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STUDENT ACTIVITY PARTICIPATION AND HIGH SCHOOL SIZE

by
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of the requirements for the degree of
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TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS ii

LIST OF TABLES v

LIST OF GRAPHS vi

LIST OF DIAGRAMS vii

Chapter

I. STATEMENT OF THE PROBLEM 1

Need for the Study
Review of Related Literature

II. DESIGN AND ISSUES OF THE STUDY 8

Design
Activities to be examined
Schools to be included
Issues
Assumptions
Limitations of the Study

III. COLLECTION AND TREATMENT OF THE DATA 22

Collection of the Data
Treatment of the Data
Validations

IV. THE FINDINGS OF THE STUDY 30

Extent of Student Participation
Leadership
External Activities
Kinds and Pattern of Student Activities
Number of Activities
Relationship of Total Student Participation and Opportunity for Participation, to Participation in Individual Activities
Summary of Correlations Between Student Participation Factors and the Size of the High School

TABLE OF CONTENTS (Continued)

Page

V. CONCLUSIONS SUGGESTED BY THE RESEARCH 79

Objectives of the Study
Conclusions
Summary
Questions for Further Study

Appendix

I. PARTICIPATION INVENTORY SHEETS 94

II. ENROLLMENTS OF SCHOOLS USED IN SAMPLE 96

III. LETTER TO PRINCIPALS 97

IV. SCHOOLS AND STAFF MEMBERS INTERVIEWED 98

BIBLIOGRAPHY 99

LIST OF TABLES

Table		Page
1.	Number of Southern Michigan High Schools, by Enrollment, Grades 10-12, 1961-62	13
2.	Correlations Between High School Enrollment and Extent of Total Student Participation in Selected Activities, by Size-Group of School	32
3.	Correlations Between High School Enrollment and Number of Selected Student Activities Participated in by Individual Students for Forty-Three Schools	38
4.	Correlations Between High School Enrollment and Extent of Student Leadership in Selected Activities by Size-Group of School	49
5.	Correlations Between High School Enrollment and Extent of Student Participation in Selected External Activities, by Size-Group of School	54
6.	Correlations Between High School Enrollment and Extent of Student Participation in Selected Activity Groups for Two Size-Groups of Schools	59
7.	Correlations Between High School Enrollment and Extent of Student Participation in Nine Typical Activities for Two Size-Groups of Schools	63
8.	Correlations Between High School Enrollment and Extent of Student Participation in Club Activities by Type of Club for Two Size-Groups of Schools	66
9.	Correlations Between High School Enrollment and the Number of Selected Student Activities Offered by the School, by Size-Group of School	69
10.	Correlations Between Extent of Total Student Participation in Selected Activities and Student Participation in Individual Activities for Two Size-Groups of Schools	74
11.	Correlations Between Number of Selected Activities Offered by High Schools and Student Participation in Individual Activities for Two Size-Groups of Schools	75
12.	Average Participation in Selected Student Activities, by Size-Group of High School	77

LIST OF GRAPHS

Graph | Page

1. Extent of Total Student Participation in Selected Activities for Three Size-Groups of High Schools 34

2. Extent of Individual Student Participation in Selected Activities for Three Size-Groups of High Schools 40

3. Extensive Individual Student Participation in Selected Activities for Three Size-Groups of High Schools 45

4. Extent of Student Leadership in Selected Activities for Three Size-Groups of High Schools 51

5. Extent of Student Participation in Selected External Activities for Three Size-Groups of High Schools 56

6. Average Extent of Student Participation in Seven Classifications of Selected Student Activities for Three Size-Groups of High Schools 61

7. Extent of Student Participation in Nine Typical Student Activities for Three Size-Groups of High Schools 64

8. Extent of Student Participation in Club Activities by Type of Club for Three Size-Groups of High Schools 67

9. Relationship Between Number of Selected Student Activities Offered by the School and Size of School, for Three Size Groups of High Schools 71

10. Summary of Extent of Total Student Participation in Selected Activities for Three Size-Groups of High Schools 90

11. Summary of Student Leadership in Selected Activities for Three Size-Groups of Schools 90

LIST OF DIAGRAMS

Diagram — Page

1. Enrollment and Extent of Total Student Participation in Selected Activities 33

2. Enrollment and Proportion of Students Participating in No Selected Activity 39

3. Enrollment and Proportion of Students Participating in Six or More Selected Activities 43

4. Enrollment and Proportion of Students Participating in Three, Four or Five Selected Activities 44

5. Enrollment and Proportion of Student Leadership in Selected Activities 50

6. Enrollment and Proportion of Student Participation in Selected External Activities 55

7. Enrollment and the Proportionate Number of Selected Student Activities Offered by the School 70

Chapter I

STATEMENT OF THE PROBLEM

This study is intended to examine the relationship which may exist between the kinds and amount of student participation in selected activities and the size of the school, with particular attention given to the high school with high enrollment. The study does not attempt to obtain complete results concerning the characteristics associated with various sizes of high school enrollment, but it is part of a series of studies designed to explore this larger problem.

Need for the Study

The need for this kind of research is becoming steadily more evident in recent years. As the number of small high schools is gradually being reduced throughout the nation by district reorganization and by other forces, a question emerges with increasing urgency. This question is, "How large should a high school be allowed to become?"

According to the U. S. Office of Education's most recent study of the sizes of public secondary schools the number of high schools enrolling 1,000-2,499 students increased from 1536 (6½% of the total number of high schools) in 1952 to 2652 (11% of the total) in 1959. During that same period the number of high schools enrolling from 2,500-4,999 students almost doubled, increasing from 97 to 181 -- a proportional increase from .4% to .7% of the total number of high schools. The indications are that this trend has not only continued, but accelerated, since 1959.

Not only are there increasing, and large, numbers of high schools with big enrollments, but the numbers of pupils attending these large high schools is noteworthy. Schools with enrollments in the upper three grades of 1500 or more represent approximately 11% of the high schools in Michigan, but 32% of the students at this level. Nationally the relationship is similar. This means that what happens within these 11% of all high schools is of a high degree of significance since it affects roughly one-third of the total number of high school students.

The increase in the number of large schools has been one of the most tangible results not only of district reorganization, but also of urbanization, and of the tremendous growth in total school-age enrollment of children. More elementary and junior high schools have been built, coinciding for the most part with the pace of residential construction, but frequently in areas of growth high schools have simply been enlarged within their centrally-located sites. This enlargement often occurs several times for each high school in a metropolitan area.

During past decades many writers and researchers have directed themselves exhaustively, and with fruitful results, toward the problems of the small high school. Perhaps now the time has come for more intensive investigation into the consequences associated with school size over the entire range of sizes.

For the purposes of this study the area of the student's extra-curricular experiences was selected as being one of the important features, supplementary to course offerings, in the total effect of the high school on the growth and development of the child. The quality of performance of the large high school relating to this function may differ from that of the small school. Some studies indicate that large schools elicit

3

less participation by students; some authorities suggest that the large high school with its typically richer extracurricular opportunities involves its students more fully. In short, opinions and evidence can be found to support either point of view.

There is the possibility that the very large high school, with its inatitutional character and impersonal masses, is less likely than the small school to help the individual student with problems of personal identification -- that is, with opportunities to take initiative, to enjoy recognition, to carry leadership, to gain honor and glory. The eagerness of a student to participate in those school activities which are essentially voluntary in nature may well be affected by the extent of a big school's enrollment where, for example, a student is one of 2500 persons and recognizes only a few faces outside his classrooms.

Review of Related Literature

Few studies have been concerned with the characteristics associated with schools of various sizes over the full range of those sizes. Significantly, the White House Conference on Education in 1955 included in its reports the statement that "There is little evidence that anything is gained by having an enrollment of more than 1000 pupils in any high school."

In the process of recommending a minimum enrollment size for an effective educational program, a number of writers have implied an identification of optimum or maximum enrollments beyond which educational and other gains are small. These enrollment figures do not constitute dependable optimums or maximums, but they suggest that a maximum figure for ideal or for maximum conditions may well exist.

4

In one of the few studies of its kind the Bureau of Secondary Education of the California State Department of Education surveyed total course offerings by high school size as part of one of its five-year reports on California schools. This report covered all four-year high schools of that state for the 1951-52 school year. It was found that the average number of courses offered by schools in each size group increased sharply from the smallest high schools upward to schools with an average enrollment of 650-1500. After this range a leveling occurred, with smaller increments of additional course offerings occurring as the size of the school increased.

In 1959 Smith conducted a study of optimum size of secondary schools, concentrating on cost and program factors, and concluded that a high school of 800-1200 enrollment was best since "little is gained beyond this size and disadvantages on most factors begin to appear."

During the past fifteen years several studies have been devoted to student extracurricular experiences as they relate to high school size. Although Garcia's study in 1961 dealt with junior high schools, he touched upon student activity factors, finding that schools with enrollments below 750 students have greater student participation in extracurricular activities and have better student attitudes toward participation.

Among the investigations of the relationship between size of high school and student behavior Larson's 1949 study appears to be one of the first. Through use of student questionnaires the existence of a relationship between high school size and attitudes toward extracurricular activities was investigated and a higher percentage of students was found in small schools, compared with medium and large schools, reporting that it was easier to make friends and join groups. Larson also found

proportionately more students in large schools reporting participation in no activities, or only one.

Anderson, Ladd and Smith conducted another questionnaire study in 1954 involving 2500 high school graduates. They found that the percent of graduates who reported that their extracurricular participation was "very valuable and useful" was negatively correlated with the size of the school.

In 1961 Coleman found a negative relationship with high school size for several aspects of student behavior including percent of boys who participate in football, and students' ability to name outstanding students.

The most noteworthy study yet conducted concerning this relationship was a 1959-60 research project by the Midwest Psychological Field Station at the University of Kansas under a grant from the U. S. Office of Education. Like the four latter studies named above, this effort by a team of investigators was directed primarily at the effect of size on behavior and attitudes of students. However, two chapters of the report of this study bear upon student participation in school activities. The primary aim of this research was to determine the psychological significance of institutional size as it applies to schools. It was to have meaning within a general behavior science context through its examination of the broad spectrum of the school's effect on children.

Here Barker and associates made three kinds of measurements of the effects of school size on student activities in selected eastern Kansas high schools. The first was a tabulation of district participation in interschool contests, exhibitions and festivals. It was found that "...participation in district music, dramatics, journalistic and student

6

government events was more frequent within the 61-285 student enrollment size range than in the larger or smaller schools," and that schools with enrollments between 60 and 335 had over ten times the rate of participation as did the schools with enrollment over 2054.

The second measurement was through examination of 36 yearbooks from whatever schools would loan them. From this it was found that "...small schools had relatively few students reporting no activities." Barker concluded that, "The differences were so great as to suggest that not only were they statistically significant differences but that they pointed to a different way of student life in large and small schools."

The third measurement was of "behavior settings" in one large and four small schools. This was to supply a basis for assessing the availability of activities. The "behavior settings" were all nonclass areas at a high school where students were likely to interact. The most significant finding from this measurement was that "The small school students participated in a higher proportion and a wider variety of those settings that were available to them."

Though this segment of the University of Kansas study was directed toward an objective similar to that of this research -- the relationship between high school size and student participation in extracurricular activities -- several major drawbacks were apparent. The accuracy of each of the three kinds of measurements used by Barker and his associates were effected by procedural weaknesses.

Where measurement of student participation through district participation in interschool activities was used no allowance was made for measurement of high schools which did not participate. Many of them may

7

have missed the district meets for reasons other than low student involvement in activities within their respective schools. Secondly, where measurement of effects of school size on participation of students was done through use of yearbooks only "obtainable" books were used, thus eliminating the safeguards provided by a sampling procedure. The effect of this was apparent when it was observed that only one school each represented three of the nine size-groups set up by the researchers. The other thirty-three schools were distributed among the remaining six size-groups. Also, the yearbooks were examined for activities which represented only a limited span of the schools' extracurricular program; a limitation which included music and athletics but omitted activities like service committees and student publications.

The third measurement used in this study, that of "behavior settings", included many settings which are not commonly considered sites for student activities in the extracurricular sense. These settings were not only the club rooms, athletic fields and student government areas but also the principal's office, the lavatory and the hallways. The total measurements of student behavior, therefore, went beyond the limits normally considered those of the student's activity involvement and dealt with many of his informal interactions as well.

It must be said, however, that the Kansas study's scope was beyond that of student participation. It attempted to measure student behavior and experiences and, in doing so, dealt only tangentially with participation, as such. Neither this study nor any of the others concerned with high school size were directed primarily at the extent of student participation in activities as it relates to the enrollment of the school.

Chapter II

DESIGN AND ISSUES OF THE STUDY

Design

In arranging a design for this research the primary objective was to select the most valid and measurable manifestations of student participation, on the one hand, and the most representative sample of high schools from the broad span of sizes in existence, on the other. Several plans for choosing each of these two dimensions were considered. The plans were evaluated according to their effectiveness in measuring the actual student participation at the various levels of size, with the first priority of judgement being given to the most representative approach, and the second being given to the facility with which this plan would enable the facts to be collected.

It should be acknowledged at this point that there has been considerable difference of opinion concerning the use of the term "extra-curricular activities" in recent years. According to the Encyclopedia of Educational Research, "The root of the difficulty of definition lies in the fact that the purposes of the curriculum and the student activities program are the same." That source prefers the term "student activities" or "extra-class activities;" thereby there is no implication that these activities are not a part of the total curriculum. To avoid problems in terminology, the present proposal relies on the term "selected student activities" for the most part, regardless of whether they be found outside

the formal classroom or within it, to cover such items as athletics, dramatics, clubs, and student government.

Activities to be Examined

To suit the objectives of this investigation a broad pattern of student activities was selected for study. These were determined after a preliminary survey of schools of various sizes, and they include the entire scope of activities traditionally considered extracurricular. This method of determination offered an advantage over the method of selecting a definition to follow in that it avoided the pitfalls involved in attempting to judge each activity as curricular or extracurricular according to the individual school.

The data sought concerning student activities will be composed of seven basic classifications. The list and a description of the classifications, including illustrative activities, follows.

1- Student Government

2- Athletics

3- Oratory and Dramatics

4- Publications

5- Service Committees

6- Clubs
   a- Recreation or Performance
   b- Academic
   c- Future Occupation

7- Music

The first of these classifications, student government, was selected primarily so that it would allow the study to deal with participation in high school governing bodies. It includes student councils, class officers, class executive committees and representatives to Model

United Nations Assemblies (MUNA). Each of the activities in this classification is unique in that its participants are elected to the activity.

Athletics, as a classification, was designed to include those which are interscholastic in nature -- those which involve the student representing his school on the playing field. More than a dozen different sports comprised the sub-classifications for this category of activities. In some cases two or three units represent a school for a given sport: varsity, junior varsity, and sophomore teams, for example. Also, girls' athletics are part of this general heading when those teams compete against other schools.

The third classification combined two activity groups, oratory and dramatics, which are similar in that they both require speaking performances before audiences. The oratory listing includes debate teams, forensics and extemporaneous speaking among others; whereas dramatics includes all recognized school plays as well as the dramatics clubs.

The publications classification is made up basically of two activities: the school newspaper and the school yearbook. Added to these activities in a few schools are the creative writing publication, the humorous magazine and the Quill and Scroll Club.

The fifth classification, service committees, includes all organizations of students who perform a service to the school in some way. Most common of these committees are Junior Red Cross, projection club, Hi-Y and library aides. This group was selected so as to enable the study to measure participation in groups devoted to aiding others.

Clubs, as a general category of activities, are broken into three major sub-classifications. Recreational or performance clubs are those that have as their basic purpose either the entertainment of the students

taking part, or the entertainment of an audience. An example of the former is the chess club, while an example of the latter is the synchronized swim club. The academic clubs are those devoted to the further investigation of a subject-matter topic. These typically include French clubs, math clubs and science clubs, along with various others. The future occupation clubs are self-explanatory -- i.e. Future Nurses Club, Future Farmers of America, Future Engineers Club, Future Teachers Club.

The music classification is composed of bands, orchestras, choirs and,occasionally, drum majors and majorettes.

These seven classifications include virtually all the formal student activities of the modern high school. Each is separate and distinct from the others by virtue of the objectives of the activities within it, and each is usually found in some measure in every high school.

A more complete listing of those typical activities found in each of the major classifications of activities is given by the inventory sheets shown in Appendix I.

Schools to be Included

In pursuing the problem of student activities in large schools, it was proposed that high schools in the entire range of size be given attention. The geographical area selected was that commonly considered as Southern Lower Michigan. It is the area of the state's intensive population and it brings together an area more homogeneous than the entire state would be. Arbitrarily, this area was defined as that part of the state of Michigan which lies below an imaginary line extending east and west from Bay City.

Within this area are high schools of virtually every size up to, and beyond, 3000 students. The potential existed for study of the entire

range of sizes. Sufficient numbers of high schools were available in this area to enable research to be conducted on high school size using several perspectives. The total number of schools was such that a sufficiently large sample could be obtained for the study of the entire range of school sizes, and, at the same time, allow for study of various segments of this entire range.

Along with the examination of the total span of size, each of several restricted size-groups were to be studied. Divisions of size were drawn and segments were established. Attention to the range of 600 to 1500 students was to throw light on the effect of size of this currently approved, but actually very extensive, range. Attention beyond 1500 was to show the effects of size throughout the extensive range of the very large high schools emerging in most areas of the nation. And finally, attention to the remaining schools -- those with enrollments below 600 students -- was intended to provide insights as to the activity programs in small schools in comparison with the others.

In this fashion three major size-groupings of schools were established for the purposes of this study; these groupings were to be called "large", "medium" and "small" schools. It was proposed that these groups would be studied not only collectively, as the whole span of sizes; and individually, as three sub-divisions of the whole; but also in combination of the medium and large groups as well. This would enable the schools of enrollment from 600 and up to be examined apart from the small high schools.

An indication of the number of schools in each category is shown in the table which follows.

