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Large School, Small Schoo: The Relationship Between a College Student's High School Size and His Non Class College Activities

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LARGE SCHOOL, SMALL SCHOOL: THE RELATIONSHIP BETWEEN A COLLEGE STUDENT'S HIGH SCHOOL SIZE AND HIS NON CLASS COLLEGE ACTIVITIES

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This thesis submitted by John A. Call in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

Past research indicates that the number of students in a high school is related to the students' behaviors and subjective experiences. Students of small schools, vis-a-vis students of large schools, (1) enter more different kinds of activities, (2) hold more responsible positions, and (3) experience more satisfactions in connection with their nonclass activities. Thus, the question was raised whether or not this higher rate of high school nonacademic achievement among students from small high schools had any more or less permanent effects on the student's college nonclass activities.

The Non Class College Setting (NCCS) Questionnaire was devised and administered to 130 subjects. Ninety-seven subjects were eventually selected as the sample, the screening criteria being marital status, residence at school, and location of high school.

The results of the study indicated that college students from small high schools (1) participate more often in nonclass college activities, (2) hold more responsible positions in their activities, (3) spend more time in these activities, and (4) participate in activities that have fewer total active members than do college students from large high schools. These findings demonstrate that the student's high school environment is related to his future behavior

in college nonclass settings, thus displaying an instance of how the environment interacts with human behavior.

INTRODUCTION

The question of the influence of the environment in what persons could or would do has led to investigation of what persons actually have done in certain environmental circumstances. The first major investigator was Kurt Lewin, who believed that there was only one correct approach to the study of culture, group life, and the resultant ecological situations - the Field Approach (Lewin, 1936). He felt that any scientific prediction or advice for change should be based on an analysis of the 'field as a whole' including both its psychological and non-psychological aspects. Although psychologists might know how people behave under the conditions of experiments and clinical procedures, they know little of the actual occurrence of behaviors outside of laboratories and clinics. Moreover, this lack of ecological data has in all likelihood limited the knowledge of behavior. One might have thought that psychologists would have become informed about the ecological environment in the course of their study of the context of behavior, but this has not been the case. Researchers seem to have attended almost exclusively to those elements of the environment that are useful in probing the behavior - relevant circuitry within laboratory subjects. However, current research, specifically that of Barker and Wright involving the ecological

habitat of the Midwest child, indicates that if we look at the environment of behavior as a phenomenon worthy of investigation for itself, and not as an instrument for unraveling the behavior-relevant programming within persons, we are better able to understand human action (Barker, 1963).

Psychological Ecology, as Lewin termed it, or Ecological Psychology is a relatively new development. Perhaps the most notable researchers today are connected with the Midwest Psychological Field Station. For more than two decades Roger Barker and Herbert Wright and their associates have been concerned with the habitat, related structural properties, and context of the behavior of the Midwest child. The initial problem facing these psychologists, in the early 1950's, was the means by which psychology could handle non-psychological inputs. This was solved by the introduction of the concept of behavior settings. Barker and Wright define this concept by identifying two components universal for each and every behavior setting. The first is the lasting, stable part of the physical and/or social milieu of a community, such as a playground or a boy scout troop. This factor provides the stage for the second element - the attached standing pattern of human behavior, or, in terms of our examples, the observed behavior of children playing and using the playground equipment, or the observed interaction of the members of the boy scout troop. The physical and social milieu invariably have the distinguishing attributes of time, place, things, and inhabitants that fit the behavior patterns and

supply them with behavior supports. This means that at different times there will be different individuals participating in both playground and scouting activity, however, generally this will in no way change the overall setting or the observed behaviors. In consequence the behavior setting stays fundamentally the same as different individuals enter and leave (Barker and Wright, 1967).

The researchers at the Field Station have had access to phenomena unaltered by the selection and preparation that occurs in laboratories. Their primary interest has been in the Midwest child, and one of their chief focuses of attention has been the relationship between the school and the child. They have emphasized the school setting, being initially concerned with discovering behavior settings relevant to the school situation, and later becoming interested in the relationship between school behavior settings and school size.

In this latter research they were interested in number of behavior settings, number of active members in each setting, and the feelings reported by setting members in regards to their setting experiences. The principle findings reported were (1) the differences in number of behavior settings between large and small schools is almost nonexistent, (2) since small schools have approximately the same number of settings as large schools, all requiring a basic number of functionaries, students of small schools are more often found not only participating in a greater number of settings than large school students but are also found to be in positions of greater involve-

ment or penetration, and (3) students having deeper penetration report greater satisfaction from this participation (Barker, 1963).

Thus the environmental context does seem to influence behavior. However do the different qualities of the environment produce any lasting effect on the subsequent behaviors of individuals? Do, for example, college students from small high schools seek out in college undermanned nonclass environments, such as they found in high school, resulting in their holding more central positions and having more active participation than do college students from large high schools who have not experienced such satisfaction and therefore may not have developed such needs?

Review of the Literature

The best introduction to the area of school behavior settings requires a description of the early work done at the Midwest Psychological Field Station. The primary problem was threefold: to record the stream of behavior, to divide it into units, and to analyze the units one by one. The initial experiments to describe the behavior settings found in the school situation involved the recording of behavior settings of several eastern Kansas high schools. Research emphasized the relationship of size of institution both to the number of behavior settings and to the scope of athletic and academic behavior settings.

Large schools were found to have more behavior settings than small schools but this increased number of settings of the larger schools was

not proportional to their increased number of students. Larger schools had a greater average density of students per behavior setting than smaller schools and they had a greater average number of students per setting. There was more variety in behavior settings in the larger schools, but, again, less than would be expected on the basis of population size alone. The schools did not differ much in terms of numbers and kinds of athletic and academic settings, but did differ in terms of numbers of pupils per setting. In other words, the smaller schools managed to sustain a large proportion of the types of offerings provided by the larger schools, but with proportionally fewer students.

