of boys	....	....	....	....	2	2	.7	....	....	....	....	....
Dean of girls	....	....	....	1	5	6	2.2	....	2	1	3	3.7
Others	....	1	....	2	4	7	2.6	....	....	....	....	....
Schools reporting	27	47	49	57	92	272	.....	12	23	46	81	.....

Means employed in educational and vocational guidance.—The information on the means employed in educational and

vocational guidance shows that 13 different means of guidance are employed by a considerable proportion of both unselected and selected schools. (See Table 92.) Five of these means may be classified under the head of tests and examinations and include mental or intelligence tests, standard achievement tests, aptitude tests, personnel classification tests, character tests, and the physical examination. Of these the mental and achievement tests and the physical examination were most frequently mentioned for both classes of schools. Aptitude, personnel classification, and character tests were reported by much smaller but considerable proportions of both classes of schools.

Four means of promoting vocational guidance were reported. Of these the most frequently mentioned by both classes of schools was the assembly talk on vocations. A course in occupations ranked second in frequency in both unselected and selected schools. Interviews by pupils with representatives of vocations was reported by about half of the unselected and more than a fourth of the selected schools. Occupational observation was employed by smaller proportions of both classes of schools.

TABLE 92.—*Numbers and percentages of unselected and selected schools employing certain means of educational and vocational guidance*

Means	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
1	2	3	4	5	6	7	8	9	10	11	12	13
Mental tests	13	24	23	31	43	134	48.0	7	9	26	42	51.8
Standard achievement tests	10	18	20	26	34	108	38.7	6	6	23	35	43.2
Aptitude tests	3	7	4	9	12	35	12.5	1	4	11	16	19.7
Personnel classification tests	2	6	4	8	8	28	10.0	1	2	3	6	7.4
Character tests	3	3	5	6	3	22	7.9	2	3	3	8	9.9
Physical examination	12	16	22	26	33	109	35.5	2	9	11	22	27.2
Course in occupations	15	16	25	30	41	127	45.5	5	4	20	29	35.8
Occupational observation	8	10	7	12	21	58	20.8	4	3	12	19	23.4
Case studies of problem cases	6	11	11	17	30	75	26.9	1	1	9	11	13.6
Assembly talks on vocations	16	31	41	53	69	210	75.3	6	12	32	50	61.7
Pupil interview with representatives of vocations	5	22	27	28	52	134	48.0	1	6	15	22	27.2
Follow-up records of graduates	2	8	11	13	14	49	17.6	3	5	14	22	27.2
Follow-up records of dropouts	2	2	3	7	5	19	6.8	2	3	7	12	14.8
Total number of means reported	98	174	204	268	366	1,109	.....	41	67	186	294	.....
Number of schools reporting	30	47	54	61	87	279	.....	12	23	46	81	.....
Percentage of schools reporting	41.7	61.1	49.1	57.0	70.2	55.2	.....	63.1	67.6	82.1	74.2	.....
Average number employed per school reporting	3.3	3.7	3.8	4.4	4.2	3.9	.....	3.4	2.9	4.0	3.6	.....

Other means of guidance less frequently reported by both the unselected and selected schools were the case study of problem cases, the follow-up records of graduates, and the follow-up records of drop-outs. The average number of means employed per school ranged from 3.3 in Group IA to 4.4 in Group IIIA of the unselected schools and from 3.4 in Group I to 4 in Group III of the selected schools. In general there were but few marked differences between the two classes of schools. Case study of problem cases, assembly talks on vocations, and pupil interviews with representatives of vocations were more frequently mentioned by unselected schools, while selected schools reported more often aptitude tests, follow-up records of graduates, and follow-up records of drop-outs. In general there were no significant differences between the two classes of schools in the average number of guidance activities per school, although there was a slight difference in favor of the unselected schools.

Means of guidance reported as unusually helpful.—Only a relatively small number of both classes of schools reported any specific means of guidance as unusually helpful or effective. (See Table 93.) This indicates that no one means stands out as particularly effective in the practice of the smaller secondary schools. Among the unselected schools, the four types of means and methods most frequently mentioned as unusually helpful or effective were assembly talks on vocations, a course on occupations, mental tests, and pupil interviews with representatives of vocations. Among the selected schools the four most frequently mentioned were a course in occupations, mental tests, achievement tests, and the case study of problem cases.

Guidance in selected schools visited.—All but 3 of the 15 selected schools visited were using some definitely organized plan for giving the pupils educational and vocational guidance. A few illustrations will indicate the nature and variety of practices in those schools.

In the high school at Wallingford, Vt., the home room furnished the center for social and educational guidance. The home-room programs gave emphasis to traits of good citizenship through discussions and practices and to the orientation of the pupil in the school. The study of vocations

was stressed in the ninth grade. The dean of girls had charge of the course in occupations for girls.

In the junior-senior high school at Point Marion, Pa., one of the teachers was responsible for the organization and direction of guidance work. This teacher was given one period a day for guidance and worked in the main through the home rooms. Intelligence tests were given each fall to all pupils entering the high school for the first time.

TABLE 93.—*Numbers and percentages of unselected and selected schools reporting certain means of guidance as unusually helpful or effective*

Means	Unselected schools by size groups							Selected schools by size groups				
	IA	IB	II	IIIA	IIIB	Total	Per cent	I	II	III	Total	Per cent
Mental tests	2	2	5	9	7	25	8.9	....	1	6	7	8.6
Standard achievement tests	4	3	3	4	2	16	5.4	....	2	5	7	8.6
Aptitude tests	....	1	....	....	2	3	1.1	....	....	4	4	4.9
Personnel classification tests	1	....	1	....	....	2	.7	....	1	1	2	2.5
Character tests	....	....	2	1	....	3	1.1	....	....	1	1	1.2
Physical examinations	1	1	2	1	3	8	2.9	....	....	3	3	3.7
Course in occupations	7	5	6	3	11	32	11.5	1	3	6	10	12.3
Occupational observation	4	3	1	3	1	12	4.3	....	....	1	1	1.2
Case studies of problem cases	3	2	2	2	2	11	3.9	....	1	6	7	8.6
Assembly talks on vocations	3	5	5	8	7	28	10.0	....	....	1	1	1.2
Pupil interviews with representatives of vocations	1	4	7	2	6	20	7.2	....	....	6	6	7.4
Follow-up records of graduates	....	1	1	1	....	3	1.1	....	2	1	3	3.7
Number of schools reporting	30	47	54	61	87	279	.....	12	23	46	81	.....

In the junior-senior high school at Masontown, W. Va., the guidance program was carried on through the home-room organization for the six years with one 45-minute and four 10-minute periods a week. Eighteen units of guidance work, each designed to meet the most important guidance needs of the pupils at the time, were distributed over the 6-year period of the pupil's school life.

The high school at Glasgow, Mont., used a plan of guidance in which the home room was prominent in the junior high school period only. A course in occupations was taken by all pupils in the seventh and eighth grades. In these same years exploratory courses in practical arts and home economics were given. In this plan also each vocational teacher was responsible for indicating the specific vocations leading out of his work and each teacher of academic subjects for discussing

with his pupils the vocations for which the study of that subject might be especially helpful and for entrance to which it affords preparation.

The principal of the high school at New Milford Conn., was in general charge of the guidance program. As a basis for the guidance work he had developed a cumulative record card giving for each pupil such data as personal traits, interests, scholarship, intelligence rating, health, special abilities shown in subjects pursued, special abilities shown in activities outside the classroom, strong character traits, tentative choice of vocation, plans for further education, and follow-up reports for four years after graduation. Mental tests were given in the sixth grade preliminary to entrance in the junior high school, and the results related to results obtained from achievement tests and to teachers' estimates of the pupil's ability. Monthly reports of pupils were returned personally to the principal, who at that time discussed with the pupil his work and his plans. A course in vocations was given in the ninth grade, after which the pupil made a tentative vocational choice. A second deciding period was provided in the eleventh year, when the study of vocations was again taken up in connection with the study of English.

The junior high school at Sandy, Utah, had a particularly well worked out plan of guidance. Social guidance and character development were especially emphasized through the social studies and through the pupils' participation and responsibility in extracurriculum activities and school affairs. There was a boys' adviser and a girls' adviser. In the eighth and ninth grades pupils took courses in occupations and made the choice of a vocation. Each pupil in the school rated himself each week on a school citizenship form, giving attention to such items as attendance, punctuality, preparation in subjects carried, and conduct in class, halls, assembly, and clubs. Each term each pupil graphed his status on a self-measuring health scale containing six major items, under each of which were six subitems. The major items in this scale were general health, physical vitality, bodily carriage, habits, food and drink, exercise, and [redacted]cular control. Among the other features in the San[redacted] Junior High School plan were a consideration of factors making for

success in any vocation and points to be considered in studying a vocation as a possibility, the family occupational record and parents' plans for the pupil, abilities shown in school subjects, interest in school subjects, and interests outside the school. The most outstanding feature of this plan was the emphasis placed on the pupil's own thinking and the development of pupil initiative and responsibility.

A well-organized plan of vocational guidance was in operation in the Flathead County High School under the joint direction of the principal and the director of vocational work. The 16 items featuring this plan were:

(1) General supervision of the work in the vocational classes.

(2) The arrangement of conferences and speakers for the vocational classes.

(3) Conferences with teachers of English, home economics, manual training, commerce, and mechanical drawing regarding the vocational possibilities in those courses.

(4) At least one teachers' meeting devoted to vocational guidance possibilities in the regular classes and in the extra-curriculum activities.

(5) General supervision of all courses supposed to be exploratory, such as junior business practice, general mathematics, freshman woodwork, and general science.

(6) Assistance to home-room teachers whenever vocational-guidance topics were to be discussed in the home room.

(7) Assistance to sponsors of those clubs supposed to do some vocational guidance work, especially the commercial club and the home economics club.

(8) Personal conferences with boys failing in school, with the view of adjusting school schedules and possibly of putting boys on a job down town.

(9) An employment bureau for boys for both part-time and regular time.

(10) Special work with the seniors during the second semester and conferences regarding college and employment.

(11) Special work with the boys already taking cooperative industrial training.

