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REMOTE HIGH SCHOOLS--THE REALITIES.
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THIS STUDY WAS CONDUCTED AT TWO UREAN HIGH SCHOOLS AND three small, remote high schools in the state of washington IN AN EFFORT TO INVESTIGATE STUDENT-TEACHER ACTIVITIES AND RELATIONSHIFS, AND TO EXPLORE, IN DEFTH, ANY EDUCATIONAL ADVANTAGES AND/OF DISALVANTAGES ACCRUING TO THE SMALL HIGH SCHOOL. GENERAL FINDINGS OF THE STUDY INDICATED THAT THERE IS GREATER OPFORTUNITY FOR STUDENT-TEACHER INTERACTION IN A SMALL HIGH SCHOOL, EUT LACK OF FACILITIES AND SUEJECT OFFERINGS HAVE A TENDENCY TO PRODUCE A KIND OF EDUCATIONAL DEPRIVATION IN COMPARISON WITH THE LARGER HIGH SCHOOL. THE StUDY RECOIMENDED THAT IT EE DETERMINED WHICH REMOTE HICH schools were aescllutely necessary, the rest to ee CONSOLIDATED, aND STATE FUNDS EE MADE AVAILAELE TO ERING THE FACILITIES AND CURRICULAR OFFERINGS OF THE REMOTE HIGH SCHCOLS MORE IN LINE WITH THOSE OF THE LARGER HIGH SCHOOLS. (BR)


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## PART I

INTROI.. ZTION

Throughout the United States there are numerous remote, necessary high schools which cannot be consolidated. Climate, topography and distance are the main deterents to effective consolidation. This situation is particularly true in the Northwest region formed by Alaska, Idaho, Oregon, Montana and Washington. The research described below ttes to education in small remote high schools in the state of Washington. To some degree the findings may be g :neralized to other such schools in the region. The Washington study, how ever, should be only a first step in a long-range plan to assess education in the region's isolated, small schools.

The educational disadvantages of small, remote high schools have been discussed often in the literature. 1 One deficiency in the literature, however, appears to be the lack of an in-depth analysis of the daily activities of students and teachers in small, rural high schools. What are the daily activities and relationships in which students and teachers in small high schools participate? How do these activities and relationships differ from those in large high schools? Which activities and relationships are unique to the small high school? Which activities or relationships unique to the small high school seem particularly to foster or retard the process of learning? What can be done to improve the quality of education in small, rural hiigh schools when consolidation is not feasible? The purpose of this research is to seek possible answers to these questions.

## REI.ATED LITERATURE

Twenty percent of the nation's high school student; attend small rural high schools--schools with less than 300 students. ${ }^{2}$ From 1950 to 1959, the most remarkable increase in school enrollments was in the high school grades in rural non-farm areas. The increase of enrollment in urban high schools was 25.3 percent; in rural areas as a whole, 101.3 percent; in rural non-farm areas, 119 percent; and in rural farm areas, 77.7 percent. ${ }^{3}$ Enrollment in all high schools will continue to increase markedly according to the U. S. Office of Education, "Projection of Educational Statistics to 1973-74."4 While the percentage of increase of enrollment in rural higin schools may not maintain itself in the future, the actual number of students will continue to grow. ${ }^{5}$ The existence of small but necessary rural high schools will present problems in the future.

Even such vigorous critics of the small high school as Conant, allow that, "Undoubtedly, there are certain parts of the United States where geographic considerations make small high schools necessary. Population is so sparsely distributed that enough pupils just cannot be effectivaly tronsported to a central point." 6

Critics have been quick to point out the disadvantages of small high schools. ${ }^{7}$ These disadvantages generally have been framed in terms of widely accepted, desirable characteristics of large high schools. When large and small high schools are compared on this basis, the large high schools appear most effective. ${ }^{8}$ Almost no research, however, has been undertaken to see what advantages small high schools offer that large schools do not.

While research in depth on the advantages and disadvantages of small high schools has been lacking since 1941, there tave been activities concerned with improving the quality of education offered in small high schools. Such undertakings have been based on assumptions about the small high school rather than actual research evidence. Nevertheless, these projects have demonstrated some useful ideas. Among the most noteworthy of the projects are: the Western States Small School Project, 1961-63; the Catskill Area Project, 1962; and the Duo-Special ist Project in Arizonc, a report of which was issued by the Kellogg Foundation in 1965. None of these projects, however; have been concerned with an exhaustive analysis of student-teacher activities and relationships in the small high school. The literature is devoid of such research. ${ }^{9}$

## RESEARCH OBJECTIVES

The general purposes of this study were to investigate student-teacher activities and relationships in small, remote high schools and to explore, in depth, the educational advantages and/or disadvantages that accrue to the small high school as a consequence of these activities and relationships.

Specific objectives of the study were:
To analyze daily activities and relationships among teachers and students in three small, remote high schools and to compare them with activities and relationships which occur in two large high schools.

To determine which activities and/or relationships among teachers and studerits in small high schools seem particularly to foster or retard studens leaming.

To solicit opinions from current students and teachers in small, remote rural hi,3h schools and large urban high schools about the quality and quantity of their interrelationships and activities.

To make tentative recommendations to improve the tota! curricular and co-cirricular program of a small, remote high school.

## RESEARCH PROCEDURES

Three small, remote high schools in contrasting parts of the state were selected for this study. The student sample in the small schools was selected randomly from criong 151 students enrolled in grades ten, eleven and twelve. Fifty percent of the students enrolled were included in the sample. The instructional staffs of the three high schools numbered 19 individuals. All 19 were included in the sample. One hundred eighty-three alumni of the three small schools were mailed questionnaires. A 52 percent return was obtained from the alumni. (See APPENDIX D)

Two urban high schools representing gecgraphically different sections of the state were included in the study. A sample of 95 students was selected at random from among 1600 students in grades ten, eleven and twelve. The instructional staffs of the schools numbered 115. Of these, 28 teachers were selected. Those selected were teachers who worked most frequently with the 95 sturdents chosen for the study.

Interview instruments were designed for use with teachers and students in the participating schools. Prior re . $\therefore$ ir use, the instruments were field
tested twice in schools outside those included in the study. The instruments were redesigned each time as a result of the field testing. (See APPENDICES B and C)

Each teacher and student selected for the study was interviewed individvally by project staff. The interviews were conducted within the participating schools. In general, interviews took from 40 to 50 minutes each. Data gathered from these interviews were analyzed by project staff.

PART II

## FINDINGS

One major objective of this research was an in-depth analysis of the daily activities of teachers and students and the interrelationships among them. This portion of the report presents findings related to the activities and relationships of teachers and students.

## THE TEACHERS

Teachers in the large high schools had fewer daily preparations than teachers in small high schools. The following table illustrates the contrasting number of daily preparations.
table 1. Dally teacher preparations

| Number of Preparations | Large Schools | Small Schools |
| :---: | :---: | :---: |
| 1 | 8 |  |
| 2 | 10 |  |
| 3 | 9 | 1 |
| 4 | $1 *$ | 6 |
| 5 |  | 8 |
| 6 | $N=28$ | 3 |

> *All preparations in same subject

The chart shows only one small school teacher had fewer than four daily preparations while none of the large school teachers had as many as four. In addition, teachers in the large schools generally had preparations in the same or related disciplines. Small school teachers, however, were responsible for combinations
of subjects that were not closely related to other subject they taught or to their academic preparation.

The teachers were asked to state those factors which gave them the most satisfaction in their present teaching assignments. The following table summarizes their free responses.

TABLE 2. FACTORS CONTRIBUTING TO JOB SATISFACTION

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| Personal relationships with <br> students | 8 | 44.4 | 19 | 67.8 |
| Seeing student progress, <br> development | 8 | 44.4 | 11 | 39.2 |
| Interest of students | 5 | 27.7 | 5 | 17.8 |
| Personal relationships within <br> staff, support of administration | 2 | 11.1 | 6 | 21.4 |
| Teaching situation, assignment, <br> class size | 6 | 33.3 | 7 | 25.0 |
| Being in rural community | 7 | 38.9 | 5.5 |  |
| Not satisfied |  |  |  |  |

*Does not total $100 \%$ as more than one response came from each subject

The single, most important factor reported by a substantial majority of urban teacher: was their personat relationships with students. Teachers from small high schools were less definite in their responses. These teachers indicated
personal relationships with students, seeing student progress and development and living in a rural community as equally important sources of satisfaction.