TABLE 1

NUMBER OF SOUTHERN MICHIGAN* HIGH SCHOOLS, BY ENROLLMENT OF GRADES 10-12, 1961-62

Enrollment	Number
0-300	175
301-600	103
601-900	29
901-1200	26
1201-1500	12
1501-1800	19
1801-2100	11
2101-2400	7
2400- up	8

*Below a line east and west from Bay City

The study sampled from each of these size-groupings. This was done by ranking all 390 high schools according to their enrollments in grades 10-12. Enrollment figures were obtained from the Department of Public Instruction in Lansing. From each of the three major groups a sample of 22 schools was drawn. This was accomplished by using every other school in the first group, every third school in the second group, and every thirteenth school in the last size group. The beginning point in each group was determined by chance. This method provided a sample of 66 schools, self-weighting as to the factor of size within each of the three segments of the population, statistically unbiased as to the identity of the individual schools selected, representative of the entire sweep of high school size, and with fuller sampling of the larger schools in the geographic area. The effect of this method of sampling was to provide a more intensive representation of schools from the middle and large size-groups. This was felt to be necessary in view of the particular importance attached to those schools by virtue of the objectives of this research.

The enrollments of the schools drawn for the sample from all southern Michigan high schools are shown in Appendix II. Only 63 of the 66 high schools in the sample were actually examined. Data from the other three schools could not be obtained.

Issues

Within the sample described above five issues were proposed for examination so as to determine participatinn through measurement of number of participants per 100 students enrolled. The issues are:

1. Extent of Student Participation

1a. "What relationship, if any, exists between school size and the extent of total student participation (e.g. counting repeated participations in several activities by the same individual student)?"

This issue was intended to be of basic importance to the investigation. As the general question prompting this work it was formulated to lead to the collective measurement of all forms of student participation within a high school, to provide a figure indicating the magnitude of activity for a single school. Participation in all seven classifications, and repeated performances by the same individuals, were to be counted so as to provide an index of total student participation representative of each high school.

1b. "What relationship, if any, exists between school size and the extent of individual student participation (e.g. counting an individual student only once, for all types of participation)?"

Rather than focusing on a total participation figure this issue directs attention to the proportion of individuals participating in at least one activity within a given school. Through this kind of question it was hoped to gain information pertaining to dispersion of participation among the student body of each high school studied.

1c. "What relationship, if any, exists between school size and the proportionate number of students who are very active in school activities (e.g. counting those students who participate in 2, 3, or more activities)?"

"Very active" students as here used means those who participate extensively in high school activities. The measurements were to include students who engaged in two or more activities but they were to be refined by using several increments of total number of activities so as to determine extent of those engaged in three or more and five or more, as well. Thereby, this issue actually was to determine the extent of students who are moderately active, as well as very active.

2. Leadership

2a. "What relationship, if any, exists between school size and the proportionate number of leadership roles held by students (e.g. counting each leadership role, even though one student may hold several roles simultaneously)?"

This issue was designed to elicit number of leadership roles filled by students in each school, rather than student participation alone. This, therefore, was to be a measurement of a refined kind of participation -- a kind commonly held to be vital in the school experiences of a child.

3. Internal and External Activities

3a. "What relationship, if any, exists between school size and participation in activities which allow performance before the general public?" (Such performance before the general public is hereby termed external, as opposed to performance before the student body only, or before no group, which is termed internal. The rationale for this issue was that there may be a benefit derived by students from performance before people from outside the school, and that this, like Issue 2a., is an important

component of a student's extraclass life at school. The attempt here was to segregate those activities within each school which include some kind of demonstration by their members before audiences made up of individuals other than fellow high school students.

4. Kinds and Pattern of Student Participation

4a. "What relationship, if any, exists between school size and the amount of student participation in each of several types of activity (e.g. athletic, academic, citizenship)?"

Here the general diversity of a school's students' participation in activities was to be examined. It was hoped that this would afford some measure of the varying kinds of emphasis that the students of different size high schools place upon their participation. This was to examine participation in each of the activity groups to discover whether a pattern exists for the size ranges of high schools.

5. Number of Activities

5a. "What relationship, if any, exists between school size and the number of the selected student activities per 100 students offered by the school?"

This issue was directed at the opportunity for participation existing in each of the size groups of high schools. The proportionate number of student activities was thought to be an indicator of the prospects for activity participation by the students within a given school.

In addition to the issues outlined above two questions were added at the data-collecting stage of this work. They emerged during the

treatment of data concerning the original issues and appeared to lend themselves well to the broad purposes of the study. Both are distinct in nature from the former questions in that they do not relate directly to size of school but, rather, they interrelate with one of the other issues proposed for investigation.

The first could be stated, "What is the relationship, if any, between total student participation and student participation in each of the individual activities?" This was considered useful as a determination of those activities in which participation is independent of the overall extent of student participation within a school.

The second subsequent issue is, "What is the relationship, if any, between the opportunity for participation (proportionate number of activities available) and student participation in each of the individual activities?" The purpose of this question was to discover any relationship which might exist between the possibilities available for student involvement in activities and the participation figures in each of the activity classifications to see whether some activities are weak in schools where opportunities are strong.

Through the variety of issues presented here it was felt that several basic elements concerning student participation in activities would be examined. The first five general issues deal with total participation, leadership, performance before public audiences, diversity of student participation and opportunity for participation. Each of these bears a separate and unique significance, and each appeared worthy of research effort within the framework of this study.

19

Assumptions

Some assumptions must be made pertaining to the value of extra-curricular activities in the function of the high school in order for this research to have meaning. First, it is generally accepted that a high school has the potential to benefit its students in ways beyond the limits of the classrooms. Secondly, it seems safe to assume that these benefits include those school-sponsored activities which are outside of class and are lumped under the broad heading, "extracurricular activities". Thirdly, regardless of the size of the school, its responsibility to each individual student remains the same. In connection with this assumption it is recognized that the school's relationship to each individual student is effected by the community facilities for youth activities which exist in varying amounts from city to city. However, the proposed study is not designed to explore this effect, leaving it for later exploration if the findings of the present study warrant further investigation.

Finally, judgements pertaining to how much participation in such activities should exist are withheld at this point. The present study is designed to explore the relationship between two factors -- size and participation -- without passing judgement on either one of them.

Limitations of the Study

There is no assessment of the relative value of the selected activities compared with other elements within the educational program. The object is to operate from the assumptions mentioned earlier which include the idea that these activities have some value and therefore are worthy of investigation.

Nor is the central emphasis upon student opportunities themselves within the schools studied. Attention is largely focused upon kind and extent of participation rather than upon the various aspects of opportunity to participate since this provides a better gauge of the effect of this phase of school activities upon the daily lives of its students than would a measurement of opportunities.

In a consideration of high school students' involvement in extra-curricular activities there is likely to be confusion concerning which level of involvement is truly representative. One way to view this is to visualize a continuum whereby the degree of involvement of a given high school's student body in activities can be represented as successively greater. On the left side would be opportunity for participation. This level is apparent primarily through the number of activities available. Next to opportunity on the line, and representing a deeper measure of involvement, would be membership. This level includes an actual tabulation of the number of students utilizing the opportunities for involvement. Farther to the right on the continuum would lie extent of participation, a refinement of the prior level whereby membership is examined and such factors as leadership, external participation and intensity of participation are considered. The fourth level, on the right side of this contiuum, would be detailed analysis of participation. This level would include an analysis of the number of hours spent in each activity, the degree of student interaction with the group and a qualitative study of relative importance of each activity. This last would offer the most conclusive results in terms of true representation of student involvement in extraclass activities, but it also presents the greatest number of hazards to valid investigative procedure.

A limitation of this study is that it does not examine the area of student participation from the perspective of the fourth level of student involvement, as outlined above. Instead it directs itself toward the third level, extent of participation. This provides the study with more meaningful data than could be obtained through examination of either of the first two levels but does not offer the potential for depth inherent in an analytical approach. The implications of the approach used here are amplified in Chapter III.

Southern Michigan alone provides the geographical base for the study. No attempt was made to collect data on a national basis. It is felt that findings within these confines may nevertheless be significant enough to be useful when projected to other geographic areas.

The activities surveyed are restricted to those chosen arbitrarily as traditional and common. The various informal and spontaneous activities which arise frequently outside the classroom in the usual high school are not measured. For the sake of systematic research only organized activities are used for analysis even though a broad interpretation of the term extracurricular would justify the inclusion of others.

Chapter III

COLLECTION AND TREATMENT OF THE DATA

Procedures for this research were determined in large part by the design and issues of the study as presented earlier. An explanation of the methods used in collecting and treating the data is given here.

Collection of the Data

The majority of the data collected for this study was obtained through a systematic investigation of the yearbooks for each of the schools involved. These yearbooks were available through a combination of two sources: direct loan from the schools being surveyed, and arrangements with several printers of school yearbooks whereby they were borrowed.

As printers of school yearbooks two Ann Arbor lithography companies were first approached for 1961-62 yearbooks representing the schools chosen for the sample. These two companies, plus one from Mount Clemens, Michigan, were able to supply approximately one-third of the 66 schools selected for study.

A letter was prepared (Appendix III) to be sent to the principals of the remaining high schools asking for copies of their 1961-62 yearbooks to be sent to Ann Arbor. The initial response to this request was favorable but a few schools were contacted several times before their books were obtained, and it developed that three of the 66 high schools either had no yearbook or were unable to locate one on their shelves.

23

After a series of efforts was made to complete the sample it was decided to proceed with 63 of the 66 schools originally selected. This group was composed of 21 of the large-size, 22 of the middle-size and 20 of the small-size schools. The one large school not represented was the 4th ranked within its group; the two small schools were the 10th and 17th ranked within their group. It was felt that their size positions were such that no serious imbalance was caused by their omission.

The entire process of obtaining all the yearbooks occupied considerable time during which some of the books were being studied.

It was noted that the use of yearbooks for this investigation offered two major advantages. High schools do a thorough job of listing their student activities in these publications; the names and pictures of the leaders and participants in extracurricular activities are virtually always included within the pages. Since records of the diverse activities of the students of a large high school are rarely kept in any single centralized location the schools themselves generally use the yearbook as their primary source of information about their students' participation in school activities.

In addition to the latter advantage is the fact that through an organized search of one kind of source, which is similar in form from school to school, a substantial number of variables involved in the collecting of data were eliminated. These additional variables occur through the use of mailed questionnaires and person-to-person interviews where the degree of cooperation and understanding varies with each contact.

The validity of this method of data-collection was checked through personal visits by the investigator to schools in each of the three size-

groups. The margin of error involved in the yearbook counts was determined by interview with members of the school staffs. The results of this validation are detailed later in this chapter.

Treatment of the Data

The data were processed by tabulating the total number of students identified with each school activity, and the names of those engaged in each activity so that distinctions could be made between total participation and number of individuals participating. These tabulations were related to each of the aspects of the study described in the proposal in the manner detailed below.

The inventory sheets shown in Appendix I were developed as a systematic procedure for analyzing and recording data pertaining to the various issues being studied from each school yearbook. The sheets were subdivided into the seven classifications of student activities described previously and space was provided for recording participation units and leadership units for each of the typical activities listed below the classification. Blank lines were provided for each classification so as to provide for entries of activities unique to the particular school being considered. An asterisk was used whenever an activity was shown to be external in nature for the school in question.

Through this procedure totals were obtained for participant units, leadership units, external participant units and number of activities for each of the seven activity groups.

On the second sheet of the inventory form a summary section was provided for the listing of the totals for each group and the computing of the overall total for all activities within the given school. Also, a section for numbers of individual participations was provided on this

second page. The figures from these latter two sections made up the bulk of the data that later was transferred to cards for analysis.

The yearbooks were found to be remarkably uniform in format and thorough in treatment. With little exception the high school's activity program was laid out in clear and quantitative terms on the pages of the school annual. A minimum of difficulty was experienced in interpreting the various activities presented and determining their place in the school's program. The fact that explanatory text customarily accompanied each activity assisted its evaluation.

Because high schools in southern Michigan are usually organized on a 10-12 grade pattern, but occasionally on a 9-12, 8-12 or 7-12 basis, a decision had to be made as to what grades would be used for comparative enrollment purposes. Where a high school was composed of grades 9 through 12 the enrollment figure used to rank the school was that for its 10th, 11th and 12th-grade students only. The activity count for these schools, however, included 9th grade students. This, therefore, made it necessary to use the school's 9-12 enrollment for the purpose of computing the per-100-students figures for the issues being tested, but allowed the 10-12 enrollment figure to be used for size-coding purposes since it provided a more accurate relative figure to be used for comparison with other schools. When the high schools were composed of grades 7-12 or 8-12 it was found that the 7th and 8th grade students were not participants in the "high school" activity programs, although they often had their own. Thus, the same method employed in counting participation for 9-12 high schools was possible for these schools.

This method permitted the three-year high school of 630 students to be ranked even with the four-year high school of 850 on the basis of

the fact that the true effects of size of school on the student are more apt to result from the mass of similarly-aged students in a building than the range of grades present -- from the horizontal manifestations of the influences of enrollment rather than the vertical. Since there is a certain heirarchy existing among the grade-levels of students in a high school it was felt that the presence of 220 9th graders in a high school, or 600 7th, 8th and 9th graders, has much less of an effect on the older students than a like number of upperclassmen would have. Of the total number of schools in the sample 33 were 10-12, 23 were 9-12 and 7 were 7-12.

All except one group of data was available from each of the 63 high schools. The figures for the individual participation issue were available from only 43 of the 63 schools. It was found that 20 of the yearbooks had some names missing from their captions and descriptions of the various activities depicted and this made analysis of the participation of individuals impossible. As explained below, this factor was examined in spite of the limited availability of data pertaining to it.

With all the raw data compiled and systematized on the inventory sheets the University of Michigan Computing Center was utilized through the services of the IBM 7090 computer. With the assistance of the staff a series of computer runs was arranged to produce a matrix of intercorrelations for the variables recorded from each high school's activity program.

The key variable, of course, was to be enrollment, and its correlations with the other variables were of central interest to the objectives of this research. Because one group of variables -- those concerned with the participation of individuals -- was not given for all schools

it was decided to use the missing data intercorrelations program in the computer. This enabled accurate product-moment correlations to be computed for all 63 schools using all other variables while providing correlations for the missing data variables exclusively in the 43 schools where they were given.

The data were punched on cards and a series of intercorrelations was begun. The first run matched variables for the complete range of schools, the second for each of the three size-groups, and the third for two size-groups -- the small as one, and the two others combined as another.

The intercorrelations obtained from these three computer runs formed the basis of the findings detailed in Chapter IV.

After the correlations between pairs of variables were obtained they were used for at least two purposes. One was to provide relative figures which could reveal which of several relationships was stronger or weaker, and the other was to provide significant figures denoting likelihood of a cause and effect relationship. In connection with the latter purpose the table of correlation significance from Fisher and Yates was used. All measures of significance for correlations used in this study are at the 5% level of error, as taken from this table. Thereby when a relationship was adjudged significant it meant that its probability of error due to random sampling was in in 20.

From analysis of these correlations the tables, graphs and diagrams in Chapter IV were established.

Validations

An effort was made to determine the accuracy of the data obtained through use of the school yearbooks. Four schools (see Appendix IV),

representing the three size-groups of high schools used in this investigation, were visited.

A member of the staff of each high school was interviewed. This included two assistant principals, one class adviser and one yearbook adviser. The procedure was to present the representative with the inventory sheets used in collecting the raw data for his particular school. He was given the opportunity to study the data listings, counts and totals. Then he was asked to comment upon the data; these comments were noted for any mention of the data's inaccuracy. Notations included omissions of activities existing within the school, incorrectness of totals recorded for individual activities and thoroughness of total coverage.

After these comments were recorded the representative of the high school was asked to estimate an index of accuracy for the data used for his school. It was explained that some degree of error was expected during the collection of data since the yearbook's coverage is not always complete, and there invariably are a few names missing from each activity roster.

Each of the four high schools found a high degree of accuracy existing in the inventory sheets presented to them. The individuals interviewed estimated accuracy of counts for total student participation between 90 and 100%. The assistant principal from the small-size school estimated 95-100% accuracy, the assistant principal from one of the medium-size schools estimated 95-98% accuracy while the yearbook adviser from the other medium-size school estimated accuracy at 90-95% and the class adviser from the large school gauged the data as 90% correct.

It was felt that these estimates were sufficiently high, and uniform, to justify use of the research previously conducted.

29

Some of the comments made by the school representatives during the validation procedure were significant.

Two stated that their offices possessed no summary of their high school's activity program as complete as the one prepared for this study. Another representative said that several activities included during the year this study was concerned with had been since dropped because of growth of the student body, and the resultant strain on the school's total program. This type of modification is in line with the findings which eventually came out of this study pertaining to the relationship between school size and extent of activity offerings. Hence, the comment tends to confirm both the validity of yearbooks as a source of data and the conclusions of the study.

The class adviser from the large school felt that intramurals -- in which his school is strong -- should have been part of the activities chosen for study. It may be argued that intramural programs are a desirable supplement in a school program, but that they cannot completely substitute for deficiencies in the regular extracurricular program. Because of this the nature of the extracurricular program remains, in spite of supplementary programs, deserving of independent investigation.

Most of the comments made by the people interviewed were favorable to the thoroughness of the research. When they were asked, "Do you think these figures are a just and fair representation of your school's student activity program?" they each replied in the affirmative.

Chapter IV

THE FINDINGS OF THE STUDY

The results of the study will be treated in this chapter. Each issue will be taken up in the order that it was presented in Chapter II, and the findings relating to each will be considered from at least three perspectives: the size range of all high schools, from the smallest to the largest; the size range of only those high schools which have an enrollment of 600 or more; and the individual size ranges of the three size-groups of schools determined earlier.

Extent of Student Participation

This area of inquiry was proposed for the purpose of determining the magnitude of student participation in the activities which were selected for this study. Since this magnitude can be determined several ways three issues were formulated in Chapter II for use under this heading. The first that follows was to provide the best possible picture of overall student participation, and the other two were to show the proportion of individuals involved.

Issue 1a. -- What relationship, if any, exists between school size and the extent of total student participation?

Here "participant units" were counted to form a ratio with the enrollment of the school. These participant units are the sum of the number of selected activities in which each student participated. Thus,

for example, a single student may be represented by three participant units if he engages in three activities.

The outcome of the research into this basic measure of total student participation is illustrated by Table 2. This table lists the correlations found and the correlation required for significance for each sample.

The table confirms that a significant negative correlation for enrollment and total participation exists throughout the whole range of schools studied (-.76), and throughout the restricted range of schools with enrollments of 600 or more (-.47). For the three individual school size-groups the correlations of -.64, -.38 and -.01 for the small, medium and large size-groups, respectively, indicated a significant relationship only for the smallest schools.