(12) The giving of tests, especially tests of mechanical ability; the occasional testing of intelligence.

(13) The preparation of materials on at least one or two local industries, this material to be mimeographed and placed in the library for reference.

(14) A general invitation to all pupils to arrange for conferences regarding college or employment.

(15) Preparation of material on college entrance for senior home rooms.

(16) The development of career books in senior social science. As supplementary projects these seniors were encouraged to work up their vocational choices.

4. CONCLUSION AND SUMMARY

The evidence on pupil accounting indicates that much is yet to be done before this aspect of the work of the smaller secondary schools as a group will meet the demands of present-day secondary education. Many of the schools have rather extensive data on pupils; fewer appear to make full use of the data at hand.

Among the selected schools those enrolling 150 or more pupils have in their records the different sorts of data on pupils much more often than do the smaller schools. Among the unselected schools the difference between the smaller and larger schools is less marked. Practically all types of data on pupils reported in the study are much more often kept in the records of the selected schools than of the unselected schools.

The data show that significantly larger proportions of the selected schools employ both intelligence and achievement tests than of the unselected schools. Furthermore, among the selected schools the proportions in the different size groups employing these newer types of tests are very similar, while among the unselected schools the groups of smaller schools use them much less often than do the larger schools. In the follow-up of pupils after graduation the selected schools are markedly superior to the unselected schools, both in the proportion of schools gathering information on graduates and in the length of time over which information is gathered. In the case of information on drop-outs the difference between the two classes of schools is not so great but is still in favor of the selected schools.

In general the selected schools are better provided with regularly employed trained health officers than are the unselected schools. The data show also that they more often provide regular physical examinations for pupils and make greater use of the findings of these examinations.

Relative to guidance, both educational (curriculum) and vocational guidance, considerably less than half of the schools represented in the study report any organized plan in operation. A few of the schools are apparently giving serious attention to this important phase of secondary education and some are doing rather outstanding guidance work. Generally considered, however, the development of adequate guidance programs would appear to be one of the greatest problems of the smaller secondary schools.

The evidence shows that the selected schools as a class are doing much more in guidance than the unselected schools. The proportion of selected schools reporting definite plans of both educational and vocational guidance is markedly larger than the proportion of unselected schools reporting such plans. Taken as a whole, the evidence on pupil accounting and guidance shows that the selected schools as a class are superior to the unselected schools.

CHAPTER X : EXTENDED SERVICE AND COMMUNITY RELATIONS

1. RANGE AND TYPES OF EXTENDED SERVICE

The broader relations of the secondary school.—The present century especially has seen the development of a broadening interpretation with respect to the educational service of the public secondary school. Both in theory and practice this service has been interpreted to include not only the pupils regularly enrolled and attending the regular day sessions but also those who for some reason or another are unable to spend full time in school and who need special and part-time educational advantages. The educational service of the secondary school has also broadened to include educational opportunities for the adults of the community.

Another important aspect of secondary education to-day in its broader relations is the program for securing intelligent support by the community. Such support can be gained only when the public is kept informed with regard to the activities, needs, and plans of the school and their values to the community at large. The present chapter is devoted to the activities of the smaller secondary schools relative to these two important problems.

Types of extended service through courses.—Of the unselected schools 45.3 per cent and of the selected schools 56.9 per cent reported some type or types of extended school service through courses or library. For children of high-school age but out of school and working, approximately a fourth of the former schools reporting, most of them in Groups IIIA and IIIB, and 16 per cent of the latter, most of them in Group III, offered part-time or continuation work. (See Table 94.) Short-unit courses for children of high-school age and working were offered in less than 10 per cent of the unselected and slightly more than 11 per cent of the selected schools reporting. These courses were seldom provided by schools enrolling 75 or fewer pupils. Night-school academic

or general courses for children of high-school age were reported by only 11 unselected and 1 selected school. The data indicate that the smaller secondary schools as a class are doing comparatively little in the way of providing educational opportunities for children who are not in regular attendance.

Relative to the provisions of educational opportunities for adults in the community a considerable number of schools of both classes reported the offering of such courses. Of the unselected schools reporting, about 11 per cent offered short-unit courses for adults and about 32 per cent offered night-school vocational courses. (See Table 94.) Of the selected schools reporting, slightly less than 23 per cent gave short-unit courses for adults and 29 per cent offered night-school vocational courses. Night-school academic or general courses for adults were reported by about an eighth of the unselected and a ninth of the selected schools. In all three types of courses for adults, schools enrolling 75 pupils or fewer were seldom active. The data on special courses for adults indicate that a considerable proportion, especially of the larger schools, are providing instruction for adults, particularly instruction of a vocational character. They also indicate that such service is not the practice in the majority of the smaller secondary schools. As a class the selected schools were markedly superior to the unselected schools in the proportion offering short-unit courses for adults. They were slightly below the unselected schools in the proportion offering night-school work of both the vocational and academic type.

TABLE 94.—*Percentages of unselected and selected schools reporting various types of service through courses and library*

Types of service	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Part-time or continuation work for children of high-school age engaged in wage-earning occupations	20.6	13.6	13.3	31.7	41.5	25.8	8.3	11.1	21.9	16.1
Short-unit courses for children of high-school age who are out of school working	8.8	2.3	11.1	15.5	7.7	9.6	8.3	....	18.8	11.3
Night-school academic or general courses for children of high-school age	....	6.8	4.4	4.9	6.1	4.8	....	....	3.1	1.6
Short-unit courses for adults	5.9	4.5	13.3	21.9	9.2	10.9	16.7	11.1	31.2	22.6
Night-school vocational courses for adults	2.9	9.1	42.2	51.2	43.1	31.9	8.3	33.3	34.4	29.0
Night-school academic or general courses for adults	....	2.3	13.3	7.3	27.7	12.2	....	11.1	15.6	11.3
Library service to outlying schools	5.9	18.2	11.1	12.2	6.1	10.5	8.3	11.1	9.4	9.7
Library service to community in general	70.6	61.4	64.4	31.7	27.7	48.5	66.7	38.9	40.6	45.2
Percentages of the schools included in the study reporting on this aspect	47.2	47.8	40.9	43.4	52.4	45.3	63.1	52.9	57.1	56.9
Total number of all types of extended school service	39	52	78	74	110	353	14	21	56	91
Average number of services per school	1.1	1.2	1.7	1.8	1.7	1.5	1.2	1.2	1.8	1.5

Library service.—Approximately 1 school in 10 of those reporting on extended service was giving library service to outlying schools. In this type of service there is little difference, as shown in Table 94, between the two classes of schools. Among both unselected and selected schools those of medium size reported this function more commonly than did either the groups of smallest or largest schools. Library service to the school community in general was rendered by almost half of both unselected and selected schools reporting on the item. In both classes of schools the groups of smaller schools rendered such service more often than did the larger schools.

Information on the types of extended service that were being emphasized by the schools and not presented in tabular form indicate that only a relatively small number of the schools of either class are giving special attention to any one particular type of service. A larger proportionate number of the unselected than of the selected schools reported emphasis on part-time and short-unit courses for children of high-school age and academic night-school courses for adults. On the other hand, a considerably larger proportion

of the selected schools reported emphasis on short-unit and night-school vocational courses for adults. Also, the selected schools more frequently than the unselected schools reported emphasis on both library service to the community in general and to outlying schools.

Extraschool or special services.—Of the unselected schools 397 and of the selected schools 92 reported the rendering of extraschool or special services either by the school or by individual members of the staff. (See Table 95.) The average number of such services rendered per school was approximately two for all size groups of unselected schools and two and one-half for all groups of selected schools.

TABLE 95.—*Percentages of unselected and selected schools rendering certain types of extraschool or special services to the community*

Types of service	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Provide music	85.4	84.3	90.9	97.8	91.1	90.7	87.5	93.5	95.6	93.5
Provide directors of community recreational activities	27.1	50.0	44.3	42.2	51.5	44.8	48.7	45.2	37.8	41.3
Provide directors for dramatics	47.9	47.1	48.9	40.0	25.9	40.6	50.0	58.1	44.4	50.0
Provide study-club directors	4.2	5.7	7.9	8.9	9.0	7.6	6.3	9.7	24.4	16.3
Offer lecture courses	4.2	12.8	9.1	15.6	8.0	10.3	12.5	3.2	15.6	10.9
Supply church and Sunday-school leaders	14.6	4.2	4.5	2.2	1.0	4.3	....	12.9	4.4	6.5
Furnish community program speakers	4.2	2.9	1.1	5.6	8.0	4.5	12.5	3.2	8.9	7.6
Direct Boy Scout work	2.1	....	1.1	2.2	1.0	1.3	....	9.7	2.2	4.3
Miscellaneous	....	....	....	....	....	....	25.0	12.9	20.0	18.5
Schools reporting	48	70	88	90	101	397	16	31	45	92
Total number of services rendered	91	145	183	193	197	809	38	77	114	229
Average number of services per school	1.9	2.1	2.1	2.1	2.0	2.0	2.4	2.5	2.5	2.5

Providing music, mentioned by more than 90 per cent of both classes of schools, was the most common type of extraschool or special service and was fairly uniform in proportionate frequency for all size groups. Providing directors of community recreational activities was reported by more than two-fifths of both unselected and selected schools. Providing directors of dramatics was mentioned by two-fifths of the former class of schools and by half of the latter. These three types of extraschool or special services were the most frequently reported by both classes of schools.

Other types of extraschool or special service mentioned by a considerable number of both classes of schools are the providing of study-club directors, church and Sunday-school leaders, community program speakers, and leaders in Boy Scout work, and the offering of lecture courses. Other forms of service mentioned by from one to three of the selected schools are: Agricultural demonstration plots, personal service and advice by teachers of vocational agriculture and homemaking, the use of the building for community activities, maintenance of library files of Government bulletins for the use of the community, and the use of high-school grounds and facilities for athletic activities of neighboring rural schools. In general the selected schools render extra-school or special services to the community more often than do the unselected schools and render a greater number of such services per school.