Teachers were asked what they would like to change in their present teaching assignments. The results are presented below in Table 3.
table 3. desired changes in school program

| Teachers Would Like to Have: | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| Fewer subjects or students, <br> less paper work | 7 | 38.8 | 18 | 64.2 |
| Better facilities, more space | 8 | 44.4 | 3 | 10.7 |
| More AV material and other <br> equipment | 12 | 66.6 | 11 | 39.2 |
| Ability grouping, team <br> teaching, schedule change | 2 | 11.1 | 8 | 28.5 |
| More coordination of <br> effort, communication | 3 | 16.6 | 7 | 25.0 |

*Does not total $100 \%$ since more than one response was received from a number of individuals

A majority of teachers in the large high schools indicated a desire to teach fewer subjects, to work with fewer students, and to herve iess paper work. This is interesting because Table $\mathbf{1}$ illustrates of the $\mathbf{2 8}$ teachers from large high schools who were interviewed, 18 had two daily preparations or less. Apparently this means the urbe : teachers want to specialize, and in only one subject. Conversely, teachers in small schools, even though they have considerably more preparations,
are not particularly concerned about the number. They express, rather, a need for more adequate classroom equipment and audiovisual materials. They are also concerned over the need for more adequate facilities.

## TEACHER-STUDENT CONTACT

Activities other than actual classroom instruction often consume part of a teacher's school time. Participating teachers were asked to report those responsibilities involving student contact whish they engaged in on a typical school day or at regular intervals. Table 4 illustrates their responses.

TABLE 4. TEACHER RESPONSIBILITIES OUTSIDE OF CLASSROOM INSTRUCTION

| Summary of Frequent Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| Class or club advisor | 9 | 50.0 | 6 | 21.4 |
| Coaching | 5 | 27.7 | 7 | 25.0 |
| Responsibility for school <br> program, play, publication <br> Chaperon school events <br> regularly <br> School curriculum or other <br> committee <br> Supervising duties <br> None | 1 | 27.7 | 1 | 3.5 |

*Does not total $100 \%$ since respondents gave more than one answer

The majority of small school teachers reported they had some assigned responsibility in school aside from teaching that involved contact with students. Only 5.5 percent of small school teachers reported no such responsibility. But 28.5 percent of teachers from large high schools reported no such responsibility. Table 4 indicates teachers in smail high schools serve considerably more often as class or club advisors than do teachers in large high schools. Similarly, teachers from small high schools are much more frequently responsible for school programs, plays and publications than are their colleagues in large schools. The evidence appears to indicate teachers in small schools are more deeply involved in responsibilities related to student activ:ties.

Many of the teacher-student contacts noted above are of a structured nature. The following table presents situations where contact is generally less formal.

TABLE 5. MEETING STUDENTS OUTSIDE OF CLASS

| Summary of Responses | Small School |  | Large School |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| At school functions | 6 | 33.3 | 7 | 25.0 |
| As sponsor of club or clajs | 8 | 44.4 | 6 | 21.4 |
| Having students visit home | 1 | 5.5 | 5 | 17.8 |
| Through coaching | 3 | 16.6 | 6 | 21.4 |
| Meeting in church or store | 2 | 11.1 | 6 | 21.4 |
| Private lessons or special help | 3 | 16.6 | 1 | 3.5 |
| Visiting socially in homes of parents | 2 | 11.1 |  |  |
| No contact outside of school |  |  | 8 | 28.5 |

*Does not total $100 \%$ since more than one response was received from a number of individuals

All teachers in the small schools had some degree of contact with students outside of class. In contrast, $\mathbf{2 8 . 5}$ percent of the teachers in the large schools reported no out-of-class contact with students. Teachers in the small schools had considerable contact with their students as a result of sponsoring a club or class activity an. :rough attending school functions. The same was true, to a lesser degree, for teachers in large high schools. In addition, teachers from large high schools had contact with students through community functions and through student visits to their home. In no case did a teacher from a large school visit socially with his students' parents. The evidence here again suggests teachers in small high schools have more personal contact with their students than teachers from large high schools.

The frequency of teacher-student contact within the school was investigated further. Teachers were asked about their contact, other than in normal hall duties, with students before and after school. The data presented in Table 6 suggest, according to teacher responses, a somewhat more frequent contact between teachers and students in large high schools.

TABLE 6. TEACHER CONTACT WITH INDIVIDUAL STUDENTS

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| Before school | 6 | 33.3 | 15 | 53.5 |
| After school | 5 | 27.7 | 10 | 35.7 |
| None reported | 7 | 38.8 | 7 | 25.0 |

A similar question was asked of students in small and large high schools. These responses, described in Table 7, indicate neither the students in s: all high schools nor those in large high schools felt they had frequent contact with teachers before or after school. Responses included in Tables 6 and 7 suggest a slightly more frequent contact before and after school in large high schools. Almost alf of the small school students in the sample were bussed to and from school. The same was not true of the students in the large high schools. This fact, then, can probably explain the difference.

TABLE 7. STUDENTS' PERSONAL CONTACT WITH TEACHERS

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| Before school | 3 | 4.2 | 11 | 11.5 |
| During school day | 1 | 1.4 | 7 | 7.3 |
| After school | 4 | 5.6 | 10 | 10.5 |
| No mention | 63 | 88.7 | 67 | 70.5 |

The amount of time students in small high schools spent in the school, both before classes began and after they ended, was very limited. Nevertheless, it is surprising that neither students in large nor small high schools had much contact with their teachers at these times. Further, it is useful to note both students in small and in large high schools felt there was relatively little teacher-student contact before and after school. Teachers, however, especially in the large high schools, felt such contact was considerable.

## PARENT-TEACHER CONTACT

Teachers from small and large high schools were asked, "With how many of your students' parents are you personally acquainted?" As Table 8 indicates, relatively few teachers felt they had no acquaintance with parents. Teachers in small high schools generally were acquainted with a higher percentage of their students' parents. Other evidence gathered in this study also indicates that frequency of contact between teachers and parents representing the small high school was considerably higher than between teachers and parents representing large schools.

TABLE 8. NUMBER OF PARENTS KNOWN BY TEACHERS

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| None |  |  | 2 | 7.8 |
| A few to he!! | 3 | 16.6 | 25 | 89.2 |
| More than half | 6 | 33.3 | 1 | 3.5 |
| All parents | 9 | 50.0 |  |  |

The data contained in Table 8 were obtained during interviews with teachers. Similar information was obtained from these teachers' students. The students were asked if their parents were personally acquainted with any of their teachers. Table 9 summarizes their responses.

TABLE 9. NUMBER OF TEACHERS KNOWN BY PARENTS

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| None | 8 | 11.2 | 63 | 66.3 |
| A few to half | 8 | 11.2 | 25 | 26.3 |
| More than half | 15 | 21.1 | 4 | 4.2 |
| All teachers | 39 | 54.9 | 2 | 2.1 |

Most of their parents, in the opinion of the small school students, were personally acquainted with the students' teachers. Data pertaining to this point in Tables 8 and 9 are quite similar, though it should be noted 11.2 percent of the small school students believed their parents and teachers were not acquainted. This contradicts reports by teachers noted in Table 8.

More than 66 percent of the students from larga schools indicated their parents and teachers were not personally acquainted. This is a clear contradiction of date in Table 8. Only 7.8 percent of the large high school teachers said they were not personally acquainted with any of their students' parents. The question is: Why the disparity between the urban student's assessment of teacherparent contacts and the urban teacher's assessment of these contacts?

It is quite possible that the urban teacher's concept of personal acquaintance, "knowing a person," is different from the student's concept of the same term. It could be, for instance, to a teacher in a large urban high school, knowing a parent is knowing the parent's name, occupation and perhaps even
recognizing his face. Not so to the student, however. To the student, knowing an individual might well involve a rather detailed, deep knowledge of an individual's personal characteristics. The difference of perception between teachers and students about the term personal acquaintance--knowing a person--may help explain the contradictions in the data for large schools presented in Tables 8 and 9. At any rate, it seems obvious there are differences in the amount of contac! between teachers and parents in urban high schools and those in remote high schools. The data suggest such contact is greater in smail high schools than in the urban high schools studied.

Parental contact with the school was evaluated partially by asking students if their parents had visited school during the academic year (1966). Both large and small high school students gave like responses. A slightly larger percentage of smail school students stated their parents had not visited school during the year, although about 50 percent of both groups reported no parental visits to school.