A notable exception to the high correlations computed for this factor was seen to be that given for the large school group. The -.01 figure showed that no relationship emerged between these two variables for schools of 1500 or more students. When the medium and large schools were grouped together, however, a relationship was noted that was stronger even than that found for the medium size-group alone.

A further analysis of these correlations is provided by Scatter Diagram 1. This diagram shows the strong relationship of participation to enrollment. Although the overall pattern is that of a marked negative correlation the ranges of strength and weakness within the total span are evident. This type of illustration helps to explain how the correlation can be significant for the combined large and medium segments, where a noticeable pattern running diagonally from upper left to lower right is visible, and yet be weak for the large segment alone.

32

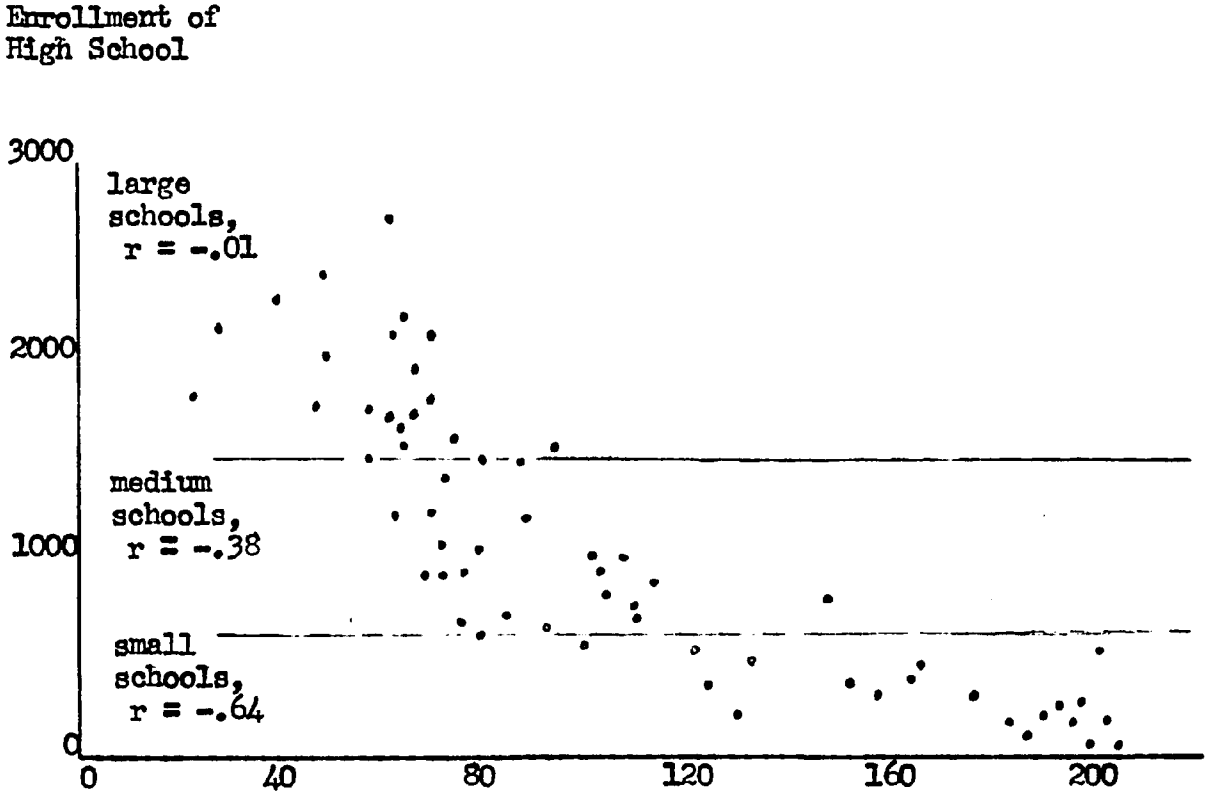
TABLE 2

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF TOTAL STUDENT PARTICIPATION IN SELECTED ACTIVITIES, BY SIZE-GROUP OF SCHOOL
(63 Public High Schools in Southern Michigan, 1961-62)

School Size-Group	N	r	r at 5% Level of Significance
Small (0-599)	20	-.64	-.47
Medium (600-1499)	22	-.38	-.42
Large (1500 up)	21	-.01	-.43
Medium and Large (600 up)	43	-.47	-.30
All Groups (0 up)	63	-.76	-.25

SCATTER DIAGRAM 1

ENROLLMENT AND EXTENT OF TOTAL STUDENT PARTICIPATION
IN SELECTED ACTIVITIES
(63 Public High Schools in Southern Michigan, 1961-62)

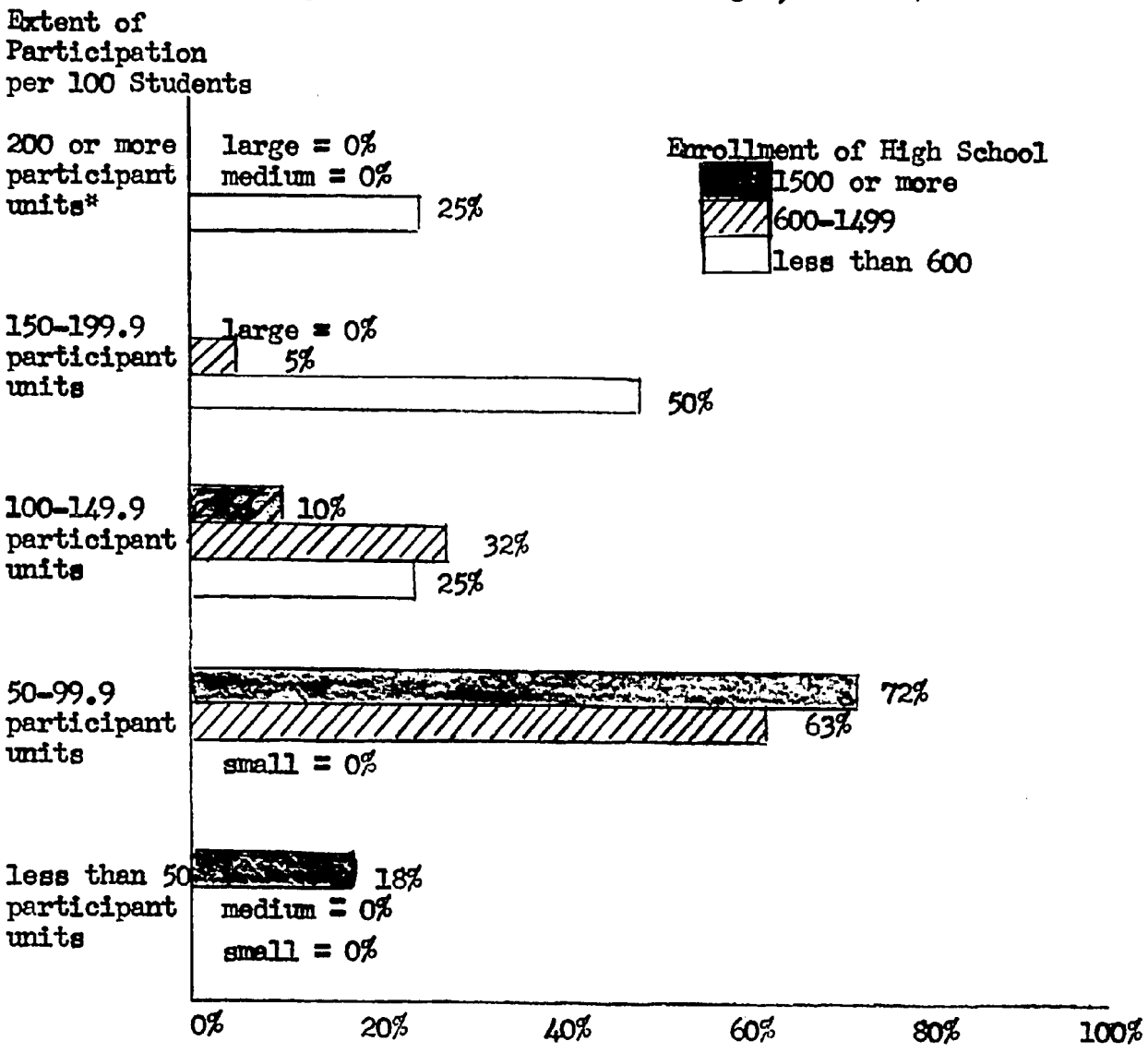


all schools, r = -.76

34

GRAPH I

EXTENT OF TOTAL STUDENT PARTICIPATION IN SELECTED ACTIVITIES
FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



*A "Participant Unit" is one student participating in one activity. A student may thereby be counted more than once if he participates in more than one activity.

35

Frequency Distribution for Data in Graph I

Participant Units per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
200 and up	.	..	.	..	5	25
175-199.9	.	..	.	..	6	30
150-174.9	.	..	1	5	4	20
125-149.9	.	..	.	..	4	20
100-124.9	2	10	7	32	1	5
75-99.9	6	29	6	27	.	..
50-74.9	9	43	8	36	.	..
25-49.9	4	18	.	..	.	..
0-24.9	.	..	.	..	.	..
N	21		22		20	
Mean	67.4		90.3		175.8	

A closer look at these relationships for the three size-groups is provided by Graph 1 and its frequency distribution which follows. The graph shows that total participation per 100 students in the large schools tends emphatically towards the lower end of the scale, participation in the small schools towards the upper end, and participation in medium-size schools towards the middle. The arithmetic means for total participation in each of the three size-groups are shown to be 67.4, 90.3 and 175.8 participant units per 100 students for the large, medium and small-size high schools, respectively. As might be expected, the difference between the means for the sample group of schools with enrollment below 600 students and the medium group is much greater than the difference between the medium and large groups. However, the graph reveals a meaningful difference between the latter size-groups as well.

It is interesting to note from the graph that 90% of the large schools investigated had fewer participant units than they had students (less than 100 per 100 students), whereas this was true for none of the schools with enrollments of less than 600 students. While none of the small schools had less than 100 units per 100 students, and none of the medium-size schools had less than 50 participant units per 100 students, 4 (18%) of the large schools had less than 50 participant units per 100 students, including one school with only 28.2 units per 100 students.

Issue 1b. -- <u>What relationship, if any, exists between school size and the extent of individual student participation?</u>

For Issues 1b. and 1c. the proportion of students who participate, rather than the proportion of participant units, was the matter under investigation. Issue 1b. is devoted to an analysis of the proportion of students participating in no activities. Issue 1c. which

follows is devoted to an analysis of participation by individual students in the range of activities from one upwards.

Concerning extent of non-participation, the first row of figures in Table 3 shows some of the correlations involved. The correlation for the entire range is a statistically significant .50, whereas for schools of enrollment of 600 or more, it is only .14.

Scatter Diagram 2 displays these relations, and others. Visual inspection of the diagram suggests that significant relationships between size and non-participation are lacking when the small, medium, and large schools are considered separately. The actual correlations for each of these groups, .40, -.01 and .19, are inserted on the diagram. None of these was found to have statistical significance.

From another perspective, Graph 2 and its accompanying frequency distribution table show the meaning of the significant relationship between size and non-participation for the total sample. In 19% of the small schools, as many as 25 students per 100 may be non-participants; whereas this amount of non-participation was found in 83% of the large schools, and in 73% of the medium-size schools. It is interesting to note that non-participation does not diminish sharply until the enrollments fall below 600 pupils; for the average non-participation (the reciprocal of the average participation reported in the frequency distribution) stands at 32.8 and 30.9 pupils per 100 for large and medium sizes of school, in contrast to 16.9 non-participants per 100 pupils in the small schools.

As is seen, the measurement of this relationship between student non-participation in selected activities and size of the high school produced results which varied sharply according to the range of school sizes considered.

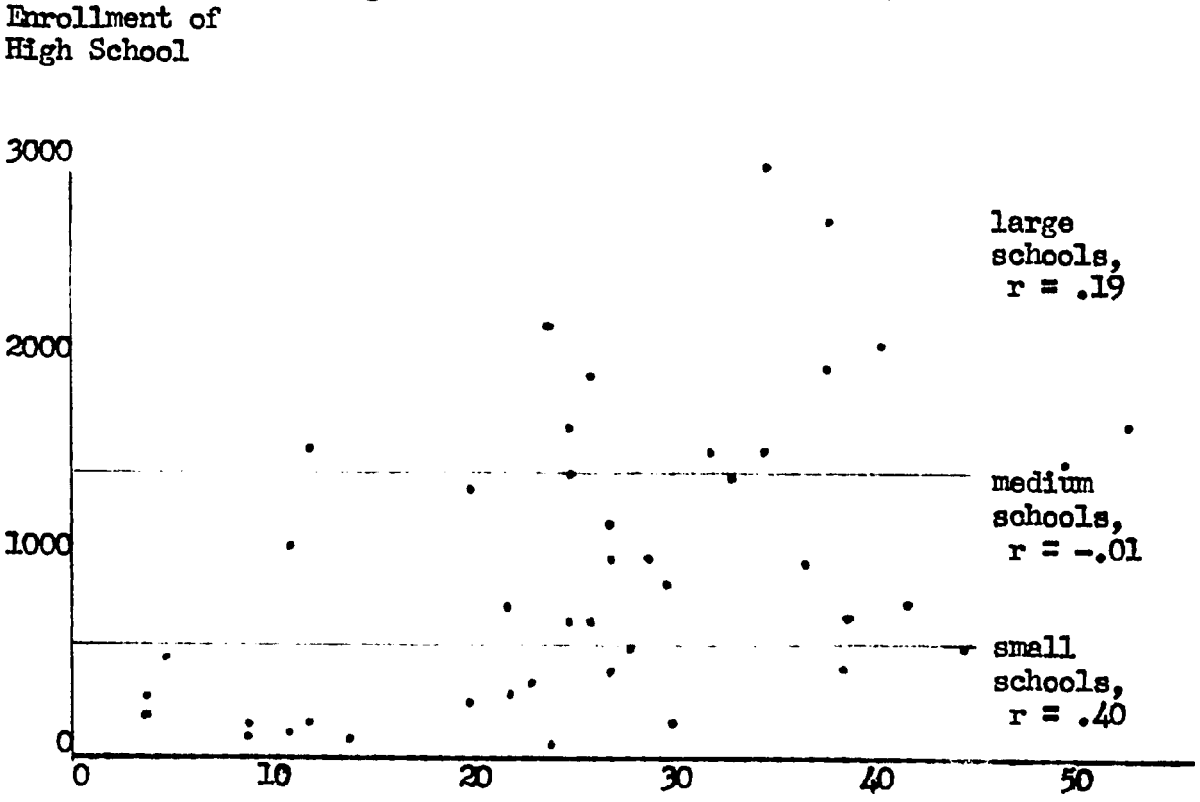
TABLE 3

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND NUMBER OF SELECTED STUDENT ACTIVITIES PARTICIPATED IN BY INDIVIDUAL STUDENTS FOR FORTY-THREE SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)

Number of Activities Participated In	r	
	All Schools (N=43)	Schools of 600 or More (N=27)
0	.50	.14
1 or 2	-.35	-.07
3, 4 or 5	-.28	-.02
6 or more	-.03	-.16
r at 5% Level of Significance	±.30	±.38

SCATTER DIAGRAM 2

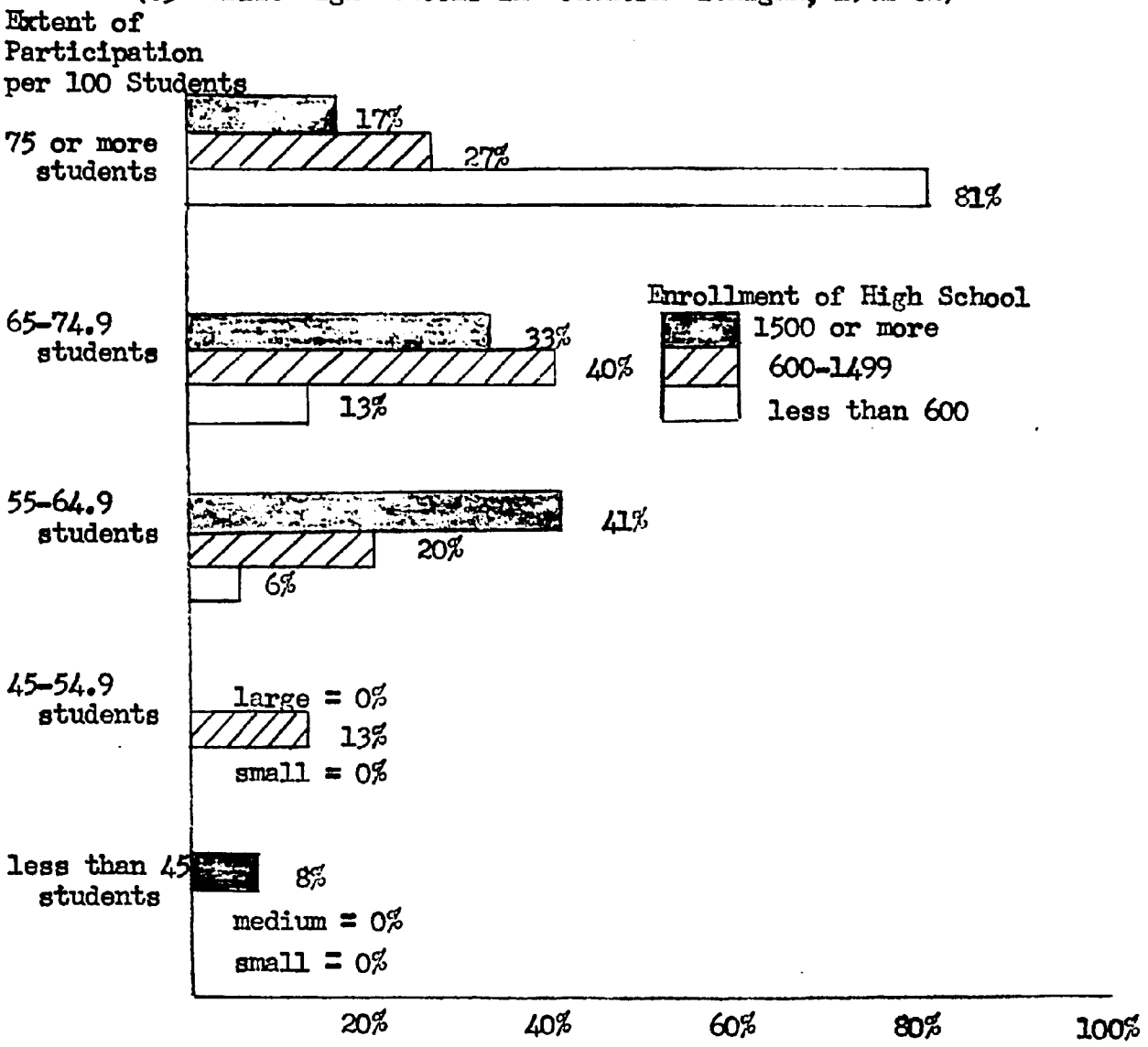
ENROLLMENT AND PROPORTION OF STUDENTS PARTICIPATING IN NO SELECTED ACTIVITY
(63 Public High Schools in Southern Michigan, 1961-62)



all schools, r = .14

GRAPH 2

EXTENT OF INDIVIDUAL STUDENT PARTICIPATION* IN SELECTED ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



*"Individual Student Participation" refers to individual students, counting them only once even if they participate in more than one activity.