In subsequent research similarities and differences in large and small schools were described: the richness of nonclass offerings, the extent to which such offerings were actually used by students, and the quality of participation in these nonclass settings. Nonclass settings were selected because the field methods could use the free decisions of students to enter or not, and to participate or not, in any behavior setting (Barker and Gump, 1964).

In five schools (one large and four small) high school juniors were asked to describe the settings they had entered during a given time. The degree of importance and the centrality of the student's position in that setting was determined.

It was found (again) that availability of extracurricular activities did not differ as much between large and small schools as enrollment figures might suggest. The large school in Barker and Gump's study

had 35 times as many juniors as the average of the small schools, but only four times as many nonacademic activities available. The activities included such events as varsity basketball games, student council meetings, junior class play, homecoming dance, and pep club meetings. And when the specific activities were grouped into broader categories, such as, indoor athletic contests, dances, organization business meetings, differences between large and small schools were almost nonexistent.

The nature of student participation in the activities differed for the large and small schools. First, although the average large school junior entered almost as many extracurricular activities as his small school counterpart, the activities entered by the large school student were more homogeneous. Thus, a "music specialist" or an "athletic specialist" was more likely to be found in the large school. In small schools, students were more likely to have entered a wide range of activities. There were fewer specialists. A second important difference in participation was the number of responsible roles which a student filled in the activities. Students of small schools had, on the average, 2.5 times as many positions of responsibility in activities as did students of the large schools. The differences were even more pronounced for positions of central importance, such as presiding over a business meeting or serving as a member of the cast in a dramatic production. Small school students served in six times as many of these high-level responsibilities as

did large school students. And consistent with the data on entrances into activities, the small school student had responsible positions in a greater variety of activities than did his large school counterpart (Barker and Gump, 1964).

Subsequent research has confirmed these last two findings. Kleinert (1969) selected a random sample of 63 high schools from the Southern Michigan area, with enrollments in the upper three grades varying from 87 to 3063. This was done in such a way as to assure equal representation of "small" (0-599 students), "medium" (600-1,499 students), and "large" schools (1,500 students or more). In studying student participation in extracurricular activities it was found that (1) the extent of total student participation bore a strong negative correlation to school size, (2) students in small schools participated in more activities than ones in larger schools, (3) there was a strong negative relationship between school size and the total number of leadership roles available (4) there was a significant negative relationship between size of school and student participation before a general nonstudent public (e.g., plays), and (5) the larger the high school the fewer the students (proportionately) to be found participating in clubs, athletics, and school publications. Kleinert concluded that:

> ...the very large high school, with its institutional character and impersonal masses, is less likely than the small school to help the average individual student with problems of personal identification. That is, it fails to provide him with opportunities to take initiative, to enjoy recognition, to exercise leadership - in short, to gain honor and glory. (Kleinert, 1969, p. 45).

Baird (1969) used a national sample of over 21,000 high school students who participated in the American College Testing Program. Respondents indicated their degree of accomplishment in six areas: leadership, music, drama and speech, art, writing, and science. Small school students had more achievements in four of the six areas (no significant effect of school size in art or science were found). Illustrative of Baird's findings are the data on leadership. For schools having fewer than 25 students in the graduating class, only 12 percent had no leadership positions. But for schools of 400 or more per class, 27 percent did not have any leadership achievement. Schools of intermediate size had percentage figures between those cited.

Barker and Gump (1964) had also suggested that differences in level of participation depended upon the specific kinds of activities involved. They found that (1) small school settings were relatively undermanned and (2) small school juniors occupied more positions of centrality and responsibility. From these findings the researchers hypothesized that juniors in a small school will report more behavior setting experiences which reflect feelings of challenge or importance than will large school juniors.

Different kinds of subjective experiences in activities were reported by students of large and small schools. Barker has summarized these findings as follows:

> In comparison with the student of the large school, the student of the small schools reported having more

> satisfactions related (a) to the development of competence, (b) to being challenged, (c) to engaging in important actions, (d) to being involved in group activities, (e) to being valued, and (f) to gaining moral and cultural values. In their own words, students reported having more experiences of these kinds in the small schools: 'It gave me confidence'; 'It gave me a chance to see how good I am'; 'I got the speakers for all these meetings'; 'The class worked together'; 'It also gave me recognition'; 'I feel it makes a better man of me'. The same students reported some other satisfactions less frequently than their counterparts in the large school. They reported fewer satisfactions referring (a) to vicarious enjoyment, (b) to affiliation with a large entity, (c) to learning about the school's persons and affairs, (d) to gain 'points' via participation. In the students own words, again, fewer experiences of these kinds came from the small school students: 'I enjoyed watching the game'; 'I like the companionship of mingling with the rest of the crowd'; 'I enjoyed this because I learned who was on the team'; 'You get to build up points for honors'." (Barker and Gump, 1964, p. 209).

Wicker (1968) obtained results in accord with these findings. His research also indicated that school size differences in level of participation depend upon the specific kind of activity being considered. In certain activities, such as dances, business meetings and school-sponsored trips, the proportion of students who had responsible positions was not greatly different for large and small schools. However, in other activities such as basketball games and dramatic productions, small school students had many more positions of responsibility than large school students. To illustrate, 9 percent of the large school students held responsible positions in a basketball game they attended, compared to 71 percent for the small school students.