The evidence presented above in Tables 4-9 suggests teachers in small high schools hare more contact with students both in school and out of school than do teachers in large high schools. These contacts range from structured functions to more informal activities.

It also appears more frequent contact exists between teachers and parents representing small high schools than between those representing large high schools. This relationship among reachers, their students and parents in small high schools, appears to offer potential educational advantages for these students. According to the findings of this study, however, adminisirators of the small high schools
involved have not taken full advantage of the educational potential offered by the unique relationship among teachers, students and parents.

## CLASSROOM PROCEDURES

Teachers were asked what new curricula, methods, or materials were currently being used in their classrooms. Tab'e 10 summarizes their responses.
table 10. INNOVATIVE INSTRUCTION

| Summary of Most <br> Frequent Responses: | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| New curricula (BSCS, <br> PSSC), new course | 2 | 11.1 | 6 | 21.4 |
| New materials, film, <br> programed materials | 5 | 27.7 | 10 | 35.7 |
| New teaching media, <br> overhead, tape, etc. | 6 | 33.3 | 13 | 46.6 |
| Team teaching or other <br> organized changes |  |  |  |  |
| None mentioned | 9 | 50.0 | 9 | 32.1 |

*Does not total $100 \%$ since several teachers gave more than one response

It is apparent, from the above table, teachers in larger schools were using more innovative materials and procedures than were teachers in the smail schools. One-half of the small school teachers did not report using any innovative features. Conversely, only 32 percent of the large school teachers reported thay were not using new methods or materials of instruction. The most striking
difference is in the "team teaching" category. No small school teachers reported using team teaching, while 21.4 percent of the large school teachers were engaged in team teaching. As measured in this study, large schools appear to be more innovative than small schools. The instructional program in the small high schools appeared to be traditional while large high schools appeared to be more experimental in both methods and materials of instruction. The most important differences between curricula and methodology offered in small high schools and those offered in large schools are detailed in APPENDIX A.

Both groups of teachers estimated the varying amounts of time spent in different teaching duties during a typical school day. Teaching duties were conceived as consisting of: (1) telling or explaining to students; (2) conducting recitation or discussion periods; (3) demonstrating to students; (4) supervising study periods; (5) supervising student activity; and (6) observing presentations, panels and/or demonstrations. Few apparent differences in teaching duties appear to exist between the two types of schools. Some variation does exist, but the percentage comparisons between the two categories of schools are strikingly similar in most instances. For more detailed information, see APPENDIX E.

The data indicate one major difference in how teachers from small schools and those from large schools spend their time. Teachers in the small high schools appeared to spend more time supervising study and student activity. Approximately 50 percent of the small high school teachers spent more than one hour a day in these two activities while large high school teachers varied considerably from this. About 25 percent of large high school teachers spent a comparable amount
cf time supervising student study, and 38 percent spent one or more hours supervising student activity in the laburaiory, shop, or related activities. This considerable amount of time spent in supervising student study would appear to be beneficial to the students involved. The data, however, does not indicate what type of supervision was provided.

It appears teachers in smail schools engaged in activities quite similar to those of teachers in large schools. The relatively small classes in the rural schools were not utilized as readily as they might be to involve students in a closer relationship with teachers in the learning process.

Classroom activities of the students were surveyed to determine if differences between the two categories of students might exist. Table 19
(APPENDIX E) summarizes these findings. There appeared to be little difference in the amounts of time spent by students in the various activities.

## STUDENT ACTIVITIES

Student contact with teachers indicated more opportunities to grow intellectually and socially through the school sponsored extracurricular activities that were part of the contemporary high school program. The students were asked about their participation in both school and nonschool activities. A greater percentage of the small high school students participated in the various activities than did their peers in the large high schools. Differences also were noted in the kinds of activity in which the two groups of students participated.

Small high school students participated more often in student government, music, drama and athletics. This difference could be partially attributed to
the relatively small number of students available in the school for these types of activity. The small school provides a real opportunity for students to become involved in these activities, and the evidence suggests the opportunity is being used.

Large high schools appeared to have more student participation in academic area clubs and activity-interest clubs. These types of activity were related to the more comprehensive offering of courses available in the large schools, the specialized background and interests of techers, and the availability of specialized facilities in the larger schools. These types of activity were not readily available in the small schools.
"Able ll-A. Student participation in activities

| Sumnary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| A. School Related: | 2 | 2.8 | 23 | 24.4 |
| Academic area clubs <br> or groups | 11 | 15.4 | 13 | 13.8 |
| School service clubs <br> or groups | 13 | 18.3 | 9 | 9.5 |
| Student government | 28 | 39.4 | 27 | 28.7 |
| Athletics or sports <br> related activities | 22 | 30.9 | 11 | 11.7 |
| Activity-interest <br> clubs or groups 1 | Bands, orchestra, <br> choral, dramatic <br> groups | 27.6 |  |  |

*Does not total $100 \%$ since some students gave more than one response
${ }^{1}$ Example - Ski Club, Radio Club

The activity programs in both large and small high schools offered students a wide range of possible involvement. However, 32 percent of large school students and 17 percent of small school students reported they were not involved in any activity. The reasons for this lack of participation could not be determined.

TABLE II-B. STUDENT PARTICIPATIUN IN ACTIVITIES

| Summary of Responses | Small School |  | Large School |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| B. Nonschool Related Activities: |  |  |  |  |
| Church youth group | 10 | 14.0 | 7 | 7.4 |
| Other young peoples' groups | 11 | 15.4 | 8 | 8.5 |
| Informal interest groups ${ }^{\text {1 }}$ | 5 | 7.0 | 3 | 3.1 |
| C. No Activities | 12 | 16.9 | 32 | 34.0 |

*Does not total $100 \%$ since some students gave more than one response
${ }^{1}$ Example - 4-H, Scouts, $D_{E}$ - . iJy, Rainbow

The amount of time spent by students each day on homework assignments was ascertained. Average time varied little for the two categories of students. A greater percentage of the students in large high schools, however, appeared to spend over two hours per day at homework tasks. A partial explanation for this finding is the greater number of courses available in large schools. Thus
. students in the large schools probably take an extra course rather than spend a period a day in study hall.
table 12. daily hours of homework

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
|  | 9 | 12.6 | 14 | 14.7 |
| Less than 1 hour | 47 | 66.1 | 51 | 53.6 |
| From 1 to 2 hours | 14 | 19.7 | 30 | 31.5 |
| Over 2 hours |  |  |  |  |

Free time activities were very similar for both types of high school students. Students watched television and spent considerable time reading magazines and books. Students from small high schools attended movies much more often than did their peers in large schools. On the other hand, students in large schools attended plays and concerts much more frequently than did students in small schools. There dia not, however, appear to be other major differences in the leisure time activities of the two groups of students.

To summorize, differences in the activities of small high school students and those of students in large high s=hools can be explained in terms of the availability of activities and facilities. The activities directly connected with the school differed in the number and kind available to the two groups of students. Students in small high schools had more personal, informal contact with their teachers than students in large high schools. A greater percentage of the small
school students participated in activities, but the number of activities available to them were limited. The specialized, interest-area clubs and groups available to students in large high schools were not accessible to the students in the small, rural high schools.

## FUTURE PLANS OF STUDENTS

Many of the students surveyed indicated an interest in additional education and/or training after they finished high school. Only 10 percent of the sample indicated they did not anticipate additional education in the future. The largest percentage of students from large and small high schools planned to attend a four year college. A considerable number were planning to attend junior colleges and business or trade schools. Students in large high schools showed a greater interest in the four year college than their counterparts in small high schools. However, this difference can be accounted for by the proximity of four year institutions to the urban centers surveyed in this study. Several students indicated a specific occupation or profession which they would like to pursue. A major difference between small and large high school students appeared to be in the percentage interested in the sciences and engineering. A greater percentage of large high school students expressed an interest in these areas. The relatively few science offerings available in small high schools, the lack of adequate guidance and counseling facilities, and the inadequacy of laboratories and other facilities would all seem to limit student explorations and expectations in the areas of science and engineering.