Frequency Distribution for Data in Graph 2

Extent of Participation per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
75 and up	2	17	4	27	13	81
70–74.9	3	25	4	27	2	13
65–69.9	1	8	2	13	0	..
60–64.9	4	33	2	13	1	6
55–59.9	1	8	1	7	.	..
50–54.9	.	.	2	13	.	..
45–49.9	.	.	.	..	.	..
40–44.9	.	.	.	..	.	..
0–39.9	1	8	.	..	.	..
N	12		15		16	
Mean	67.2		69.1		83.1	

Issue 1c. -- What relationship, if any, exists between school size and the proportionate number of students who are very active in school activities?

This issue was formulated to get at the extent of students who participate in several activities each in the various sizes of high schools.

The relationship between size of school and the extent of active participation can be seen by referring again to Table 3. The analysis for this issue is based upon participation in 1 or 2 activities, 3 through 5 activities, and 6 or more activities, in the table; and upon the single "three or more" category given in Graph 3 and its frequency distribution. In both, little relationship between enrollment and participation is shown when participation is very active at the level of three or more activities per student.

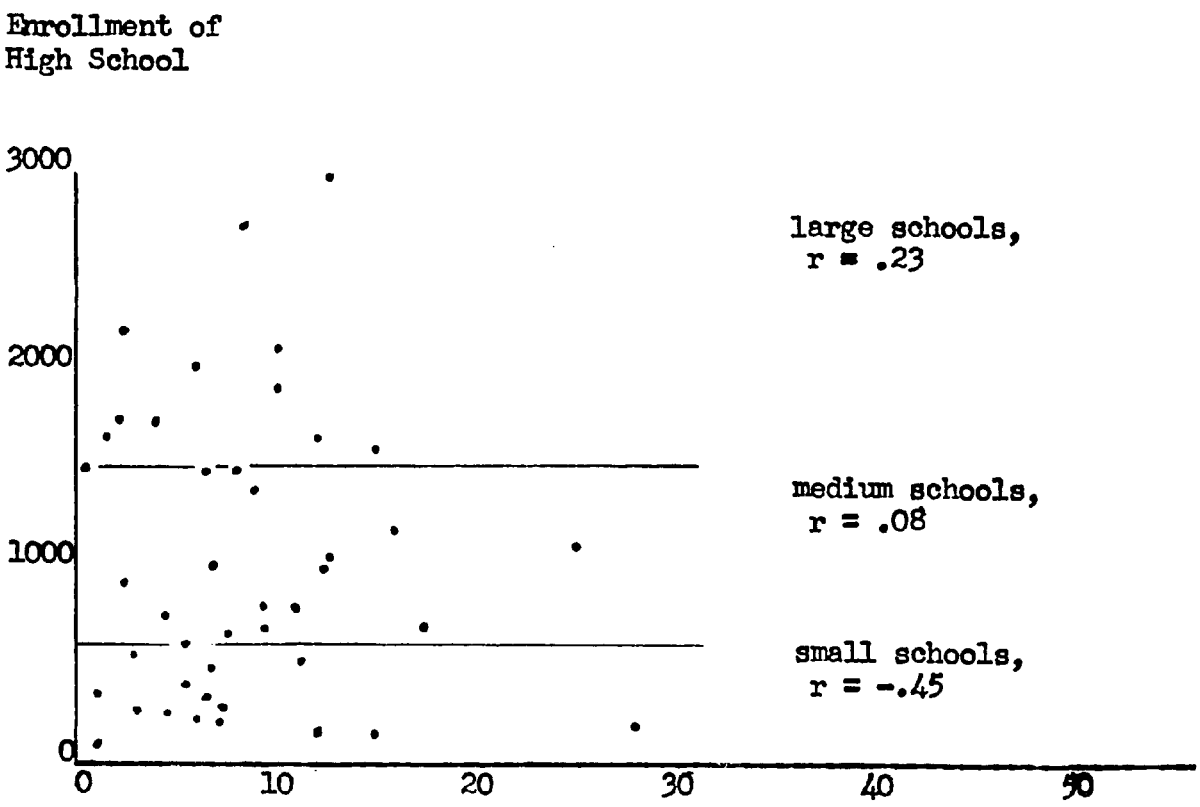
The table shows that when all sizes of high schools are considered, significant negative correlations with size exist for participation by students in one or two activities (-.35). This statistically significant relationship, coupled with the lack of statistical relationship for more active participation, is noteworthy because it suggests that the small school succeeds in providing for more students in extra-curricular activities without any more danger of excessive student involvement than occurs in larger schools.

For a clearer look at the correlation of participation in six or more activities and high school enrollment, Scatter Diagram 3 shows the exact pattern which existed for the schools in the sample. The lack of any significant correlation (-.03 for the total sample) is evident

43

SCATTER DIAGRAM 3

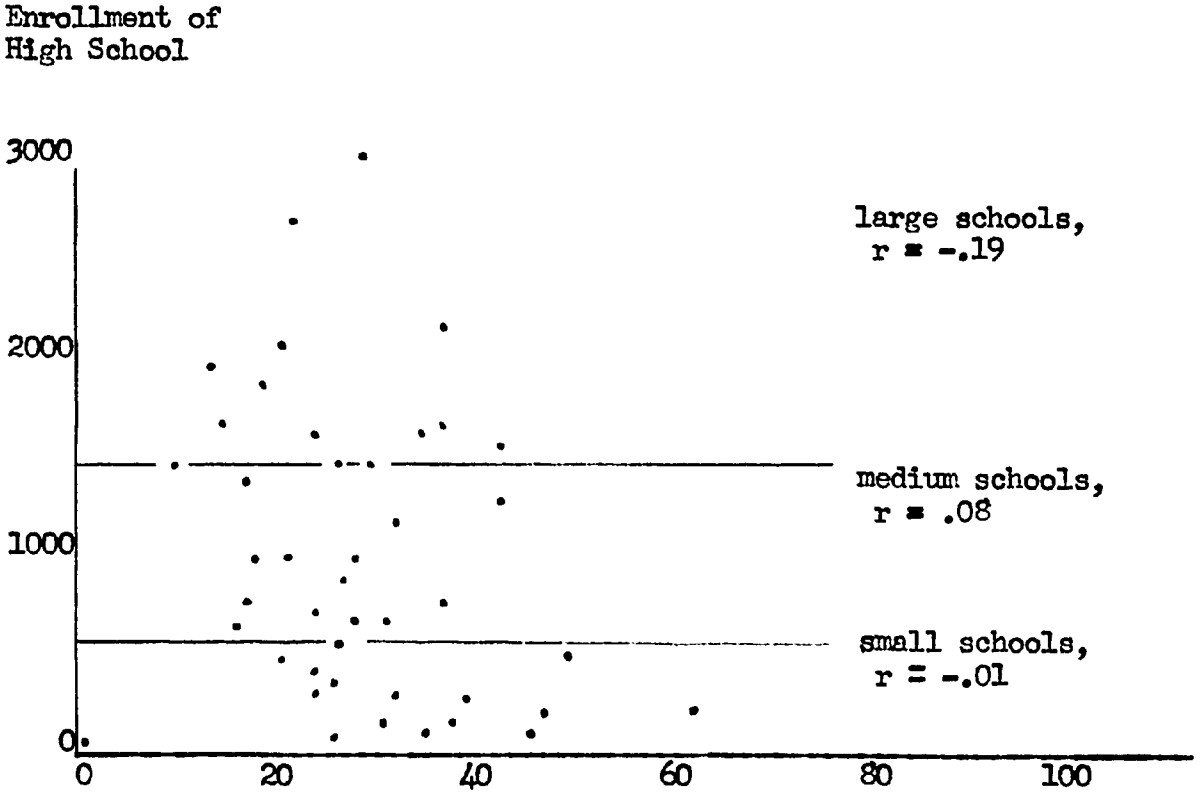
ENROLLMENT AND PROPORTION OF STUDENTS PARTICIPATING IN SIX OR MORE SELECTED ACTIVITIES
(63 Public High Schools in Southern Michigan, 1961-62)



all schools = -.03

SCATTER DIAGRAM 4

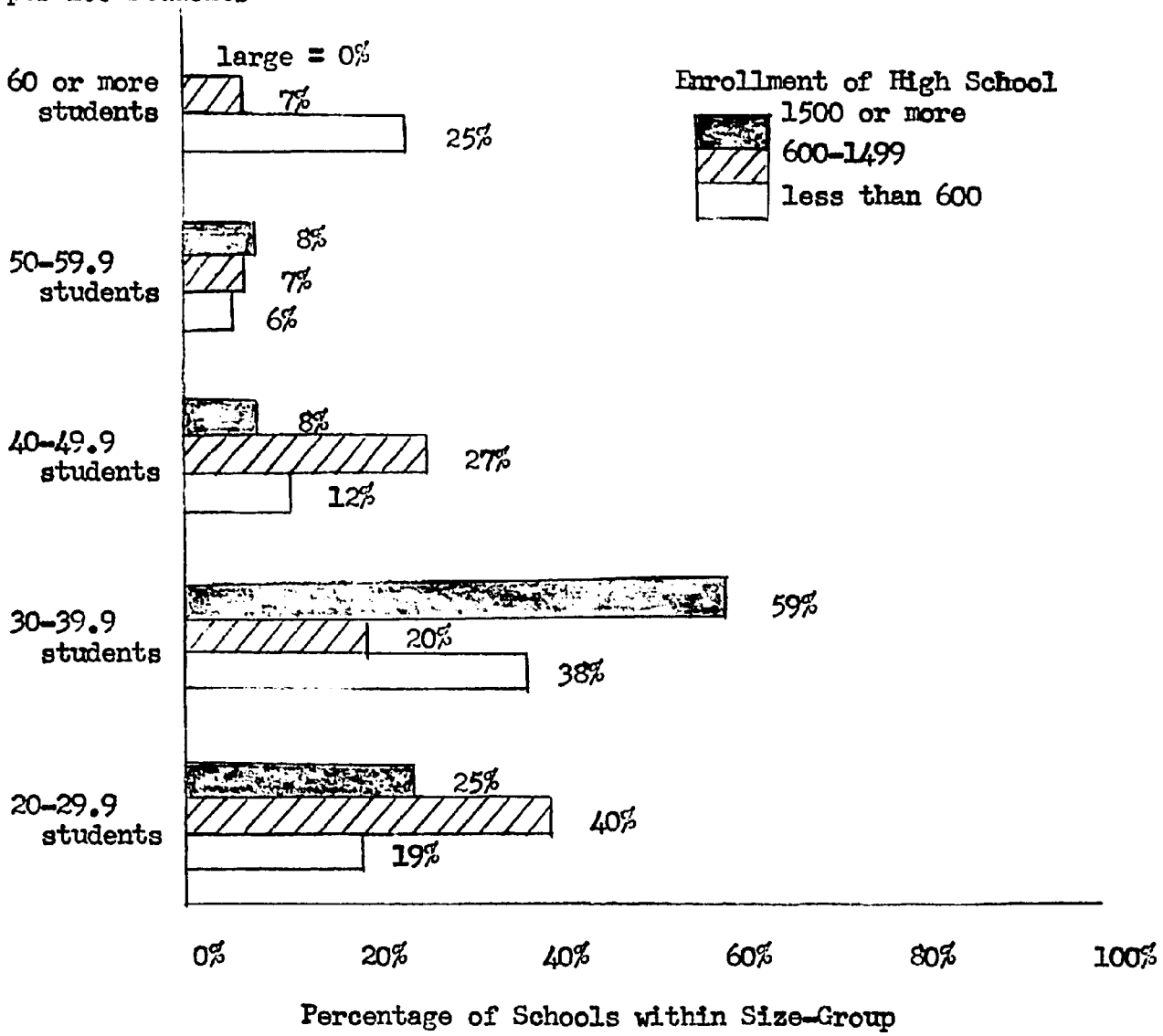
ENROLLMENT AND PROPORTION OF STUDENTS PARTICIPATING IN THREE, FOUR OR FIVE SELECTED ACTIVITIES
(63 Public High Schools in Southern Michigan, 1961-62)



all schools = -.28

GRAPH 3

EXTENSIVE INDIVIDUAL STUDENT PARTICIPATION IN SELECTED ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



46

Frequency Distribution for Data in Graph 3

Students in 3 or more Activities per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
60 and up	.	..	1	7	4	25
55–59.9	1	8	.	..	.	..
50–54.9	.	..	1	7	1	6
45–49.9	.	..	3	20	1	6
40–44.9	1	8	1	7	1	6
35–39.9	5	42	1	7	2	13
30–34.9	2	17	2	13	4	25
25–29.9	1	8	5	33	1	6
20–24.9	2	17	1	7	2	13
N	12		15		16	
Mean	35.1		37.7		43.1	

by the thorough scatter. The correlations for the small, medium and large schools taken separately are recorded in the diagram, and none of them are statistically significant.

Scatter Diagram 4 traces the pattern for three, four or five participations per student. Even though the correlations are not statistically significant, it is interesting to compare this diagram with the previous one since the overall correlation (-.28), top-to-bottom, is greater for three, four and five activities than for six or more activities.

Rather than attempt to graph all of the degrees of active participation, Graph 3 presents a picture of participation in 3 or more activities. No obvious relationship is described by this graph. One can see that the large schools center about a point slightly lower than the other two groups and that 25% of the small schools have 60 or more students per 100 participating in 3 or more activities. But these differences appear minimal. The means for each group are seen to be more similar than they were for either of the previous two issues. Nevertheless a subtle relationship is suggested both by the bar graph and the frequency distribution associated with it.

Leadership

Issue 2. -- What relationship, if any, exists between school size and the proportionate number of leadership roles held by students?

In attempting to determine whether extent of student leadership is a function of size of the high school this phase of the investigation makes use of a count of "leadership units" within each school in the sample. For these purposes total leadership units for a given school are the sum of the number of leadership positions each student occupies.

As in the use of participant units, a single student may by counted more than once.

An indication of extent of student leadership is provided by Table 4. A statistically significant correlation was found for all groupings of schools in the sample with the exception of the large size-group considered alone. Again, the situation encountered is similar to that in Issue 1; a significant correlation between student leadership and enrollment is obtained for the medium size-group (-.69), and for the medium and large size-groups when combined (-.56), but not for the large size-group alone (-.19). And again the correlation for the entire range of schools, smallest to largest, is a very significant -.72. The small school's relationship between size and leadership was found to be -.67.

Once more, reference to a diagram will provide a better appraisal of this negative relationship. Scatter Diagram 5 shows the tight pattern for the medium and small groups and the looser pattern in the upper half of the diagram where the large schools are represented.

Graph 4 and its frequency distribution show the concentration of the sample's large schools at the lower end of the scale of total student leadership. The medium size-group shows only a slightly better average number of leadership units per school, while the small school group again has a far larger representation. The difference in arithmetic means is so great when comparing the 25.4 leadership units per 100 students in the small schools with other schools that it tends to obscure the less obvious, but noteworthy, difference between the middle and large schools -- 10.0, compared with 7.1, leadership units per 100 students. In both middle and large schools, however, all the sampled schools had less than 20 leaderhip units per 100 students.