Study of community needs through surveys.—Fifty of the selected schools reported the study of community needs through surveys carried on by pupils and by members of the faculty. This information is not shown here in tabular form. In the majority of instances these studies were made in connection with courses offered in the school, especially vocational courses and those dealing with economic and social problems. In a considerable number of cases the studies were reported as carried on outside of school courses. Types of community studies or surveys reported by from 15 to 21 selected schools each concerned economic, occupational, health, recreational, and social conditions.

Extended school service in schools visited.—Of the 15 schools visited, 7 were rendering two or more types of extended school service. Brief mention of the activities of those schools will help to give concreteness to the preceding discussion.

In the high school at Madison, N. J., night-school courses for adults were offered in agriculture, commercial subjects, English, mathematics, and citizenship. The high school at Montpelier, Ohio, was offering evening courses for adults in shorthand, typewriting, and French. In the high school at New Milford, Conn., part-time and continuation courses for children of high-school age were given and night-school courses for adults in agriculture and automobile mechanics.

In the high school at Pendleton, Ind., the pupils in agriculture were conducting an orchard-fertilization experiment on an orchard of 69 trees which they had taken over for a period of five years. In connection with their work they also tested the seed corn of the farmers of the community. Special short-unit courses in marketing and dairying of 10 and 5 weeks, respectively, were offered for adult farmers and in addition special speakers were brought in to discuss special problems. Evening work for adult women in home decoration, based on individual projects, was conducted for 10 weeks by the teacher of homemaking. In connection with this work the instructor visited each home and gave advice and suggestions on the choice of the project to be studied.

The high school at Frederic, Wis., offered several evening courses for persons of high-school age and for adults. An evening course was given for boys on buying clothes, foods, meal planning, camp cookery, sewing, and manners. A 24-hour course for women was given on home decoration. The agricultural teacher gave two short-unit evening courses, one on soils and fertilizers and one on farm management, to adults. In addition this school, under the direction of the teachers of homemaking and agriculture, put on each year at the school a community fair featuring demonstrations, exhibits of products, and a style show. This fair in 1930 was attended by almost a thousand people from the surrounding territory.

The Orange Consolidated High School near Waterloo, Iowa, offered two night-school courses for adult farmers in farm management and marketing. These courses ran from November to April, meeting once a week. This school also conducted a township community fair in October featuring the agricultural products of Orange Township.

In the Flathead County High School at Kalispell, Mont., a special short course for adult farmers has been offered each year. An innovating type of extended service carried on by this school has been the annual tour by the music department, during which several concerts are given in different centers throughout the county. The music is furnished by the school orchestra, the school band, and individual members of the music department.

2. SCHOOL PUBLICITY

Means of publicity employed.—In this section a survey is made of the means and methods in the smaller secondary schools for keeping before the patrons of the school and the community at large information pertaining to the school and its activities and needs. All but 17 of the unselected and 5 of the selected schools supplied information on this phase of the study.

In the unselected schools as shown in Table 96, four different ways of disseminating information relative to the school and its activities were reported by more than half of the schools. These were graduation exercises, school entertainments, a section in the local newspaper, and exhibits of school work. School entertainments and graduation exercises were almost universally used by these schools as avenues for publicity. The use of the local newspaper through a special section devoted to the school was third in frequency of mention and was reported by approximately 8 of every 10 schools. The fourth most frequently used means of keeping the public informed on the activities of the school was the school exhibit mentioned by almost seven-tenths of the schools.

TABLE 96.—*Percentages of unselected and selected schools reporting various means of school publicity*

Means	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Printed or mimeographed bulletins	15.1	18.0	35.2	37.7	31.7	29.1	27.8	31.3	31.5	30.8
News letters	10.6	10.1	25.0	22.6	35.8	22.5	11.1	12.5	16.7	14.4
Pupil progress reports other than traditional report cards	15.1	22.5	25.0	28.3	43.3	28.5	27.8	28.1	16.7	22.1
School paper or magazine	19.4	35.9	46.3	52.9	75.0	49.4	27.8	31.3	31.5	30.8
Sections in local newspaper	53.0	67.4	84.2	86.8	82.5	77.3	44.4	53.1	57.4	53.8
Exhibits of school work	56.1	58.4	64.8	77.3	73.3	67.4	44.4	59.4	64.8	59.6
School annual	10.6	10.1	32.4	38.7	56.7	32.8	5.6	25.0	33.4	25.9
School entertainments	93.9	91.0	91.6	95.3	94.1	93.2	61.1	71.9	74.1	71.2
School visiting days	34.8	45.6	43.5	50.9	44.2	43.9	33.4	46.9	46.3	44.6
Graduation exercises	83.3	87.6	95.4	98.1	96.6	93.2	72.2	71.9	74.1	73.1
Lyceum courses	4.5	14.6	13.9	14.3	19.2	14.1	16.7	15.6	11.1	13.5
Parent-teacher association	40.9	48.3	46.3	50.9	41.7	45.9	33.4	34.4	31.5	32.7
Civic club	3.0	2.2	8.3	3.8	1.7	3.7	....	3.1	3.7	2.9
Miscellaneous	4.5	....	....	.9	8.4	2.9	11.1	6.2	22.2	15.4
Percentage of all schools reporting	91.7	96.7	98.2	99.1	95.9	95.4	94.7	94.1	98.4	95.4
Total number of all types of activity	291	452	661	697	831	2,984	75	157	278	510
Average number per school	4.4	5.1	6.1	6.5	7.0	6.0	4.2	4.9	5.1	4.9

Other means of publicity reported by from 29 per cent to 49 per cent of the unselected schools were printed or mimeographed bulletins, pupil progress reports other than the traditional report card, the school paper or magazine, the school annual, visiting days, and the parent-teacher association. Of these the school annual and the bulletin were infrequently mentioned by the schools in Groups IA and IB.

Means of publicity less frequently reported by the unselected schools were the news letter, lyceum courses, and the civic club. Other means of publicity mentioned by from one or two schools each were school socials, school dinners, school athletics, community forensics, musical concerts, the pupil-parent handbook, the mother-daughter banquet, participation by the school in the community parade, community games, the use of the school gymnasium by the business men, and radio broadcasts. The average number of types of publicity per school ranged from 4.4 in Group IA to 7 in Group IIIB. In general the smaller schools not only use fewer means of publicity, but a smaller proportion of them make use of each of the means reported.

The situation in the selected schools in regard to the types of publicity employed is very similar to that in the unselected schools, except that the proportion of schools reporting any one type is with two exceptions somewhat lower than for the unselected schools. The same four types used by a majority of the unselected schools are also used by a majority of the selected schools.

Means of publicity emphasized.—An attempt was made to discover what means of publicity were most stressed. The returns indicate that many schools are not emphasizing any particular type, while others are giving equal attention apparently to two or more types of publicity. The data do indicate, however, that certain means are being given emphasis by a considerable proportion of the schools.

The local newspaper as an avenue of publicity was most frequently mentioned as receiving particular attention by both classes of schools. (See Table 97.) Of the unselected schools about a fourth and of the selected schools somewhat less than a third reported special emphasis on this means of publicity. About one school in four in both classes of schools

stressed school entertainments and programs as means of publicity. A markedly larger proportion of the selected schools than of the unselected schools reported the parent-teacher association as an avenue through which to keep the public informed of the activities and needs of the school. Of the selected schools almost one in three so reported, as contrasted with one in six of the unselected schools. The school paper or magazine as a means of publicity was emphasized by a sixth of the unselected schools and a full fifth of the selected schools. In both instances the larger schools made more use of this instrument for disseminating information concerning the school than did the smaller schools. Other means of publicity receiving special attention by a considerable proportion of both classes of schools were exhibits of school work, visiting days, and graduation exercises. In general the evidence on means of publicity emphasized indicates that the selected schools as a class are more often giving special attention to practically all the means mentioned than are the unselected schools.

TABLE 97.—*Percentages of unselected and selected schools reporting means of school publicity especially emphasized*

Means emphasized	Unselected schools by size groups						Selected schools by size groups			
	IA	IB	II	IIIA	IIIB	Total	I	II	III	Total
1	2	3	4	5	6	7	8	9	10	11
Printed or mimeographed bulletins	----	3.4	4.6	8.5	3.3	4.3	22.2	9.4	9.3	11.5
School news letter	4.5	1.1	5.5	2.8	3.3	3.5	11.1	6.3	3.7	5.8
Pupil progress reports other than traditional report cards	3.2	3.4	4.6	2.8	7.5	4.5	5.6	3.1	7.4	5.8
School paper or magazine	7.5	11.2	15.7	14.1	22.5	16.4	11.1	18.8	27.8	22.1
Section in local newspaper	13.6	14.6	33.3	35.8	22.5	26.2	27.8	25.0	35.2	30.8
Exhibits of school work	7.5	13.5	10.2	21.7	14.2	13.9	33.3	18.8	20.4	22.1
School annual	1.5	2.2	6.5	7.5	11.6	6.6	----	----	11.1	5.8
School entertainments	31.8	30.3	29.6	22.6	20.0	26.2	33.3	21.9	24.1	25.0
School visiting days	4.5	6.7	8.3	9.4	9.2	8.0	11.1	6.3	20.4	14.4
Graduation exercises	18.2	14.6	20.4	17.9	20.0	18.4	22.2	25.0	24.1	24.0
Lyceum courses	1.5	3.4	2.8	.9	3.3	2.5	----	----	----	----
Parent-teacher association	12.1	12.4	17.6	21.7	11.6	15.4	33.3	25.0	31.5	29.8
Civic clubs	----	1.1	----	.9	----	.6	----	----	3.7	1.9
Percentages of schools reporting on this topic	91.7	96.7	98.2	99.1	96.9	96.4	94.7	94.1	96.4	95.4
Total number of publicity activities reported	70	105	172	177	191	715	38	51	118	207
Average number per school	1.1	1.2	1.6	1.7	1.6	1.5	2.1	1.6	2.2	2.0

Three of the selected schools visited were using means of publicity out of the ordinary. In the high school at Glasgow, Mont., the class in journalism wrote up the activities and work of the school for the local paper. This school also arranged an annual school exhibit in which all phases of the work in the school were shown. In connection with this exhibit the school presented a program participated in by the school band, the school orchestra, and the school dramatic club. The junior-senior high school at Masontown, W. Va., had as one of the committees of the pupil association a publicity committee whose responsibility was to keep the public informed on school items of interest.