The students were asked what subjects they had taken, or will take, that would help them carry out their future plans. Small high school students mentioned courses that were largely traditional, college preparatory courses. Only 21 percent of these students mentioned courses other than college preparatory. In contrast, students in large high schools mentioned a greater variety of courses that would be of help. These courses were not confined to meeting specific college requirements. Fifty-three percent of the students mentioned courses other than the traditional content of college preparatory programs. Major differences in individual course areas also were discovered. Large high school students felt foreign languages and the social sciences would be of help to them in the future, but the small high school students did not have a similar opinion. Over 25 percent of large school students mentioned these two course areas, while less than 10 percent of the small school students felt they would be necessary. In general, students from small high schools saw less usefulness and relevance to the future in their courses than did students in the large high schools.

The students were asked what ectivities would help them carry out their future plans. Table 13 presents these findings. Major differences between the two groups of students appear to be contained in the areas of school clubs and activities. Students in large schools had access to more activities directly related to their individual interests and future plans. These activities were seen as highly relevant. In contrast, activities for the student in the small high school were not viewed by the student in the same way. Sixty percent of small high school students felt none of their activities would help them in their future plans, while only 42 percent of the large high school students expressed a similar opinion.
table 13. aCtivities that will help future plans

| Summary of Responses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| No activities will help | 43 | 60.5 | 40 | 42.1 |
| School clubs or organizations | 1 | 1.4 | 18 | 18.9 |
| School activities | 9 | 12.6 | 22 | 23.1 |
| Clubs and organizations <br> outside of school <br> Church activities | 9 | 12.6 | 9 | 9.4 |
| Family members work in | 3 | 4.2 | 6 | 6.3 |
| occupation | 2 | 2.8 | 3 | 3.1 |
| Hobbies | 2 | 2.8 | 4 | 4.2 |
| Private study or practice | 2 | 2.8 | 12 | 12.6 |
| Part-time work | 7 | 9.8 | 12 | 12.6 |

*Does not total $100 \%$ since several students mentioned more than one activity

In summary, the two groups of students shared similar views about plans for the future. Differences appeared to exist between them in the amount of help they received (or expected to receive) from subjects they have studied and from the activities in which they have participated. The students in large high schools mentioned more courses and activities they expected would contribute productively to their future plans than did the students in small high schools.

## STUDENT OPINIONS OF HIGH SCHOOLS

The students were asked their opinions regarding features of (1) an ideal high school, and (2) the worst possible high school they could imagine. Mavy variations are evident in their responses, but more often the responses of the two groups are similar. Table 14 summarizes the features students associate with the "worst high school."

A major difference between the two groups appeared to be in the area of student-teacher relationships. This was mentioned by 26.5 percent of the students in the large high schools, while it received no mention from small school students. Small high school students mentioned limited curriculum, poor instructional equipment, poorly prepared teachers and poor student discipline more often than did the students in large high schools. Students in large high schools mentioned too few activities, poor student-teacher relationships, overcrowded classes and a staff that was too strict. This data should not be interpreted as indicating the respondents were dissatisfied with their schools. Rather, the responses relate to the qualities that would make a school undesirable to the students.

In describing the ideal high school, students from small schools mentioned the need for extensive teacher use of new media and materials, a broad and deep curriculum, and well prepared teachers. Students in large high schools mentioned the need for an extensive library, a broad ar d deep curriculum, extensive guidance and counseling services, and good relationships with teachers. To some degree, then, students from large and small high schools agreed on the internal qualities of the "worst" and the "best" high school, but, as noted in Tables 14 and 15, there were also substantial points upon which the students did not agree.
table 14. Characteristics of the "worst" high school

| Summary of Responses | Small School |  | Large School |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| A. Staff and staff-student relations: |  |  |  |  |
| Poorly prepared teachers | 23 | 32.3 | 20 | 21.2 |
| Little or no guidance | 9 | 12.6 | 12 | 12.7 |
| Staff too strict | 1 | 1.4 | 22 | 23.4 |
| Poor student-teacher relationship |  |  | 25 | 26.5 |
| Littie or no help from teacher | 6 | 8.4 | 18 | 19.1 |
| Poor discipline of student body | 22 | 30.9 | 20 | 21.2 |
| B. Curriculum and instruction: |  |  |  |  |
| Limited curriculum | 24 | 33.8 | 16 | 17.0 |
| Crowded classes (and building) | 9 | 12.6 | 23 | 24.4 |
| Old fashioned teaching methods | 5 | 7.0 | 3 | 3.1 |
| Poor equipment for instruction | 21 | 29.5 | 12 | 12.7 |
| No or too few activities | 16 | 22.5 | 27 | 28.7 |
| Difficult to participate in activities | 2 | 2.8 |  |  |
| C. Building: |  |  |  |  |
| Old or run-down building | 14 | 19.7 | 10 | 10.6 |
| Poor library facility | 9 | 12.6 | 11 | 11.7 |
| D. Size of "worst high school": |  |  |  |  |
| Very large (too large to know students) | 10 | 14.0 | 13 | 13.8 |
| Very small | 9 | 12.6 | 13 | 13.8 |

*Does not total $100 \%$ since students gave more than one response

TABLE 15. Characteristicis of trie "Ideal" high school

| Summary of Responses | Small School |  | Large School |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent* | Number | Percent* |
| A. Staff and staff-student relations: Well prepared teachers | 30 | 42.2 | 12 | 12.7 |
| Extensive counseling program-not disciplinary | 21 | 29.5 | 36 | 38.2 |
| Teacher known by students other than in class | 1 | 1.4 | 10 | 10.6 |
| Good relationship with teachers |  |  | 28 | 29.7 |
| Much individual help from teacher possible |  |  | 24 | 25.5 |
| B. Curriculum and instruction: Broad and deep curriculum | 38 | 53.5 | 40 | 42.5 |
| Reiative'.y small classes (15-20 students) | 8 | 11.2 | 21 | 22.3 |
| Extensive use of new media and mater:als | 47 | 66.1 | 13 | 13.8 |
| No homework, or nut as much |  |  | 7 | 1.4 |
| Much student participation in class |  |  | 8 | 8.5 |
| Extensive activity program | 24 | 33.8 | 24 | 25.5 |
| C. Buibing: Modiern building | 17 | 23.9 | 33 | 35.1 |
| Large library containing much reference material | 26 | 35.6 | 54 | 57.4 |
| Libraiy available tn students during day | 5 | 7.0 |  |  |
| Other features (swimning pool, individual study space, lounge) | 4 | 5.6 | 10 | 10.5 |

The students differed considerably in their estimate of a desirable size for a high school. Table 16 shows the maximum size expressed by small school students was almost the minimum considered desirable by students in large high schools. Nearly all small high school students corsidered 1,000 students as the maximum size, while 85 percent of the participating large school students desirec. a school of 1,000 to 1,500 or more.

TABLE 16. THE IDEAL SIZE OF A HIGH SCHOOL

| Summary of Resoonses | Small School |  | Large School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent ${ }^{1}$ | Number | Percent ${ }^{2}$ |
| Under 100 students | 12 | 16.9 |  |  |
| 100 to 300 students | 13 | 18.3 |  |  |
| 300 to 1,000 students | 12 | 16.9 | 5 | 5.3 |
| 1,000 to 1,500 students | 3 | 4.2 | 13 | 13.8 |
| 1,500 to 2,000 students |  |  | 14 | 14.8 |
| Over 2,000 students |  |  | 1 | 1.0 |

1 Based on responses from $56.3 \%$ of the sample
2 Based on
2 Based on responses from $34.9 \%$ of the sample

A final portion of the student interview required the student to rate his school on an eleven-point scale, Ratings ranged from 0 (minimum) to 10 (maximum). Tie small school students did not rate their schoois as high as the students in large high schools. The mean rating of the small school students
was 5.7 as contrasted with 7.6 for the large high school students. Ratings are shown in Table 18.