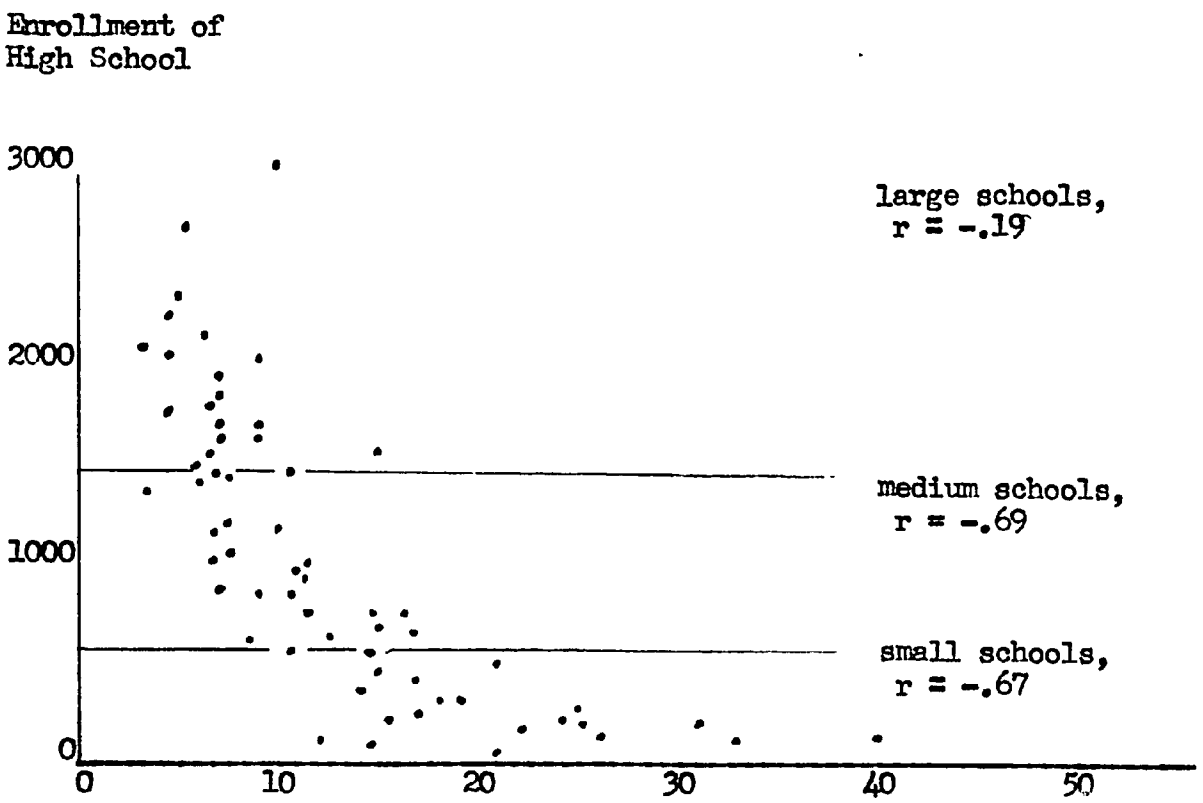
TABLE 4

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF STUDENT LEADERSHIP IN SELECTED ACTIVITIES, BY SIZE-GROUP OF SCHOOL (63 Public High Schools in Southern Michigan, 1961-62)

School Size-Group	N	r	r at 5% Level of Significance
Small (0-599)	20	-.67	-.47
Medium (600-1499)	22	-.69	-.42
Large (1500 up)	21	-.19	-.43
Medium and Large (600 up)	43	-.56	-.30
All Groups (0 up)	63	-.72	-.25

SCATTER DIAGRAM 5

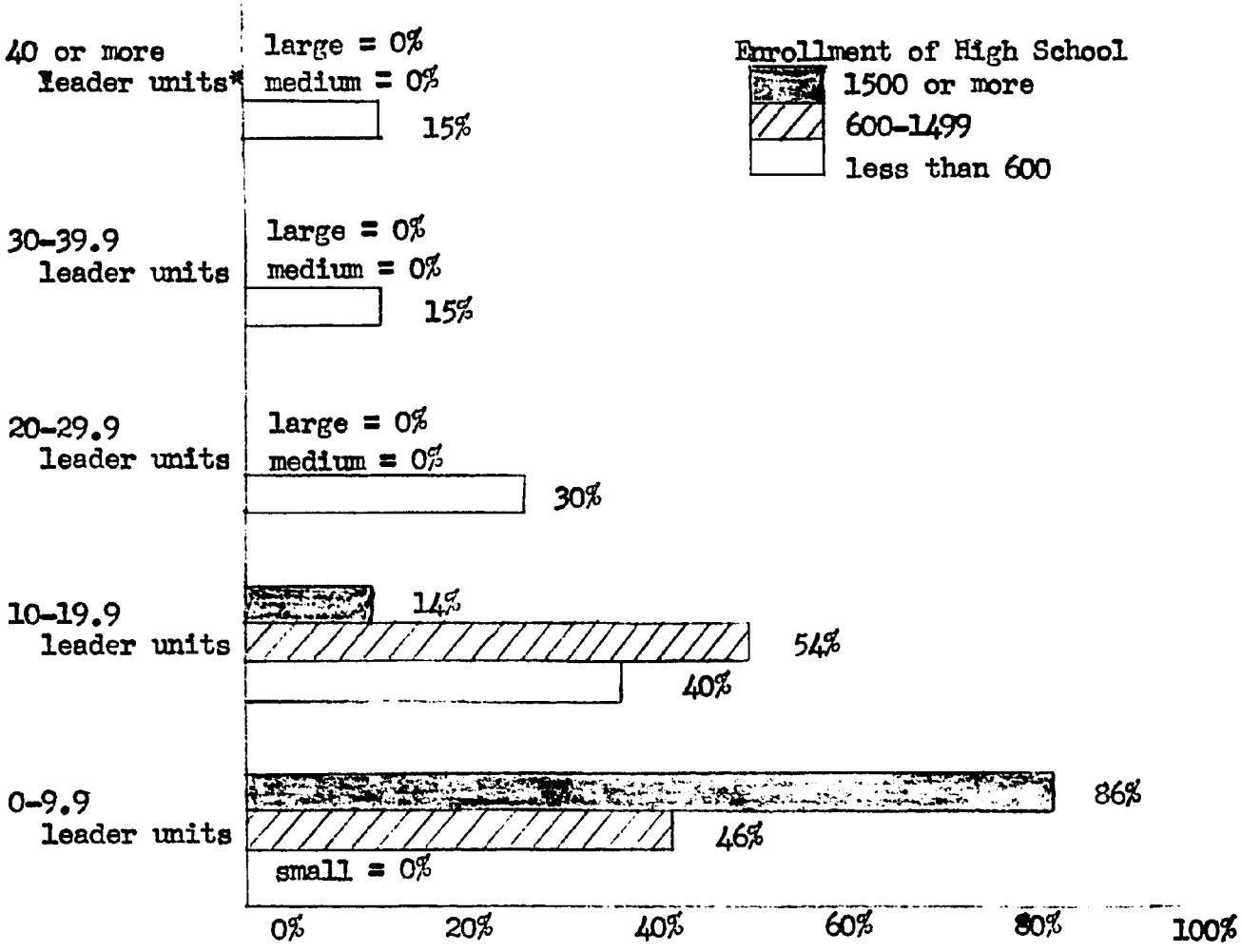
ENROLLMENT AND PROPORTION OF STUDENT LEADERSHIP IN SELECTED ACTIVITIES
(63 Public High Schools in Southern Michigan, 1961-62)



all schools = -.72

GRAPH 4

EXTENT OF STUDENT LEADERSHIP IN SELECTED ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



*A "leader unit" is one student serving as a leader in one activity. A Student thereby may be counted more than once.

Frequency Distribution for Data in Graph 4

Leader Units per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
40 and up	.	..	.	..	3	15
35-39.9	.	..	.	..	1	5
30-34.9	.	..	.	..	2	10
25-29.9	.	..	.	..	3	15
20-24.9	.	..	.	..	3	15
15-19.9	1	4	2	9	5	25
10-14.9	2	10	10	45	3	15
5- 9.9	14	68	9	41	.	..
0- 4.9	4	18	1	5	.	..
N	21		22		20	
Mean	7.1		10.0		25.4	

External Activities

Issue 3. -- What relationship, if any, exists between school size and participation in activities which allow performance before the general public?

Band, varsity athletics and school plays, for example, were classified as external activities whereas student government, publications, committees and other like activities were classified as internal in nature. Therefore this measurement dealt largely with the same activities throughout the range of schools.

As in the case of the correlations of leadership with enrollment the correlations matching external activities with enrollment were found to be consistent with the results obtained when total student participation was related to high school size. All three appear to be functions of approximately the same magnitude in relation to school size.

Table 5 indicates that the relationship between high school enrollment and extent of student participation in external activities is strong and negative for the complete range (-.74); strong for the schools of 600 or more student enrollment, considered as a group (-.55); strong for schools of less than 600 student enrollment, considered as a group (-.61); but relatively weak for the medium and large groups when considered individually (-.22 and -.28, respectively).

Scatter Diagram 6 shows these correlations vividly and reveals the unmistakable high negative correlation. Again, the disparity between the low correlations for the upper two groups individually, and the high correlations for the upper two groups collectively, is explained by the pattern. When those segments representing the three size-groups are viewed separately the large and medium portions appear

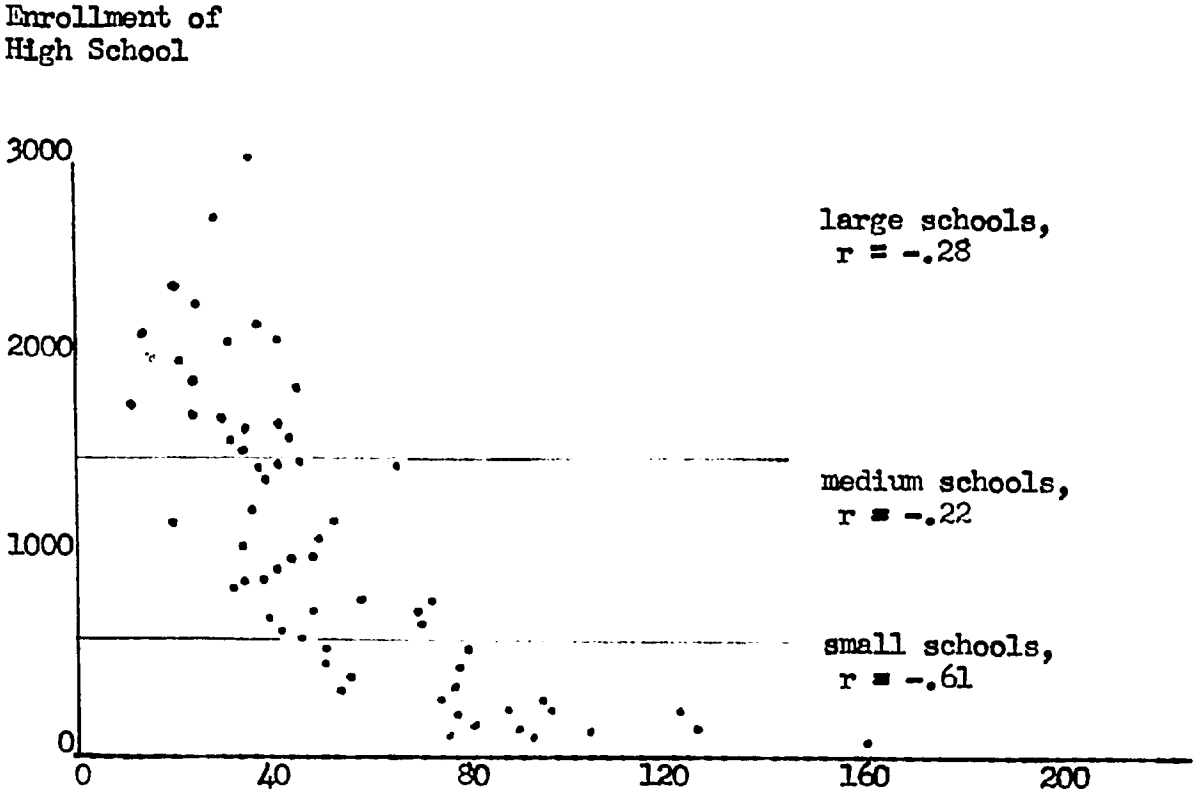
TABLE 5

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF STUDENT PARTICIPATION IN SELECTED EXTERNAL ACTIVITIES, BY SIZE-GROUP OF SCHOOL
(63 Public High Schools in Southern Michigan, 1961-62)

School Size-Group	N	r	r at 5% Level of Significance
Small (0-599)	20	-.61	-.47
Medium (600-1499)	22	-.22	-.42
Large (1500 up)	21	-.28	-.43
Medium and Large (600 up)	43	-.55	-.30
All Groups (0 up)	63	-.74	-.25

SCATTER DIAGRAM 6

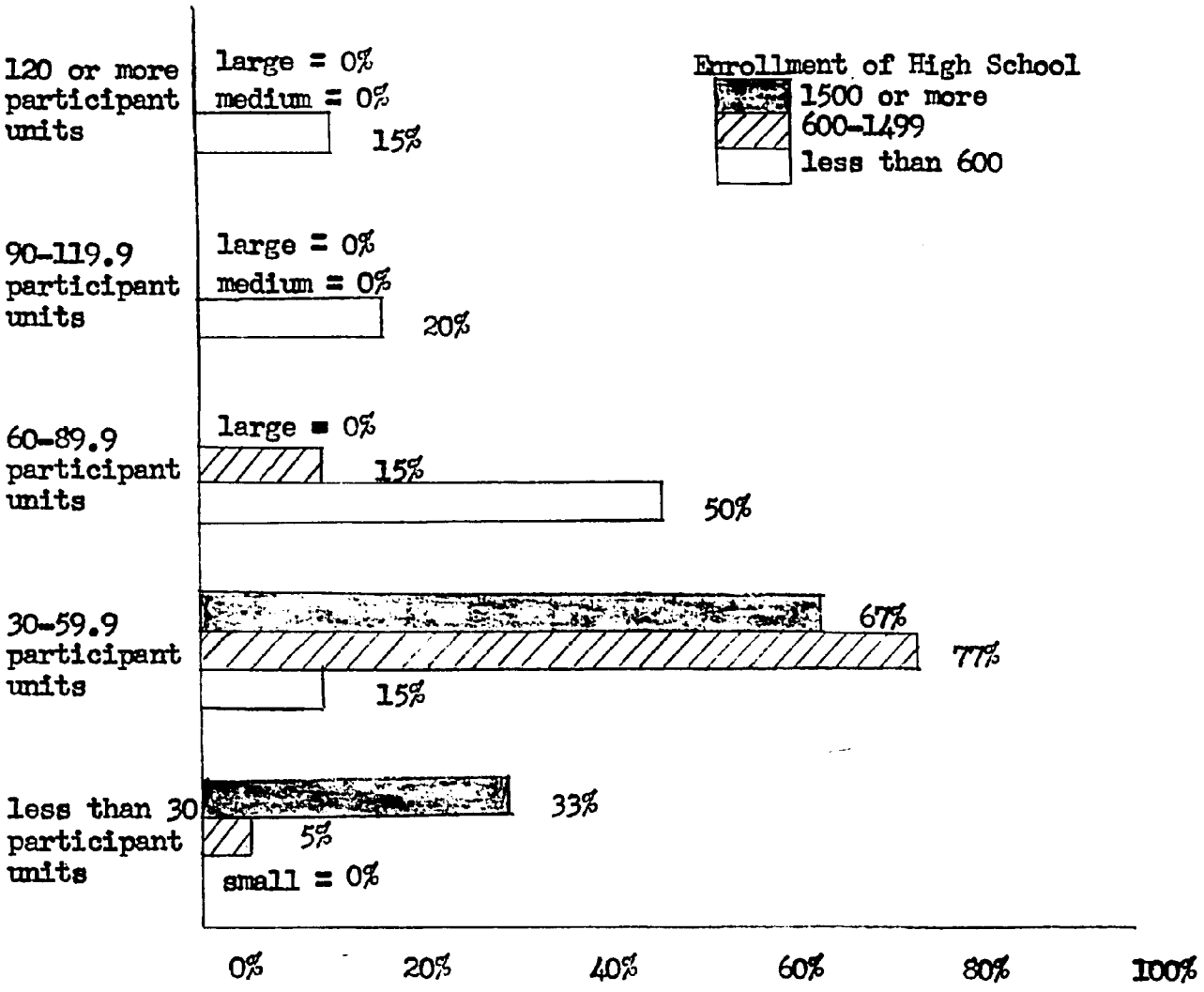
ENROLLMENT AND PROPORTION OF STUDENT PARTICIPATION IN SELECTED EXTERNAL ACTIVITIES
(63 Public High Schools in Southern Michigan, 1961-62)



all schools = -.74

GRAPH 5

EXTENT OF STUDENT PARTICIPATION IN SELECTED EXTERNAL* ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



*"External" activities are those engaged in before an audience that includes others than those in the school population.

Frequency Distribution for Data in Graph 5

Student Units in External Participation per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
120 and up	.	..	.	..	3	15
105-119.9	.	..	.	..	.	..
90-104.9	.	..	.	..	4	20
75-89.9	.	..	.	..	7	35
60-74.9	.	..	4	18	3	15
45-59.9	2	10	7	32	3	15
30-44.9	12	57	10	45	.	..
15-29.9	6	29	1	5	.	..
0-14.9	1	4	.	..	.	..
N	21		22		20	
Mean	31.5		46.1		87.3	

indistinct, but when those segments are seen together the pattern downward, to the right, begins to be apparent.

Graph 5 and the frequency distribution table following show the familiar pattern; the large schools centered about the lower section, the small toward the upper section. The difference in average number of leadership units per 100 students is distinct between each size group, the 87.3 leadership units per 100 students in small schools towering over the 46.1 figure for the medium group and the 31.5 figure for the large schools.

Kinds and Pattern of Student Participation

Issue 4. -- What relationship, if any, exists between school size and the amount of student participation in each of several types of activity?

The previous issues dealt primarily with quantity; the measurements sought were to determine the extent of various ingredients of the activity program which exists in virtually every school. This issue again measures quantity but it does so in an effort to gauge differences in content of the program of student activities from school to school. This is an attempt to discover what different activities predominate, in terms of participation, among the various size-groups of schools.

Table 6 provides a numerical gauge of the relationships of the seven major classifications of the selected school activities to student participation. As can also be observed from the graph which follows, the proportion of students taking part in service committees is not significantly related to the size of the school; the low correlations of -.06 and .14 for the full sample and for schools above 600 pupils bears

TABLE 6

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF STUDENT PARTICIPATION IN SELECTED ACTIVITY GROUPS FOR TWO SIZE-GROUPS OF SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)

Activity Group	r	
	All Schools (N=43)	Schools of 600 or More (N=27)
Music	-.57	-.39
Athletics	-.70	-.57
Student Government	-.47	-.16
Publications	-.63	-.56
Dramatics & Oratory	-.47	-.43
Service Committees	-.06	-.14
Clubs	-.68	-.48
r at 5% Level of Significance	-.30	-.38

this out. Participation in the other six categories of activities is, however, shown with one exception to carry a statistically significant negative correlation with enrollment for these two ranges of size. Athletics was strongest with a -.70 figure, followed by clubs with -.68, publications with -.63, music with -.57 and student government and dramatics and oratory each with -.47 for the total sample. The correlation for student government in high schools with 600 or more students was not significant at -.16, but significant correlations were found for athletics, -.57; publications, -.56; clubs, -.48; dramatics and oratory, -.43; and music, -.39.

