The Prediction of High School Dropouts

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THE PREDICTION OF HIGH SCHOOL DROPOUTS

by

Clifford E. Bryan

A Thesis
Submitted to the
Faculty of the School of Graduate Studies in partial fulfillment of the
Degree of Master of Arts

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CHAPTER I
THEORY AND OBJECTIVES

Overview of Objectives

Two of the most commonly employed theoretical constructs in the sociological, psychological and educational literature are aspirations and plans. As will be documented later in a review of research, social scientists have given considerable attention to factors in the development of individuals' occupational and educational aspirations and plans on the assumption that such aspirations and plans are useful indicators of behavior.

Are aspirations and plans, in fact, predictive of behavior? Can we predict beyond mere chance the behavior of an individual on the basis of a knowledge of that person's aspirations and plans? Perhaps aspirations and plans do not merit theoretical attention. The overall purpose of this study is to provide a basis for the inclusion or rejection of aspirations and plans as important theoretical constructs to be included in social science.

More specifically, this study will test the empirical efficiency of educational aspirations and educational plans as predictors of an educational behavior, i.e., whether a student voluntarily drops out of school.
Within the theoretical orientation of this study is the proposition that a person's voluntary decision-making behavior is a function of perceived probable outcomes instead of wishes and desires. Therefore, it is hypothesized that the predictive utility of the concepts of Educational Plans will be greater than that of Educational Aspirations. Comparisons are made of the relative predictive powers of the constructs of Aspirations and Plans while using intelligence, socioeconomic status, and self-concept of academic ability as control variables. These particular variables have been demonstrated by other investigators to be relevant to high school achievement and dropout.

This study is an investigation of a part of a succession of hypotheses derived from a central theoretical orientation.

1 The theoretical framework for this study is derived from interpretations of the theoretical generalizations of George Herbert Mead as elaborated by Wilbur B. Brookover, Edsel L. Erickson, and Lee M. Joiner. These interpretations are presented and discussed in the Related Literature and Theoretical Background sections of this study.

developed by three major longitudinal research projects. As such, this investigation is an extension of and a contribution to the theoretical framework of George Herbert Mead as interpreted and advanced by Wilbur B. Brookover, Edsel L. Erickson, Lee M. Joiner, and Kenneth L. Harding in their numerous investigations which are partially listed in the bibliography.

**Basic Issues**

Little has previously been done to empirically establish a relationship between the aspirations and plans of high school students and their later career decisions. This is true even though many sociologists, psychologists and educators have contended that students' aspirations and plans are important determinants of educational and vocational decisions. Another consideration is that while aspirations and school dropout have been the topics of considerable research and speculation, few studies have included

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both variables.

One reason for the lack of empirically established relationships in this area may be the difficulty of obtaining sequential data on high school dropout behavior. This may be attributed to the problem of discerning who is a voluntary dropout in contrast to those excluded from school, those who are ill, etc. A second problem is related to determining the differences between students who drop out in the earlier grades and students who drop out in later grades. Age may be one variable in that students who drop out in the ninth grade may tend to be over-age as compared to their grade level peers while eleventh and twelfth grade dropouts may not. Are there other relevant differences? Unfortunately, research to date has not tended to deal with variations in dropout by grade level or within grade levels.

One of the major criticisms of much of the past research on plans and aspirations is that these concepts have been assessed by self-reports and associated with other self-report measures concerning attitudes, subject's responses to socioeconomic status questions, etc. Furthermore, this type of self-report criterion data which is associated with self-reported aspirations is often collected at the same time; hence, the data may be a function of response set or testing effects. These methodological limitations
are difficult to control for in these research designs. Seldom in research has the dependent variable associated with aspirations been an independently observed behavioral event which occurs after the collection of the data on aspirations and plans. This study has two advantages concerning these issues: the first is that this study predicts dropout and is not a post hoc study of students who have already left school - the data on aspirations and plans were acquired prior to the occurrence of dropout. Second, the dependent variable is a behavioral event. Thus, dropout behavior is predicted in advance by the use of students' self-reported expectations and desires.

Another major difficulty of past research may have been in the theoretical conception of aspirations and plans. This seems to be an omnipresent problem as is evidenced by Merton's\textsuperscript{1} observation that quite often a single term has been used to symbolize different concepts just as the same concept has frequently been symbolized by different terms. Merton\textsuperscript{2} further describes how governing concepts can and do lag behind the behavioral requirements of the case being studied and may result in damage during this lag. However, Merton asserts that the application of inapt


\textsuperscript{2}loc. cit., p. 92.
concepts to situations often evokes self-correcting and more appropriate formulations. This seems to be the case with the concepts of aspirations and plans, for a few sociologists have recently begun to redefine and elaborate on these concepts and have seriously challenged the traditional manner in which these rubrics have been employed in sociological, psychological and educational research.

The majority of studies have used these two concepts synonymously, i.e., aspirations and plans, and there has been little agreement concerning their definitions and operational specifications. A few sociologists are now raising the question as to


whether aspirations should be treated as a unidimensional construct as opposed to the traditional method of including both desires and anticipations of the individual under a single rubric. This issue concerns the existence of separate factors and whether items which ask individuals to indicate their desires or wishes measure the same factors as do items asking individuals to indicate what they will be doing in the future. Many sociologists include both types of items under the concept of aspirations. Others contend that desire type and anticipation type items are mutually exclusive, e.g., an individual may desire to achieve certain goals, but he may not anticipate doing so. This may be illustrated by high school students who voice a sincere desire to quit high school immediately but still expect to graduate.

Related Literature

Two areas are presented for a review of the literature. The first section deals with the concepts of aspirations and plans as they have commonly been used in association with variables pertinent to this study. The conclusion of the first section cites studies that have formulated a conceptual clarification of the two concepts and have, in many instances, arrived at conclusions contradictory to those previously mentioned. The second area of related research presents work that is pertinent to the theoretical background of this
study.

**Related research literature**

Much of the literature that is currently available uses the concepts of plans and aspirations interchangeably. In other cases, the authors use a single concept to refer to two separate kinds of phenomena. Blair, *et. al.*, assert that

The over-idealization of goals and of the self in relation to these goals is a disease of our culture. Children's goals are often unrealistic because of the inadequacy of our language to describe them and because words are used to take the place of objects. Influences such as motion pictures . . . etc., have given a romantic aura to many goals and ideals sometimes to such an extent that the pupil's aspirations are far from realistic . . . therefore, if a youth's goals are so idealized as to be nonexistent in reality - and therefore impossible of achievement - and if he envisions success on an all or nothing basis, he is doomed to be disappointed. This is described as a process of idealization, frustration and demoralization. Because a child is unable to meet unrealistic ideals, he meets frustration, which in turn leads to demoralization.

This is a classic example of an author attributing the quality of perceived expectations to youthful aspirations. The possibility is often ignored that an individual may possess two types of goals - one wishful and the other reachable. Even though at times wishes and expectations may be the same, they should still be treated as separate factors. Blair attributes a kind of Walter Mitty career

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planning behavior to young people without accounting for the fact that even Walter interrupted his day dreams periodically to pursue attainable goals. In line with the traditional treatment of aspirations, Blair recommends that teachers should attack their students' aspirations as a means of instilling the proper motivation for school learning.

Sears' study of aspirations concludes that one of the important factors in determining the level of achievement which a child proposes for himself is his experience in like situations. Another study purports to show the important effects upon future goal setting behavior when a child fails to achieve his stated goals. It concludes that the child who fails is more apt than the one who succeeds to develop unrealistic aspirations for succeeding performances. The individual who fails is said to estimate his future performance so high as to be wholly impossible or so low that he is sure to attain the mark.

Child and Whiting, in determining levels of aspirations, had


students describe three incidents occurring in their lifetimes in which they had been (1) frustrated and never reached a goal, (2) frustrated and reached a goal, and (3) not frustrated and reached a goal. Child and Whiting defined level of aspiration as being a level of desirability, and this conceptualization of aspiration or desire was equated with an actual ability to reach a goal. Thus, they concluded that when a student is unable to reach a goal, he lowers his level of desire to a more attainable position. They assert that a young man may aspire to date beautiful girls; but if he feels that they will reject him, he will lower his level of desire or aspiration in such a manner that he wishes to date only ugly girls. It is the contention of the present author that a young man, although he actually expects to date only ugly girls, may still entertain a lifetime desire or aspiration to have at least one chance with Elizabeth Taylor.

Stefflre states that high Level of Interest Scores as measured by the Lee Thorpe Occupational Interest Inventory are related to high aspirations. Stefflre's study raises several questions, but the primary one concerns whether the relationships implied in his conclusions may actually be that of fantasy items as associated

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with interests. Stefflre apparently is also uncertain about this, for he states that high socioeconomic status students with stable aspirations received high Level of Interest Scores; but low socioeconomic status students who had high aspirations received low Level of Interest Scores. This was attributed to the tendency of low socioeconomic status students to overstate their objectives in order to impress themselves and others.

It would seem that there are several other explanations or conclusions that could serve just as well as the one proffered by Stefflre; but the possibility does exist that, due to the fact that a conceptual clarification had not been formulated, the Stefflre study was actually measuring wishful thinking and occupational fantasies rather than perceived probable outcomes of occupational choices. The Stefflre study is one of many with this methodological limitation, i.e., the lack of a conceptual clarification, that have been conducted and have reported a sizeable disparity and incongruency between items as related to lower socioeconomic status students.

Crandall's\(^1\) experiment of adult reactions and non-reactions made boys react in different directions depending on the boys'... 

\(^1\)Crandall, Virginia, "Reinforcement Effects of Adult Reactions and Non-reactions on Children's Achievement Expectations." *Child Development* (Winter 1963), pp. 335-354.
histories of positive or negative parental reinforcement. The third and final time that the boys circled figures to indicate their abilities may have involved wishful thinking rather than their definitions of the abilities that they actually believed that they had. Because of the imprecise nature of the instruments in distinguishing between these factors, no conclusions can be made.

Rosenfeld and Zander¹ cite early studies that show that children set a level of aspiration for themselves that is a mild challenge. They define level of aspiration as being the level of achievement that a child can realistically expect to attain. Their study purports to illustrate that the relationship between aspired grades and those grades actually received at the end of a semester suggests that aspirations are realistic with a majority of pupils. Aspired grades were usually set from one-third to one whole letter grade higher than were grades received for immediately past performances, a "typical phenomenon in setting aspiration levels indicating a desire for future improvement." The questionnaire item to measure aspirations for future grades was "What final grade do you think you should get?"

There may be several methodological errors in the study by

¹Rosenfeld, Howard, and Zander, Alvin, "The Influence of Teachers on Aspirations of Students." Journal of Educational Psychology, LXII (February 1959), 1-11.
Rosenfeld and Zander. The use of the word "should" rather than "will" may have been misleading. Again, those who set a goal of one letter grade higher than that received for past performances may have set more than a "mild challenge" for themselves. In this study, again, a conceptual clarification and more adequate information may have produced different results.

Rotter\(^1\) found that a handicapped group had a lower level of aspiration than normal people even though the tasks to be performed were totally unrelated to their physical handicaps. Here again is a question of whether the researcher was tapping perceived probable goals and plans rather than aspirations or desires.

Haller and Sewell\(^2\), in studying a highly educated sample, found that there is no difference in educational and occupational aspirations as associated with place of residence for girls; but with boys, while occupational aspirations were not related to residence, educational aspirations were. They cited Lipset's argument that rural people have less access to college, go to poorer high schools, and have fewer occupational alternatives which operates to cause lower levels of occupational aspirations and a consequent lack of

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\(^1\)Rotter, Julian R., Unpublished information as reported in Lewin, _et al._, op. cit., p. 334.

ambition for higher education. However, it seems that Lipset's argument is incongruous with their conclusions regarding occupational aspirations; but, had a conceptual clarification been made, the findings might have been supportive of Lipset's proposition.

A current major controversy that is evidenced in the sociological literature centers on the role of socioeconomic status in the formulation of students' educational aspirations and plans. Although it is not the purpose of this project to conduct an extensive investigation into all the ramifications of social class, this variable is utilized for control purposes in the form of an exploratory question. Therefore, a short examination of this current controversy shall be presented. It is hoped that the conceptual clarifications as outlined in the present study may be of some utility in mitigating this issue.

Kahl drew upon three studies to describe the vicious circle of working class occupations, low educational aspirations of children, and their eventual destination in a lower class occupation. He concluded that aspirations are reorganized to fit the facts of the child's environment. It would seem that what Kahl described are in fact educational plans or expectations. Aspirations, as defined in Kahl's study, were found by other investigators to not be

\[
\text{Kahl, Joseph, } \textit{The American Class Structure}, \text{ New York: The Rinehart Co., 1957, pp. 205-208.}
\]
as related to social class as were plans. The clarity of Kahl's methodology does not provide a basis for conclusions as to the relevance of aspirations or plans.

In a second study, Kahl\(^1\) claims that there is a relationship between socioeconomic class and the educational aspiration level. He also describes the influence of parental pressure on aspirations but this could be interpreted as a parental perception of the availability of educational alternatives, i.e., real goals to be planned for and not merely wished for. Although no distinction was made between anticipations and desires in this study by Kahl, perhaps other things such as the number of siblings and the birth order of the child may influence parental pressures and expectations. If so, the aspirations of all the children of a family could be the same while plans, influenced by parental pressure, could be highly divergent.

Sewell, Haller and Straus\(^2\) found socioeconomic status to be related to both sexes and concluded that SES makes an independent contribution in ascertaining both educational and occupational

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aspirations. However, aspirations as defined by Sewell, et. al., might be more appropriately termed as plans due to the manner in which the concept was employed.

On the other hand, Haller and Sewell\(^{1}\) found no relationship between the economic resources of significant others, the social context variables affecting the supply of new information, and the antecedents and consequences of Wisconsin boys' choices of lower white collar jobs, blue collar jobs, or farming. These authors vacillate between what might be termed aspirations and what might be categorized as plans. Other studies support the evidence provided by them that there is little association between aspirations and background variables; but certain studies of expected educational outcomes seem to lead to different conclusions.

Brembeck\(^{2}\) asserts that personal observation and research both show positive correlations between a youth's educational aspirations and his family's socioeconomic status. He also states that it is clear that one's level of aspiration is strongly influenced by the values that grow out of one's social and economic class. Brembeck points out that even Sewell found a significant association between the level of education and occupational aspirations of the

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child and the socioeconomic status of the family. Thus, Brembeck concludes that educational aspirations are learned from the family and declares that research lends further support to the sociological claim that values of different social positions are important influences of levels of educational and occupational aspirations.

Parsons, in depicting the probabilities of college attendance, seems to emphasize that expectations are anchored in the class status of the family of orientation of the pupil. For middle and upper class children, this may be the same as an ascribed expectation; but the case may be somewhat different for lower class children. Thus, Parsons seems to imply that social class is related to anticipated attainable goals.

Stephenson seems to have been one of the earlier investigators to raise the question of whether studies of youthful vocational choices represent expectations or aspirations, i.e., if the respondents give a realistic appraisal of life chances or if they state a more generally held aspiration for life goals in the stratification system.


2 Stephenson, op. cit., p. 204.
Both occupational and educational plans as well as occupational and educational aspirations were measured by Stephenson; it was concluded that students can and do distinguish aspirations from plans. Furthermore, it was found that socioeconomic status effects both aspirations and plans, and the disparity between these two items becomes greater with lower social class backgrounds. Also, curriculum choice and educational plans conformed with occupational plans. Stephenson's study described males as being less certain of their occupational plans than they were about their occupational aspirations.

Of most importance for the present study is the statement by Stephenson that social class may or may not affect the mobility orientations of students in many studies, for this depends upon whether the investigators are studying or considering aspirations or expectations.

Ginsberg describes occupational choice as a continuing process with three distinct phases consisting of (1) fantasy choices, (2) tentative choices, and (3) realistic choices. Youmans draws upon this theory and asks what factors operate as one moves from the phases of fantasy to realism. This question seems to imply


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that in the maturation and socialization process, one's decisions concerning future behavior moves along a scale from purely imaginary acts to purely concrete acts; Youmans hypothesized that socioeconomic status is the most important variable in this process.

Youmans formulated a conceptual clarification between the two concepts of aspirations and plans; he found that in each social stratum, boys tend to aspire to jobs that they really do not expect to obtain. Furthermore, he found that there is a downward trend in both desire type and anticipation type items from the upper to the lower end of the social class scale. Lower class boys were said to portray the traditional "upward mobility" values of our nation, but they still revealed a realistic understanding of the ideology. Other findings reported by Youmans were that (1) sibling position in the family is not significant in the decision-making process, (2) the size of the family and the father's education are related to occupational plans, and (3) the type of curricula chosen by students are related to socioeconomic status and occupational plans.

Porter\textsuperscript{1}, in a study determining the influence of family background, mental ability, and emotional adjustment on educational plans and preferences, first asked high school senior boys to state

\textsuperscript{1}Porter, op. cit.
the type of work that they would prefer to have. Next, they were asked to indicate their actual plans for the age of 25; then for the coming autumn; and finally they were to indicate the steps that they were planning to take to achieve their stated goals.

It was found that there was a high consistency between what twelfth graders prefer, what they plan, and what they actually begin to do after a six month interval. The conclusion was that plans are more stable than are preferences, and plans are better predictors of actual behavior.

The three goals of Bordua’s study were to find the association of father’s occupation, sex, and religion with college plans; to determine the independence of relationships, e.g., aspirations and sex with father’s occupation as a control variable; and to examine the degree of parental stress. Bordua concluded that IQ, financial ability, and mobility relevant value patterns are highly associated with socioeconomic status - thus social class has been a major variable in assessing educational plans. His study reaffirmed this statement, for when plans were rank ordered, a perfect representation of socioeconomic status was also described.

Brodie and Suchman state that past and recent research into

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2 Brodie and Suchman, op. cit.
the social and social-psychological sources of students' educational aspirations has identified a number of significant facts: the most commonly mentioned facts are those of intelligence, socioeconomic status, sex, parental pressures, and the context of the neighborhood, community and school. Brodie and Suchman take the variable of socioeconomic status and determine its relationship to a conceptual clarification of educational aspirations; aspirations, in this study, includes only the elements of desires. In all social classes, and especially in the lower ones, boys seemed to have greater desires to go to college than girls did. These investigators came to the conclusion that certain intervening variables, e.g., educational evaluations, self-evaluations, and societal evaluations, affect and condition the relationship of socioeconomic status to educational desires. Thus, it is asserted that, for aspirations and desires at least, social class is basically a demographic variable and has little explanatory value in and of itself.

This is only one part of the current controversy centering on the relationship of a given variable to the vocational decision-making process. In this case, some investigators claim to have found a significant relationship between socioeconomic status and either plans or aspirations. Other studies report that this association is negligible. It seems quite possible that these contradictions may be a function of differing conceptualizations and definitions of the
independent variables. It is to be hoped that the present project will help to clarify these issues.

Another variable which has received considerable attention in conjunction with aspirations and plans is that of religion. This particular variable is not utilized in the present study - the primary reason for this is that this item was not included in the longitudinal projects from which this study is derived. However, the relevant literature seems to indicate that this is not a serious shortcoming in the data collection.

Glenn and Hyland\textsuperscript{1} decided that "any differential impact of Protestantism and Catholicism on . . . education explains at best only a small faction of the variance." Their analysis is said to provide no conclusive answer to this issue; but they suggested that any further attempt to acquire a more conclusive answer is rather unimportant.

Although previous studies purported to show that Catholics were "anti-scientists", Greeley\textsuperscript{2} claims that this difference no longer exists. Ethnic factors are now used to explain the past differences that were once attributed to religious identification.


Mack, et al.\textsuperscript{1}, also could find no difference in occupational aspirations by religious identification. They concluded that Catholics are now sharing in the Protestant Ethic.

A pilot study conducted by Rhodes and Nam\textsuperscript{2} found only a modest relationship between the religious context of the school, mother's religious identification, and student's educational expectations.

Another relevant variable which is often dealt with is that of the influence of the peer group. In summing up various studies, Herriott\textsuperscript{3} asserts that "Through such investigation . . . we know that boys have higher educational aspirations than girls." Of his own research, he concludes that "the strongest independent relationship with level of aspiration . . . was with the expectation perceived from a friend of the same age." Herriott also found that aspirations do vary empirically with the level of self-assessment and level of expectation of significant friends. Although Herriott

\textsuperscript{1}Mack, Raymond W., Murphy, Raymond J., and Yellin, Seymour, "The Protestant Ethic, Level of Aspiration, and Social Mobility: An Empirical Test." \textit{American Sociological Review}, XXI (February 1956), 295-300.


uses the concepts of aspirations and expectations synonymously, he seems to be referring to actual plans for the future.

Alexander and Campbell\(^1\) also found that the perceived characteristics of an individual's friends are associated with his own educational aspirations and expectations.

Haller and Butterworth\(^2\) made a distinction between "realistic and idealistic levels of aspirations." They presented respondents with a questionnaire called the Occupational Aspirations Scale in which one of the items used to ascertain realistic aspirations instructs the testee to indicate jobs "I'm sure I can get." It would seem that replies of this nature would merely be a statement of perceived ability rather than of actual expectancies, e.g., an individual may be certain that he can get a job driving a truck if he applied for it, but he may never anticipate doing so.

The results of peer influence were inconclusive in the Haller and Butterworth study, but there seemed to be a stronger association with educational aspirations than with occupational aspirations. It was left open to question whether students chose each other on the basis of common interests, or if students influence each

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other's interests after a friendship choice has been made. These authors did mention a possible discrepancy between levels of real and ideal aspirations, but no comparisons of the results of the two different concepts were presented.

Another controversy that may be evidenced in the sociological literature concerns various types of contexts as they operate on students' neighborhoods, schools, communities, and rural and urban residential areas.

Wilson arrived at the conclusion that schools have differing climates of aspirations for educational, occupational, and political preference. Herriott and St. John found that the socioeconomic status of the school is related to both college plans and dropout behavior. Krauss also found that the attendance of middle-class or working class schools was associated with educational aspirations. Aspirations, defined as "potential mobility" in the Krauss study, were also related to status discrepancies when the mother

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"married down" or worked in a white collar job; when the grandfather had been employed in non-manual work; when family members or friends of the family had college experience; or when the father had a high status occupation. Furthermore, the aspirations of acquaintances and participation in extracurricular activities also had a significant relationship with educational aspirations.

McDill and Coleman\(^1\) found that students who are accorded a high status in their school system are more likely to have high college plans and lower orientations to achievement than students who have been granted a lower status. Also, students who have high educational plans are more likely to gain high status than those who have low educational plans. It would seem that McDill and Coleman did explore students' expectations, for the concept of aspirations would probably have little association with popularity.

Griggs and Middleton\(^2\) present an argument that is one of the concerns of the present study - most research projects have dealt only with high school seniors, a select group that automatically excludes a great many students from lower social class back-


grounds. Their study examined the possibility that community size and its relationship to occupational aspirations may be spurious when father's occupation and IQ are controlled. They found little or no relationship between occupational aspirations and other social factors for females. For males, there was some association between community size and occupational aspirations.

A conceptual clarification was formulated in the Griggs and Middleton study; occupational aspirations, which were used in the manner that the present author terms as plans, were specifically meant to exclude fantasy behavior in making decisions. However, aspirations were ascertained by the question: "In what occupation do you think you will most likely be working ten years from now?" There is the possibility that, in considering a time period in describing plans, the respondents may have had difficulty in refraining from fantasy.

Elesh advances the argument that there is a time order sequence that should be considered in ascertaining the influence of the contexts of the family and its socioeconomic status in relating these variables to educational plans. He suggests that there are substantial substantive differences between growing and stable communities which should be taken into account in future research.

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One of his final conclusions was that mothers' expectations accounted for a significant amount of the variance in college plans; and the variable of mothers' expectations operated relatively independent of parental education, income and IQ. But even this variable seems to be of differential significance in different types of communities.

Although large differences were found in the relationship of students' college plans and the occupational composition of their neighborhoods by Sewell and Armer¹, these differences were greatly reduced or even eliminated when the variables of intelligence, family socioeconomic status, and sex were simultaneously controlled. But there was one exception: these differences in plans were not reduced by the use of these variables for girls of all intelligence levels from high socioeconomic status families.

Turner² agreed with Sewell and Armer that IQ has more residual influence than socioeconomic status or neighborhood level and that the neighborhood level has the smallest influence of the three variables. Turner dealt with these variables in the order of their


importance and asked which one should take preference as related to socioeconomic status.

Michael, in arguing that social class and social setting are roughly equal in their influence on ability, claimed that ability affects college intentions and that this is the causal effect of neighborhood context on college plans. He further asserted that socioeconomic status is more important for girls and IQ is more important for boys with the exception of male residence in large cities. Michael described sex as being less influential than class and ability, and he stated that sex is even less influential for rural children. He drew the conclusion that sex, IQ, and social class predict attendance in college differentially according to the social context.

Boyle contended that neighborhood context influences aspirations through a normative climate. In their rejoinder to the series of critiques given by Turner, Michael, and Boyle, Sewell and


Turner, op. cit.

Michael, op. cit.

Boyle, op. cit.
Armer stated that the neighborhood in which the individual resides at the time of the assessment of his aspirations is not necessarily the same neighborhood into which the individual was born or resided in at the time when his levels of aspirations were crystallized. Therefore, Sewell and Armer reaffirmed their original conclusions. However, throughout the argument, the concept of aspirations was rather loosely used and was often used synonymously with college intentions, expectations, and plans.

A differentiation is made between real and ideal goals in a study conducted by Weiner and Murray. They contend that all families have high aspirations for their children; but there is a difference between high and low social class families in perceived attainable goals - a feeling of reachableness enters into educational plans that is not present in educational aspirations. These authors state that children from high and low social class families have the same vocational aspirations: everyone wishes to become a professional. However, educational plans, as used in their study, did not segregate students on the basis of socioeconomic status. An investigation of the curriculum enrollment, which was considered to be indicative of actual plans for higher education, was the only way that these investigators could find a difference in class group-

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2 Weiner and Murray, op. cit.
Thus even though a definitive distinction had been made between ideal and real goals, the questionnaire items apparently did not account for this as is evidenced by the fact that only the curriculum check revealed the differences of the actual educational plans of students from high and low socioeconomic status families.

Brookover, et. al.¹, made a distinction between the concepts of educational plans and educational aspirations. By their definition, a plan is a person's expectation of what he will attain or will have accomplished at some future date. Aspirations are defined as what a person wishes or desires. The behavioral criterion used in their study was academic achievement. Students' educational plans, when controlling for aspirations, were positively associated with academic achievement. On the other hand, variation in educational aspirations, when controlling for plans, account for no more than one-hundredths of the variation in students' school achievement. Aspirations, defined as desires, were of extremely limited utility in predicting academic achievement as compared to students' plans.

In a study by Harding², educational expectations were used as a variable to account for dropout. Harding defined educational

¹Brookover, et. al., "Educational Aspirations . . .", op. cit.
²Harding, op. cit.
expectations as the level in the educational system which the student expects to attain and not the level which he would like to attain. This definition is consistent with the present author's conceptualization of educational plans. Harding concluded that dropouts are different from non-dropouts on the basis of educational expectations or plans even when IQ, socioeconomic status, and academic achievement are partialled out.

Harding, however, investigated only one of the variables used in this project. He did not examine the effects of educational aspirations in his study of school dropout. He did take a conjectured position consistent with the orientation of this study, however, by recommending counseling to enhance educational expectations rather than aspirations in order to increase motivation for further education. In addition, Harding distinguished between those students who voluntarily dropped out of school and those who left for other reasons.

The present study goes beyond these findings to ascertain the predictive utility of educational plans and educational aspirations as related to a major role change and an important antecedent of career development - voluntary high school dropout behavior.

Related theoretical literature

As was stated in the previous section, Brookover, et al.¹


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have made a conceptual clarification between the concepts of aspirations and plans that is consistent with the position of this study. Plans are defined as one's perceptions of what he will be doing at some future date; aspirations are defined as wishes or desires.

In Meltzer's summarization of Meadian theory, an act such as the attempt to achieve a successful career is described as encompassing the total process involved in human activity - this act may be defined by its imaginary completion within the mind of the individual. It is contended that all human activity other than reflex and habitual action is built up as it goes along. The act, which is the unit of study, originates as an impulse and terminates with some objective that releases this impulse. Prior to termination, the individual constructs and organizes his behavior in accordance with possible lines of action to direct this activity to its consummation. It is this assumption that possible goals or lines of action direct activity to its completion that provides the basis for the theoretical proposition that voluntary decision-making behavior is a function of perceived probable outcomes of social acts.

In their reinterpretation of symbolic interactionism, particularly the work of George Herbert Mead, Brookover, et. al.

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2 Brookover, et. al., Project #2831, op. cit.
specifically contend that one's anticipation of the future is a more relevant variable in behavior than is his desire for the future. This theoretical perspective, along with prior research by the same authors\(^1\) in predicting achievement in the academic setting, provides the basis for the hypothesis that the plans of students are more predictive of later voluntary high school dropout than are students' aspirations.

High school dropout behavior is a major role change for any student; voluntarily dropping out of school may be viewed as a career choice occurring within the educational arena. In the case of voluntary dropout, this action is a major step in career development and, as is hypothesized, is likely to be associated with educational plans. To a lesser extent, if any, school dropout may be associated with educational aspirations; however, the theoretical perspective of this study and other formalized theories of human behavior provide little basis for making such an hypothesis. Perhaps aspirations should be included in a formal social psychology. Certainly, this is suggested by the attention from all behavior disciplines given to this concept.

In a post hoc analysis of the relationship of educational plans to dropout, Harding\(^2\) determined who dropped out of school and

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\(^1\) Brookover, et al., "Educational Aspirations...", op. cit.

\(^2\) Harding, op. cit.
then assessed their plan levels. He did not attempt to compare the utility of educational plans with educational aspirations. This study, in accord with Merton's advocacy of the cumulative investigation of a succession of hypotheses derived from a given theory, builds specifically on the earlier work of Brookover, et al., and Harding by comparing the relative and additive power of aspirations and plans in predicting dropout behavior.

Certain variables such as the support of family, friends, and teachers are also likely to be operative or contributive to dropout behavior. In this study, however, only those variables which have been demonstrated to be associated with voluntary dropout by previous investigators are used as control variables. This allows for further assessment of whether Educational Plans and Educational Aspirations make independent contributions in accounting for high school dropout.

Research Objectives

It is, then, the objective of this study to contribute to educational, psychological and sociological theory and practice by empirically testing the relative utility of the concepts of educational aspirations and plans as derived from an interpretation of George Herbert Mead's theory of social behaviorism as posited by Brook-
over, Erickson and Joiner[^1]. This theoretical orientation provides the basis for the following propositions and general hypotheses.

### Theoretical propositions

1. Voluntary decision-making behavior is a function of perceived probable outcomes of social acts.

2. The perceived probable outcomes of social acts are factors that are separate from desired outcomes. Although aspirations and plans may at times be similar for an individual, these constructs are substantively different in content and in their functions as related to behavior.

3. If voluntary behavior is a function of aspirations, these aspirations function within one's anticipation of the future.

The above propositions are based on the assumption that individuals may simultaneously perceive both expected ("real") and ideal (preferred) goals for the future - these two types of goals may be independently related to actual behavior, e.g., high school dropout. It is further assumed that, subject to test in this study, educational aspirations and educational plans make independent contributions to the prediction of dropout apart from the predictive utility of other scientific constructs which have been used in the prediction of this kind of behavior, e.g., measured intelligence, socioeconomic-

ic status, and self-concept of academic ability.

Major hypotheses

With the appropriate questionnaire items to ascertain the individual's aspirations and plans used in conjunction with a longitudinal observation of the individual's decision-making processes, the predictive utility of each construct may be determined. Thus, the preceding propositions lead to the following hypotheses:

1. A student's Educational Plan levels, which are measured by asking for indications of expected and anticipated goals, will be predictive of whether the student later drops out of high school.

2. A student's Educational Aspirations, as measured by questions asking subjects to indicate their desires or wishes for educational attainment levels, will be predictive of whether the student later drops out of high school.

3. Of the two, Educational Plans will be more predictive of dropout than will Educational Aspirations.

Exploratory questions

With the hypothesis that the predictive power of plans will be greater than the predictive power of aspirations, there still remains the question of whether aspirations make an independent or additive contribution to plans in the prediction of dropout behavior.
This study, therefore, tests the derived hypothesis that aspirations and plans have an independent or additive effective in predicting dropout.

Other pertinent exploratory questions concern whether educational plans and educational aspirations make a contribution to the prediction of high school dropout when variations in other variables which have been shown in prior studies to be associated with dropout are controlled, i.e., socioeconomic status, self-concept of academic ability, and measured intelligence. If aspirations and plans maintain their predictive effects when controlling for these other variables, this is further justification for the theoretical utility of these constructs.
CHAPTER II

THE RESEARCH METHODOLOGY

This chapter contains four sections. The first section deals with the populations, samples and sites used in the previous research projects from which these data have been taken. The second section is a presentation of operational definitions of the major variables. The third section is a discussion of the data collection procedures utilized by Brookover and associates. The analytical procedures used in the present study are dealt with in the fourth and final section.

Populations, Samples, and Sites of Research

In the longitudinal projects initiated by Brookover and associates during the 1960-1961 academic school year, data were collected from approximately 1500 eighth graders enrolled in the four junior-high schools of a midwestern city having a total population of 110,000 people. These classes were tested each year throughout their high school career. From the total sample, the following sub-populations were selected for the present project:

\[\text{Brookover, et. al., Cooperative Research Projects Nos. 845, 1636, and 2831, op. cit. Harding, op. cit.}\]

\[\text{iibid.}\]

\[\text{ibid.}\]
1. Eighth grade longitudinal sub-population: Male students who were in the school system during the eighth grade and continued through to the twelfth grade (N = 255) or who dropped out during the tenth, eleventh or twelfth grade (N = 40).

2. Ninth grade longitudinal sub-population (N = 309): Male students who were in the school system at the ninth grade level and continued through to the twelfth grade (N = 255) or who dropped out during the tenth, eleventh or twelfth grade (N = 54).

3. Tenth grade longitudinal sub-population (N = 319): Male students who were in the school system at the tenth grade level and continued through to the twelfth grade (N = 255) or who dropped out after being tested in the tenth grade, or the eleventh grade of the twelfth grade (N = 64).

4. