

The Effect of School and Peer Group Size  
on Chicanos' Risk of Dropping Out of High School

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## Statement of the Problem

The relationship between educational attainment and employment problems among Chicano youth has been quite clearly established by the results of the National Longitudinal Survey of youths (Borus, Crowley, Rumberger, Santos, and Shapiro, 1980) and by others (Brown, 1980). These findings indicate that the failure to complete high school is related to several aspects of labor force involvement, including unemployment as well as earning power and type of occupation for all racial/ethnic groups. These observations assume special significance for Chicanos, however, when considered in conjunction with their astonishingly high rate of school attrition. The high school drop-out rate among Chicanos exceeds that of both blacks and whites by substantial amounts (Department of Labor, 1980). The importance of understanding this high drop-out rate for labor market success seems quite clear, therefore.

The objective of the proposed research is to explore the question of why Chicanos drop out of high schools in such high numbers. In contrast to earlier investigations, this research seeks to examine ways in which the high school environment contributes to the problem. Previous studies have been criticized for attempting to explain Mexican-American underachievement solely in terms of factors such as family and cultural background (Carter, 1970). Not only does this approach suffer from a "blaming the victim" kind of bias (Ryan, 1971), but it overlooks potentially more fruitful explanations vis a vis remedial interventions. Moreover, there is evidence which indicates that school context has important implications for educational achievement.

Two contextual variables which appear to be relevant and will be studied here are school size and peer group size. While these factors appear to have general application to the problem, the basis for claiming that they have special significance for minority groups, such as Chicanos, exists. In the case of school size, it has been quite well documented that this variable influences student participation and achievement and that it

more strongly affects disadvantaged students than others (Barker and Gump, 1964). Yet, it does not appear that school size has been studied in relation to ethnic minority groups which often contain a disproportionate number of individuals who are poorly disposed to school success.

With regard to peer group size, there is the strong suggestion that the number of peers one has is linked to subculture formation and its concomitants, group identification and allegiance (Fischer, 1976). The strength of subcultural identification among Chicano students may have a bearing on their acceptance of the overall goals and values of the school, especially where these are represented to the students through largely non-Hispanic faculties and administrations. This is an especially important consideration in view of the hypothesized role of such persons, including non-Hispanic classmates, in shaping educational aspirations of minority students in desegregated schools (Coleman, 1966).

In conclusion, it is emphasized that the Chicano student's decision to complete high school or to drop out is critical to later employment opportunities. Assuming that this is so, it becomes necessary to examine factors which influence this decision. The two variables which have been identified for study here appear to have the potential to explain a good deal of Chicanos' behavior in this regard. Moreover, these factors lend themselves readily to policy formulation particularly that which concerns such visible issues as school desegregation and consolidation.

## Literature Review

High school attrition and employment. A number of factors are thought to contribute to the employment problems of Hispanic youth. Racial discrimination, the overall state of the economy, minimum wage policies and others have been cited as important influences on the difficulties that Hispanic youth face in seeking and maintaining employment (Adams and Mangum, 1979; Cardenas and Santos, 1980). Typically, these analyses include discussion of the prominent role education plays in understanding problems associated with Hispanic youth employment.

For Hispanics, like other racial/ethnic groups, there are consistently observed relationships between educational attainment and employment outcomes such as earning power and unemployment. Rumberger (1980) reported that for young people (ages 18-22) not enrolled in school, the unemployment rates were higher for dropouts than for high school graduates across all racial/ethnic categories. The unemployment rate for Hispanic female graduates was 7% compared to 35.5% for dropouts; for Hispanic male graduates the rate was 11.2% compared to 17.9% for dropouts. Overall (i.e., across all ethnic group and sex classifications), the unemployment rate for dropouts (27.8%) was almost three times the rate for graduates (10.5%).

Occupation also appears to be related to educational attainment. Across racial groups, high school graduates are more likely to be employed in white collar jobs than dropouts. Conversely, dropouts are more likely to be employed in blue collar and farmwork occupations compared to graduates (Mayers, 1980). Of "Spanish-origin" graduates, 50% were employed in white collar jobs compared to 6.8% of the dropouts. Over 60% of the Hispanic dropouts were in blue collar jobs compared to 34.3% of the Hispanic high school graduates.

In general, educational attainment is positively related to earnings, but this relationship is not monotonic. In 1977, Hispanic men with less than eight years of formal education earned a mean yearly income of \$7,923 compared to \$10,386 for Hispanics with four years of high school, and \$16,778 for those

with four or more years of college. But for each education category, Hispanics earned less money than whites with comparable education. This general pattern was true for Hispanic women as well (Brown, 1980). These data have prompted writers such as Santos (cited in Cardenas and Santos, 1980) to note that economic equality cannot be achieved through education alone. Yet, the relationship between education and employment for Hispanic youth is clear, particularly when drawing a basic distinction between those young Hispanics who have completed high school and those who have not. In summarizing the data on high school completion and youth employment, Rumberger (1980) wrote:

Thus not only do dropouts have a harder time finding employment, they also earn less and have less desirable jobs once they secure employment compared to young people who finish high school. School dropouts are an important public concern. By prematurely ending their education, they have greatly reduced their chances for finding a meaningful and rewarding job. Those who fail to find work will undoubtedly place a burden on public assistance programs. Thus society has a stake in the welfare of young people who, for a variety of reasons, fail to finish high school. (pp. 275-276)

High school attrition is a critical problem for Hispanic youth. Although on a number of social welfare indicators, Hispanic youth fall in between white and black youth (such as unemployment and family income), Hispanics clearly demonstrate the lowest levels of educational achievement of the three ethnic groups (Department of Labor, 1980). Gomez-Day (1980) reported that of youths 18-19, 37.3% of Hispanics were out-of-school dropouts compared to 17.8% of whites and 25.9% of blacks.

Educational attainment emerges as a problem even more dramatically if distinctions are made between Hispanic subgroups. Puerto Rican and Chicano youth experience extremely high dropout rates, while rates for Cubans are comparable to those for whites. A National Center for Education Statistics report (Brown, Rosen, Hill, and Olivas, 1980) reported the percentages of those 14-30 years of age who were not enrolled in school and who were not high school graduates. Among

Hispanic subgroups, these percentages were as follows: Puerto Ricans, 31%; Chicanos, 27%; Central or South Americans, 17%; Cubans, 12%. Rates for enrollment in college also illustrate differences between Hispanic subgroups. The percentages of young people in college for the age group, 18-19, were as follows: 16.7% for Puerto Ricans, 17.4% for Chicanos, 19.2% for blacks, 30.1% for whites, and 42.1% for Cubans (Gomez-Day, 1980).

In summary, one approach to addressing the problems of Hispanic employment would focus on educational attainment, particularly the large rates of attrition from high school that are experienced by Puerto Rican and Chicano youth. Although elevating educational attainment among Hispanic youth may not rectify all of the inequities in employment and wages, modifying factors that influence Hispanic attrition from high schools is likely to have a positive effect on their prospects for securing satisfying employment.

School size. Studies which have examined the relationship between school size and factors such as student participation, alienation, and achievement have produced highly consistent results. They indicate that students in larger schools are less involved in school curricular and extracurricular activities and spend less time interacting with peers and adults. Of utmost importance to the present study is the indication that these factors relate to alienation and school attrition. This research is reviewed below.

One of the earliest and most interesting of these studies pertaining to school size was conducted by Barker and Gump (1964). Their efforts were directed at exploring the effects of high school size on four areas of interest: Variety of instruction, variety of extracurricular activities, amount and kind of students' participation in school affairs, and students' feelings about their participation in these affairs. The findings for each topic will be summarized here.

High school size was found to be positively related to the number of different kinds of courses offered to students. An

important qualification of this finding, however, lies in the fact that the increase in course offerings occurred at a much slower rate than increases in school size. Specifically, a doubling in school size was associated with a 17% increase in the variety of instruction. Further, these data reflect existence of course offerings and not the extent to which students availed themselves of these offerings.. In point of fact, during a particular semester, students in small schools averaged slightly more courses than students in large schools.

Again, with respect to extracurricular activities, the data indicate that fewer of these are available at the small schools. When participation in these activities is considered, the meaning of this difference becomes clearer. Students in smaller schools attended slightly fewer but a greater variety of events than students in the largest high school. Moreover, a sizable group of students who attended a minimal number of activities emerged in the large school.

A deeper probe into the nature of the students' participation revealed additional important differences between large and small school students: The former students averaged 3.5 settings in which they assumed a position of leadership during a semester in contrast to the small school students who averaged 8.6. And, too, a large minority of students in the large school (28%) performed no leadership role, while only 2% of the students in the small school had no such role. The explanation for this last finding is quite straightforward: The greater number of individuals per extracurricular activity in the large school reduces students' chances of occupying the positions of importance.

What are the differences between large and small school students with respect to their subjective feelings about their participation? Small school students expressed more often than large school students that they gained in competence, enjoyed challenge and success, and liked working together as a group. The large school students reported more often that they had enjoyed vicarious experiences, such as watching a game or listening to a concert, and the feeling of belonging to a crowd or the

school. These differences in pleasures are attributable for the most part to the greater number of active roles performed by students in the small school. Some insight into how the students viewed their importance to these activities was also gained. Small school students reported almost three times as often as large school students that their participation was needed or depended upon. Small school students who were defined as "marginal" in terms of their parent's socioeconomic status and their own academic performance reported just as often as students without such academic handicaps that their involvement in activities was needed. On the other hand, marginal students in large schools reported an obligation to participate one-quarter as many times as the non-marginal students.

A subsequent study by Wicker (1969) replicated some of these findings. Students in small schools were found to enter a wider range of school activities and to occupy more responsible positions in them. Additionally, Wicker reported that small school students were more cognitively complex about a group of nine activities common to the schools studied. Cognitive complexity was measured with a modified version of Kelly's (1955) Role Construct Repertory Test which employed the nine activity settings as stimuli.

Baird (1969) was also able to largely corroborate Barker and Gump's findings with both high schools and colleges. A large, nation-wide sample of schools was used. Results showed that small school students reported having more non-academic accomplishments and higher grades than large school students. Students in large schools, however, had higher aptitude scores. A large difference between the percentage of students who had no achievements versus at least one achievement was also obtained; 53% of large school students had no achievements in contrast to 17% of small school students. These differences did not lead small school students to say they planned to become involved in more college extracurricular activities than large school students. In a second study, Baird compared students from large and small schools on accomplishments in college.



The overall rate of achievement for these two groups was not significantly discrepant. College achievement was related negatively to college size, however. While this latter study suggests there is no carry-over effect of extent of high school accomplishments, it should be pointed out that these results were obtained only for those students going on to college. It might be expected that these better students would be those who could most readily overcome background experience. Unfortunately, this study cannot tell us anything about the effect high school size had on the non-college bound student.

What accounts for these school size effects? Barker (1978) theorizes that "behavior settings" such as the extracurricular events participated in by high school students supply certain opportunities and obligations to occupants. Those who participate in a setting because of the rewards it offers insure its continued functioning. When the number of setting occupants is sufficiently small to threaten the setting's ability to operate, those persons in the setting, particularly those in charge, impress one another with the need to participate as fully as possible and seek to draw in more participants. Thus, setting members feel needed and valued and tend to serve in more responsible capacities. The opposite holds true for settings in which there are more than enough persons to maintain the setting's integrity.

Additional studies of school size which have investigated aspects of student behavior different than those described above have contributed further to an understanding of school size effects. Heath (1972) reported that larger schools were associated with diminished contact among friends and that this contact occurred in a more restricted range of settings. Students in larger schools were also found to interact to a smaller extent with teachers, administrators, and guidance counselors.

Garbarino (1978) examined the relationship between school size and crime and concluded that the failure of large schools to act as supportive milieus contributed greatly to student alienation and, consequently, antisocial behavior. This reason-

ing is in essential agreement with the above findings regarding social interaction patterns.