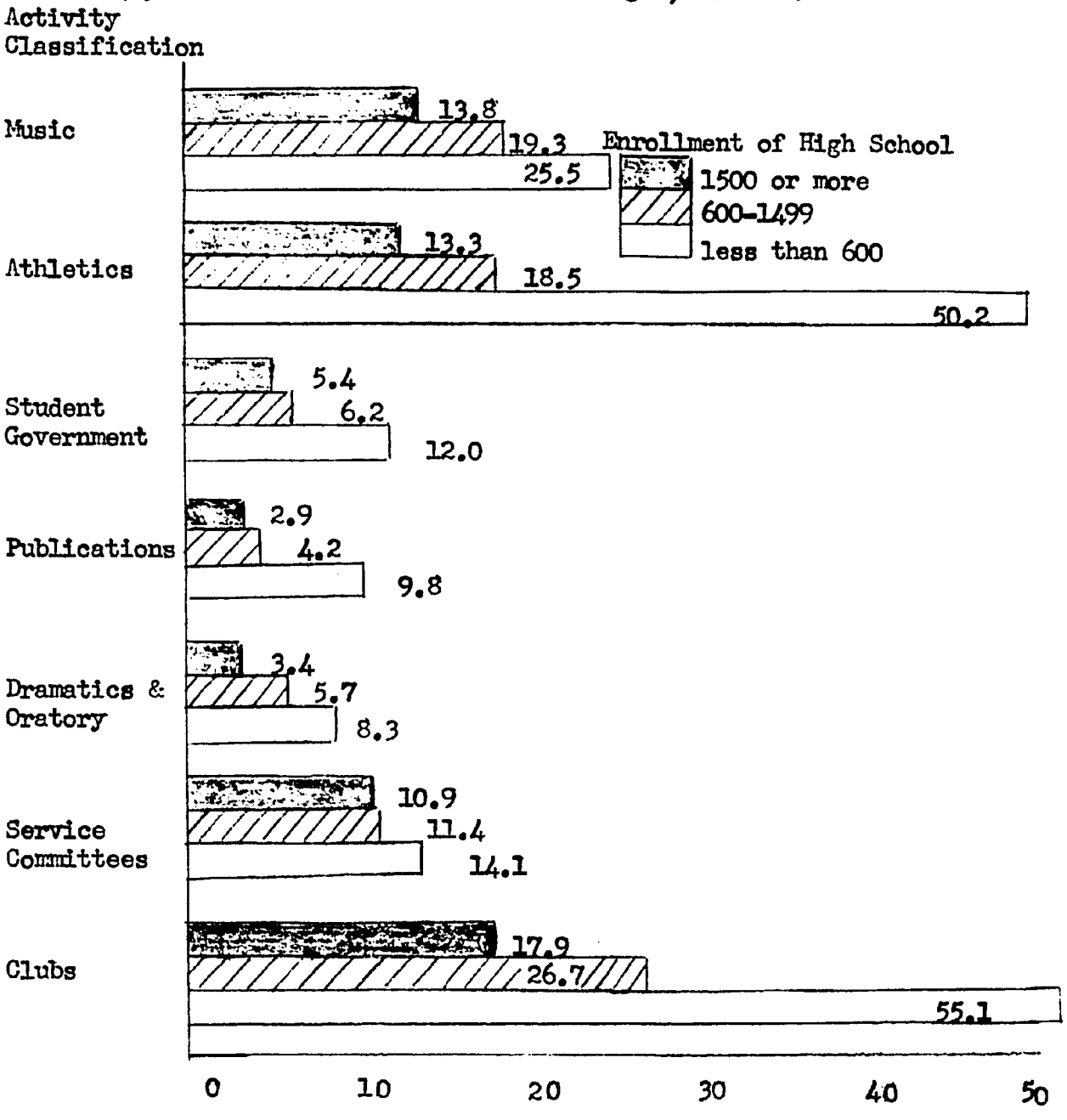
Graph 6 shows the seven major classifications of the selected school activities in relation to student participation within the small, medium and large size-groups of schools. Each of the totals for these activity categories represents the summation of the participant units in the several activities that compose the classification.

Most noticeable among the differences between size-groups for this issue is that shown for athletics. Almost three times as many participant units per 100 students in athletics are indicated for the small schools as for the next size group. Nearly as interesting are the differences shown for clubs and for publications; where the students of small schools enjoy double the participation that exists in either of the other size-groups. These differences are so sharp that the less defined relationship which is shown for student participation in student government activities and service committees is in striking contrast.

The differences in participation between schools of medium and large enrollment largely follow a steady pattern. The least disparities between these two groups are in student government activities and service

GRAPH 6

AVERAGE EXTENT OF STUDENT PARTICIPATION IN SEVEN CLASSIFICATIONS OF SELECTED STUDENT ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public Schools in Southern Michigan, 1961-62)



committees. The other five classifications of activities exist in the medium schools with approximately 50% greater proportionate participation than in the large schools. This is a meaningful difference despite the much greater one that is revealed between the small and middle-size schools.

To examine the effects of school size on several particular activities Table 7 is included below. For the most part the various activities shown here follow the relationship determined for their respective activity classifications as detailed in the previous table but some interesting variations in this relationship between size and participation are revealed.

Correlations for the total range of schools and for the schools with 600 or more students, respectively, are shown to be -.79 and -.64 for football teams, -.60 and -.41 for bands and orchestras, -.55 and -.24 for student councils, -.54 and -.28 for student plays, -.48 and -.36 for future teachers' clubs, -.47 and -.28 for student newspapers, -.42 and -.20 for library aides, -.20 and .12 for girls' athletics and -.14 and -.06 for French clubs. The positive correlation for girls' athletics occurs because of an almost unique feature in large high schools stressing competitive athletics for girls.

Graph 7 shows the relationship between these particular activities and the three size-groups of schools. The differences for these activities between the size-groups are somewhat more pronounced even than those shown previously for activity classifications. For example, participation in girls' athletics here is five times as extensive in small schools as medium ones, football team members two-and-a-half times and library aides three times. Although these figures are more striking than

TABLE 7

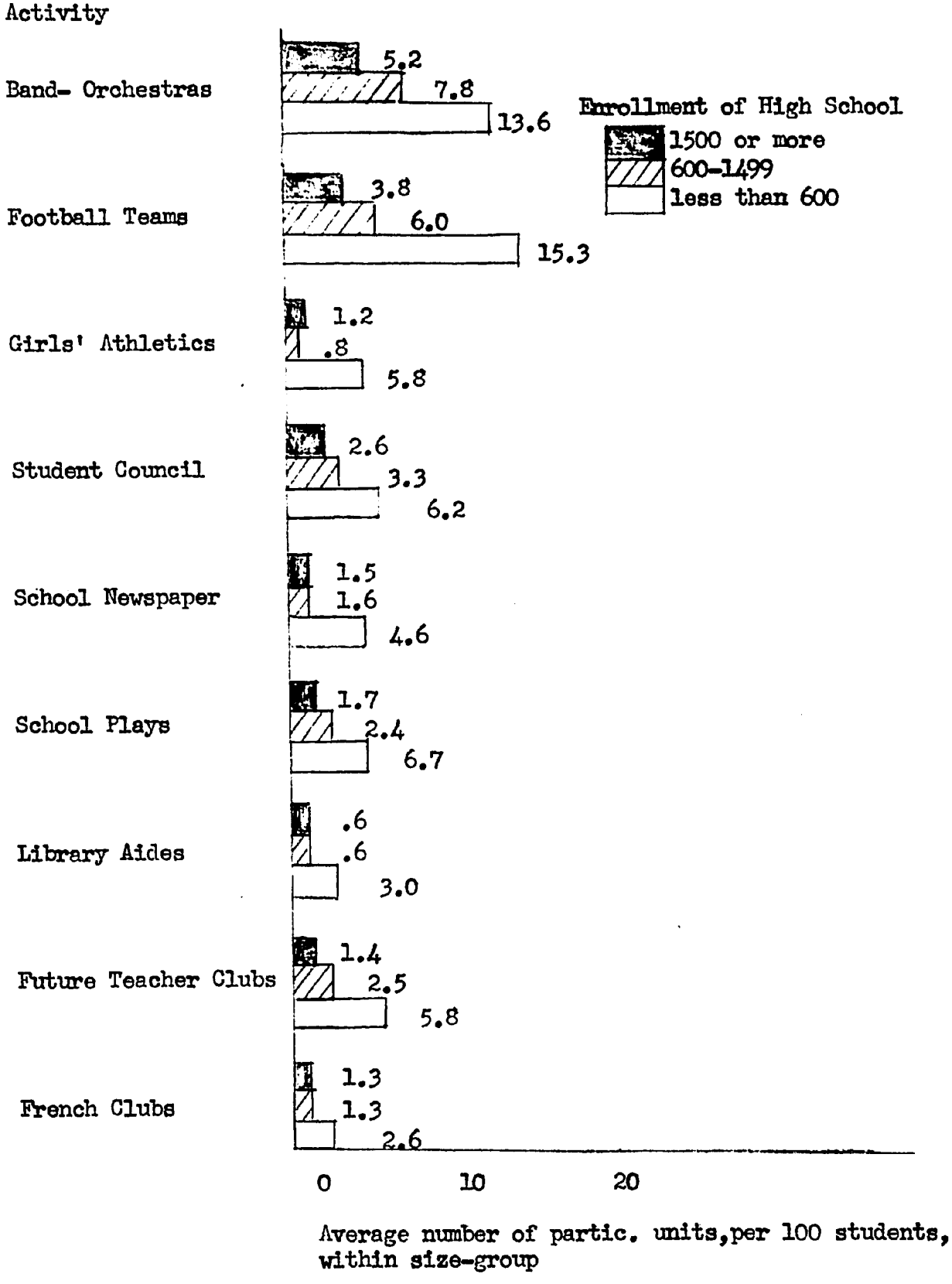
CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF STUDENT PARTICIPATION IN NINE TYPICAL ACTIVITIES FOR TWO SIZE-GROUPS OF SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)

Activity	r	
	All Schools (N=63)	Schools of 600 or More (N=43)
Student Council	-.55	-.24
Bands- Orchestras	-.60	-.41
Football Teams	-.79	-.64
Girls' Athletics	-.20	.12
Student Newspaper	-.47	-.28
Student Plays	-.54	-.28
Library Aides	-.42	-.20
Future Teachers Club	-.48	-.36
French Club	-.14	-.06
r at 5% Level of Significance	-.30	-.38

64

GRAPH 7

EXTENT OF STUDENT PARTICIPATION IN NINE TYPICAL STUDENT ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



those for the activity classifications it should be borne in mind that they are not as valid because they deal with smaller groups of participants.

A final analysis of the kinds and patterns of student participation among the various sizes of high schools is given by Table 8 where the correlations are shown for three kinds of student clubs and the enrollment of the high schools. Since participation in school clubs in all size-groups of schools was consistently high compared with other activity classifications, it its interesting to look at the nature of these clubs to see whether there is a relationship between the kinds of clubs in which students participate and the enrollment of the school.

Table 8 shows significant correlations for the total range of schools and for the schools with 600 or more students, respectively, at -.55 and -.48 for recreation and performance clubs; -.68 and -.49 for future occupation clubs. The academic clubs yielded no significant figure when correlated with size.

Graph 8 provides a different perspective for this relationship. Here schools are again shown by size-group. For the three basic subclassifications of high school clubs it is seen that a steady pattern of increased participation is suggested as smaller schools are measured. Again, this difference is greatest when comparing the smallest schools with the others, but it is noticeable between the medium-size and large schools as well.

It is seen that the recreation-performance clubs are the most popular at all size levels. The greatest difference between extent of participation exists in the figures shown for the future occupation clubs, however.

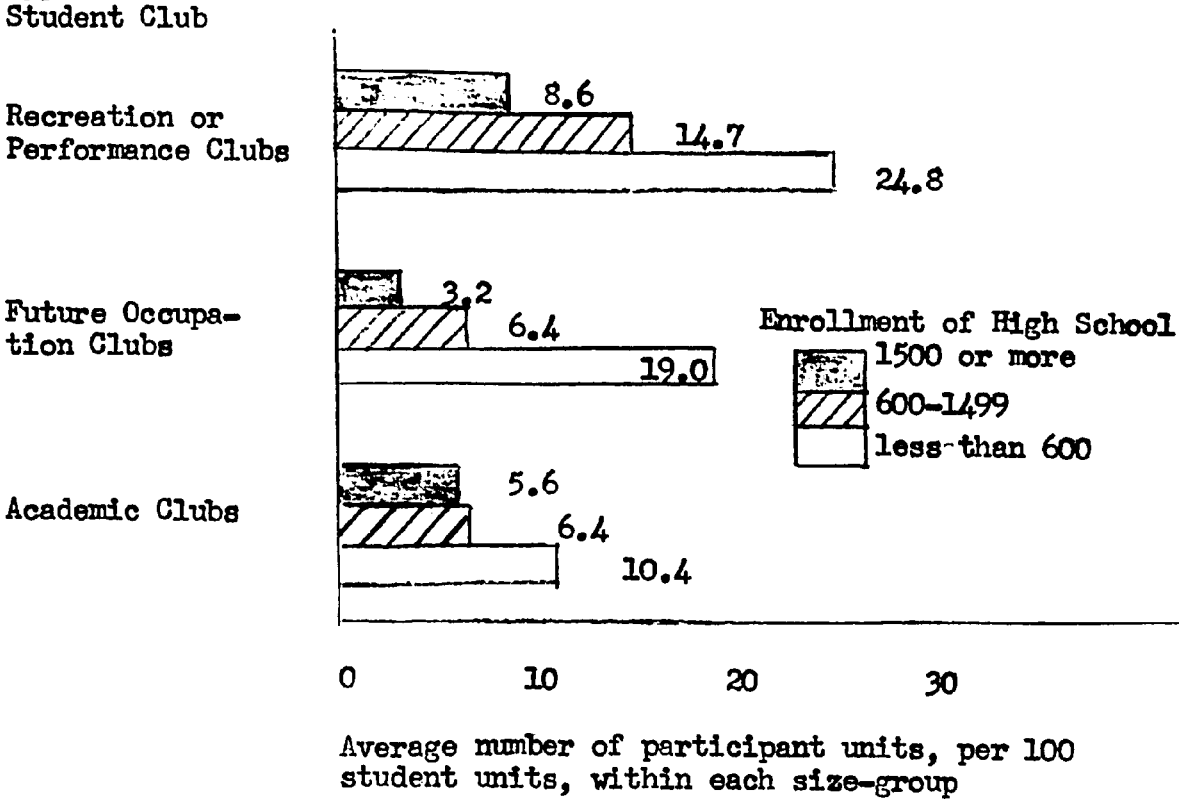
TABLE 8

CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND EXTENT OF STUDENT PARTICIPATION IN CLUB ACTIVITIES BY TYPE OF CLUB FOR TWO SIZE-GROUPS OF SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)

Type of Club	r	
	All Schools (N=63)	Schools of 600 or More (N=43)
Recreation or Performance	-.55	-.48
Future Occupation	-.68	-.49
Academic	-.26	-.09
r at 5% Level of Significance	-.30	-.38

GRAPH 8

EXTENT OF STUDENT PARTICIPATION IN CLUB ACTIVITIES BY TYPE OF CLUB FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



Number of Activities

Issue 5. -- What relationship, if any, exists between school size and the number of selected student activities per 100 students offered by the school?

The investigation into the actual number of activities existing within each high school in the sample provided this study with its only issue dealing with a student's opportunity to participate, as opposed to his actual participation. In short, this is the one phase of this research dealing with an attempt to correlate with size of school that which the student is given the chance to do instead of only that which he, in fact, does.

Correlations between high school enrollment and selected student activities per 100 students are uniformly strongly negative. Table 9 records negative correlations significant at the 5% level of error for all except the large size-group -- and that correlation (-.40) almost reaches the significant point. It is noted that when all schools of 600 or more students are considered the correlation is -.70. This is the strongest for the combined medium and large schools of any issue surveyed. The other correlations are -.73 for all schools, -.77 for small schools and -.57 for medium schools.

The strength of this relationship is evident in Scatter Diagram 7 where the pattern is that of the consistent down-and-to-the-right trend that marks the significant negative correlation. This is observable for all segments of the size range.

Graph 9 and its frequency distribution show that not one of the large schools included in the sample provided as many as 6 selected activities per 100 students. Except for 9% of the medium-size schools, this was also true for that group. However, 80% of the small schools

TABLE 9

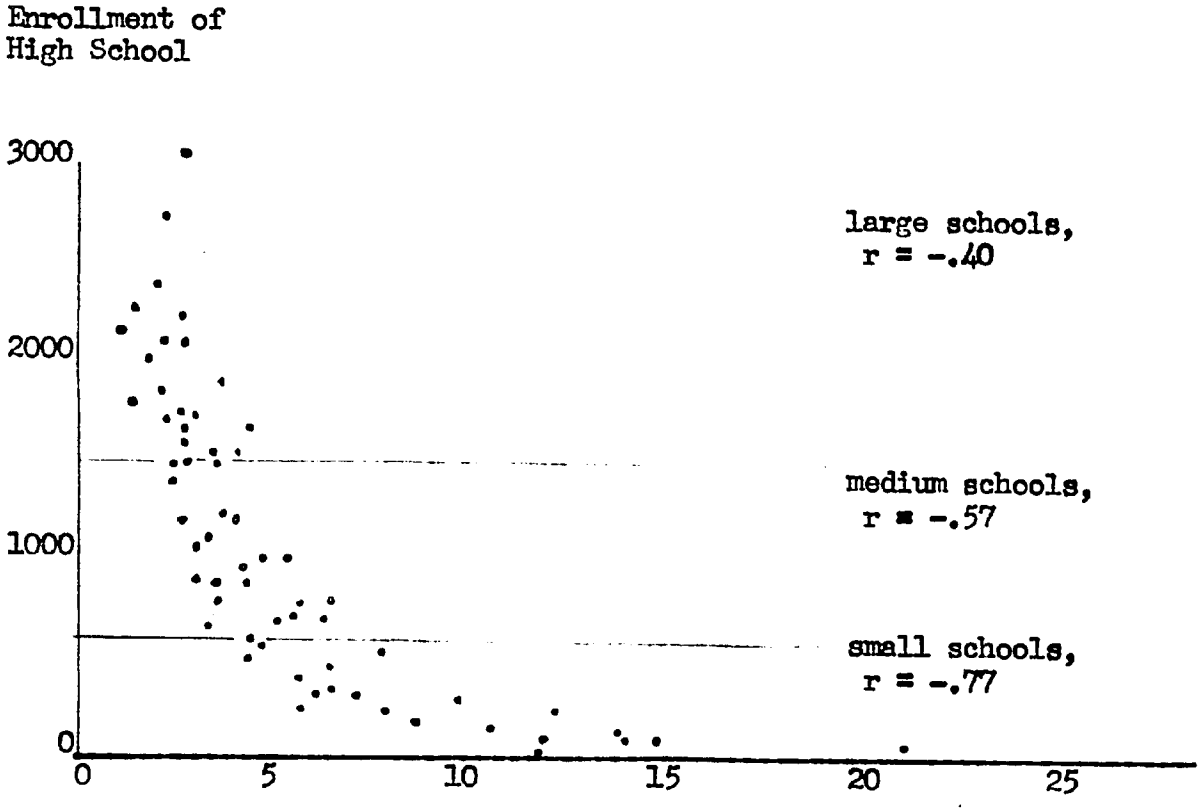
CORRELATIONS BETWEEN HIGH SCHOOL ENROLLMENT AND THE NUMBER OF SELECTED STUDENT ACTIVITIES OFFERED BY THE SCHOOL, BY SIZE-GROUP OF SCHOOL
(63 Public High Schools in Southern Michigan, 1961-62)

School Size-Group	N	r	r at 5% Level of Significance
Small (0-599)	20	-.77	-.47
Medium (600-1499)	22	-.57	-.42
Large (1500 up)	21	-.40	-.43
Medium and Large (600 up)	43	-.70	-.30
All Groups (0 up)	63	-.73	-.25

70

SCATTER DIAGRAM 7

ENROLLMENT AND THE PROPORTIONATE NUMBER OF SELECTED STUDENT ACTIVITIES OFFERED BY THE SCHOOL
(63 Public High Schools in Southern Michigan, 1961-62)

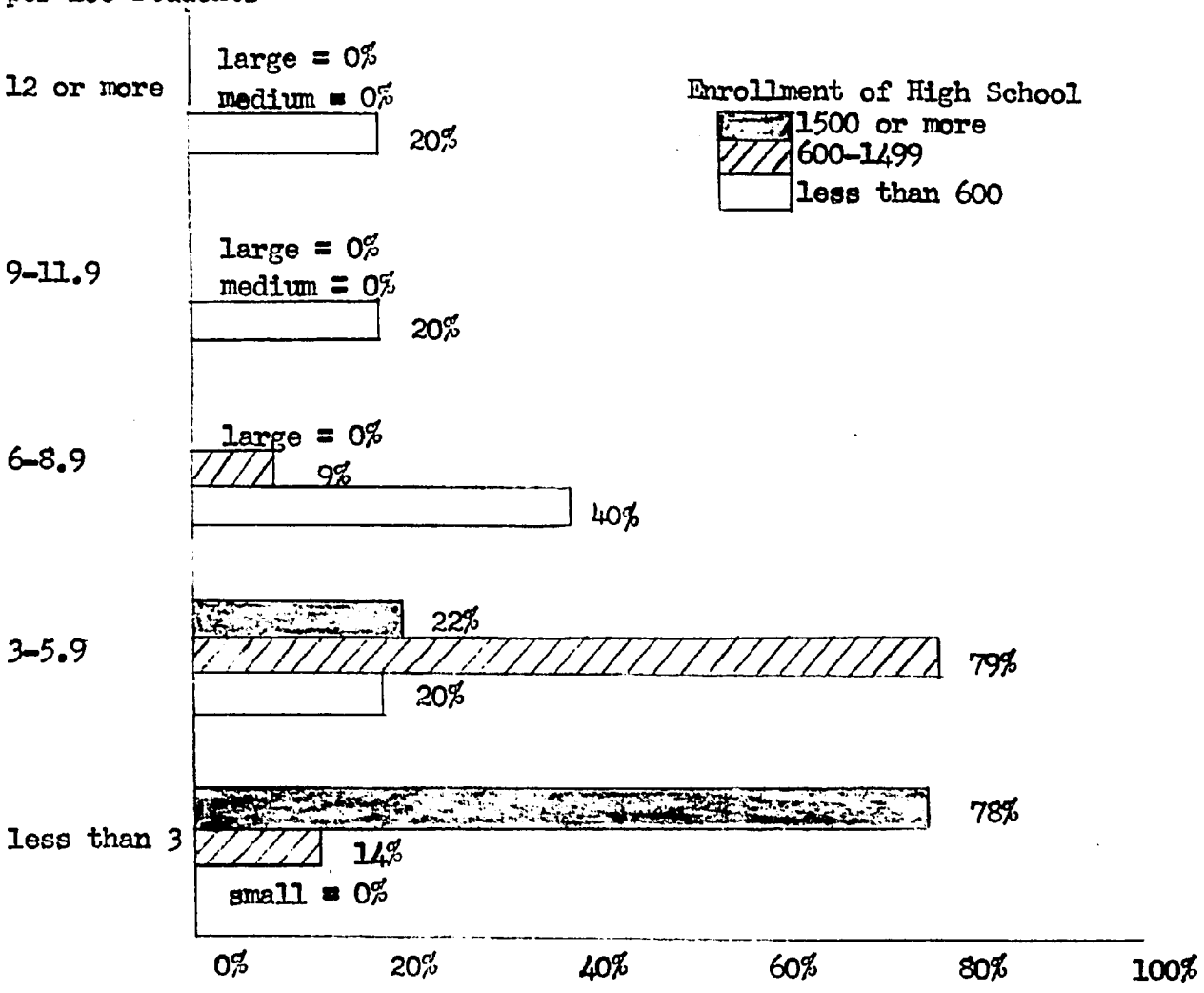


all schools, r = -.73

71

GRAPH 9

RELATIONSHIP BETWEEN NUMBER OF SELECTED ACTIVITIES OFFERED BY THE SCHOOL AND SIZE OF SCHOOL, FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



72

Frequency Distribution for Data in Graph 9

Number of Activities per 100 Students	Large		Medium		Small	
	N	%	N	%	N	%
12 and up	.	..	.	..	4	20
10.5-11.9	.	..	.	..	2	10
9.0-10.4	.	..	.	..	2	10
7.5-8.9	.	..	.	..	4	20
6.0-7.4	.	..	2	9	4	20
4.5-5.9	.	..	5	23	3	15
3.0-4.4	5	22	12	56	1	5
1.5-2.9	14	68	3	14	.	..
0-1.4	2	10	.	..	.	..
N	21		22		20	
Mean	2.6		4.1		9.2	

surveyed provided 6 or more activities per 100 students. This is interesting in view of the familiar belief that the larger schools provide much greater diversity in all phases of their program. The study found that there indeed were more activities in the larger schools, and they consequently covered a broader area of student interest, but their number did not compensate for the greater number of students they served. The frequency distribution indicates that the mean number of activities per 100 students was 2.6 in schools with enrollments of 1500 students or more, 4.1 in schools with enrollments ranging from 600-1500, and 9.2 in schools with fewer than 600 students.

Relationship of Total Student Participation, and Opportunity for Participation, to Participation in Individual Activities

As a supplement to the issues presented thus far, it was felt that an investigation into two other closely associated matters would be of value.

These subsequent issues are closely identified with the relationship between student participation and size but they do not deal directly with the implications of school size.

The first of these two matters is the relationship between a school's total student participation and its student participation in individual activities. In short, this was an effort to determine whether there were any particular aspects of the activity program which were consistently minimized in schools of high overall student participation.

Table 10 gives the correlations between these two factors. As would be expected for the complete range of high school sizes almost all of the activities selected were found to yield significant correlations for the sample group of 63 schools. The only exceptions were

74

TABLE 10

CORRELATIONS BETWEEN EXTENT OF TOTAL STUDENT PARTICIPATION IN SELECTED ACTIVITIES AND STUDENT PARTICIPATION IN INDIVIDUAL ACTIVITIES FOR TWO SIZE GROUPS OF SCHOOLS

(63 Public High Schools in Southern Michigan, 1961-62)

Activity, or Activity Group	r	
	All Schools (N=63)	Schools of 600 or More (N=43)
Music Group	.59	.69
Band- Orchestras	.66	.76
Athletic Group	.88	.74
Football Teams	.87	.62
Girls'Athletics	.29	.01
Student Government Group	.67	.19
Student Council	.75	.44
		.59
Publication Group	.81	.59
School Newspaper	.55	.47
Drama and Oratory Group	.59	.56
School Plays	.56	.43
Service Committee Group	.36	.49
Library Aides	.46	.19
Club Group	.82	.85
Recreation- Performance	.67	.70
Future Occupation	.73	.52
Future Teachers Club	.67	.52
Academic	.36	.49
French Club	.15	.22
r at 5% Level of Significance	.30	.38

TABLE 11

CORRELATIONS BETWEEN NUMBER OF SELECTED ACTIVITIES OFFERED BY HIGH SCHOOLS AND STUDENT PARTICIPATION IN INDIVIDUAL ACTIVITIES FOR TWO SIZE GROUPS OF SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)

Activity, or Activity Group	r	
	All Schools (N=63)	Schools of 600 or More (N=43)
Music Group	.41	.51
Band- Orchestras	.50	.66
Athletic Group	.94	.73
Football Teams	.84	.75
Girl's Athletics	.28	-.02
Student Government Group	.80	.23
Student Council	.75	.31
Publication Group	.83	.61
School Newspaper	.51	.45
Drama and Oratory Group	.63	.64
School Plays	.69	.53
Service Committee Group	.19	.18
Library Aides	.39	.24
Club Group	.61	.73
Recreation- Performance	.46	.68
Future Occupation	.66	.69
Future Teachers Club	.63	.38
Academic	.17	.36
French Club	.04	.21
Total Student Participation	.91	.81
r at 5% Level of Significance	.30	.38

French clubs and girls' athletics. For the 43 schools with enrollment of 600 or more students it is seen that the student government activity classification and the library aide groups were added to the exceptions noted previously.

The second of these subsequent issues is the relationship between the number of activities included in a school's extracurricular program and that school's student participation in individual activities. This was considered worthwhile in that it attempts to relate the total opportunity for participation within a school to the student's participation in the various activities.

Again the relationship was expected to be close. Table 11 shows how close it actually was for the 63 schools in the sample. For only four activity factors did participation fail to correlate significantly with the total number of activities offered by the schools: the service committees and the academic clubs as collective activity classifications, and girls' athletics and French clubs as individual activities.

When the more restrictive range of school sizes (medium and large only) is considered, more factors show insignificant correlations. In addition to the four listed as exceptions for the total range of schools, participation in the student government classifications, in the student council, and as library aides failed to correlate significantly with the number of activities offered for high schools of 600 or more students.

Summary of Student Participation Factors in Relation to Size of the School

Table 12 is provided as a conclusion to this report of the findings of the investigation. It incorporates into one table all the means computed for the various issues discussed in this chapter. From this

77

TABLE 12

AVERAGE PARTICIPATION IN SELECTED STUDENT ACTIVITIES, BY SIZE-GROUP OF HIGH SCHOOL
(63 Public High Schools in Southern Michigan, 1961-62)

Factor	Per 100 Students				
	Small 0-599 (N=20)	Medium 600-1499 (N=22)	Large 1500 up (N=21)	Medium & Large (N=43)	All (N=63)
No. of Activities Partic. In					
0	16.9	30.9	32.8	31.8	26.2
1 or 2	39.7	32.0	32.0	32.0	34.9
3, 4 or 5	36.0	26.9	27.4	27.1	30.4
6 or More	7.9	10.9	7.7	9.4	8.9
Activity Groups					
Music	25.2	19.3	13.8	16.6	19.4
Athletics	50.2	18.5	13.3	15.9	26.8
Student Government	12.0	6.2	5.4	5.8	7.8
Publications	9.8	4.2	2.9	3.6	5.6
Dramatics and Oratory	8.3	5.7	3.4	4.5	5.7
Service Committees	14.1	11.4	10.9	11.2	12.1
Clubs	55.1	26.7	17.9	22.4	32.8
Typical Activities					
Band- Orchestras	13.6	7.8	5.2	6.5	8.8
Football Teams	15.3	6.0	3.8	4.9	8.2
Girls' Athletics	4.8	.8	1.2	1.0	2.2
Student Council	6.2	3.3	2.6	3.0	4.0
School Newspaper	4.6	1.6	1.5	1.6	2.5
School Plays	6.7	2.4	1.7	2.0	3.5
Library Aides	3.0	.9	.6	.8	1.5
Future Teachers Club	5.8	2.5	1.4	2.0	3.2
French Clubs	2.6	1.3	1.3	1.3	1.7
Types of Clubs					
Recreation- Performance	24.8	14.7	8.6	11.7	15.9
Future Occupation	19.0	6.4	3.2	4.8	9.3
Academic	10.4	6.4	5.9	6.1	7.5
Participant Units	175.8	90.3	67.4	79.1	109.8
External Participant Units	25.4	10.0	7.1	8.6	13.9
Leadership Units	87.3	46.1	31.5	39.0	54.3
Number of Activities	9.2	4.1	2.6	3.4	5.2
Average Enrollment	286	986	1971	1467	1092

perspective comparisons of schools of various sizes may be made conveniently for the selected activities used in this study.

Chapter V

CONCLUSIONS SUGGESTED BY THE RESEARCH

Objectives of the Study

As a preface to the remarks made in this chapter it must be reiterated that the aspect of the school's effect on its students that is dealt with in this investigation is only one of many possible aspects. It is widely recognized that the school's greatest effect on its students is in the area of its formal curriculum. Beyond this relatively secure assumption the observer can conjecture that several other influences are at work. These could include such factors as the kind of teachers who staff the school, the physical facilities provided by the school, the relative wealth of the community which supports the school financially, and the distance the school is located from the student body. The possibilities here are limitless. Several, however, appear to be more likely than others, and those would seem more worthwhile as subjects of research.

It was stated in Chapter II that the question of the merit of student activities compared with other elements in the total educational program would be set aside for the purposes of this investigation -- that it would simply be assumed that these activities have some value and therefore are worthy of inquiry. The value of these activities relative to the rest of the total program has not been explored in any depth and, though the time has been reached where there perhaps should be greater attention to these values, this study makes no attempt in that direction.

What this study has attempted to do is to select one probable influence of a school on its students and determine whether that influence is related in any way to differences in enrollment.

The statement of the problem in Chapter I could have been restated: "Knowing that a high school's curricular program increases to a point as the school's enrollment grows larger, what happens to student participation in school activities?" Since there is an undefined point as enrollments increase (probably from 600 to 1500) where curriculum offerings tend no longer to increase, it is sensible that we examine some other aspects of the high school's influence on its students in relation to its size. This work attempts to do this for one selected aspect.

Conclusions

These statements are arranged in accordance with the original order of issues proposed for the study. They therefore follow the sequence used in Chapter IV where the findings were outlined and illustrated.

1. The extent of total student participation was shown to bear a strongly negative correlation to school size. The schools sampled from Southern Michigan were found to have less overall student participation as they became larger.

This general statement applies when the complete size range of schools is computed for correlations; it also holds true when the size range of schools is restricted to schools with 600 or more students. When the correlation was computed separately for schools of 1500 or more students the lack of relationship which resulted caused doubt that

there are systematic differences in student participation within this size group. Since a steady drop in participation is shown up to 1500 students, the size factor may cease to inhibit youths' participation in the activities of high schools with very high enrollment (above 1500). However, the strong trend of reduced participation in the middle group of schools seems to be so conclusive that it suggests that the mere continuance of the participation ratios that exist in schools just under 1500 students to those above that figure is the continuation of a markedly low level.

The data pertaining to this issue were critical to the objectives of this study. The presence or absence of a pattern of overall participation found in the high schools surveyed was to have been a basic finding. It is felt that the finding of this pattern, and the results of tracing it, have shown that there is less total participation in activities by the students of a high school as the school grows from small (87-599 students) through medium (600-1499 students); and the results further show that when enrollments reach the lower limit of the large schools (1500 and upward) average total participation is so low (less than one-half a participant unit per student) as to suffer no further reduction.

2. The relationship between the proportion of individual students who participate in school activities and the size of the high school was found to be high and inverse for schools with enrollments less than 600, and low and inverse for schools with enrollments of more than 600.

As the small school approaches medium size the study revealed a sharp drop in the proportion of high school students engaged in at

least one activity, with no further strong systematic increase in non-participation through the medium size range. It can only be concluded that this factor is meaningful in differentiating between a small school's and a large school's effect on a child's participation and that the bulk of the relationship between size and non-participation occurs even before an enrollment of 600 is reached.

3. In measuring the relationship between school size and the number of students who are very active in school activities, several interesting facts emerged from the sample.

For the total range of schools surveyed it was found that the smaller schools had relatively more students participating in 1 or 2 activities and more in 3, 4 or 5 activities than the larger schools. The negative correlation between size of school and number of students participating in 1 or 2 activities was strong enough to be statistically significant for the total range of schools considered. When looking at the proportion of students participating in 6 or more activities, however, there is a noteworthy lack of any relationship with size of school: there are roughly as many of these extremely active students in the large schools as the small ones. It was further found that there is even less of a relationship between school size and very active (6 or more activities) students when the restricted range of medium and large schools are considered collectively.

The significant and negative relationship between high school size and student participation in 1 or 2 activities together with the lack of relationship for more active participation suggests that the small school provides for more students in extracurricular activities without any greater hazard of overinvolvement than that existing in the large schools.

4. The findings support a strong inverse relationship between school size and the total number of leadership roles available to students. A high negative correlation was found for these factors when the total range of school sizes was used, as well as when only the medium-size and large schools were considered.

The fact that the average middle-size school in the sample had 10 student leaders per 100 students whereas the average large school had but 7.1 indicates a 40% gain for the medium-enrollment school. Contrasted with the 25.4 student leaders per 100 students for the small schools, the difference in the various sized schools' influence on leadership potential is noteworthy.

The consistently significant correlation figures for leadership and size factors give support to one of the most conclusive findings of the study; student leaders were found to be less and less prevalent as schools of the sample grew larger. Furthermore, the noteworthy distinction of the so-called small schools in these measures draws particular attention to the operation of the factors of the study within the less-than-600 enrollment range.

5. The relationship between the size of the high school and the extent of student participation in activities performed before the general public (external activities) was strongly inverse.

The findings for this issue were represented by correlations that were significantly negative for most size groupings of the schools in the sample. The only exceptions were the medium group and large group when each was considered individually. However, when these two groups were considered together (all schools of 600 students or more), their sizes correlated significantly negative with the extent of external student activity participation.

The -.74 correlation of size with external participatinn for all the schools in the sample was also one of the most conclusive of the study. This relationship was found to exist in varying degrees throughout the range of high school sizes, the closest relationship existing within the schools of the small size-group.

6. Proportionately, the larger the high school gets, the less students tend to participate in clubs, athletics, and school publications. The size of the high school, however, appears to have little influence on the students' participation in service committees and student government functions.

The differences for student participation in five classifications of student activities are significant between the various sizes of schools for both the total size range of the sample and the restricted (600 students or more) size range of medium and large schools. Besides athletics and school publications, an inverse relationship with size was observed for music, publications, clubs and dramatic activities.