There were definite reasons why students from small high schools rated their schools low. Students indicated they were not exposed to a broad, deep, interesting curriculum. Their teachers were not prepared adequately to teach the variety of courses they were required to teach. More than 70 percent of the students included in the small high school sample for this study claimed they spent as much as one quarter of their school time in study hall situations, but with relatively little interest to study.
taile 17. students' rátings of their schools

| Summary of Responses | Small School $^{1}$ |  | Large Schcol $^{2}$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| 10 (maximum) | 1 | 1.4 | 8 | 8.5 |
| 9 |  |  | 14 | 14.8 |
| 8 | 7 | 9.8 | 32 | 34.0 |
| 7 | 7 | 9.8 | 21 | 22.3 |
| 6 | 9 | 12.6 | 9 | 9.5 |
| 5 | 18 | 25.3 | 3 | 3.1 |
| 4 | 15 | 21.1 | 6 | 6.3 |
| 3 | 7 | 9.8 |  |  |
| 2 | 4 | 5.6 | 1 | 1.0 |
| 1 (minimum) | 3 | 4.2 |  |  |

Students in the small high schools rated their schools low because of a lack of intellectual stimuli within the schools. These students were and are bored. When sompared with the variety of subjects, books and educational materials available in large high schools, the paucity of those availabie in the small high schools included in this study is obvious. Part of the problem, perhaps, is the lack of administrative imagination in the direction of small school programs. The teachers, books and materials that make programs, however, are expensive. Funds necessary to support programs in small remote schools are often very limited.

## SMALL SCHOOL ALUMNI

Graduates of the small high schools for the past five years (1961-1965) were surveyed. A 51.7 percent return was obtained from the random sample of 183 graduates. The majority of alumni felt their high schools had prepared them moderately well for continued education and employment. Some criticisris of the adequacy of the school progrom were made voluntarily by over 18 percent of the respondents. These inc!uded:

> Pocr quality of instruction due to assignment of teachers in areas of less competency
> Difficulty of hiring and/or retaining "good" teachers Limited course offerings Limited equipment Inadequate career counselirg Alumni of the small high schools were evenly distributed on the question of desiring a larger high srhool. Similar percentages were obtained for those wanting a larger school and for those wanting a school of the same size.

The alumni were asked to evaluate certain areas of their former schools' programs. Alumni were given five choices to describe the accomplishment of the schools in these areas. The choices were excellent, good, average, below average and poor. Areas receiving an overall average rating were: having well-prepared teachers in subjects taught, extracurricular activities, adequate materials and supplies, and sufficient study space. A better-than-average rating was given to time for student-teacher association.

Certain areas of the school program received less favorable mention. The alumni felt precollege or prevocational guidance was below average. A similar rating was given the availability of books and magazines for student readirg in the library, the use of audiovisual materials in teaching and courses that met their needs or interests when they were students.

As reported earlier, similar concerns were expressed by many students and teachers presently in the schools. A wider variety of courses and activities, better prepared teachers, supplementary materials and more adequate equipment appear to be the major problems of the small, rural high school as viewed by students, teachers and alumni. Many other problems have been suggested, but these four appear more often than others.

## PART III

## CONCLUSIONS AND RECOMMENDATIONS

## CONCLUSIONS

Teachers in the remote high schools studied had significantly more separate class preparations per day than their colleagues in large high schools. Eleven of the eighteen small high school teachers interviewed had five or more different preparations each day. For the most part, teachers in large high schools had only one or two preparations per day. When asked what could be done to improve their teaching situations most, teachers from small high schools expressed a need for more adequate educational facilities, equipment and materials. Teachers from large high schools responded that fewer preparations, fewer students and less paper work would most improve their situation. These responses were somewhat difficult to interpret since it would appear that small school teachers needed fewer preparations. However, a large number of daily preparations did not seem to trouble teachers in small high schools.

Both groups of teachers acquired a great deal of job satisfaction from their personal relationships with students. Teachers from large high schoois, however, mentioned this more frequentiy than did tecehers from small high schools. In spite of this, the findings indicate teachers from smail high schools were considerably more involved with student activities then were teachers from large high schnols.

Generally, teachers from small high schools had more contact with students in school and out of school than teachers from large high schools.

In-school contact before classes begin in the morning and after classes end in the afternoon can be increased if small school administrators make adjustments in the student bus schedules.

Teachers from small high schools had more contact with their students' parents. Small school administrators, however, generally failed to take advantage of the educational potential of this relationship.

Students in small high schools tended to participate in more school activities such as student government and athletics than did their peers in large high schocls. The variety of such activities, however, was limited in the small high schools. In addition, the majority of students in small high schools did not feel their school activities would help them in achieving their future goals. On the other hand, students from large high schools expressed the opposite view. The problem seems to be that small high schools simply do not offer the variety of activities--such as academic clubs ${ }^{1}$--that larger schools offer.

Generally speaking, students in remote high schools were not exposed to the cultural and aesthetic experiences and alternatives open to students in large high schools. Little was being done in the small high schools studied to remedy this situation.

The students' experiences in the classroom differed markedly from the large school to the small school. Lerge school teachers reported the use of innovations in curriculum and methodology much more frequently than did teachers in small high schools. Fifty percent of the teachers in small high
schools could think of no innovation used durine
zourse of the year. Nevertheless, students in small high schools had considerably more time for independent studv than did their peers in the large high schools. I appeared neither administrators nor teachers in the small high schools studied had availed themselves of the educational potential offered by very small classes and frequent studentteccher contact.

Students from small high schools did not feel, generally, that the courses they took would be of particular value to them in the future. Students from large high schools expressed an opposite point of view. The small high schools studied did not offer a variety of courses or specialized courses as did the large high schools. Rarher, the small high school curriculum tended to be both limited and traditional in nature. It generally did not appeal to students in terms of what they perceived their future education or work to be.

Students from small high schools consistently rated their schools lower than did students in large high schools. In spite of the frequent contact between teachers and students in small high schools and the frequent opportunities these students had for participation in school sponsored activities, the small school students registered discontent with their sci.ools. Evidence from this study indicates small school students want better prepared teachers, a broader and deeper curriculum and better equipped schools. Though the students in small high schools had considerable amounts of time for independent study, there was some question abor. ${ }^{\text {h }}$ how productively the time was spent. A number of the smail school respondents indicated they were bored because of lack of academic stimuIation. Small high school alumni considered in this study gave responses similar
to those offered by current students. Alumni added that guidance and counseling services in small high schools needed improvement. Again it appears small school administrators and teachurs have not taken advantage of the unique features of the small school atmosphere to design imaginative means for meeting the educational needs of their students.

Students of large high schools were considerably less critical of their schools than were the small high school students. But the large high school students did mention the need for better relationships among teachers and students. They characterized the "ideal" high school as one in which such relationships exist; one with a large library and with excellent guidance and counseling facilities.

A major conclusion of this report is that the small, remote high schools studied do not take advantage of their small size. Frequent contacts among teachers, students and parents, are not utilized to offer imaginative programs for the education of rural youth. Rather than taking advantage of the potential that exists here, the small high schools appear to be imitating traditional patterns of program organization and staff utilization. Such program organization and staff utilization were discarded by the fine large high schools decades ago.

It is our conclusion the eciucational advantages found in the remote high schools studied are presently outweighed by disadvantages. The disadvantages arise from outdated and inadequate curricula and methodology and from activities and facilities which are too limited.

## recommendations pertinent TO THE NORTHWEST REGION

The small high schools included in this study appear to be reasonably representative of the many other such schools in the Northwest region. For this reason the recommendations which follow seem to have significance for education within the entire region.

## 3ENERAL RECOMMENDATIONS

1. State Boards of Education and State Departments of Education should define criteria for deciding if a small rural high school is "remote and necessary." The criteria should include such considerations as geographic location, topography, climatic conditions and proximity to other high schools in the geographic area.
2. Surveys should be made by State Departments of Public Instruction to determine which small rural high schools meet the criteria for being considered "remote and necessary." Those schools which satisfy the criteria should be designated "remote and necessary" for purposes of Stare Department of Public Instruction evaluation and financial support.
3. Small rural high schools whict do not meet the criteria to be designated "remote and necessary" should be encouraged through all possible means to consolidate as quickly as is feasible.
4. State Departments of Public Instruction should provide consultants and financial support for planning by two or more high school districts aimed at consolidation.

## recommendations related to

 "REMOTE AND NECESSARY" HIGH SCHOOLSYouth in "remote and necessary" high schools deserve access to educa:tional opportunities equal to those offered in fine large high schools. It is suggested each State Department of Public Instruction, once having identified "remote and necessary" high schools, take leadership for establishing an organization and process for improving the total program in such schools. Divisions of Curriculum and Instruction of the State Departments of Public Instruction should be responsible for planning and developing appropriate arrangements.