Wicker's findings show that differences between certain experiences of large and small school students are largely due to differences

in the proportion of students who have responsible roles in activities at schools of different size. In dances, business meetings and trips, for which there were small differences between large and small schools in responsible positions, reported experiences of the two groups were very similar. But when large and small schools differed considerably in the percentage of students who had responsible positions, e.g., in basketball games and dramatic productions, the small school student reported receiving greater feelings of satisfaction and self-worth.

Wicker also reported that, within the same school size, when the number of responsible positions provided by activities differs greatly, there are also marked differences in student's experiences. In schools of both sizes, money raising projects provided the highest percentage of responsible positions. Within each school size, experiences of challenge, self-worth, involvement, and concern for the activity were more prevalent in money raising projects than in activities providing few responsible positions.

In another part of the study, Wicker compared the reported experiences of the same students in activities in which they had responsible positions and in activities in which they did not. In both large and small schools, experiences of involvement, challenge, etc., were more prevalent when students had responsible positions than when they did not. The above results suggest that the differences in experiences reported by Barker and Gump (1964) cannot be attributed

to factors external to the schools, but are due to the degree of responsibility students assume.

Pressures to participate in school activities were different for the two groups. Students of small schools reported more pressures (e.g., "I wanted to gain experience"; "I was asked to go") than students of large schools. Moreover, in the small school, the difference between students of higher social class and intelligence ("regulars") and students from lower social strata and intelligence ("marginals") was slight. But in the large school, marginal students experienced considerably fewer pressures to participate than did the regular students. In the large school, but not in the small school, the marginal students were largely a group apart from other students. These findings and the results of a second study have been examined by Willems (1967), who focussed only on statements reflecting students' "sense of obligation" to high school activities. His analyses show the same kinds of differences as were obtained in the study of pressures by Barker and Gump (1964).

To summarize briefly, while many activities occur in large schools, there are also many students to whom the activities are available. The average large school student, while he may be welcomed in most activities, generally is not needed, in the sense that the success of an activity does not hinge upon his participation. By contrast, in small schools people are generally less expendable. While the number of activities in small schools is somewhat less than that of large

schools, the number of students from whom participants must come is much smaller. Thus, if the activities of the small school are to occur successfully, the average student must participate in a number of them, and often in a position of responsibility. This seems to lead to his experiencing greater feelings of challenge, self-worth, involvement, and obligation in the activities than is the case for the large school student.

How stable is this behavior pattern of students in subsequent behavior settings? Or, in other words, what effect, if any, does a students' high school experiences have on his future behavior setting activities? Baird (1969) in a follow-up study dealt with one aspect of this general question. He felt it was important to know if the students who come from small high schools continue to show higher academic and nonacademic achievement in college. He obtained data for 2,289 men and 2,834 women attending 29 colleges. He gave an original survey to these students during their freshman year at college, and administered follow-up questionnaires at the end of the student's sophomore year in college. He designated seven areas of college achievement, i.e., Leadership, Art, Science, Music, Writing, Speech and Drama, and Special Educational experiences. In his discussion of the results he writes that:

> When one turns to a consideration of the lasting effects of school size, one does not find such clear-cut answers. Apparently, there is little carry-over of the higher rate of achievement from high schools to college. (Baird, 1969, p. 259).

However, Baird also states that he found that the size of college institution may have considerable effect on students' achievements. In his small sample of universities, achievement was related to college size such that the smaller the college the greater the achievement by the average student. And, Baird felt that this fact tended to support Barker and Gump's (1964) theory and suggested the importance of the immediate situation. However, another possibility is also the belief that, as in high school (Willems, 1967), the college also has overmanned and undermanned behavior settings. Thus, while the larger college may have fewer undermanned settings than the smaller college, undermanned activities still exist. And, therefore, the college student who has the desire to enter and participate in these less crowded, nonmass settings, in reality, can and will do so. In any case, Baird readily admits that his results are not conclusive and "more sensitive studies of the high school and college environment might be carried out" (Baird, 1969, p. 259).

Statement of the Problem

Recent research indicates that the number of students in a high school is related to the student's behaviors and subjective experiences in school extracurricular activities, such as theatrical productions, athletic events, and organizational meetings. Students of small schools, vis-a-vis students of large schools, (1) enter more different kinds of activities, (2) hold more positions of responsibility in activities entered (Gump and Friesen, 1964; Wicker, 1968; Baird, 1969), (3) experience more satisfactions "relating to being challenged, engaging in important actions, to being involved in group activities, and to achieving moral and cultural value," (Barker and Gump, 1964, p. 197) and (4) report more internal and external pressures to attend and participate, including feelings of obligation to support the activities (Willems, 1964, 1967). Does this higher rate of high school nonacademic achievement among students from small high schools have an enduring effect on the student's college nonacademic achievement? Or, in other words, does the college student from the small high school seek out an undermanned environment resulting in a more central position and more active participation in nonclass college settings than does the college student from the large high school?

The present study is an attempt to gain a better understanding of these and other factors involved in the possible differences between college students from small and large high schools. Thus, it was predicted that the college student from a small high school would

(1) participate in more nonclass college settings of all sizes, (2) have a deeper average penetration or a more responsible position in such settings, (3) participate in more small nonmass nonclass college settings, and (4) have a longer average occupation time in all nonclass behavior settings than would the college student from a large high school. It was felt that these indices (amount of participation, length of occupation time, level of responsibility, and number of small nonmass nonclass settings participated in) would accurately reflect an individual's need for or commitment to nonacademic college behavior settings.