Several studies provide support for the idea that the kind of social climate which is often found in large schools contributes to school attrition. Thomas (1954) found that participation in high school extracurricular activities was the strongest predictor of dropping out of school. Stoughton and Grady (1978) obtained a significant relationship between high school size and dropout rates. While this relationship appeared to be curvilinear, the most striking finding was that small schools (<200 students) had half the dropout rate of all schools in the sample. Other relevant data are found in the form of those collected in the largest educational research project ever conducted (Coleman, 1966). This study was not able to demonstrate any significant statistical relationship between the greater resources offered by large schools and educational outcomes as diverse as the school's holding power, scholastic achievement, and satisfaction with school experience. Thus, it does not appear as if large schools are able to offset the negative outcomes of increased size through the use of more sophisticated materials and expert faculty.

Peer group size. The significance of peer group size for educational attainment among Chicanos is based upon a theory of subculture formation (Fischer, 1976). The processes which are associated with the growth of subcultures are dependent upon the size of the groups of persons who share a set of common characteristics. This theory applies to a wide range of different groups and appears no less relevant to Chicano students in high schools. The components of this theory which are pertinent to the present study are presented below.

According to Fischer, increasing numbers of individuals who identify with one another on the basis of common attributes lead to the emergence of vital, active subcultures. Specifically, their emergence is based on the existence of a critical mass of individuals which permits the establishment and support of its own institutions, places to gather and interact, and, importantly,

its own identity. Fischer points out that these subcultures produce contact and friction among themselves which serves to further solidify group identity. Although subculture formation rests on the notion of critical mass, factors such as association and identification with subgroup members is probably a monotonically increasing function of group size.

Another outcome of growing subcultures may be the loosening or rejection of ties to the larger institution which contains them. The extent to which this is true probably depends in part on how many differences exist between the subculture and the dominant culture and how much friction these differences produce. The same kind of phenomenon can be found at the level of cliques (Burns, 1955). In this case, persons who share certain characteristics prefer to associate with one another because they can act more freely and with less anxiety about disapproval. They tend to believe that their own norms are more valid than those of the larger milieu since the former are associated with more relaxed and natural behavior. It appears, therefore, that belonging to a large minority group may lead its members to reject the values, institutions, etc., possessed by the majority group because they have their own more relevant values and institutions to fall back on.

A study which illustrates some of the foregoing points was conducted by Newcomb (1978). Correctional programs of varying sizes and containing different numbers of veteran or long-time inmates were examined in relation to recidivism rates. Newcomb found that large programs with large numbers of veterans were associated with the highest recidivism rates. Small programs with similar proportions of veterans, but small absolute numbers of them, had the lowest recidivism rates. Large programs with small numbers of veterans were related to intermediate rates.

Newcomb suggested that the large veteran programs contained critical masses of veteran inmates which lead to greater solidarity, mutual support, and visibility for these inmates. These group qualities in combination with the members' senior status and knowledge of the "ropes" may have contributed to reinforce-

ment of each other's offense-like behavior and to influence over their non-veteran peers. In addition, there is evidence that veterans possessed anti-staff attitudes in relation to their numbers: More of the veterans in the large veteran groups held such attitudes than did those in the small groups. Thus, this study lends support to the idea that large subgroups are less accepting of the circumjacent milieu than are small subgroups.

The theory and related research which have been presented here provide a basis for studying the effects of varying Chicano group size in high schools. The relationships between Chicanos and their peer group and the high school student body at large are important to examine for at least two reasons. The first is that peer groups have the capacity to satisfy needs for social support. (Caplan, 1974). This may be a particularly crucial function when the larger social milieu of which the peer group is a part is not rewarding or supportive, and, therefore, should not be underestimated. Secondly, as was mentioned earlier, educationally prepared students appear to play a role in influencing the more marginal students' academic goals (Coleman, 1966). Thus, factors which affect Chicano's acceptance of these students as models need to be considered.

### Study Objectives

The central problem which this study addressed is how school and peer group size affect Chicano students' attitudes and behaviors which appear to be related to dropping out of high school. The review of the studies of the relationship between school size and student behavior indicated that school size may hold importance for understanding dropout rates. Further, these studies suggested that school size had a greater impact on students who were less likely to perform well academically. In addition, knowledge of the influence of peer group size on subculture formation points out the relevance of peer group size for understanding relationships between Chicanos and the non-Hispanic institution in which they are expected to take part.