1. Each Division should organize an Advisory Panel made up of teachers and administrators representing "remote and necessary" high schools, a member of the State Department of Public Instruction's Division of Teacher Education and Certification, and college and university educators particularly concerned with education in "remote and necessary" high schools. Each Panel should probe deeply into the potentials and problems of such high schools and serve in an advisory capacity as the Division carries forth arrangements to improve education in the high schools. Further, the Panel should examine means developed throughout the country for meeting educational problems common to remote high schools.
2. A series of inservice and summer institutes for teachers and administrators should be established by the Divisions of Curriculum and Instruction and Teacher Education and Certification in each state in cooperation with colleges and universities. The purposes of
these institutes would be to present teachers and administrators with the newest developments in curriculum and stoff utilization and to develop plans for implementation of such developments.
3. Each Division of Curriculum should supply consultants from its awn staff and from colleges and universities to work with personnel from "remote and necessary" high schools on the variety of problems that placue such schools and to implement institute work.
4. As quickly as feasible, the Division should establish at least one demonstration project in the state to illustrate the latest effective practices in curriculum design and in staff organization appropriate to remote high schools. Arrangements should be made fur visitations by personnel from "remote and necessary" high schools to the demonstration project.
5. The Division should explore, with administrators from "remote and necessary" high schools, the possibility of obtaining grants under TITLE III of P.L. 89-10 for statewide programs to improve education in these schools. Such grants have already been made in some states.
6. A special formula for making state financial aid available to "remote and necessary" high schools should be developed by State Departments of Education. The formula should reflect a recognition of the relatively high costs involved in educating high school youth in remote areas. It should provide funds sufficient to enable "remote and necessary" high schools to offer educational progranıs equal in quality to those offered by fine large high schools.

APPENDIX A

PROGRAM DIFFERENCES AMONG SMALL REMOTE HIGH SCHOOLS AND LARGE HIGH SCHCOLS

## GUIDANCE AND COUNSELING

There were no guidance personnel, as such, on the staffs of the three small high schools surveyed. The usual arrangement was for the high school principal or the superintendent to be responsible for guidance. Individual teachers also gave advice and counsel to students. Generally, those studenis planning to a:tend college received help, at least in contacting colleges and in completing any tests and torms necessary for enrollment. Little assistance was available to st'rdents planning to work after graduation.

Lack of vocational or occupational guidance is compounnied by the limited range of work experiences available to students in isolated schools in rural communities. Ironically, most graduates will be forced, by economic necessity, to leove their nome communities after graduation. Those not intendirig to enter college will not be as well equipped by formal school troining, by guidance information, or by simple exposure to the world of work as their counterparts in the large, urban school systems.

The lack of information about occupations or vocations was evident in the plar.s of those students from isolated schools who wanted to attend college. Most seniors and some juniors and sophomores in the sample pupulations from large schocls already had begun preparing for particular academic or professional programs at specific institutions of higher learning. These students had the benefit of full-time counselors, extensive testing programs, and exposure to
possible academic or profersional training. On the other hand, although a high percentage of smail school students planned to attend college or technical school, they did not appear as sure of their fields of interest. A large high school curricula and the resources of an urban community provided information and experience unavailable to students of small isolated high schools.

## INSTRIICTION IN SCIENCE

The moct apparent difference between science instruetion was the amount and variety of equipment available to teachers in the large high schools. The large school science teachers in the sample indicated they made extensive use of films, overhead transparencies and models in their instructioni. Even with larger enrollments in these schools, students hac' more access to lab equipment than had students in small schools. Science teachers in Ic:rge schools also had fewer preparations to make each day, and usually taught in their strongest fields. In contrast, the science teachers in smail high schools often raught with college minors and had other classes unrelated to science.

Scien: ee teachers in the small high schools, howaver, were inventive and resourceful. They made up for some of the shortages of biology medels by taking advantage of the rural environment. For example, at the time interviews were conducted, one biology teacher had just brought in a calf heart for dissection; another had brought a cow eye for the same purpose. One of the biology teachers was found to be using his own adaptation of the discovery approach in both biology and chemistry. His classes were small enough to allow almosi complete individualizing of instruction.

One of the weaknesses of the small school science program is its reliance on teacher inventiveness and resourcefulness for enrichment. There is a general lack of equipment and materials to support the teacher who has little background in science or has several different preparations to make.

## INSTRUCTION IN MATHEMATICS

A good basic program in mathematics was offered in all three small hich schools for those students planning to attend college. But there were iew, if any, alternative courses for those students who would not continue their formal education after high school.

Two obvious differences existed between the small and large high schools. Relatively few students were enrolled in advanced classes in small schools, and teachers had more, better and varied materials to enrich courses in large schools. One small high school studied could have individualized the advanced mathematics instruction almost completely, but chose to rely most heavily on the textbook and teacher ingenuity.

In addition, mathematics teachers in large high schools were generally better prepared in one or more areas of mathematics than their counterparts in small schools. Because they usually worked only in the area of mathematics and because of their preparation, teachers in large high schools seemed better able to take advantage of special opportunities or materials to enrich the curriculuri.. For example, one large school mathematics teacher had iwo classes studying the use of cumputers to solve problems. The students used the equipment by mail in the Office of the State Superintendent of Public Instruction. In addition, the studerits also had made a field trip to Olympia to see the equipment oparate.

## INSTRUCTION IN SOCIAL STUDIES

In terms of courses offered, the social studies curricula of the large and small high schools appeared very similar. However, there were at least four importent differences. First in importance was probably the number of different preparations required of the social studies teachers in the small schools. It was not unusual to find the social studies courses taught by teachers who had minors in only one of the several social sciences, or by social studies majors who also had classes in science, mathematics, English, or any of the other subject areas. The social studies teachers in large high schools were usually ieaching within their majors, if not within their sial interests.

Another important difference was in the amount and quality of reference materials available to social studies teachers and students in the small high schools, especially for students with lower reading ability. Lack of a great variety of reference and supplementary material limited most instruction to the single texibook and its exercises.

A third difference was the lack of availability of maps, globes, records and films to teachers in small schools. Very few maps were available, and those were often used for purposes oot intended by the publisher. Films were not readily available for use in social studies rooms of the small schools, and projection equipment was scarce. In two small schools, teachers indicated the equipment often was not working. Films used in the small schools seemed to be ordered as opportunity and finances permitted. While heavy use of fiims was not indicated in any of the large high schools, they appeared to be integral parts of the instruction when used.

Probably the most efficient method of providing adequate maps for small schools would be the overhead transparency sets now commercially available, or the construction of such sets as needed by the teachers. An overhead pro¡ector and transparencies would be cheaper than a complete set of wall maps, and would yield a valuable audiovisual tool for other instructional purposes.

A fourth major difference was the lack of elective courses, especially for seniors, in the small high schools. For example, the large schools offered specialized electives in economics, psychology, ancient history, problems of democracy and western culture instead of one contemporary world problems course.

## INSTRUCTION IN ART

Although few students in the sample selected from the large high schools were actually enrolled in arts or crafts classes, these courses were included in the curriculum of large schools and a student, if he so wished, could take art or closely related classes each year. In the small high schools surveyed, art instruction was either not available or it was incorporated in home economics or with crafts in the shop area. None of the small school staffs included an art teacher as such. Severul students from the small schools indicated their disappointment at being unable to take some art. Scheduling of high school requirements, college entrance requirements, lack of appropriate space, and especially the lack of trained personnel made it impractical or impossible for the small high schools to offer art.

## A more flexible schedule and sharing of a fuii-time art teacher among

 several districts could make art instruction possible. Correspondence coursesmight also be utilized. In at least one of the small communities there were a few retired or practicing artists in residence who could be utilized by the school if the requirements of time and space could be met. Art appreciation, as well as music appreciation, also might be incorporated into the language arts/social studies program.

## INSTRUCTION IN MUSIC

Music directors in all three small schools were handicapped by lack of suitable space for practice, schedule problems which limited the number of students who could take music, and the relatively small number of students who had musical talent or training. Generally, it was necessary to include some grade schooi students in order to make a large enough group for instrumental music.

A much greater proportion of small school students took band or chorus, or both. They did not benefit, however, from specialized instruction and the opportunity to perform with other students of the same proficiency as did those from the large high schools. The limited sample of students from large high schools included several students who played commercially, several with four or more years of extensive public performance experience, and a few who intended to major in music in college. In general, it does not appear that those responsible for teaching music in the small schools are especiarly qualified for their assignments.

Perhaps technology can offer the small school music program some help through television, movies, or records and tapes for music appreciation. The
use of technology and a more flexible schedule in other areas of the curriculum could have the effect of making more time available for the music program.

The adoption of a rental policy for musical instruments could also be used to "stretch" the small school's music budget. Two or more districts might share in the employment of a full-time music teacher.

## INSTRUCTION IN COMMERCIAL SUBJECTS

Typing was offered in all three small high schools. One school had one student taking a bookkeeping course; another offered two years of typing with some shorthand included, as well as a course in bookkeeping. In the smaller schools, most of the girls worked in the office for one period each day. performing general secretarial duties.

The very small high school commercial program apparently needs a method of incorporating more courses into its curriculum. Instruction should be made available to more students in shorthand and stenographic training, bookkeeping, business machines and office practice.

In addition, there appears to be the need for an occupational mathematics course as an alternative to algebra and geometry.

The limited sample of students from large high schools included several girls and a few boys who were enrolled in a commercial curriculum. This led to employment immediately after high school graducation. Generally, students from small schools with the same vocutional interests expected to complete the ir training in a junior college or vocational school after gradvation from high schocl.

The students in small high schools who could benefit from a complete comme cial course of study appeared to have the time available. These students spent much of their time in study halls or in courses taken as alternatives. The obstacles to development of a complete commercial program appear to be the cost of hiring an instructor for several very small classes, the cost of equipment and the difficulty of inserting commercial courses into a limited number of hours and rooms during the school day.

A more flexible schedule might allow more students to take a basic course in typing. The introduction of programed or packaged courses, including correspondence courses supervised by a teacher, might make possible a tutorial method of instruction in the other subjects. Rental of office equipment and office machines rather than outright purchase should be more fuliy investigated.

Except in the very smallest school studied, there appeared to be an opportunity to offer some form of distributive education in the immediate vicinity of the school. All but the smallest community included business places which used at least a few reasonably sophisticated business machines. A series of well planned field trips also could benefit students interestra in commercial studies.

## INSTRUCTION IN LANGUAGE ARTS

Language arts instruction in the small high schools was similar to that of the large high schools. A number of relared electives such as debate, speech, dranatics and remedial courses were included in the language arts curriculum of the large schools. In the small high schools, students usually took only four courses in English; one or more of which incorporated the writing and production of a school newspaper or annual.

One of the teachers selected in the sample from large high schools was a remedial reading teacher. Only one of the small schools had a remedial reading course available, and that course had no students in the 1965-1966 school year. There were no materials for remedial instruction ovailable to the teacher scheduled to teach the course. The teacher, however, felt the district did need the services of a remedial reading teacher.

There appeared to be students in each grade of the small high schools who were still weak in spelling, composition and English usage. An ungraded program in spelling, usage and composition probably should be initiated in the small schools. This might incorporate necessary remedial work. Diagnostic tests might be used to determine the specific needs of students in the small high schools.

The literature content of English courses appeared to be relatively similar in all schools. Several small districts might share in the purchase or rental of additional audiovisual equipment to supplement common units of work, such as plays or literary classics. This would be of great assistance to English teachers in the small schools who must make several preparations each day. A more flexible schedule would help make elective subjects more available to students.

## INSTRUCTION IN FOREIGN LANGUAGES

All three small schools offered one or more foreign languages. The most apparent differences between instruction were in the extensive usage of tapes and other audiovisual materials in the large schcols. Language instruction in the small schools generally depended more heavily upon the textbook and its
exercises, although tenchers in small schools had a definite advantage in the small classes they taught. The small classes allowed more chances for individual student participation in discussion and more time for the teacher to correct written work.

Generally, the language courses in the large high schools tended to emphasize the civilization and culture of a foreign country as well as its language. Students in the large schools acquired, through a three or four year course of study in one language, a good speaking and reading knowledge of a language. Even in the relatively small sample of students from the large schools there were a few taking the third or fourth year of French or Spanish. None of the small schools offered more than two years of a language. All large high schools offered at least three languages--French, German and Spanish.

A weakness of the small school language program is the inability of such a school to hire a language teacher. The foreign language courses offered in any particular year depend on the school having someone on the staff with a college minor in a language or a proficiency developed in his home or by experience. Language programs begun one year may not be continued the next year because of teacher turnover or the use of the teacher for another subject area. Such a situation results in several students completing one year of language study but having little chance of completing a second year. Often it results in students having to take a language which they do not particularly desire but which is the only one offered.

The small enrollment in foreign language courses of small high schools usually means a particular course will be offered only once a day, perhaps in
alternate years. A student may have to miss a desired language course in order to complete a course required for high school graduation.

One of the small schools demonstrated the potentials of small enrollment. Only four students were enrolled in French I. In a near-tutorial teaching situation, the teacher, by March, had two students working on material for French II which they would probably complete by the end of the year.

## INSTRUCTION IN INDUSTRIAL ARTS

In two of the small schools surveyed, instruction in industrial arts was limited, almost exclusively, to projects in wood and a limited amount of drafting. Snme metal work and auto mechanics were included in the program of the remaining school. These activities were possible because of the previous employment experience of the instructor. Most of the work in auto shop was done by students on their own cars. It had little relationship to their vocational or occupational interests.

In contrast, the limited sample from the large schools revealed some students were taking as many as three vocational shop courses in metals, wood and electricity, during the year. These students had defined vocational guals for which they were preparing.

Cornpletely equipping each small school so it may offer courses comparable with those offered in the large schools does not seem financially feasible. However, extensive use of audiovisual and programed materials or courses of study may compensate for some of the lack of equipment. Rental of certain equipment by cooperating districts and sharing the use, cost and services of qualified instructors
in the various areas may be practical. In addition, some work experiences resembling a distributive education program might be arranged in all but the sniallest rural district.

## INSTRUCTION IN HOME ECONOMICS

In the two smallest schools surveyed, the cooking areas for home economics instruction were shared with the hot lunch program of the school. In addition, the instructors taught home economics only part of the day. In all three small schools, there appeared to be adequate equipment for instruction in cooking and sewing.

Topics such as consumer buying and marketing, interior decorating, home furnishing, child development and family living were not given as much emphasis in small high schools as ihey were in the larger high schools. This seemed to be partly the result of lack of suitable materials, texts and audiovisual materials for developing units of this nature. It might also reflect the desire to make full use of kitchen and sewing equipment in the school.

## APPENDIX B

## STUDENT INTERVIEW SCHEDULE

Directions to interviewer: Read all parts in quotation marks to each interviewee. Record answers to questions 1-5, 7 and 8 on the blank record sheets funished you. Record alf answers pertaining to the particular school day on the class period worksheets. Include any responses pertaining to after school or before school on the same worksheets used for class periods. Take time to fill in the information requested on each worksheet before starting another interview.

Read to the interviewee: (after introductions, etc.)
"We are conducting a sl. sey sponsored by the State Department of Education. We are interested in finding out what curricula potterns and practices are common, what instructional materia!s are used and what students typically do. We shall appreciate your frank comments and esiimations. The answers you provide will only be used in a summary compilation of all students interviewed. Your name will not be used, nor will it appear m ony of the data."
"Please feel free to ask questions if any itens a e not clear."

1. What do you plan to do when you get out of high school?

2a. What stbjects which you have taten, or will take, will help carry out your plans?
b. What activities besides formal courses will help you carry out your plans?

3a. To the best of your knowledge, are your parents acquainted personally with any of your teachers? Which ones?
b. Have your parents visited school this year? What were the occasions?
4. On the average, how much time each dey do you put in on homexork?
5. What do you usually do when you have two hours or more of free time? (If interviewee desires clarificction: That is, when you have no special responsibilities such as homework or other work during after school hours, weekends, or vacations.)

Do you watch TV? About how often each week? What programs, or what type of program?

Have you read books this year other than school assignments? What were the names of these books? Where did you find them? (Refers to school year)

What magazines do you read regularly? Where do they come from?
Hc w often do you ge to the mov es? When? To what kind of show?
Havs you gone to a play, a concert, a fair, etc. this year (school yecr)?
Do you spend time in sports or games? With whom? When? Where?
Read to the interviewee:
"An important part of this interview is designed to get from you a detailed description of your actual activities during a typical school day. Was yesterday a typical day? Fine. Then let's use yesterday as an example. (Use previous day if yesterday was unusual.) 'We are especially interested in how much time you spent in these activities (interviewer hands student list included in Section A) during each period of the day."
6. Before first period did you talk to any teachers in the hall, or did you go to any classroom to discuss a problem with ony of your tecehers? Do you remember what was discussed? How long did it take?
"Now let's go to the first period. What subject or activity were you involved in? During the period, ot things on our list (Section A) trok place? How long was spent on each of "hese?" (Probe. Record above responses in the appropriate boxes on the Student Response Worksheet according to coded list in Section $\mathbf{A}$ below. Be sure to add any other information which seems important.)

## SECTION A

1. Listening to teacher explanations (in the nature of lecturing, reviewing, assigning, etc.)
2. Participating in teacher-student discussion
3. Observing student presentations, discussions, or demonstrations
4. Observing teacher demonstration (blackboard, overhead or other projector, tapes, records, maps, models, laboratory facilities)
5. Participating in student presentations, discussions, or demonstrations
6. Doing independent stidy or work (individuc! ar small groups)
"Now let's go to second period, etc."

7a. In what extracurricular activities do you participate?
b. At what times are these activities scheduled?

8a. Whai do you think an ideal high school would be like? Tell as many things as you can which weuld describe the ideal high school from your own personal point of view. (Try to get responses relative to guidance, facilities, size, course offerings, library, cvailability of teachers, etc.)
b. Now describe the exact opposite of the icial high school. Tell as many things as you can which would be typical of the worst possible high school, in your opinion.
c. Here is an imaginary scale. The ideal high school you desciibed would be where ; the worst high school would be a " 0 ." Put an X on the scale where you thirk your high school rates.


## APPEINDIX C

## TEAC.HER INTERVIEW SCHEDULE

Directions to interviewer: Read all parts in quotation marks to each interviewee. Record answers to questions 1-7 on the blank record sheets furnished you. Record all answers pertaining to the particular schooi day on the class period worksheets. Include any responses pertaining to after school or before school on the same worksheets used for class periods. Take time to fill in the information requested on each worksheet before starting another interview.

Read to the interviewee: (ofter introductions, etc.)
"We are conducting a survey sporisored by the State Department of Education. We are interested in finding out what curricilar patterns and practices are common, what instructional materials are used and what teachers typically do. We shall appreciate your frank comments and estimations. The answers you provide will only be used in a summary compilation of all teachers interviewed. Your name will not be used, nor will it appear on any of the data."
"Please feel free to ast questions if any items are not slear."

1. What classes do you teach? How many students do you hove?
2. Are you using any new curricula or materials or teaching approaches in your class(es)? if any, how or where did you get the ideas?

Read to the interviewee:
"An important part of this interview is designed to get from you a detailed description of your actual activities during a typical school day. Was yesterday a typical day? Fine. Then let's use yesterday as an example. (Use previous day if yesterday was unusual.) We are especially interested in how much time you spent in these activities (interviewer hands teacher list included in Section B) during each period of the day."
"Before first period did you talk with any students in the hall, or did any students come to your classroom to talk with you?"
"Do you remember what was discussed?"
"How long did it toke?"
"What other school reiated activities did you handle at this time?"
"Now let's ao to the first period. In what subject or activity : :ere you involved? During the . sriod, what things on our list (Section B) took place? How long was spent on each of these?" (Probe. Record responses on worksheet. Aik about materials, equipment and facilities used, what students were doing, what they
were supposed to do.)

## GO through each period in order

## SECTION B

1. Telling or explaining to students (lecturing, reviewing, assigning, etc.)
2. Conducting discussion or recitation periods
3. Demonstrating to stucients (blackboord, overhead or other type of projector, topes, records, maps, models, laboratory expe:iments)
4. Supervising study periods (individual or smal! groups)
5. Supervising pupil activity (laboratory, interestgroup, co-curricular)
6. Observing presentations, panels, or demonstrations
by students

Read ro interv.awee:
"After last period, did you talk with anay students in the hall, or did you talk with anv students who came into your classroom to talk w,th you?"
"Do you remember what was discussed?"
"What other school-related activities did you
handle at the school?" handle at the school?"
3. Are there any other duties which you sometimes carry out, but which you did not happen to perform yesterday?
4. Are there ways in which you meet and talk with students other than those you have already listed?
5. Do you personally know any of the parents of your students? (Probe. How many?)
6. What are the aspects of your work which $\mathrm{g}::=$ you the most satisfaction? What things about your job would yuu like to change?

## APPENDIX D

## ALUMNI QUESTIONNAIRE

Please Compicte the Parts of This Questiornaire Which Apply in Your Case

Year in which you graduated from high school: (circle one)

| 1960 | 1961 | 1962 | 1963 | 1964 | 1965 |
| :--- | :--- | :--- | :--- | :--- | :--- |

1. What schools (colleges, technical schools, vocational schools) have you attended since high school graducation?

Dates of Attendance Name of School Major Course of Study
$\qquad$
$\qquad$
$\qquad$
2. From which of the schools above did you graduate?
3. How well do you think your high sc.1ool education prepared you to continue your education? (check one)
very well $\qquad$ moderately well $\qquad$ not very well $\qquad$ not at all $\qquad$
4. What kinds of jobs have you had since high school graduation?

Dates of Employment Name of Employer General Description of Work
$\qquad$
$\qquad$
$\qquad$
5. Huw well do you think your hirh school education prepared you for your jobs? (check one)
very well $\qquad$ moderately we'l $\qquad$ not very well $\qquad$ not at all $\qquad$
6. How good a job did your high school do in comparison to what you think a school should do? Circle the adjective wh:ch best describes the job you think your school did in:
a. Providing precollege or prevocational guidance. excellent good average below average poor
b. Having well-prepared teachers in the subjects taught. excellent good average below average poor
c. Providing extracurricular activities for all students. excellent good average below average noor
d. Having adequate materials, textbooks and supplies. excellent good average below average poor
e. Having enough space for study. excellent good average below average poor
f. Having enough books and magazines in the library for your reading. excelient good average below overage poor
g. Using films, filmstrips, tape recorders, and other devices in teaching. excellent good average below average poor
h. Hoving coursrs or subjects that met your needs or interests.
excellent good average below average poor
i. Having time for student-teacher conferences or other associations. excellent good average below average poor
7. From your experience since graduation, would you rather have attended: (check one)

A larger high school
The same size high scinocl
A smaller high school

On the back of this page, write any comments you care to make. We will appreciate your candid remarks.

APPENDIX E
table 18. amounts of time spent in selected classroom activities (teachers)


APPENDIX E

| Time Spent: | Listening |  |  |  | Discussing |  |  |  | Viewir.g or Listening to Teacher Demonstrations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Small School |  | Laige School |  | Small School |  | Large School |  | Smal! School |  | Large School |  |
|  | No. | \% | No. | \% | No. | \% | No. | \% | No. | \% | No. | \% |
| None | 9 | 12.8 | 5 | 5.3 | 11 | 15.7 | 19 | 20.2 | 46 | 65.7 | 33 | 35.1 |
| 1 hr . or less | 42 | 60.0 | 42 | 44.6 | 34 | 48.5 | 46 | 48.9 | 21 | 30.0 | 51 | 54.2 |
| 2 hr . or less | 16 | 22.8 | 40 | 42.5 | 18 | 25.7 | 25 | 26.5 | 3 | 4.2 | 9 | 9.5 |
| Over 2 hr . | 3 | 4.2 | 7 | 7.4 | 7 | 10.0 | 4 | 4.2 | 0 | 0 | 1 | 1.0 |
|  | Observing Student Demonstrations or Panel |  |  |  | In Siudent Performance |  |  |  | Independent Study |  |  |  |
|  | Small School |  | Large School |  | Sinall School |  | Large School |  | Small School |  | Large Scinool |  |
|  | No. | \% | No. | \% | No. | \% | No. | \% | No. | \% | No. | \% |
| None | 49 | 70.0 | 55 | 58.5 | 23 | 32.8 | 45 | 47.8 | 3 | 4.2 | 0 | 0 |
| 1 hr . or less | 16 | 22.8 | 35 | 37.2 | 27 | 38.5 | 38 | 40.4 | 2 | 2.8 | 4 | 4.2 |
| 2 hr . or less | 5 | 7.1 | 4 | 4.2 | 13 | 18.5 | 9 | 9.5 | 19 | 27.1 | 32 | 34.0 |
| Over 2 hr . | 0 | 0 | 0 | 0 | 7 | 10.0 | 2 | 2.1 | 21 | 30.0 | 33 | 35.1 |
| Over 3 hr . | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 35.7 | 25 | 26.5 |

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