METHOD

Subjects

The subjects were students at the University of North Dakota who were enrolled in an introductory psychology course for the spring semester of 1971. Participation in the study served as partial fulfillment of the subjects' course requirements. Initially 130 subjects were administered the NCCS questionnaire, and asked to describe their nonclass activities for the previous fall semester. The final criteria for subject selection were: graduation from a high school located in North Dakota, Minnesota, or Manitoba; living in a dormitory; and being single. After screening there were 97 subjects, 51 males and 46 females. Fifty-one had graduated from high schools in North Dakota, 40 from high schools in Minnesota, and 6 from high schools in Manitoba.

Instrument

The Non Class College Setting Questionnaire (NCCS) was administered to determine the kinds and numbers of nonclass activities a college student participated in during one semester. (see Appendix A). It was was divided into two basic parts: biographical information and an explanation and guide to the student's recording of the college activi-

ties in which he had participated in during that semester.

The first section of the NCCS was designed primarily to obtain basic demographic data: marital status, place of residence while attending the university (dormitory, apartment, etc.), and a description of the high school attended. Concerning the last, the subject answered five pertinent questions: (1) date or dates of attendance in a specific high school, (2) number of pupils in each high school attended, (3) size of graduating class, (4) the population of the town in which each school was located, and (5) the name of the state in which each school was located. With this information it was possible to identify individuals who had spent at least the major portion of their high school careers in either small or large schools.

In the next section of the NCSS the procedure of the questionnaire was explained. First the subject listed his nonclass activities under a general activity heading. Fifteen examples of general activity headings were provided with the option to use more. Then the subject was asked to answer six basic questions concerning each of the specific activities mentioned. In Question 1 the subject related the part he had played in the activity by giving a number from 1 (nonimportant) to 5 (very important) denoting the prominence of his role. In Question 2 the subject was asked to describe, using a sentence or two, what he actually did. This was placed in the questionnaire as a check to verify that Question 1 had been answered correctly. The subject was

then asked (Question 3) to give a percentage indicating that proportion of the time he had actually participated in the activity in comparison to the time the activity was available. The subject then (Question 4) gave the actual number of times he did take part in the specific activity. In Question 5 the subject was to give the number of hours the activity took per occurrence. And, finally, in Question 6 the subject was to relate the approximate number of people present at each session or occurrence of the activity.

Procedure

The 97 questionnaires were rank ordered according to size of high school (see Appendix B), and the median high school size was determined (Mdn = 325). The sample was portioned into approximately four equal parts. These parts were designated (1) small schools, having 50 to 180 pupils, (2) small medium schools, having 200 to 325 pupils, (3) medium large schools, having 350 to 750 pupils, and (4) large schools, having 800 to 2500 pupils.

Five scores were derived for each subject to describe his non-class college behavior settings. The first was a measure of the average amount of participation across all activities for each subject, or the median of the proportions of activity participation (Question 3). The second score indexed level of penetration and was derived by finding the median and/or mean of the numbers indicating importance of role as given in Question 1. The third score was a measure of occupation time. The total occupation time for each activity was

calculated by multiplying the number of times the individual took part in an activity (Question 4) by the number of hours per occurrence the activity took (Question 5). The median occupation time was then found and recorded. The fourth score indexed the average number of people who usually accompanied the subject's activities and was found by calculating the median of the numbers given in Question 6. A fifth score, a ratio of mass to nonmass settings, was the number of mass settings (arbitrarily designated as those activities with sixty-one or more people present) divided by the number of nonmass settings.

Thus, the NCCS provided five measures for each subject indicating (1) his median participation level, (2) his median and mean level of responsibility, (3) his median occupation time, (4) the median number of people present per activity, and (5) the ratio of mass to nonmass college settings participated in. These measures obtained from each subject were analysized using the chi-square technique. In addition a Pearson r correlation was calculated in analyzing the level of penetration.

RESULTS

Participation

The median scores indicating amount of participation were computed for each subject and the range over subjects was found to be from .02 (2%) to 1.00 (100%). (see Appendix C). The median of these medians was derived (Mdn of Mdn = .60) and a two by four chi-square table was employed (see Table 1). The obtained chi-square was 14.861 ($df = 3$, $p < .01$) indicating that college students from small high schools participated more often in nonclass activities than did the college students from large high schools.

TABLE 1

AMOUNT OF PARTICIPATION IN NON ACADEMIC COLLEGE SETTINGS AND SIZE OF HIGH SCHOOL GRADUATED FROM

	Number of subjects from small high schools	Number of subjects from small medium high schools	Number of subjects from medium large high schools	Number of subjects from large high schools	Total
Number of subjects whose median participation level was greater than .60	15	15	5	6	41
Number of subjects whose median participation level was equal to or less than .60	11	8	17	20	56
Total	26	23	22	26	97

Penetration

The median and mean scores indicating position of responsibility in settings were obtained for each subject. The range over subjects were 1.00 to 3.00 for each measure. (see Appendix D and F). The median of these medians was computed (Mdn of Mdn = 1) and a two by four chi-square utilized. (see Table 2). The chi-square was 19.706 ($\underline{df}$ = 3, $\underline{p} < .001$).

The correlation between the mean scores for level of responsibility or penetration and the size of high school attended was -.35 ($\underline{p} < .01$). Thus, both statistical measures indicate that college students from small high schools occupy positions of more responsibility in their nonclass activities than do students from large high schools.