In the Flathead County High School at Kalispell, Mont., a noteworthy innovating practice in publicity was found. The faculty of this school published a monthly periodical in which was presented information on the activities, needs, and plans of the school and other materials on educational topics. A brief quotation from the November, 1929, issue of this unique publication will indicate its nature and objective.

> The *Messenger* is written for the benefit of our patrons who are not technically trained in education. It discusses and explains tendencies in secondary education, especially those that are playing a part here. One trouble with modern education is the distance it is from the public. So swiftly has it moved along that patrons have not kept informed. Then of a sudden a bond issue or a levy is sought and the crash comes! The consistent reading of the *Messenger* by the patrons of this high school would help create a supporting public that would back all reasonable school ventures.

3. CONCLUSION

The data on the extended service of the smaller secondary schools indicate that as a group they are doing relatively little in the way of providing educational opportunities for the boy or girl who can not attend the regular day sessions. Neither vocational nor general courses to help such persons to adjust themselves more efficiently to their work and life responsibilities are offered by any considerable proportion of the schools. Considerably more is being done for the adult population of the community, particularly through special vocational courses. General or academic courses for adults are offered in slightly more than 1 in 10 of the schools report-

ing. Almost half of the schools reporting, the smaller schools more frequently than the larger, furnish library facilities for the community in general. A considerably larger proportion of the unselected than of the selected schools report part-time or continuation work for children of high-school age. On the other hand, the situation is almost exactly the reverse in the proportions offering short-unit courses for adults. In respect to the other types of extended service through courses and library the differences between the two classes of schools are slightly in favor of the unselected schools. Since the proportions of selected schools reporting on the several items, however, are considerably greater than for the unselected schools, it is probable that the actual proportions of the former offering most of the types of service considered are at least equal to, if not greater, than those of the unselected schools.

In the extraschool or special services rendered by the school or by individual members of the staff, the evidence indicates that the smaller secondary schools are doing a great deal. The types of service of this nature most frequently rendered are those of providing music, directing community recreational programs, and directing community dramatics. In these types of service the selected schools are superior to the unselected schools both from the standpoint of the proportion of schools reporting such services and from the standpoint of the average number of services rendered per school.

To the problem of publicity the schools are giving more or less attention, but the data indicate that they have not as yet recognized fully the importance of a public kept fully informed on the work, activities, needs, and plans of the school. Only a few of the means available to the school for keeping its public acquainted with its work are employed by a majority of the schools. Although a few are giving considerable attention to publicity as a group, the smaller secondary schools are doing too little to insure intelligent cooperation and support on the part of the school public as a whole. In regard to publicity the data show but minor differences between the two classes of schools. Most of the

specific means of publicity mentioned are reported by somewhat larger proportions of unselected than selected schools. On the other hand, the selected schools as a class are using a greater variety of means of publicity, and larger proportions of these than of the unselected schools report special emphasis on most of the means reported.

CHAPTER XI : GENERAL SUMMARY, TRENDS, PROBLEMS, AND SIGNIFICANCE

1. REPRESENTATIVENESS OF THE SCHOOLS OF THE STUDY

The present study has included 614 of the smaller secondary schools. Of these, 505, designated as the unselected schools, have been regarded as representative of the general run of smaller secondary schools, although, since they represent only about two-fifths of the schools to which inquiry forms were sent, they are in a sense selected and are probably as a group somewhat better than the actual run of such schools. The other 109 schools, designated as the selected schools, included both 4-year and reorganized secondary schools reported as being outstanding in some phase or phases of their work. Both classes of schools were well distributed over all size groups of the smaller secondary schools and over all geographical areas of continental United States. Very satisfactory data were supplied by both classes of schools relative to practically all major characteristics and activities. The results should represent with a considerable degree of reliability the characteristics, trends, and problems in smaller secondary schools as a class. In this chapter it is the purpose to present a general summary of major findings and to indicate trends and problems shown by the data presented in detail in the preceding chapters.

2. SOME GENERAL CHARACTERISTICS OF THE SCHOOLS

The pupil-teacher ratio.—The data on the relation between size of school and pupil-teacher ratio (Table 1, Ch. I) reveal an interesting and significant fact. They show that in schools enrolling 75 pupils or fewer the average number of pupils per teacher is very low, being less than half of what is generally regarded as an economically desirable ratio. In schools enrolling between 76 and 150 pupils the average ratio is approximately three-fifths of the desirable ratio. Only in groups of schools enrolling more than 150 pupils does the average number of pupils per teacher approach or equal

the ratio of 25 to 1 ordinarily considered to be economically desirable. In this respect there are no significant differences between the unselected and selected schools. The data indicate clearly that small high schools enrolling fewer than 150 pupils are operating with a small number of pupils per teacher. They show that these smaller schools can not economically extend their curriculum offerings much beyond what they are now offering.

Unless the smaller high schools evolve a new organization of subject matter whereby the total number of subjects may be reduced or unless they develop a new method which makes it possible for one teacher to handle successfully two or more subjects at the same time, these schools are bound either to offer a poverty-stricken program of secondary education or to overload their teachers, or both. The problem becomes more and more acute with the constant demand for new subjects.

A number of significant experiments are now in progress which hold promise in the direction of one or more of the following results: Enriching the curriculum of the small high school, reducing the demands upon the teachers, eliminating the very small classes, and lowering the per unit costs. Correspondence lessons for these small high schools are now claiming the attention of the University of Nebraska;[1] in Ohio they are trying out a "tutorial plan" which employs both the correspondence technique and the itinerant teacher idea; self-administrative lesson contracts so widely used by our progressive schools are also being experimented with as a means of meeting individual pupil needs with a limited teaching staff.

Type of school district and size of area served.—The type of school district in which the small high school operates and the size of the area served throw some light upon two problems, namely, the availability of secondary education for rural children and the degree of centralization of secondary education in small communites and rural areas. The evidence shows that slightly more than a third of the un-

[1] Knute, O Broady, *et al*. Practical Procedures for Enriching the Curriculum of Small High Schools. Educational Monograph No. 2, June, 1931.

selected schools and more than half of the selected schools are operating in consolidated districts. (See Table 6, Ch. I.) In both classes of schools, those enrolling between 76 and 150 pupils are more often of the consolidated type than either the smaller or the larger schools. Among the selected schools the difference between the middle group and the larger schools is slight, while among the unselected schools the difference is marked.

Somewhat less than a third of the unselected and more than half of the selected schools serve areas of more than 50 square miles. Among the unselected schools those enrolling fewer than 150 pupils more frequently serve the larger areas than do the larger schools. Among the selected schools those enrolling 75 pupils or fewer tend to serve the smaller areas. In both classes of schools the largest proportion of schools serving the larger areas is found in the schools of medium size. Both from the standpoint of the proportion of schools operating in consolidated districts and from the standpoint of size of area served the selected schools show marked superiority over the unselected schools. These facts indicate clearly that the selected schools as a class are doing much more than the run of schools to make a better quality of secondary education available for rural children.

Retention of pupils.—All studies of the problem have shown that a considerably smaller proportion of rural children of high-school age attend high school than of urban children. The present study, as previous studies, shows, however, that the small high schools retain those who enter as well or better than the large high schools. In the unselected schools as a class, 54 pupils were enrolled in the twelfth grade for each 100 in the ninth. The smallest and largest schools showed the smallest percentages retained. In the selected 4-year schools, approximately 51 pupils were enrolled in the twelfth grade for each 100 in the ninth. The schools in Group II, with 60 per cent, ranked highest of the selected 4-year schools in the number retained to the twelfth grade, being very similar in this respect to Groups II and IIIA of the unselected schools. In the selected reorganized schools the twelfth-grade enrollment represented approximately 65 per cent of

the ninth-grade enrollment. This fact indicates a significantly greater holding power in these schools than in either the unselected schools or the 4-year selected schools.

3. GENERAL ORGANIZATION AND ADMINISTRATION

Types of organization.—One of the outstanding features of the smaller secondary school is the great variation in types of organization and the range and variety in the administrative, supervisory, and other duties of the principal in charge. For the unselected high schools the modal practice gives the principal administrative and supervisory responsibility for all elementary grades and the high school in schools enrolling 150 pupils or fewer. This also represents the modal practice in all size groups of selected schools. The preponderance of this practice in the selected schools is probably accounted for by the large proportion of all size groups of this class operating in consolidated districts. In the selected schools of Groups IIIA and IIIB the typical principal is responsible for the high school only, although more than 4 in 10 of the principals of these schools also have charge of both elementary-school and high-school pupils. There are several other types of organization in the 4-year high schools in all of which the high-school principal has responsibility for from one to four of the elementary grades, indicating a definite tendency in those schools to associate more or less closely with the high school the grades below the ninth. The selected schools show a somewhat greater tendency toward innovating types of organization, but that is to be expected, since that was one of the factors of selection.

The wide vertical range of school work and activities over which the responsibility of the high-school principal extends, especially when other characteristics of his position are taken into consideration, makes the principalship of the smaller secondary school a complex and exacting position. It presents a serious problem in the professional training of these principals, since intimate knowledge of both elementary-school and secondary-school curriculums, methods, and organization are highly desirable in the performance of their duties.

Distribution of the principal's time.—Three types of principalships in the smaller secondary schools are indicated by data for principals of the unselected schools, showing the relative amount of time devoted to the different major activities. In schools enrolling 75 or fewer pupils, practically all principals teach, giving half or more of their time to this activity and the keeping of the study hall. The majority of these principals have administrative duties to which they devote approximately a third of their time. To supervision of instruction in the elementary grades and the high school they give a sixth of their time or less. The second type of principalship occurs in schools enrolling from 76 to 150 pupils, where the typical principal gives approximately a third of his time to teaching and care of the study hall, a half or more to administrative duties, and a sixth to supervision of instruction, equally divided between the elementary grades and high school. The third type of principalship is found in schools enrolling more than 150 pupils. In these larger schools the typical principal gives less than a fourth of his time to teaching, a half or more to administrative duties, and a fourth or more to supervision of instruction with emphasis upon the high school. Only in the third type of principalship does the principal have regular clerical assistance. This fact last named indicates clearly a problem in the smaller secondary schools relative to the keeping of adequate records and the issuing of supervisory materials for which no clerical assistance is available to the principal.