The following hypotheses were formulated and tested in this study:

- 1) High school size is positively related to behaviors and attitudes which are linked to dropping out.
- 2) The effects of high school size will be felt more strongly by Chicano students than white or black students because cultural differences between Chicanos and others, especially native language differences, tend to predispose Chicanos to poorer academic performance.
- 3) Peer group size is positively related to attitudes and behaviors linked to dropping out of school among Chicanos.

## Method

Sample. A subset of students who responded to the 1980 High School and Beyond Survey constituted the sample of respondents used in the present analyses. This survey sampled students from 1015 public and private high schools located throughout the United States. The public schools which accounted for 735 of the total number of schools were stratified by nine geographic regions, racial composition, enrollment, and urban/suburban/ rural residence. In addition, several different types of special schools, such as alternative and Cuban Hispanic high schools, were represented in the group of schools.

The subset of students examined here consisted of sophomores only. Although senior high school students were also sampled in the survey, they were not considered appropriate for inclusion in a study of drop-out risk. Since most students drop out of high school between the ages of 16-19 years (U.S. Dept. of Commerce, 1980), seniors represent a biased group of students in that they are composed of those students who have persevered in school. The mean age of the students in the sample used in this study was 15.6 years. The mean age of Chicanos, 15.8 years, was the highest of any racial/ethnic subgroup in the sample.

Within this group of sophomores, three ethnic/racial groups were studied: Chicanos, non-Hispanic blacks, and non-Hispanic Caucasians. While Chicanos constitute the the focus of this research, blacks and whites were examined for comparison purposes. Cubans and Puerto Ricans were not included in the Chicano student group. These two groups are considered to distinguish themselves quite strongly from Chicanos both on account of background and geographic distribution. Consequently, it did not seem advisable to treat all three Hispanic groups as one. Moreover, it was not possible to examine these two groups seaparately, since some needed information, such as the number of Cuban and Puerto Rican students and faculty in the respondents' schools, was not available for these two groups.

Instruments. Three measures of dropout risk were constructed. These consisted of non-overlapping sets of items which tapped dropout risk in different ways. Three such scales were developed to take advantage of the numerous questionnaire items which appeared to address attitudes

or behaviors reflective of a disengaged or uninvolved relationship with school. These measures and the SES scale described below are based on students' self-reports.

Scale 1. The first scale was called School Attitudes and Behaviors. Nine items composed this scale. Four of these were behavioral indices of school involvement, grades so far in high school (mostly A's, A's and B's, etc.), average amount of time spent on homework per week, and both the number of days absent (not due to illness) and tardy during the preceding fall term of school. The other five items were true/false questions about whether the respondent had had disciplinary problems, cut classes, had been suspended, was interested in school, and liked working hard in school. These five items can be viewed as a subscale with a six-point response range similar to the other items in the scale. Since dichotomous response formats are not as reliable as more differentiated response formats, the fact that this subscale carried the approximate weight of the other four items was considered a desirable feature. The coefficient alpha value obtained for this set of items was .73 for the sample as a whole. High scores represented negative school attitudes and behavior. The mean score obtained for Chicanos was 2.71, for blacks, 2.64, and for whites, 2.42.

Scale 2. A second scale called Social Identity contained six items. These questions asked the respondents whether other students viewed them as popular, athletic, socially active, important, a good student, and one of the leading crowd. Each question was answered on a three-point response scale (very, somewhat, and not at all). This scale was viewed as an index of the extent to which students were able to distinguish themselves on the basis of their participation in various arenas of school experience. Coefficient alpha for this scale was found to be .73 for the sample as a whole. High scores indicated a negative social identity. Again, Chicano students scored highest, 2.15, while whites were intermediate, 2.06, and blacks were lowest, 1.96.