TABLE 2

AMOUNT OF PENETRATION IN NON ACADEMIC COLLEGE SETTINGS AND SIZE OF HIGH SCHOOL GRADUATED FROM

	Number of subjects from small high schools	Number of subjects from small medium high schools	Number of subjects from medium large high schools	Number of subjects from large high schools	Total
Number of subjects whose median penetration level was greater than 1.0	17	16	6	5	44
Number of subjects whose median penetration level was equal to or less than 1.0	9	7	16	21	53
Total	26	23	22	26	97

Occupation Time

The median scores designating average occupation time were found for each subject and the range over subjects was 2 hours to 30 hours. (see Appendix F). The median of these medians was 8 hours. Again, a two by four table was used (see Table 3) and the resultant chi-square was 18.251 ($df = 3$, $p < .001$). Thus, college students from small high schools spend more time, on the average, in their nonclass activities than do college students from large high schools.

TABLE 3

AMOUNT OF TIME SPENT IN NON ACADEMIC COLLEGE SETTINGS AND SIZE OF HIGH SCHOOL GRADUATED FROM

	Number of subjects from small high schools	Number of subjects from small medium high schools	Number of subjects from medium large high schools	Number of subjects from large high schools	Total
Number of subjects whose median occupation time was greater than eight hours	12	16	5	4	37
Number of subjects whose median occupation time was equal to or less than eight hours	14	7	17	22	60
Total	26	23	22	26	97

Mass to Non Mass Settings

The number of mass and nonmass settings (mass setting $\geq$ 61 persons) were counted for each subject. The range of mass settings over all subjects was 2 to 10 and the median number of mass settings was 6. The range of nonmass settings over all subjects was 0 to 12 and the median number of nonmass settings was 3. (see Appendix G). A two by four chi-square table was designed to discover possible differences between schools of different sizes in relation to number of mass and nonmass settings. (see Table 4). The obtained chi-square was 2.505 (df = 3, $p > .30$).

The median nonmass setting size was also found for each subject (see Appendix H) and the median of these medians computed (Mdn of Mdn = 22 people). A second chi-square table was formed (see Table 5) and the resultant chi-square was 9.963 (df = 3, $p < .02$).

Hence although there seems to be no difference between college students from small and large high schools in terms of their relative preference for mass to nonmass nonclass activity settings, it does appear that college students from small high schools are involved in nonclass college activities that are smaller in terms of number of people present than are college students from large high schools.

TABLE 4

NUMBER OF MASS AND NON MASS SETTINGS AND TOTAL NUMBER OF NON ACADEMIC COLLEGE SETTINGS PARTICIPATED IN

	Number of nonclass college settings participated in by S's from small high schools	Number of nonclass college settings participated in by S's from small medium high schools	Number of nonclass college settings participated in by S's from medium large high schools	Number of nonclass college settings participated in by S's from large high schools	Total
Number of mass nonclass college settings participated in	141	138	124	165	568
Number of nonmass nonclass college settings participated in	87	91	80	83	341
Total	228	229	204	248	909

TABLE 5

NON MASS NON ACADEMIC COLLEGE SETTING SIZE AND SIZE OF HIGH SCHOOL GRADUATED FROM

	Number of subjects from small high schools	Number of subjects from small medium high schools	Number of subjects from medium large high schools	Number of subjects from large high schools	Total
Number of subjects whose median non-mass setting size was greater than 22 people	11	6	14	17	48
Number of subjects whose median non-mass setting size was equal to or less than 22 people	15	17	8	9	49
Total	26	23	22	26	97

DISCUSSION

It is apparent that a relationship exists between the nonacademic college activities of a given student and the size of the high school the student attended. Past research showed that the size of a high school is strongly related to the amount of participation, level of responsibility, and reported satisfaction of the individual high school student. The results of the present study demonstrate that the size of the high school a college student graduated from is strongly related to his nonclass college activities.

College students from small high schools participate more frequently in noncurricular college activities than do college students from large high schools. College students from small high schools are more likely to hold positions of greater responsibility. In regard to occupation time the college student from the small high school spends more time, on the average, in his nonclass activity. And, finally, the college student from the small high school participates in nonacademic activities that have fewer active individuals or, in other words, are less crowded than does the college student from the large high school.

These results are important in terms of behavior setting theory. The behavior setting is an ecobehavioral unit whose characteristics

include occurrence at a specifiable time and place as well as a systematic arrangement of people, other physical objects, and certain patterns of behavior (Barker, 1968; Barker and Wright, 1967). The theory asserts that behavior settings must be supported by member participation if the settings are to continue to exist. Depending upon the number of people available to perform the essential functions, behavior settings may be undermanned, optimally manned, or overmanned. In undermanned settings, the setting functions are often in jeopardy, and occupants sense the possibility of losing the satisfactions the settings provide. This leads them to invest more time and effort than when occupants are numerous and behavior setting functions are not precarious. Often students in undermanned settings take positions of responsibility and engage in a wide range of supportive behaviors. Under pressure to keep activities going, members seek to induce others to participate. Membership requirements are minimized, and attempts are made to bring available personnel to at least the minimal level of performance. Feelings of involvement, success, failure, challenge, and responsibility are commonly reported by students actively participating in these settings.

However, students occupying overmanned settings are more likely to be nonperformers, although of course, some will be active. Occupants of undermanned settings, on the other hand, are more likely to be active participants. Since overmanned settings are more characteristic

of large high schools than small high schools, the former will have fewer performances by the average student. Regardless of school size, most of the active students (but not the nonactive ones) will have the experiences postulated by Barker (1964). The average student in the large high school, having fewer performances than his small school counterpart, also has fewer of these experiences. Thus, school size is an important influence on high school students' experiences because of its relationship to the degree of undermanning of its settings and the consequent channeling of students into performance or nonperformance roles (Wicker, 1968).