High-school principal's responsibility in relation to the teaching staff.—Cooperative or shared responsibility represents the most common practice in the smaller secondary schools as regards the principal's responsibility in the selection, promotion, and dismissal of teachers. In the assignment of duties, exclusive or full responsibility is the most common practice. In both unselected and selected schools the principals of the smaller schools have less voice in relation to teachers than do the principals of the larger schools. As a class the principals of the selected schools exercise a greater amount of responsibility in relation to the teacher than do the principals in the unselected schools. The difference between the two classes of schools is most marked in the case

of the selection of teachers where the principals of the selected schools as a class exercise markedly more responsibility than the principals of the unselected schools. This difference is significant, since it means that the principals of the selected schools much more frequently determine in a major degree the teaching personnel in their schools. It seems probable that there is some direct relation between this fact and the fact that these schools were reported as superior schools.

Organization of the school day.—The school day in the smaller secondary schools is most commonly organized along the traditional line of periods 40 to 45 minutes in length. Significantly larger proportions of both classes of schools enrolling fewer than 150 pupils than of the larger schools reported periods of 40 minutes or less. (See Table 11, Ch. II.) Relatively small proportions of the unselected schools in the groups enrolling 150 pupils or fewer reported class periods of more than 50 minutes, while somewhat less than a third of the schools enrolling more than 150 pupils reported the use of the longer periods. Among the selected schools the line of demarcation is between the group of schools enrolling 75 pupils or fewer, which seldom reported the use of the longer class period, and the schools with more than 75 pupils, of which almost a third reported the use of periods 50 minutes or more in length. As a class, according to the data, the selected schools are using the shorter class periods considerably less often than the unselected schools. On the other hand, they are using the longer periods with considerably greater frequency. Also, selected schools of the middle group are markedly superior to the corresponding group of unselected schools in the proportion using the longer periods. The data not only indicate that the selected schools have made greater progress than the unselected schools in the adoption of class periods suitable for carrying on supervised study, but that this practice has been introduced into smaller selected schools, as indicated by the fact that almost a third of the selected schools enrolling between 76 and 150 pupils are using the longer periods as contrasted with approximately a sixth of the corresponding group of unselected schools. The practice of the selected schools indicates that the use of

the longer periods is feasible in schools with enrollments of as few as 75 pupils.

Library service.—The data on library service show that full-time librarians are seldom employed in schools with fewer than 150 pupils. A small proportion of schools enrolling between 151 and 300 pupils have the services of such an officer. Only in schools with more than 300 pupils, however, are full-time librarians employed in a half or more of the cases. Omitting Group IIIB of the unselected schools, which represents these larger schools, the situation in the selected schools is very similar to that in the unselected schools. The employment of part-time teacher-librarians represents the typical practice in the smaller secondary schools. (See Table 21, Ch. II.) On the basis of the total number of schools represented, approximately three-fifths of both unselected and of selected schools employ part-time teacher-librarians. In both cases the data indicate that a considerable proportion of schools enrolling 75 pupils or fewer have neither full-time librarians nor part-time teacher-librarians. The selected schools are somewhat superior to the unselected schools both with respect to the average amount of time per week devoted to library work by part-time teacher-librarians and with respect to the greater proportion of them possessing special training for library work.

A large majority of both classes of schools use assistant pupil-librarians, and the largest proportion of schools with library service of this type is in both instances in the group of schools of medium size. In both unselected and selected schools the average number of pupils serving as assistant librarians increases steadily and rather markedly as the size of the schools increase, and in this respect there is little difference between the two classes of schools. The average amount of time per week given to library work by pupils is markedly less in the selected than in the unselected schools, indicating that the former depend much less upon this type of library service. This difference indicates that the selected schools are superior to the unselected schools in the type of library service received.

In regard to extent of availability of the library to pupils, the most common practice is five days a week. In only a

relatively small number of schools in each class, mostly schools enrolling 75 pupils or fewer, the library is not open each day school is in session. A few of the larger schools of each class reported the library as available six days or more a week. Almost equal and relatively small proportions of unselected and selected schools reported the library open three hours or less a day. This practice is more common in the smaller than in the larger schools. As a class the selected schools are considerably superior to the unselected schools in the average number of hours per day the library is open and markedly superior in the proportion of schools keeping the library open seven hours or more a day. On the basis of all data on the item, one is led to conclude that the selected schools as a class are superior to the unselected schools both in library personnel and in the availability of the library to pupils.

Transportation of pupils.—That transportation of pupils at public expense is being rather widely adopted by the smaller secondary schools is evident from the fact that almost half of the unselected and almost three-fourths of the selected schools reported the transportation of pupils. The proportion of the selected schools furnishing transportation is markedly greater than that of the unselected schools. They show a preponderance both in respect to the number of transportation routes per school and in the number of pupils transported. The selected schools as a class also transport a considerably larger proportion of the pupils enrolled than do the unselected schools. All evidence on transportation of pupils indicates that the selected schools through consolidation and transportation have as a class made markedly greater progress than the run of smaller secondary schools in making an improved quality of secondary education accessible to rural children.

4. THE ADMINISTRATIVE AND TEACHING STAFF

Extent of training in the field of education.—The data on training of principals and teachers in the smaller secondary schools indicate, when compared with earlier studies, considerable progress made within the last decade. Among the principals of the unselected schools the modal amount of

training represents four years beyond the high school. Among the principals of the selected schools the modal amount of training is one full year more. No significant proportion of the principals have less than four years of training beyond the high school except Group IA of the unselected schools. The total number of principals with preparation represented by the master's degree is unexpectedly large. (See Table 29, Ch. III.) It is interesting to note in this connection that the proportions of principals holding master's degrees increases markedly and steadily with each increase in the size of the schools. As a class the principals of the selected schools are notably better trained than those of the unselected schools. This superiority of training on the part of principals of selected schools holds true for all size groups of schools.

The data on the number of semester hours of training in the field of education also indicates rather clearly that the principals of the smaller secondary schools have, as a class, gone beyond the minimum amount of training ordinarily required in the several States. As a class the principals of the selected schools have had considerably more training in education, as measured in semester hours, than the principals of unselected schools. In both classes of schools the principals of the smaller schools tend to have less training in education than the principals of the larger schools. All evidence on training indicates that the selected schools have been able to secure the services of better trained principals than the unselected schools.

Of the teachers in the smaller secondary schools, somewhat more than three-fourths hold bachelor's degrees. The largest proportions of teachers with no degrees are found in the groups of unselected schools enrolling 150 pupils or fewer. (See Table 36, Ch. III.) In the selected schools there is no marked difference between schools of the different size groups. The selected schools show both a significantly smaller proportion of teachers with no degree and a significantly larger proportion with master's degrees. The median amount of training in education in the case of teachers in unselected schools is approximately 20 semester hours and in the case of

teachers of selected schools almost 25 semester hours. Both in regard to extent in years of training and amount of training in education the teachers in the selected schools are significantly superior to the teachers in the unselected schools.

Tenure of principals and teachers.—The data on tenure of principals and teachers show clearly that in the case of both it is short. (See Tables 33 and 39, Ch. III.) The median tenure of the principals of the unselected schools is less than three years and of the principals of the selected schools a fraction over a year longer. In both classes of schools the length of tenure increases steadily and markedly as the schools increase in size. Among the principals of the unselected schools with 75 pupils or fewer, more than 6 principals in 10 had been in their positions less than three years. In the selected schools of similar size the situation was much better, indicating that the smaller selected schools are retaining principals significantly longer than the smaller unselected schools. As a class the selected schools show a marked superiority over the unselected schools in respect to tenure of principals.

The tenure of teachers in the smaller secondary schools is extremely short, the median tenure for the unselected schools being but 1.4 years and for the selected schools but 1.3 years. In both classes of schools the tenure is somewhat longer in the larger schools. More than half of all teachers in both unselected and selected schools enrolling 150 pupils or fewer had been in their positions one year or less. All evidence is serious in the smaller secondary schools, and especially in the schools with enrollments below 150 pupils.

Teaching load of principals and teachers.—The evidence shows that the teaching load of both principals and teachers in the smaller secondary schools is heavy as measured in terms of number of different subjects taught and number of subject-matter fields represented. It is especially heavy in the schools enrolling 75 pupils or fewer. In the case of principals the 4-year selected schools show a somewhat better condition than the unselected schools. The most desirable teaching load of principals is found in the selected reorganized schools. In the case of teachers the unselected schools make a slightly better showing than the selected 4-year

schools. Again, the most desirable teaching load is found in the selected reorganized schools. The superiority of the reorganized schools is probably due in large measure to the greater possibilities of vertical assignment of work in schools of the 6-year type of organization represented by a large majority of those schools.

Salaries of principals and teachers.—In both unselected and selected schools salaries of principals increase steadily and rather markedly with each group of larger schools. (See Tables 35 and 42, Ch. III.) The increase is especially marked between schools enrolling 75 pupils or fewer and those enrolling 76 to 150 pupils. The median salary of principals of schools in Group IIIB of the unselected schools is considered higher than the median for any other group of schools. Since these schools are, as a group, much larger than the schools of any other group included in the study, the fact that their salaries are largest merely supports the other evidence to the effect that salaries increase markedly as schools increase in size.

Two facts of major import are shown by the data on salaries of principals. In the first place, the differences in salaries received by principals of the smaller schools as compared with those received by the principals of the larger schools are sufficiently marked to explain the superior training, greater amount of experience, and longer tenure of the principals of the larger schools. Because of low salaries, capable and well-trained principals of the smaller schools tend as rapidly as opportunity offers to shift from the smaller schools to the larger schools, where better salaries are available and where better working conditions are usually found. This indicates one of the serious problems of the smaller schools. In the second place, taken either as a class or by corresponding size groups, the median salaries of principals of selected schools are consistently and significantly higher than those received by principals of unselected schools. On the whole, the salaries are sufficiently higher in the selected schools to make it possible for these schools to secure and hold better trained principals and to explain in large measure the superiority of those schools.

The data on salaries received by teachers suggest one explanation of brevity of tenure of teachers. A considerable proportion of the teachers in both classes of schools receive extremely low salaries. The median salaries of teachers in the unselected schools is but slightly lower than that of teachers in the selected schools. (See Table 42, Ch. III.) In fact, it is somewhat higher for schools with 75 pupils or fewer. As in the case of principals, the median salary of teachers improves in each group of larger schools, but the increments are much smaller than in the case of principals.

As a class the selected schools show no marked advantage over the unselected schools in the salaries paid to teachers. Whatever superiority the selected schools show over the unselected schools must therefore be due to factors other than salary. It may be said in conclusion on this subject that all evidence on the administrative and teaching staff, except that on tenure and salary of teachers, shows the selected schools to be superior to the unselected schools.

5. SCHOOL GROUNDS, BUILDINGS, AND EQUIPMENT

Grounds.—According to the data, approximately a third of the smaller secondary schools have grounds of 2 acres or less, too limited in extent to permit of provision, on grounds belonging to the school, for the athletic games and sports ordinarily carried on in high schools of to-day. Unselected schools enrolling 75 pupils or fewer are least well provided with grounds of adequate size, almost half of these schools having grounds of 2 acres or less. (See Table 33, Ch. IV.) In both unselected and selected schools the size of grounds increases with each increase in size of schools. Only schools enrolling more than 150 pupils have grounds approaching a desirable minimum of 5 acres. The selected schools as a class and in each size group have school grounds significantly larger than those provided for the unselected schools. This superiority of the selected schools is shown both by the median number of acres in school grounds and by the proportion of schools possessing grounds of more than 5 acres in extent.

Buildings.—The majority of the buildings of both unselected and selected schools are of comparatively recent

construction, almost half having been built between 1921 and 1930 and only a relatively small percentage prior to 1911. More than four-fifths of the buildings are constructed mainly of brick, or brick with other materials, as concrete, stucco, or stone. A tenth are of frame construction. These buildings are found almost exclusively, in both classes of schools, in the groups enrolling 75 pupils or fewer, where approximately one building in four is of frame construction.

As a class the smaller secondary-school buildings are fairly well provided with modern service equipment with the exception of those housing 75 pupils or fewer. As a class the selected schools are better provided with modern service equipment than the unselected schools, although the group of latter schools enrolling more than 300 pupils stands highest of all groups in this respect.

Provision of special rooms.—Limitations of schools due the factor of size are clearly shown in the provision of all types of special rooms. The only special room for instructional purposes almost universally provided in the smaller secondary schools is the science laboratory. No other special room is found in the majority of unselected schools enrolling 75 pupils or fewer. (See Table 50, Ch. IV.) The majority of selected schools of similar size have in addition a special room or rooms for instruction in home economics, indicating that these schools have overcome the limitations of smallness to a greater extent than the corresponding groups of unselected schools.

Of the unselected schools enrolling more than 75 pupils a majority are provided with five types of special rooms for instructional purposes. Of the selected schools of similar size a majority are provided with six types of special rooms for instruction. Throughout the selected schools have been able to provide one more special room of the types under consideration than the unselected schools. Only in respect to science laboratories and rooms for commercial work do the unselected schools show a slight superiority. As a class the selected schools are significantly better provided with special rooms for instructional purposes than are the unselected schools.

As a class the smaller secondary schools are lacking in special rooms for purposes other than instruction. The only special rooms of this type in more than half of both unselected and selected schools are offices and rest rooms. Unselected schools enrolling 75 pupils or fewer are least well provided with these special rooms, the office being the only special room for purposes other than instruction found in the majority of these schools; and the data indicate that more than a third of them have no special room for office purposes.

A large majority of all size groups of both unselected and selected schools, except Groups IA and IB of unselected schools, have some special provision for gymnasiums and auditoriums. Unselected schools enrolling 75 or fewer pupils are, according to the evidence, least often provided with these special rooms, approximately half having no special gymnasium or auditorium. Practically all unselected schools with more than 150 pupils and all selected schools with more than 75 pupils are provided either with separate gymnasiums and auditoriums or the combined auditorium-gymnasium. The evidence indicates that the selected schools as a class are considerably superior to the unselected schools in these respects.

The library.—The majority of all groups of unselected and selected schools reported a special room or space for the school library. In both classes of schools the largest proportions reporting no special library space were in the groups enrolling 150 pupils or fewer. As a class the selected schools are superior to the unselected schools both in the provision of space for library and in library equipment. In regard to median size, as measured in number of square feet of space provided, the selected schools as a class are markedly superior. They are also markedly superior as a class in the median number of volumes contained in the library and in the annual amount expended for books. They are superior to the unselected schools in the proportion of libraries provided with current magazines and newspapers. As a group, however, the unselected schools in Group IIIB surpass all other groups in the number of volumes in the library and in the amount expended annually for library books.

The data on the library show a very desirable trend in the direction of providing current materials in the form of magazines and newspapers for the school library. These data also indicate some important problems. In a considerable proportion of the smaller schools no special space for library purposes is provided. In a considerable proportion of schools, especially those enrolling 75 pupils or fewer, the total number of books available to pupils is inadequate to the needs of a modern high school. Also, in all groups of schools the median amount expended annually for library books appears to be insufficient to maintain the library at a desirable standard and to provide for increasing needs.

Provision for visual education and for free textbooks.—Approximately a fourth of the unselected schools and a third of the selected schools are provided with moving-picture machines and almost half of the former and more than three-fifths of the latter have machines for showing still pictures. (See Table 59, Ch. IV.) Among the unselected schools, those enrolling 75 pupils or fewer are seldom provided with either moving-picture or still-picture equipment. A similar difference between the smaller and larger selected schools is found with respect to still pictures but not with respect to moving-picture equipment.

Free textbooks are provided by approximately two-fifths of the unselected schools and by half of the selected schools. In both classes of schools there are only small differences among the different size groups in the percentages providing free textbooks. In both equipment for visual education and in provision of free textbooks the selected schools show a significant superiority over the unselected schools.

Conclusion.—Adequacy of grounds and other physical equipment is of highest importance in carrying on a modern secondary-school program. The data indicate clearly that the selected schools are superior to the unselected schools in the provision of most of these features. The data also indicate a number of problems in the smaller secondary schools in regard to grounds and physical equipment.

The problem of inadequate grounds is present in all size groups of smaller secondary schools, but is especially marked in schools enrolling fewer than 150 pupils. A second problem

arises from the fact that a fourth of the buildings housing the schools with enrollments of fewer than 75 are of frame construction, making for a serious fire hazard. A third problem, practically limited to the same group of schools, is that of inadequate service equipment in heating and toilet facilities and to a less extent in the matters of heating and water supply. A fourth problem especially acute in the smaller schools, but present to a greater or less extent in all size groups, grows out of the limitations in provision of special rooms both for instructional purposes and for noninstructional uses. Schools with 75 pupils or fewer are seriously lacking in all types of special rooms except science laboratories. While library equipment is rather generally provided, the number of books available is limited in many smaller schools particularly, and the amount expended annually for additions to the library appears inadequate for maintaining desirable library facilities. It must be recognized also that 1 school in 10 has no special library room and that this figure reaches 1 school in 4 in Group IA of the unselected schools. While an encouraging percentage of the larger schools especially are provided with moving-picture equipment and a considerably larger percentage with still-picture machines, yet almost three-fourths of the unselected schools and three-fifths of the selected schools have no moving-picture equipment and more than half of the former and more than a third of the latter are not provided with equipment for still pictures. In the unselected schools with 75 pupils or fewer, more than four-fifths are unprovided with either type of equipment. This indicates a serious lack in an important aid to instruction.

6. THE CURRICULUM

There is clearly evident in the smaller secondary schools the highly desirable tendency toward a better balanced curriculum providing opportunity for a wider range of developmental needs of adolescents and meeting to a greater extent the varied abilities, aptitudes, and interests of the school population of the present-day secondary school. The extent of introduction of certain subjects in both classes of schools was shown in Table 62 of Chapter V. The tendency

to change is shown by several trends indicated by the subjects added and the subjects dropped in the period between 1926 and 1931. According to the data, the most significant trend, as measured by the proportion of schools concerned, has been in the introduction of home economics and agriculture. On the same basis the second marked trend has been in the introduction of music and art, especially the former. The third major trend is shown in the introduction of junior business training, and the fourth in the decreasing emphasis on foreign languages, as indicated by the proportion of schools dropping Latin and French from the curriculum offerings. Other less marked tendencies are indicated by the data on social science and history, manual training, physical education and health, and science. In general the trend in the smaller secondary schools has been in the direction of subjects more closely related to contemporary life and its needs in both its practical and cultural aspects.

Comparison of the unselected and selected schools reveals some interesting similarities and differences. The two classes of schools are similar in the proportions adding most of the different academic subjects and physical education. The unselected schools show a markedly larger proportion introducing manual training and commercial subjects, with the exception of junior business training. On the other hand, the selected schools have much more frequently introduced the newer subjects of home economics, agriculture, and guidance. Also a markedly larger proportion of the selected than of the unselected schools have introduced music into their curriculum offerings. In general the selected schools show a much greater tendency than the unselected schools to introduce both the newer practical and appreciational or cultural subjects.

In this field of the curriculum, even though there has been a desirable trend toward other types of subjects, the outstanding problem, as indicated by the data, is the overemphasis on the academic and particularly the college preparatory subjects. In schools enrolling 75 pupils or fewer the academic and general curriculums are the only ones offered by a majority of the schools. As shown by the data on required subjects, algebra and geometry are still absolute requirements for

graduation in the majority of the schools, and a foreign language is still a requirement in a considerable proportion of the smaller schools, as is also ancient history. The smaller secondary schools are faced, it would appear, with the problem of developing a group of constants designed to meet the more universal practical and cultural needs of the youth of to-day to take the place of the present group based primarily on preparation for college. Physical and health education is not adequately recognized or provided for in the smaller secondary schools as a class, though many schools have excellent programs in this phase of secondary education.

7. METHODS OF INSTRUCTION

The data on methods of instruction employed show that the smaller secondary schools as a class have made very encouraging progress away from the traditional daily-assignment-and-recitation type of procedure. Eleven of the newer techniques in method were reported as being used to a greater or less extent by from a half to four-fifths of the unselected and selected schools. Only two of these newer techniques—the use of the library in classroom work and supervised study—were reported by the majority of the unselected schools as being used frequently or constantly. On the other hand, five of the newer techniques were reported by the majority of the selected schools as being used frequently or constantly and included, in addition to the two mentioned, projects in vocational subjects, field trips in vocational subjects, and the problem method.

Of greater significance than the methods used, perhaps, are those reported as being used with unusual success. Considerable proportions of unselected and selected schools reported as unusually successful six of the newer types of method. (See Table 65, Ch. VI.) In every case it is to be noted that a greater proportion of selected than of unselected schools reported the unusually successful use of the procedure mentioned. It is also to be noted that markedly larger proportions of the selected schools reported as unusually successful the use of the project method in vocational subjects, supervised study, and the long-unit assignment. All the data on methods of instruction indicate that the selected

schools have made more progress than the unselected schools in the introduction into general school practice of the newer types of method.

Although the data reported indicate that the majority of the smaller secondary schools are making frequent or constant use of a few only of the newer techniques of instruction, there still exists in those schools the problem of modernizing methods. At the same time there is evident an encouraging trend toward the newer practices, especially in the selected schools. Supervised study, use of the library, use of the project and the problem, and the socialized classroom procedures have been adopted in general practice by a significantly large proportion of the schools. The long-unit assignment in one form or another has also received considerable attention, particularly in the selected schools. Among the selected schools as a class larger proportions are using the different newer techniques than among the unselected schools, and in both classes of schools the smaller schools are less frequently employing the newer techniques than the larger schools.

8. SUPERVISION OF INSTRUCTION AND PROFESSIONAL GROWTH OF TEACHERS

The data indicate that a half or more of the principals of the smaller secondary schools are entirely or largely responsible for the supervision of instruction, and that this is more often true of the principals of the small schools than of the principals of the larger schools. It will be recalled that in these smaller schools the principals devote a large proportion of their time to teaching and receive the least amount of supervisory help from other officers.

The evidence indicates that the smaller secondary schools are giving considerable attention to the supervision of instruction and that several procedures are being employed. Most significant among those reported, because they represent newer points of emphasis, are: The determination of aims and objectives for subjects taught, observation by teachers of the work of other teachers, demonstration teaching by the principal or supervisor, analysis of pupils' learning difficulties, directing teachers in experimental work, the

working out of new-type tests and examinations, and the development of the long-unit plan of teaching. Particularly as means of stimulating professional growth of teachers, a large majority of both classes of schools reported the encouragement of teachers to do professional reading, attend summer sessions, and hold membership in teachers' professional organizations. Some of the more innovating practices for smaller schools found in the selected schools visited were: Mimeographed supervisory bulletins, meetings of teachers for the intensive study of some special problem or technique as the unit plan of teaching, reports and discussions by teachers on recent professional literature, and demonstration teaching evaluated according to a definite form used as a basis for the follow-up discussions.

Reports on supervisory procedures receiving special emphasis were submitted by unselected and selected schools. The results show that, with the exception of the personal conference, relatively small proportions of the schools are emphasizing any particular supervisory procedure. (See Table 71, Ch. VII.) The evidence indicates that in general the selected schools are more frequently giving emphasis to the different supervisory procedures and means of encouraging the professional growth of teachers than are the unselected schools. It is significant that the selected schools are much more often placing emphasis on such newer procedures as developing new-type tests and examinations and developing the unit plan of teaching. In these newer techniques the selected schools have made markedly greater progress than the unselected schools. The selected schools are also much more frequently than the unselected schools emphasizing attendance of teachers at summer sessions, professional reading, and membership in teachers' professional organizations.

Finally, because of the influence of several factors, the schools enrolling fewer than 150 pupils offer a special problem in supervision of instruction and the professional growth of teachers. These factors are the extremely short tenure of both principals and teachers; the heavy teaching load of principals and lack of clerical assistance, the large number of

subjects handled by teachers, and the relatively small amount of supervisory work done by persons other than the principal.

9. EXTRACURRICULUM AND RELATED ACTIVITIES

Number and types of activities.—The evidence shows that the number of extracurriculum activities fostered in the smaller secondary schools increases steadily and markedly with each increase in size of school. (See Table 73, Ch. VIII.) Four different types of activities are fostered by more than half of both classes of schools. Of these, only one, the glee club or chorus, is fostered in more than half the unselected schools with 75 pupils or fewer, while three of the four are found in the selected schools of similar size. In the groups of largest unselected and selected schools nine different extracurriculum activities represent the average number provided per school. As a class the selected schools are superior to the unselected schools in the provision of extracurriculum activities. This superiority of the selected schools is limited, however, to the groups of schools enrolling 150 pupils or fewer, indicating that the selected schools in respect to a program of extracurriculum activities have been able to a greater extent than the unselected schools to overcome the factor of smallness. In schools enrolling more than 150 pupils the unselected schools frequently equal and sometimes surpass the selected schools in the proportion providing a certain activity.

In both unselected and selected schools the number of athletic activities fostered increases steadily with each increase in size of schools, but the differences between the smaller and larger schools are not so marked as in the case of nonathletic activities. (See Table 74, Ch. VIII.) Again, the selected schools as a class offer a larger number of activities than the unselected schools and are surpassed by no group of unselected schools. Only basket ball and football are fostered by larger proportions of unselected than of selected schools. Six different athletic games and sports are played in from a third to practically all of both classes of schools. The greatest difference between schools enrolling 75 pupils or fewer and the larger schools is in the proportions playing football. This game is seldom played in the groups

of smaller schools, but is played in the majority of larger schools. Marked differences in favor of the larger schools of both classes exist in the proportions fostering tennis and track. In general the selected schools are superior to the unselected schools in the number providing most of the different athletic activities. They are especially superior in regard to the number that have introduced games comparatively new in the secondary-school program, such as volley ball, soccer, wrestling, hockey, and golf.

Financing pupil activities.—According to data supplied by the selected schools only, practically all schools depend in part on receipts from games and special programs by pupils for financing the athletic program, and a large proportion of the schools depend in part on the same sources for financial support of nonathletic activities. For the support of athletics 4 schools in 10, and for the support of nonathletic activities 3 schools in 10, depend in part on the proceeds from pupil-activity tickets. In a third of the schools both classes of activities are partially provided for through funds granted by the board of education. For the support of athletics, approximately 1 school in 10, and for the support of nonathletic activities 1 school in 8, solicits funds from patrons and friends of the school.

In the majority of the schools the control of finances for athletic and nonathletic activities is vested in the principal and in slightly less than a third of the schools in a general school-pupil treasurer under the guidance of a faculty sponsor or auditor. Types of control less commonly found are treasurers of the various pupil organizations, a faculty committee or member of the faculty, a general school committee, a pupil board of control, the superintendent, the board of education, club sponsors, and the faculty.

Conclusion.—All information pertaining to extracurriculum and related activities shows that the smaller secondary schools, with the exception of those enrolling 75 pupils or fewer, are carrying on rather commendable programs in both athletic and nonathletic activities. The data indicate also that many schools are giving considerable attention to the problem of maintaining a desirable balance between the

pupil's classroom work and other activities. A very desirable tendency of the boards of education to grant funds for the partial support of the pupil activities program was reported by almost a third of the selected schools. Another desirable tendency is the centralization of the control of finances in a general school treasurer under the guidance of a faculty adviser, thus providing for some measure of pupil responsibility. The innovating practice of a budget for pupil activities, allotting to each activity its portion in terms of its needs rather than its proceeds, is found in a number of schools. The data, for selected schools only, indicate the very desirable tendency in the majority of these schools toward a definite location of responsibility for the encouragement, supervision, and control of the general social life of pupils.

Certain rather well defined problems are indicated by the data on pupil activities. In the first place, the schools enrolling 75 pupils or fewer as a group have a very limited number of activities, especially of the nonathletic type. This is doubtless a limitation largely due to smallness, although the selected small schools have to some extent overcome it. In all size groups of both classes of schools there is lack of attention to those athletic activities which would give skill and develop interests that would be useful and beneficial after school life is over. Such games and sports as tennis, volley ball, handball, archery, golf, hiking, etc., are seldom fostered, or at best are fostered by less than half the schools. A third problem is the relative lack of emphasis on competitions in nonathletic activities. This problem is especially evident in schools enrolling fewer than 150 pupils. A fourth problem arises from the fact that more than 1 school in 10 solicits funds from school patrons and friends for the support of its pupil-activity program. It seems evident that schools will not be free to develop programs of pupil activities for their educational values so long as such a practice is necessary.

10. PUPIL ACCOUNTING AND GUIDANCE

Data concerning pupils.—The evidence on data kept by the schools concerning pupils shows that information on 13 different items is kept in the pupil records of more than a fifth

of the schools reporting. Information pertaining to only five of these items, however, was reported as being kept in the records of more than half the unselected schools. (See Table 80, Ch. IX.) On the other hand, information on nine different items was reported as being kept in the pupil records of more than half the selected schools. This difference between the two classes of schools shows clearly that the selected schools are keeping far more adequate data on pupils than are the unselected schools. Especially are the selected schools markedly superior in the proportions of schools keeping on record the newer types of information concerning pupils, such as those pertaining to personal traits, interests, intelligence, vocational and educational plans, and occupational experience.

Use of intelligence and achievement tests.—Slightly more than half of the unselected and three-fourths of the selected schools reported the use of intelligence or mental tests. (See Table 80, Ch. IX.) As a class the selected schools are using intelligence tests much oftener than the unselected schools. The most striking difference between the two classes of schools in the use of this newer instrument of measurement occurs in the schools enrolling 75 pupils or fewer. In these smaller schools the proportion of selected schools employing intelligence tests is nearly twice that of the unselected schools. Both unselected and selected schools are employing achievement and other forms of standardized tests much less frequently than intelligence tests. Among the unselected schools the smaller schools less frequently employ achievement tests than do the groups of larger schools. Among the selected schools there are practically no differences between different size groups in the proportions using this type of test. The selected schools are markedly superior to the unselected schools in the proportions employing standardized tests. All evidence on the use of these newer instruments of measurement, both mental and achievement, shows that they have been introduced much more widely in the selected than in the unselected schools.

Physical examinations.—The data on physical examinations of pupils show that approximately 60 per cent of the unse-

lected and 70 per cent of the selected schools make regular physical examinations of pupils. (See Table 88, Ch. IX.) In both classes of schools the proportions of schools making such examinations are similar for all size groups. As a class and in each size group the selected schools are markedly superior to the unselected schools in the proportions of schools making physical examinations of pupils. The selected schools are also superior in the average number of physical examinations received by the average pupil during his high-school course.

Educational and vocational guidance.—As a class the smaller secondary schools do not commonly have in operation definite plans of guidance, either educational or vocational. (See Table 90, Ch. IX.) Slightly more than a fourth of the unselected and almost half of the selected schools reported definite plans of educational guidance. Among the unselected schools the proportions having definite plans are similar for all size groups excepting Group IIIB, which is notably superior to all other groups of unselected schools. Among the selected schools there is a marked increase with each group of larger schools in the proportions having definite plans of educational guidance. Approximately a fourth of the unselected and almost half of the selected schools reported definite plans of vocational guidance. In both cases the differences between smaller and larger schools are less marked than in the case of educational guidance. In both aspects of pupil guidance considered, the selected schools are markedly superior to the unselected schools as measured by the proportions of schools reporting definite plans of operation.

Conclusion.—The problems of pupil accounting and guidance in the smaller secondary schools appear to be rather well indicated. The problem of keeping on record adequate data on pupils, particularly in the smaller schools, is evident. It is made peculiarly difficult because of the lack of clerical assistance in all but the larger schools. Closely related are the problems of giving mental, achievement, and aptitude tests and of interpreting and using the results for the improvement of instruction and guidance. The problem of physical examinations and the regular check-up of the physi-

cal conditions of pupils is also evident. Every pupil in the secondary school to-day should have a thorough physical examination and at least an annual check-up as a basis for his physical and health education program and as a safeguard and guide to his participation in physical games and athletics. The fourth prominent problem is that of providing for pupils of the smaller secondary schools adequate educational and vocational guidance. While much is being done and while some schools have noteworthy programs of guidance, as a class the smaller secondary schools have only just begun to recognize in any organized way this important and difficult aspect of secondary education.

11. EXTENDED SERVICE AND COMMUNITY RELATIONS

Extended service.—The smaller secondary schools as a class are doing comparatively little for pupils of high-school age unable to attend the regular day sessions. Schools enrolling fewer than 150 pupils seldom offer courses for such pupils. Only part-time or continuation courses are offered by any considerable number of the larger schools. Courses for adults are rarely offered by schools enrolling 75 pupils or fewer. Night-school vocational courses for adults are rather frequently offered by the schools enrolling more than 75 pupils. Short-unit courses and night-school academic or general courses for adults are offered by a considerable number of such schools. Library service to outlying rural schools is infrequent, and library service to the community in general was reported by almost half of the schools reporting. The latter service is most frequent in the small schools. In these forms of extended service there is in general little or no difference evident between the unselected and selected schools.

In the matter of extraschool or special service by the school or by individual members of the staff, the smaller secondary schools are doing a great deal. Practically all are furnishing music. Somewhat less than half are providing directors of community recreational activities and directors of community dramatics. Fifty of the selected schools reported the innovating practice of studying community characteristics and needs through surveys carried on by pupils and members of the staff either in connection with courses or independently

of courses. In these extraschool and special forms of extended service the selected schools are considerably superior to the unselected schools.

Although the smaller secondary schools are, through extraschool and special activities, rendering such service to their communities, and although some are doing noteworthy work for adults, especially through evening vocational courses, much is still to be accomplished before the broader interpretation of secondary education will be fully realized. There would appear to be an important problem of studying the educational needs of persons of high-school age out of school and the development of plans to meet these needs.

Community relations.—Some attention to the problem of keeping the public informed with respect to the school and its activities appears to be practically universal among the smaller secondary schools. More than half of both unselected and selected schools reported four different means of disseminating information pertaining to the school. These means were graduation exercises, school entertainments, a section in the local newspaper, and exhibits of school work. The smaller schools employed all these means of publicity, except the school entertainment, much less frequently than the larger schools. Information on means of publicity given special emphasis shows that eight different means were receiving special emphasis in considerable percentages of unselected and selected schools. (See Table 95, Ch. X.) In every case except school entertainments significantly larger proportions of selected than of unselected schools were giving special attention to the several means of publicity reported. In general the selected schools appear to be giving more attention to the problem of acquainting the public with the school than do the unselected schools. However, as a class the smaller secondary schools do not appear to be utilizing at all fully the means at hand for keeping their communities informed with regard to their activities, needs, and plans.

12. TWO MAJOR IMPLICATIONS

The meaning of the consistent superiority of the selected schools.—A manifest conclusion from an overview of the evidence summarized in the foregoing sections of this chapter

pertains to the all but fully consistent superiority of the selected over the unselected schools represented. To be sure, it is an *average* superiority of one class over the other, rather than the superiority of all selected schools over all unselected schools; among schools of equivalent enrollments many unselected schools are indubitably better in some respects than many selected schools. Nevertheless, the general trend of superiority is too marked to be gainsaid.

The selected schools are in larger districts than are the unselected schools. They are more often in consolidated districts. They more often provide transportation, and provide it for a large number of pupils. They retain pupils better—at least when they are reorganized schools. The length of class period is greater. They more often provide the service of part-time librarians, and these librarians have had more training for their work than part-time librarians in unselected schools. Their principals are better trained both with respect to the total duration of training and the amount of work taken in the special field of education. The tenure of these principals is longer, their teaching loads are more reasonable, and their salaries higher. In material facilities the selected schools are better provided, particularly in such matters as size of grounds, service equipment, special rooms, space and equipment for libraries, equipment for motion and still pictures, and free textbooks. They are superior with respect to instruction in that they have more often in recent years made certain additions to the curriculum, are making more frequent use of newer methods of teaching, and are carrying on a greater range of supervisory activities. In the extracurriculum, in pupil-accounting and guidance, in extending their educational service, and in their community relationships they have gone farther than have the unselected schools.

The foregoing array of aspects of superiority of the selected schools as a class makes it clear that for the unselected schools as a group to be superior is highly exceptional. In fact, in one partial respect only were they superior to the selected schools, namely, in those changes in the curriculum involving the addition of manual training and commercial subjects

(not including the course in junior business training). This superiority is offset by other additions to the curriculum more often made in the selected schools. In two respects they are about on a par with selected schools, namely, in the tenure and salaries of teachers.

Thus, the first general implication from all this evidence is that, *if the selected schools are providing the facilities or carrying on the activities represented in these aspects of superiority, other schools of the same size may well be expected to do the same.* The whole study has not, to be sure, gone into the question of the local financial resources available to the unselected and selected schools in order to ascertain whether the selected schools are better off financially than the unselected schools. It is almost certain that the selected schools were superior in this respect as well as in others. If this were found to be true, the problem would become one of equalization of educational opportunities and stimulation by the State. In these times of a rather general acceptance of the principle of State equalization and stimulation, it seems appropriate to concede that to some extent incorporating the features of a good school in small communities should be made feasible by the State, especially if the principle is not carried so far as to minimize too greatly the advantage of size to be pointed out below.

An implication subordinate to that just stated, but important nevertheless, pertains to the significance of educational leadership in the smaller schools. The study has shown that principals in the selected schools on the average have more extended training, hold higher degrees, and have had more work in the field of education. Besides, they have longer tenure and receive higher salaries. It seems more than likely that many of the other superiorities reported for the selected schools are directly attributable to the greater competence of the heads of these schools reflected in the evidence on these points. Although relationships in this regard are doubtless somewhat reciprocal, and although better schools would to some extent attract better leadership, one can hardly doubt that some of the superiority of the selected schools has resulted from superior competence of the school

heads. It is worth mentioning in passing that the superiority has been accomplished despite a level of salaries of teachers no higher than that in unselected schools. Unquestionably, one of the first approaches in the effort to improve a school must be to place it in charge of a competent leader.

The significance of size.—A second conclusion from the evidence of the whole study is with respect to the significance of size of school (as determined by enrollment). The fact is that *the differences between the measures reported for one size group and the next largest among the unselected schools are typically greater than between that size group and the corresponding size group among the selected schools.* This conclusion is reenforced by the frequent superiority of Group IIIB, the group of largest unselected schools, over Group III of the selected schools, a superiority which can readily be explained by the larger enrollments already reported for the schools of Group IIIB. It also has the corroboration of an important finding of Part I of Monograph No. 5, of the National Survey of Secondary Education, The Reorganization of Secondary Education, a finding to the effect that, as concerns schools with smaller enrollments, size is a more potent factor of the extent of reorganization than type of organization. The conclusion from the present investigation is another way of saying that *size is a more important factor than selection* in making for constructive differences among small schools. It would be difficult, if not impossible, to conceive of a conclusion more momentous for the problem of the small high school.

The obvious implication from this finding is that the very small high schools ought to be kept to as small a number as possible. This implication has meaning for all who deal with the problem of small schools, whether they are persons in the localities where these small schools are operating or contemplated or whether thay have to do with the determination of State policy in the establishment and maintenance of schools. State policy can be exceedingly influential here and should encourage the establishment only of high schools of good size. Doubtless in most States there are sparsely settled areas that should be provided with secondary-

school opportunities even if enrollments are small, but these should be looked upon as atypical developments. After authorization, such schools should be aided in providing the features of a good institution, as suggested in discussing the first major implication, but the normal and basic assumptions should be that it is easier to provide a good school where a sizable enrollment is assured and that to maintain a good school with a small enrollment is always an uphill and often an impossible task.