Clubs and athletics showed the greatest student participation of all the classifications surveyed, and these two groups of activities also yielded the highest negative correlations for extent of participation and size of the high school. It is interesting to note that the small schools in the sample averaged 55 and 50 participant units per 100 students in clubs and athletics, respectively, while the large schools averaged 18 and 13 for the same activity classifications.

The correlations computed for extent of student participation in the five previously mentioned activity classifications and size of the high school were almost as significant for the schools surveyed with 600 or more students as for the total sample. Again the situation is that

of very high correlations for the total sample, and moderately high correlations for the upper two size-groups collectively; the figures being significant in both cases.

7. The football teams and the bands and orchestras of the high schools investigated were the specific student activities which bore the greatest inverse relationship to enrollment. French clubs and girls' athletics bore the least relationship.

Of the nine specific student activities for which intercorrelations with high school size were computed, all except the latter two mentioned above carried a significant negative correlation when the total sample was used. On the other hand, when only the schools of medium and large sizes were considered, the football teams and bands-orchestras were the only classifications yielding significant correlations.

8. When school clubs in the sampled schools were divided into three basic types, those devoted to recreation-performance and future occupation purposes carried a marked negative correlation with high school size, while those clubs of an academic nature were found not to relate as significantly to size. These statements are true for both ranges of size discussed above: the total range of schools, and those schools with enrollment of 600 or more students.

For the three categories of high school clubs a steady pattern of increased participation is evident as schools of less enrollment are considered.

Clubs, in general, were observed previously to be the most popular with the students compared with all other activity classifications. When comparing types of clubs the results of this study indicates that

the recreation-or-performance group of clubs enjoyed the most extensive participation.

9. Proportionately, a greater number of activities are available to the students of smaller high schools.

A distinct difference in total number of activities per 100 students was observed between the small and medium-size schools. These differences are apparent within the various sizes of schools of each of the three enrollment groups as well.

When all high schools of 600 students or more were considered the correlation between proportionate number of activities and size of the school was found to be -.70. (The minimum significant correlation at the 5% level of error was $\pm$.30.) This relationship was just as marked for the combined medium and large high schools as it was for the small schools.

Because of the nature of this issue and the strength of these findings it can be said with firmness that the opportunity to participate in a number of activities in terms of the number of competing students becomes less as the high school grows larger. This statement is almost as true for high schools as they grow beyond 600 and 1500 students as for schools approaching 600 students.

10. When the extent of student participation in all activities was correlated with the extent of student participation in particular activities it was found that participation in French clubs, girls' athletics, student government, and library aide groups were the only areas of low correlation.

Participation in the two former activities did not relate to total participation over the entire span of the 63 schools surveyed,

while participation in the latter two activities did not relate to total participation for the 43 schools that comprised the medium and large schools in the sample.

Participation in these activities was not found to exist to the same extent that total participation in all activities existed for a given school. For unknown reasons they appeared as atypical activities, often strong where all others were weak, and weak where all others were strong.

11. Participation in four particular activity classifications did not correlate significantly with the proportionate number of activities offered by the schools surveyed. These were service committees and academic clubs, as collective activity classifications, and girls' athletics and French clubs. Schools that offered a greater proportionate number of activities did not consistently show high relative student participation in those four activities.

All the other activity classifications and units were found to have student participation in high relationship to the relative number of activities within the school.

12. Student activity participation in the large schools compared with smaller schools was seen to differ qualitatively as well as quantitatively. Several interesting deviations from the decreasing participation pattern emerged among the activities evident in the large high schools. Academic clubs, for instance, were found in many cases to be more popular in the large schools than the smaller ones; this in spite of the fact that proportionate participation in all other clubs showed a noticeable decline as the larger high schools were considered.

Service committees and girls' athletics also showed considerable strength in larger high schools where other activity participation factors were declining.

13. In terms of average student participation in particular activities throughout the size ranges of high schools sampled, clubs and athletics, in that order, were found to be the most popular. Music activities ranked third. An average of one out of three to one out of five students were found participating in these areas. Student government, publications and dramatics-oratory groups were major areas of least student participation, about one student in twenty participating in each.

Summary

The findings of this investigation of 63 representative schools established that most aspects of student participation in the selected activities exist in greater measure as smaller high schools are considered.

As was detailed in Chapter III several correlation runs were made on the computer so as to provide figures for the several ranges of school size used in the study. Through these measures of relationship a variety of conclusions were inferred.

The results showed that the fall-off in participation was consistently greater when small schools grew larger than when large schools grew larger. This study noted an overwhelming advantage for the smallest schools in terms of student activities. It is generally agreed that the small high schools more often than not suffer inherently from a

less adequate educational program. Any advantages the small school enjoys beyond this basic shortcoming may possibly be beside the point -- under the present organization of educational offerings in most American public schools the small school has trouble compensating for the lack of educational opportunity commonly caused by its smallness.

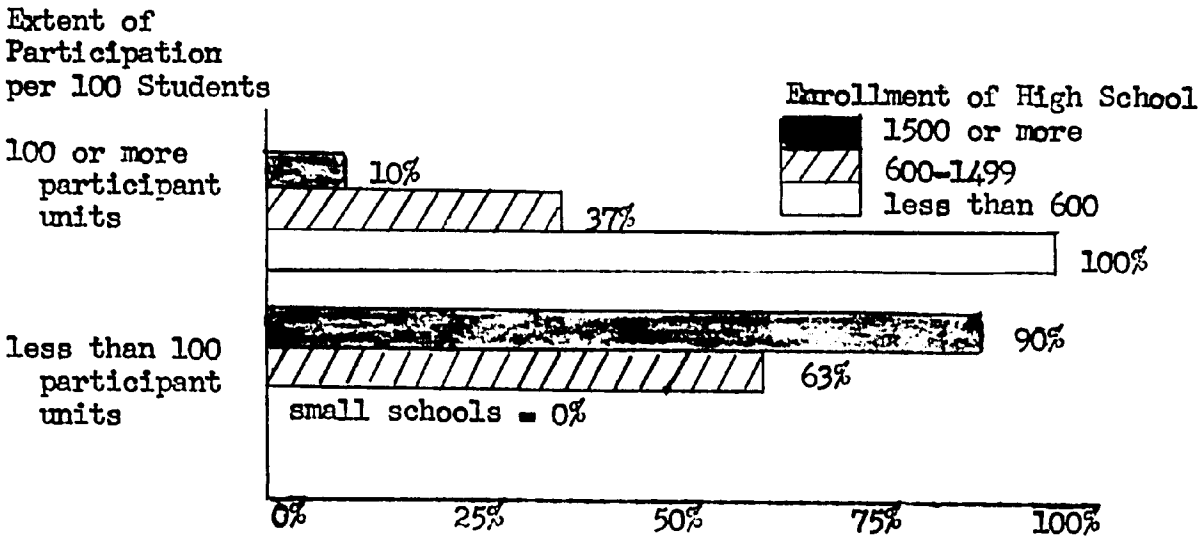
The useful findings of this work may be those which center upon the medium-size and large schools. Many of the meaningful differences in extent of participation between these larger schools tend to be obscured by the vast differences on the same factors seen among the small schools. For the 43 high schools with 600 or more students that were included in the sample there was little doubt that the activities selected for study were participated in less and less as the schools became larger despite the fact that the 20 small schools showed stronger correlations. After the 1500 student enrollment mark was reached these measurements of relationship became more indistinct, but they generally continued to show a downward trend in student activity.

On the other hand, the dramatic relationships found within the range of small schools, between participation factors and size, suggest that the most useful result of this investigation may be to refocus attention upon some advantages of at least moderately small high schools. Whereas this study was designed to give particular attention to the combined ranges of medium and large schools, it now appears that particular attention to the combined ranges of small and medium schools, and to subranges within the small-school category, should be undertaken.

Graph 10 and 11 summarize some of the most important data appear- in Chapter IV. These reflect the general differences between the size-groups of schools for extent of participation and extent of leadership, and indicate the pattern which was predominant throughout the other issues.

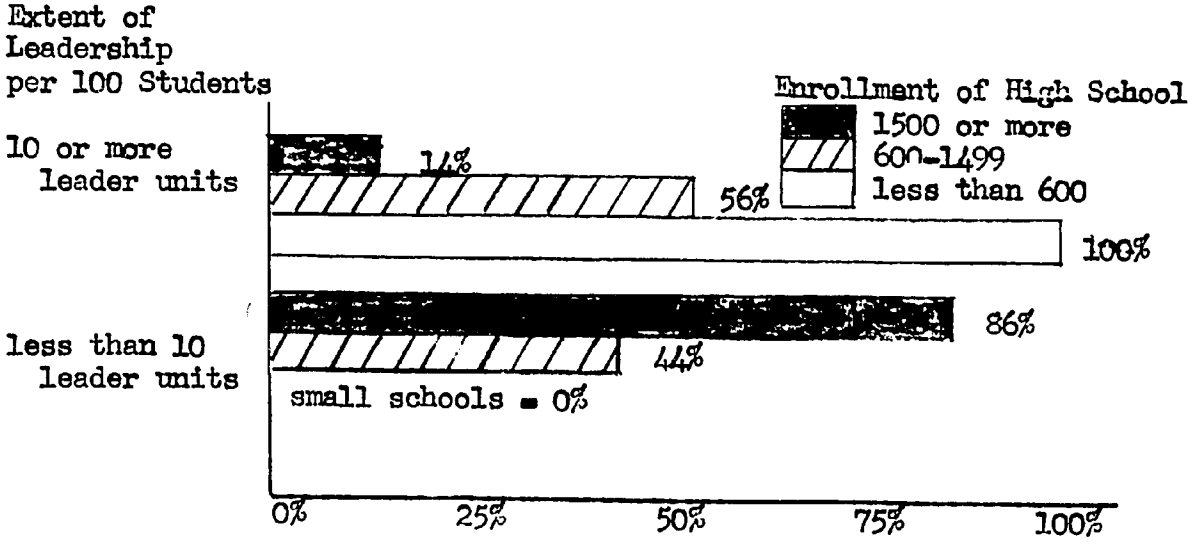
GRAPH 10

SUMMARY OF EXTENT OF TOTAL STUDENT PARTICIPATION IN SELECTED ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



GRAPH 11

SUMMARY OF STUDENT LEADERSHIP IN SELECTED ACTIVITIES FOR THREE SIZE-GROUPS OF HIGH SCHOOLS
(63 Public High Schools in Southern Michigan, 1961-62)



No point on the enrollment scale was located at which it could be said that a sharp break in student participation exists. Rather, a steady decline was traced for most of the factors measured as the larger high schools were investigated. In most cases participation had neared its lowest point by the time the 1500-student level was reached, and from then on the factor showed less rapid change.

To generalize as broadly as possible, it can be said from the findings of this study that the level of student participation in activities shows a sharp decline with growth in schools with enrollments below 600 students, shows a gradual decline with growth in schools with enrollments between 600 and 1500, and is relatively constant at a low level in high schools with enrollments from 1500 students up.

How low the educational administrator can allow the student participation level to fall before he decides that the total educational program has been unduly weakened is a matter of values which this research does not answer. This is not to say that other available research or further research into high school size may not be able to provide the answer.

As was stated earlier, the area of student activities is just one of several influences that the school directs toward the child. This research probing student activity participation is only one of many studies which must be used before an approximation of ideal high school size can be made.

Questions for Further Research

Several questions, generated by this research, are listed below for the purpose of pointing out unexplored areas which may bear upon the findings that were reported here. Because no single research effort directed toward student activity participation is likely to be conclusive

in its implications, these questions are suggested. They are related to the possibility of more positive identification of the relationship between size of high school and student activity participation. This is only a partial listing, but it is felt that these indicate particularly significant problems.

1. How much of an influence do community youth activities (YMCA, Boy Scouts, Girl Scouts, City Recreation Departments, etc.) have upon the degree of participation in a high school student activity program? An answer to this would measure the effect the civic responsibilities of communities have upon their schools' activity programs.
2. In terms of actual time spent, what is the students' committment to the activity program in the various sized high schools? This would be a more intensive analysis of student involvement in the school's activity program, and could, perhaps, employ a smaller sample than that used in this study.
3. What effect upon the outside employment of students does the size of the community have? It is recognized that as the proportion of students holding jobs is greater, the proportion of total student participation in school activities is less. This factor may relate to school size indirectly, through the size of the community and the job opportunities thereby.
4. What is the effect of the proportion of students who are bused to school each day upon student activity participation? This question is worthwhile because of the possibility that transportation availability would effect participation in activities that meet after regular school hours.

5. What is the relationship, if any, between numbers or types of extracurricular activities, connected or not connected with school, and such indices of later success in life as income, socially useful occupations and avoidance of delinquent behavior? Research into the implications of this question would shed light on the importance, or lack of importance, of student activities themselves within the modern high school.

APPENDIX I — PARTICIPATION INVENTORY SHEETS

SCHOOL _____

Grades ____
Enrollment ____

10-12 Enrollment ____
12 Enrollment ____

MUSIC

	part.	lead.
Band — Concert	____	
Band — General	____	
Band	____	
Orchestra	____	
	____	
Chorus — A Cappella	____	
Chorus — Male	____	
Chorus — Girls	____	
Chorus — Mixed	____	
Chorus — General	____	
Chorus	____	
	____	
	____	
	____	____

Totals =
No. Activities =
External Units =

GOVERNMENT

	part.	lead.
Student Council	____	
subordinate group	____	
Class Councils	____	
freshman	____	
sophomore	____	
junior	____	
senior	____	
Class Officers	____	
	____	
	____	
	____	____

Totals =
No. Activities =
External Units =

ATHLETICS

Football	____
J.V.	____
other	____
Cross-Country	____
Basketball	____
J.V.	____
other	____
Wrestling	____
J.V.	____
Swimming	____
Gymnastics	____
Hockey	____
Baseball	____
J.V.	____
Track	____
Golf	____
Tennis	____
	____
	____
	____
	____ ____

Totals =
No. Activities =
External Units =

PUBLICATIONS

Newspaper	____	
subordinate group	____	
Yearbook	____	
Creative Writing	____	
Quill & Scroll	____	
	____	
	____	
	____	____

Totals =
No. Activities =
External Units =

DRAMA & ORATORY

Drama Group	____
Oratory	____
Forensics	____
Play I	____
Play II	____
Debate	____
	____ ____

Totals =
No. Activities =
External Units =

APPENDIX I (Continued)

SERVICE COMMITTEES

	part.	lead.
Audio-Visual		
Stage Crew		
Usher Club		
Gym Leaders		
Intramurals		
Jr. Red Cross		
Sr. Trip		
Dances		
Nat'l Honor Soc.		
Hi-Y		
Key Club		
Hostess		
Library		
Totals =		
No. Activities =		
External Units =		

CLUBS

Recreation or Performance	
Varsity	
Girls' Ath. Ass'n.	
Cheerleaders	
J.V.	
Pep Club	
Synchron. Swim	
Modern Dance	
Chess or Bridge	
Photo	
Future Occupation	
Homemakers	
Teachers	
Farmers	
Nurses	

CLUBS (Cont.)

	part.	lead.
Academic		
French		
Science		
Literary		
Latin		
Totals =		
No. Activities =		
External Units =		

INDIVIDUALS

	No.	per 100
0 Activities		
1 Activity		
2 Activities		
3 "		
4 "		
5 "		
6 "		
7 " or more		
Totals =		

SUMMARY

	No.	per 100
Student Pop.		
Partic. Units		
Extern. Part. Units		
Leader. Units		
No. Activities		
Activity Class.		
Music		
Athletics		
Government		
Publications		
Drama & Oratory		
Service Comms.		
Clubs		

APPENDIX II

Enrollments of Southern Michigan High Schools Selected for Sample, Grades 10-12, 1961-62

Size Rank in Sample	Enrollment	Size Rank in Sample	Enrollment
1.	3063	33.	935
2.	2767	34.	911
3.	2401	35.	888
4.	2306	36.	818
5.	2222	37.	805
6.	2164	38.	787
7.	2096	39.	756
8.	2081	40.	719
9.	1982	41.	690
10.	1934	42.	637
11.	1862	43.	618
12.	1809	44.	584
13.	1753	45.	555
14.	1741	46.	507
15.	1731	47.	454
16.	1654	48.	392
17.	1636	49.	360
18.	1589	50.	338
19.	1544	51.	315
20.	1535	52.	297
21.	1518	53.	253
22.	1492	54.	241
23.	1432	55.	224
24.	1382	56.	212
25.	1226	57.	191
26.	1190	58.	180
27.	1178	59.	143
28.	1093	60.	139
29.	1065	61.	125
30.	1024	62.	105
31.	1007	63.	87
32.	984		

APPENDIX III

LETTER TO PRINCIPALS

John Smith, Principal
Centerville High School
Centerville, Michigan

May 14, 1963

Dear Mr. Smith,

Your high school has appeared in a scientifically drawn sample as one of 66 schools to represent all high schools in the south part of Michigan (below Bay City), for a study of school size in relation to extra-curricular activities. We are using student yearbooks for the study and are asking the schools involved for one of their 1961-62 copies. Would it be possible for your office to forward to my address -- on a loan basis -- a copy of your last year's yearbook? We would very much appreciate your cooperation and assure you that your school's yearbook will be returned, unmarked, by the end of this summer.

I am conducting this study for a doctoral dissertation at the University of Michigan. Professor of Educational Administration Dan H. Cooper is serving as consultant, and Professors Kent Leach of the Bureau of School Services, Johan Eliot of the School of Health, Ralph Wenrich of the School of Education and M. Clemens Johnson of the Computing Center are assisting.

Thank you very much for your consideration of this request. Eventually, we hope to have a published report on this study which may be useful to you in considering what size of school is preferable. The study is not an evaluative study of individual schools, and in any case your school will not be identified by name in the dissertation or in any published manner.

Yours very truly,

Erwin John Kleinert, Jr.
2747 Manchester Road
Ann Arbor, Michigan

Letter Approved: Dan H. Cooper

APPENDIX IV

Schools and Staff Members Interviewed for Validation of Data

Francis Cappaert, Assistant Principal, Romulus High School

Donald McEwen, Class Adviser, Ann Arbor High School

Mary Schwartz, Yearbook Adviser, Garden City High School

Donald Brazee, Assistant Principal, Tecumseh High School

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