The results of the present study indicate that there are significant dissimilarities between college students from large and small high schools in relation to nonclass college activities. The college students who attended small high schools seek out smaller, undermanned nonclass college settings, much more so than do college students who attended large high schools. One explanation for the above results is that the previous greater involvement in nonclass high school activities with the resultant enjoyment and satisfaction has influenced small high school graduates to seek out actively these less crowded nonclass behavior settings as college students. And, as in their high school experience, the college students from small high schools become more involved in these activities (as indicated by their longer occupation time, deeper average position of centrality or penetration, and greater amount of participation.)

These findings are in opposition to the conclusions drawn by Baird (1969). However, it is felt that Baird was dealing with academic rather than nonacademic achievement. Of the seven areas designated as indicative of college achievement only leadership could be termed truly nonacademic in nature. Thus, Baird's study was insensitive in many respects with regards to what he wanted to observe: possible long term effects of high school experience on college students. Barker (1963) noted that only when using non-class settings as the observational circumstance is one able to use the free decisions of students to enter or not, or to participate or not, in any behavior setting. Therefore, logically, researchers should investigate nonacademic settings rather than academic ones when studying the effects of student's behaviors and subjective experiences in high school extracurricular activities in relation to student's behaviors in college nonclass activities.

In conclusion, the results of the present research imply that there is a relationship between a college student's high school experience in relation to the extracurricular activities it provided, and his subsequent behavior in college extracurricular activities. While past research has shown that the size of a student's high school influences his level of participation in nonclass activities, the present study demonstrates that the size of the student's high school influences his subsequent behavior in nonclass activities in college - a different environment.

SUMMARY AND CONCLUSION

The present investigation was instigated to understand better the possible long term effects that high school size has on college students' nonclass activities. Past research indicated that the numbers of students in a high school was related to the students' behaviors and subjective experiences in school extracurricular activities. Students in small high schools were found to participate in more varied activities, hold more responsible positions, and experience more satisfaction in connection with their nonclass activities than were students in large high schools. Thus, in consequence, the question was raised whether or not this higher rate of high school nonacademic achievement among students from small high schools had any more or less permanent effect as shown in the students' college nonclass activities.

The Non Class College Setting (NCCS) Questionnaire was devised and administered to 130 subjects. Ninety-seven subjects were eventually selected as the sample, the screening criteria being marital status, residence at college, and location of high school.

The results indicated that college students from small high schools (1) participate more often in nonclass college activities, (2) report holding more responsible positions in these activities, (3) spend more

time in these extracurricular activities, and (4) participate in activities that have fewer total active members than do college students from large high schools.

A possible explanation is that the previous greater involvement in nonclass high school activities with the resultant satisfaction received by students in small high schools leads them to seek out actively less crowded behavior settings as college students so that they may continue experiencing the satisfactions related to such extracurricular involvement.

APPENDICES

Appendix A

NON CLASS COLLEGE SETTINGS (NCCS) QUESTIONNAIRE
CONFIDENTIAL -- FOR RESEARCH PURPOSES ONLY

Try to answer each question as best you can. This is not a test, so if you are not sure of an answer, make the best guess you can.

I. Biographical information

1. Name: 2. Sex:
3. Marital status: 4. Year in College:
5. Last fall at school did you live in a dormitory_____ fraternity or sorority house_____ married student housing_____ apartment off-campus_____ with family_____.
6. High Schools Attended:
   a. Date (or dates) of attendance _____
   b. Number of pupils in high school (or schools) attended_____
   c. Size of graduating class _____
   d. Population of town (or towns) in which the school was located _____
   e. Name of state in which this town (or towns) was located _____

II. College Activities

This questionnaire is designed to find out the different kinds and numbers of nonclass activities you participated in last fall semester. On each of the data sheets, at the back of this questionnaire, you will notice several columns. Under the column designated ACTIVITY you are to specify each activity heading in which you participated, listing the one or more specific things you were involved in under each major activity heading.

To help you summarize a list of possible activities follows:

STUDENT GOVERNMENT FUNCTIONS
DORM FUNCTIONS
PUBLIC LECTURES
PLAYS, CONCERTS, OR DEBATES
ORGANIZED SOCIALS (organized by your Dorm)
INFORMAL SOCIALS (organized by yourself or friends)
SPECTATOR SPORTS
INTRAMURAL SPORTS

VARSITY SPORTS
CHURCH SERVICES OR MEETINGS
RELIGIOUS SPONSORED CAMPUS MEETINGS
SOCIAL-ACTION FUNCTIONS (groups such SDS, YAF, or Zero Population Growth)
FUND DRIVES
COMMERCIAL ENTERTAINMENTS (movies, taverns, night clubs)
OTHERS
Feel free to mention any other activity heading in which you participated, even if it is not listed here.

There are then six questions that you are to answer about each of the activities you have checked on the data sheets. They are:

Question 1. What part did you play in activity?
Answer with a number from 1 to 5 denoting the importance of your role.
1. non-important role, such as a visitor or spectator
2.
3. indicates a mildly important role such as a regular member in a group
4.
5. would mean a very important role such as a president of a club

Question 2. Describe what you actually did, using a sentence or two.

Question 3. What proportion of the time that it was possible to participate in this activity did you actually take part? Give a percentage.

Question 4. How often did you take part in the activity? Give number of times.

Question 5. About how much time per occurrence did the activity take? Give number of hours.

Question 6. About how many people were present at each session or occurrence of the activity?