Scale 3. A third measure was named Perceptions of the School Environment and tapped perceptions of the school as a whole. It included six items which addressed the extent to which students attended school, cut classes, talked back to teachers, disobeyed, fought with each other, attacked teachers, and two items which gauged the degree of teachers' interest in students and fairness of discipline. The former

set of items employed a three-point response format (often, sometimes, rarely), while the last two used a four-point scale (poor, fair, good, excellent). Coefficient alpha for this set of items was .76. High scores reflected positive perceptions of the school environment. Mean scores for whites, Chicanos, and blacks were 2.09, 2.06, and 2.01, respectively.

SES. A measure of SES was employed in the present study in order to permit a comparison between the magnitude of effects of school environment variables and a family background factor such as SES. This consisted of a five-item scale which tapped the respondents' mothers' and fathers' education, fathers' occupation, family income, and level of household amenities.

The next two measures are based on information supplied by a member of the administration of the respondents' high schools.

High School size. The size of the respondents' high schools was the total number of students in the school. This figure was not adjusted for the number of grades contained in the high school. While it can be argued that the number of students per grade is as relevant as the number of students per school, this study was concerned with demonstrating the effects of school size. School size ranged from eight to 5342 students. The mean school size for Chicanos was 1350, for blacks, 1389, and for whites, 1189.

Peer group size. The number of high school students who belonged to each of the three ethnic/racial groups was calculated by multiplying the total number of high school students by the percent of students who were Hispanic, black, or white (not Asian). Since the percent of students who were Hispanic was based on both Chicanos and all other Hispanics, the number of same ethnicity peers for Chicanos was sometimes inflated over its actual value. This did not represent a large source of error, however, as Chicanos comprised the overwhelming majority of these Hispanics in most cases. The mean number of same ethnicity peers was 648 for Chicanos, 695 for blacks, and 1011 for whites.

Analyses. The effect of school and peer group size on these measures of school involvement was tested for each of the three ethnic groups, separately. Multiple regression analysis was used to determine the unique variance in the dependent variables each independent



variable could explain. High school size, peer group size, and socio-economic status were used as predictors in the analyses of the Chicano and black students. Predictors were entered into the multiple regression equation simultaneously.

Analyses of white students were conducted differently. School size, percent of student body which was white, and SES were used as predictors and were brought in to the multiple regression equation simultaneously. Since peer group size was not hypothesized to have the same effect on students who represented the majority culture, it was not included here. Instead, the percent of student body which was white was examined to assess whether the presence of other ethnicity/race students had an influence on white students' involvement.

## Results

### Predicting school attitudes and behaviors

Chicanos. The results of the multiple regression analysis in which "school attitudes and behaviors" was employed as the criterion variable are shown in Table 1. Both school size and peer group size were found to be significant predictors of this variable among Chicanos. School size was positively related to this measure of risk, while peer group size was negatively related, contrary to the hypothesis. SES also appeared to be related to school attitudes and behaviors to a significant extent. Higher SES was linked to lower risk. The beta weight associated with SES, however, is nearly one-half that of the beta weight of either school or peer group size. Given the size of the confidence intervals around these coefficients, ( $P(r-.05 \leq \beta \leq r+.05) = .95$ ), this difference is significant.

Blacks. School size, but not peer group size, was found to be a significant predictor of school attitudes and behaviors among blacks. School size was, again, positively related to this measure of risk. A significant negative relationship between SES and this measure was observed also. This time, however, SES was associated with a beta weight as large as that for the school size variable. Thus, both school size and SES seem to carry equal importance in the prediction equation for school attitudes and behaviors among blacks.

Whites. For whites, yet a different pattern of results was obtained. School size, the percent of the student body which was white, and SES were all found to be significant predictors of school attitudes and behaviors. SES appeared to carry much more weight in the prediction equation than the other two variables. The beta weights obtained for school size and percent of student body which is white were very small, though significant due to the large sample size used in this analysis. School size and SES were related to this variable in the expected manner. Percent of the student body which was white was negatively related to this variable.

### Predicting social identity

Chicanos. The results of the analyses involving social identity as a criterion variable are presented in Table 2. The only significant predictor of social identity for Chicanos was SES. Higher SES was associated with lower social identity scores, which may be inter-

Blacks. As for Chicanos, SES was found to be the only significant predictor of social identity among blacks. SES was related to social identity in the expected negative manner.

Whites. Significant relationships between both school size and SES and social identity were observed for whites. Again, higher SES was linked to lower social identity scores (lower risk). The beta coefficient for school size was very small, but nevertheless reflected the hypothesized positive effect on this measure of risk.

#### Predicting perceptions of the school environment

Chicanos. Results of the analyses in which school environment was used as a criterion variable are presented in Table 3. School size and SES were observed to be significant predictors of school environment perceptions among Chicanos. Larger schools were associated with less positive perceptions, and higher SES was related to more positive perceptions. The beta coefficient for school size was twice as large as that for SES and indicated, therefore, that school size may hold more importance than SES for this school environment measure.

Blacks. School size, peer group size, and SES significantly predicted school environment perceptions held by blacks. School size, again, was related negatively to a favorable school environment as was peer group size. SES was related to this school environment measure in a positive way. All of these relationships were consistent with expectations. The beta coefficients derived for each predictor revealed that each predictor variable was weighted approximately the same as the others.

Whites. School size and SES were related to white students' perceptions of high school to a significant extent. The percent of students who were white did not appear to be related. Both school size and SES had the expected negative and positive effect, respectively, on these perceptions. The magnitude of the beta coefficients for these two predictors was roughly equal.

#### Discussion

It was hypothesized that school size is positively related to attitudes and behaviors which predispose students to dropping out of school. Importantly, school size was predicted to have a stronger

effect on these indicators of dropout risk for Chicanos than for other ethnic or racial groups. Further, it was hypothesized that the size of a student's same ethnicity peer group is positively related to indicators of dropout risk.

The first step taken toward testing these hypotheses involved the development of reliable measures of dropout risk. Since the High School and Beyond data set contains information only about youths currently in school at this point in time, it was impossible to explore the relationships between school and peer group size and student attrition directly. Therefore, three different measures of dropout risk were constructed. The sets of items contained in these measures tapped different aspects of students' experience which had been identified in the literature as relevant to school involvement/alienation.

The analyses in which school size, peer group size, and SES were used as predictors of "school attitudes and behaviors" demonstrated partial support for the study hypotheses. First, school size was positively related to this risk measure across all three ethnic/racial groups as predicted. Moreover, it was a more important predictor of school attitudes and behaviors than SES among Chicanos. Its importance relative to SES was systematically reduced going from Chicanos to blacks and, finally, to whites, where its importance was substantially less than SES.

This pattern of findings yielded evidence that school size is related to attitudes and behaviors which may be predictive of dropping out of school. Importantly, it also indicated that school size is of greater consequence than SES in regard to these attitudes and behaviors among Chicanos, but not blacks and whites. Since SES has been strongly linked to educational attainment (Carter, 1979), this finding is significant. Further, it is consistent with the hypothesis that school size holds more meaning for Chicanos because they are often not as well prepared, academically, than blacks or whites. This hypothesis was derived from a previous finding that school size had a pronounced impact on marginal students' involvement in school (Barker and Gump, 1964).

The hypothesis that peer group size is positively related to this measure of risk was not supported. It was related to risk in the direction opposite to that expected for Chicanos and unrelated

to risk for blacks. These inconsistent findings suggest that more exploration of this variable is needed. The opposite finding for Chicanos may be a function of the extent to which increases in peer group size represent large proportions of the student body. The hypothesis under consideration was predicated on the notion of minority groups and would not be expected to hold where these groups actually constitute the majority of the population in question. Analyses in which the sample of Chicano students was restricted to those attending schools in which they were a minority would help clarify the issue.

The analyses in which social identity was examined did not furnish support for the study hypotheses. This measure of risk appears to have more to do with SES than the school environment. This is an interesting finding in that it suggests that students' social success is tied to background factors to a greater extent than their attitudes and behaviors concerning academic matters. This apparent difference, however, may have more to do with the measures, themselves. Specifically, the "attitudes and behaviors" measure seems more likely to distinguish marginal from non-marginal students than the "social identity" measure. For example, the former taps disciplinary problems and failing grades, whereas the latter addresses the degree of popularity and importance. This marginal/non-marginal status may be the dimension of students' school experience which is most sensitive to school and peer group size.

Finally, the analyses of perceptions of the school environment provided support for the idea that school size is negatively linked to a favorable school climate. Thus, school size emerged a second time as relevant to a measure which may indicate dropout risk.

In conclusion, it can be stated that overall this study supports the argument that school environment factors play a role in student attrition. It must be noted, however, that the relationships which were observed here were not strong ones. In view of this fact, it is suggested that further examination of the variables identified in this study as well as others is necessary in order to evaluate the significance of the role of the school environment. In particular, it seems important to validate the dropout risk measures used here. Additionally, it would be helpful to explore relationships

between school and peer group size and dropout risk within more homogeneous student samples. In this way, one might be better able to understand under what conditions these relationships are strengthened or weakened.

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Table 1

Multiple Regression Analyses in which "School Attitudes and Behaviors" was used as a Criterion Variable

Characteristics of the "School Attitudes and Behaviors" Scale:\*

1. Number of items - 5
2. Coefficient alpha - .73
3. Mean summed score - 17.19
4. Standard deviation - 4.4
5. Mean item score:
  - Chicanos - 2.71
  - Blacks - 2.64
  - Whites - 2.42
6. Items:
  - a. Grades
  - b. Time spent on homework
  - c. Absenteeism
  - d. Tardiness
  - e. Subscale - taps interest in school, disciplinary problems, etc.

Multiple regression prediction equations for Chicanos, blacks, and whites:

Predictors	Chicanos		Blacks		Whites	
	Beta	F**	Beta	F**	Beta	F**
School size	.182	25.87	.14	25.35	.087	115.76
Same ethnicity peer group size	-.194	28.91	-.004	.021	-	-
Percent of students who are white	-	-	-	-	-.039	23.36
SES	-.098	13.96	-.116	28.93	-.225	780.39

\*High scores represent high risk

\*\*F(1,∞)=3.84, p<.05

Table 2  
Multiple Regression Analyses in which  
"Social Identity" was used as a Criterion Variable

Characteristics of the "Social Identity" Scale:*		6. Items:	
1.	Number of items - 6	a.	Others see me as popular
2.	Coefficient alpha - .73	b.	" " " athletic
3.	Mean summed score - 12.35	c.	" " " socially active
4.	Standard deviation - 2.4	d.	" " " a good student
5.	Mean item score:	e.	" " " important
	Chicanos - 2.15	f.	" " " part of a leading
	Blacks - 1.96		
	Whites - 2.06		

Predictors	Chicanos		Blacks		Whites	
	Beta	F**	Beta	F**	Beta	F**
School size	-.023	.43	-.030	1.16	.055	44.99
Same ethnicity peer group size	.038	1.12	.008	.08	-	-
Percent of students who are white	-	-	-	-	.015	3.39
SES	-.217	70.27	-.142	43.15	-.217	716.04

\*High scores represent high risk  
\*\*F(1,∞)=3.84, p<.05

Table 3  
 Multiple Regression Analyses in which  
 "Perceptions of the School Environment" was used as a Criterion Variable

Characteristics of the "Perceptions of the School Environment" Scale:

1. Number of items - 8
2. Coefficient alpha - .76
3. Mean summed score - 17.14
4. Standard deviation - 3.4
5. Mean item score -

6. Items:

- a. Students do not attend classes
- b. cut classes
- c. talk back to teachers
- d. do not obey
- e. fight each other
- f. attack teachers
- g. Teachers are not interested in students
- h. Discipline is not fair

Chicanos - 2.06  
 Blacks - 2.01  
 Whites - 2.09

Multiple regression prediction equations for Chicanos, blacks, and whites:

Predictors	Chicanos		Blacks		Whites	
	Beta	F**	Beta	F**	Beta	F**
School size	-.138	14.68	-.142	26.9	-.208	674.27
Same ethnicity peer group size	.04	1.20	-.103	14.02	-	-
Percent of students who are white	-	-	-	-	.015	3.5
SES	.058	4.83	.11	26.79	.182	517.56

\*High scores represent low risk  
 \*\*F(1,∞)=3.84, p < .05