ACTIVITY	QUEST. 1	QUESTION 2	QUEST. 3	QUEST. 4	QUEST. 5	QUEST. 6

Appendix B

TABLE 6

SIZE OF HIGH SCHOOL GRADUATED FROM

Subject	Sex	School Size	Subject	Sex	School Size	Subject	Sex	School Size
1	F	2500	35	M	500	69	M	200
2	M	2400	36	M	500	70	F	200
3	M	2000	37	M	450	71	F	200
4	F	2000	38	F	450	72	F	180
5	F	2000	39	M	450	73	F	175
6	M	2000	40	M	450	74	F	175
7	M	1800	41	M	410	75	F	160
8	F	1800	42	F	400	76	M	160
9	M	1800	43	M	400	77	F	150
10	F	1800	44	F	400	78	M	150
11	M	1600	45	M	400	79	F	145
12	F	1600	46	F	350	80	M	140
13	M	1600	47	M	350	81	M	137
14	M	1500	48	M	350	82	M	130
15	M	1400	49	M	325	83	F	130
16	M	1100	50	F	300	84	M	130
17	M	1100	51	M	300	85	F	126
18	F	1000	52	M	300	86	F	125
19	M	1000	53	M	300	87	F	120
20	M	1000	54	M	300	88	M	120
21	F	1000	55	M	300	89	F	115
22	M	900	56	M	280	90	M	100
23	F	900	57	M	250	91	F	100
24	M	800	58	F	250	92	M	100
25	F	800	59	M	250	93	F	90
26	F	800	60	F	250	94	F	90
27	M	750	61	M	250	95	F	80
28	F	600	62	M	250	96	F	75
29	M	550	63	M	250	97	F	50
30	F	540	64	M	220			
31	F	500	65	F	200			
32	F	500	66	F	200			
33	F	500	67	M	200			
34	F	500	68	F	200			

Appendix C

TABLE 7

MEDIAN PARTICIPATION LEVEL FOR EACH SUBJECT

Subject	Median Participation	Subject	Median Participation	Subject	Median Participation
1	.50	35	.30	69	1.00
2	.02	36	.35	70	.80
3	.50	37	.77	71	1.00
4	.35	38	.37	72	.25
5	.80	39	.20	73	.73
6	.80	40	.60	74	.75
7	.95	41	.20	75	.47
8	.75	42	.20	76	.90
9	.10	43	.60	77	.90
10	.30	44	.95	78	.85
11	.60	45	.50	79	.70
12	.20	46	.50	80	.45
13	.20	47	1.00	81	.25
14	.50	48	.27	82	.60
15	1.00	49	.85	83	.60
16	.30	50	.75	84	.70
17	.50	51	.55	85	.87
18	.17	52	.80	86	.55
19	.63	53	.68	87	.45
20	.33	54	.50	88	.70
21	.30	55	.60	89	.75
22	.47	56	.70	90	.50
23	.25	57	.75	91	.75
24	.30	58	.62	92	.90
25	.30	59	.95	93	.40
26	.30	60	.35	94	.60
27	.30	61	.90	95	1.00
28	.37	62	.60	96	.50
29	.75	63	.50	97	.90
30	.50	64	.75		
31	.03	65	1.00		
32	.18	66	.70		
33	.70	67	.55		
34	.60	68	.60		

1.00 is equal to 100% or complete participation in all settings,
.00 is equal to 0% or no participation in all settings.

Appendix D

TABLE 8

MEDIAN PENETRATION LEVEL FOR EACH SUBJECT

Subject	Median Penetration	Subject	Median Penetration	Subject	Median Penetration
1	1.0	35	1.5	69	3.0
2	1.0	36	1.0	70	3.0
3	1.0	37	1.0	71	2.0
4	1.0	38	1.0	72	1.0
5	1.0	39	1.0	73	1.5
6	1.0	40	1.0	74	1.0
7	3.0	41	1.0	75	2.0
8	1.0	42	1.0	76	1.0
9	1.0	43	1.0	77	1.5
10	1.0	44	1.0	78	2.0
11	1.0	45	3.0	79	3.0
12	1.0	46	1.0	80	1.0
13	1.0	47	1.5	81	1.0
14	1.0	48	1.5	82	1.5
15	2.0	49	1.5	83	2.5
16	2.5	50	1.5	84	2.0
17	1.0	51	1.0	85	1.0
18	1.0	52	3.0	86	1.5
19	2.0	53	1.0	87	1.0
20	1.0	54	1.0	88	2.0
21	1.0	55	1.0	89	2.0
22	1.0	56	2.5	90	1.0
23	2.0	57	1.0	91	3.0
24	1.0	58	3.0	92	3.0
25	1.0	59	3.0	93	1.0
26	1.0	60	2.0	94	3.0
27	2.0	61	2.5	95	3.0
28	1.0	62	1.0	96	2.0
29	1.0	63	1.5	97	3.0
30	1.0	64	3.0		
31	1.0	65	3.0		
32	1.0	66	3.0		
33	2.0	67	1.0		
34	1.0	68	2.0		

Penetration is rated on a 1 to 5 scale, 1 denoting lack of responsibility, 5 denoting a great deal of responsibility or penetration.

Appendix E

TABLE 9

MEAN PENETRATION LEVEL FOR EACH SUBJECT

Subject	Mean Penetration	Subject	Mean Penetration	Subject	Mean Penetration
1	1.375	35	1.600	69	2.917
2	1.538	36	1.666	70	2.643
3	1.700	37	1.800	71	2.300
4	1.500	38	1.500	72	1.800
5	1.833	39	1.142	73	2.000
6	1.571	40	1.424	74	2.000
7	2.090	41	1.000	75	1.857
8	1.600	42	1.700	76	1.889
9	1.333	43	1.571	77	1.883
10	1.846	44	1.833	78	2.100
11	1.000	45	3.000	79	2.778
12	1.750	46	1.454	80	1.636
13	1.333	47	1.833	81	1.500
14	1.900	48	1.916	82	1.875
15	2.300	49	2.062	83	2.250
16	2.285	50	2.000	84	1.833
17	1.500	51	1.400	85	1.889
18	1.090	52	2.091	86	2.083
19	1.666	53	1.143	87	1.786
20	1.700	54	1.429	88	2.231
21	1.000	55	1.500	89	2.000
22	1.800	56	2.071	90	1.889
23	2.083	57	1.933	91	2.909
24	1.166	58	2.250	92	2.462
25	1.111	59	2.857	93	1.750
26	1.416	60	2.333	94	2.222
27	1.875	61	2.400	95	2.813
28	1.714	62	1.444	96	2.000
29	1.571	63	1.917	97	2.909
30	1.000	64	2.929		
31	1.100	65	2.182		
32	1.000	66	2.400		
33	2.083	67	1.833		
34	1.454	68	2.000		

Penetration is rated on a 1 to 5 scale, 1 denoting lack of responsibility, 5 denoting a great deal of responsibility or penetration.

Appendix F

TABLE 10

MEDIAN OCCUPATION TIME FOR EACH SUBJECT

Subject	Median Occupation Time in Hours	Subject	Median Occupation Time in Hours	Subject	Median Occupation Time in Hours
1	8.0	35	5.0	69	7.0
2	4.0	36	14.0	70	6.0
3	8.0	37	4.5	71	17.0
4	8.0	38	7.5	72	10.0
5	6.0	39	4.0	73	9.0
6	5.0	40	4.0	74	10.0
7	7.5	41	4.0	75	10.0
8	2.0	42	3.0	76	6.0
9	4.0	43	7.5	77	3.0
10	6.0	44	5.5	78	8.0
11	8.0	45	4.0	79	11.0
12	8.0	46	3.0	80	4.0
13	5.0	47	6.0	81	7.0
14	8.0	48	5.0	82	12.0
15	8.0	49	12.0	83	7.0
16	7.0	50	15.0	84	8.0
17	16.0	51	10.0	85	5.0
18	6.0	52	15.0	86	6.0
19	11.0	53	16.0	87	9.0
20	6.0	54	14.0	88	8.0
21	15.0	55	10.0	89	8.0
22	5.0	56	30.0	90	8.0
23	7.0	57	24.0	91	25.0
24	11.0	58	12.0	92	8.0
25	8.0	59	20.0	93	9.0
26	4.0	60	6.0	94	15.0
27	17.0	61	24.0	95	14.0
28	6.0	62	5.0	96	6.5
29	20.0	63	9.0	97	10.0
30	4.0	64	12.0		
31	11.0	65	16.0		
32	6.0	66	6.0		
33	4.0	67	7.0		
34	9.0	68	8.0		

Appendix G

TABLE 11

NUMBER OF MASS AND NON MASS SETTINGS PER SUBJECT

S	No. Mass Settings	No. N Mass Settings	S	No. Mass Settings	No. N Mass Settings	S	No. Mass Settings	No. N Mass Settings
1	4	4	35	7	5	69	6	6
2	8	5	36	8	2	70	6	6
3	6	3	37	3	2	71	4	4
4	7	1	38	5	2	72	4	4
5	9	3	39	4	1	73	6	6
6	5	2	40	6	1	74	9	2
7	6	3	41	5	0	75	6	1
8	10	6	42	7	3	76	8	2
9	7	0	43	5	2	77	8	3
10	7	6	44	8	4	78	7	3
11	7	3	45	2	6	79	6	3
12	4	4	46	8	3	80	5	4
13	2	1	47	4	9	81	5	1
14	8	1	48	8	4	82	3	1
15	4	6	49	10	6	83	9	2
16	9	5	50	4	6	84	7	4
17	5	3	51	9	1	85	5	1
18	10	4	52	4	7	86	5	3
19	2	1	53	7	0	87	5	7
20	6	4	54	5	2	88	3	6
21	10	2	55	3	1	89	3	2
22	5	1	56	9	0	90	5	4
23	6	6	57	4	3	91	2	6
24	5	1	58	4	4	92	6	4
25	5	4	59	7	7	93	4	1
26	8	4	60	8	4	94	7	3
27	7	9	61	5	5	95	3	6
28	4	3	62	6	3	96	3	4
29	4	3	63	7	5	97	7	4
30	5	1	64	5	7			
31	9	1	65	5	6			
32	7	1	66	5	5			
33	2	12	67	5	1			
34	6	6	68	7	2			

Appendix H

TABLE 12

MEDIAN NON MASS SETTING SIZE FOR EACH SUBJECT

Subject	Median Non-Mass Setting Size	Subject	Median Non-Mass Setting Size	Subject	Median Non-Mass Setting Size
1	15	35	25	69	30
2	10	36	25	70	25
3	20	37	10	71	12
4	35	38	20	72	25
5	30	39	50	73	25
6	36	40	20	74	20
7	15	41	60	75	20
8	25	42	15	76	10
9	60	43	30	77	25
10	30	44	12	78	35
11	10	45	25	79	15
12	25	46	25	80	20
13	10	47	40	81	30
14	40	48	30	82	20
15	25	49	20	83	20
16	30	50	40	84	25
17	15	51	4	85	20
18	18	52	12	86	30
19	25	53	60	87	30
20	15	54	10	88	50
21	60	55	10	89	30
22	60	56	60	90	6
23	35	57	10	91	30
24	50	58	30	92	20
25	27	59	9	93	10
26	40	60	7	94	15
27	10	61	4	95	7
28	20	62	20	96	10
29	25	63	12	97	20
30	50	64	10		
31	50	65	20		
32	30	66	15		
33	20	67	8		
34	35	68	22		

Numbers are given in terms of numbers of people.

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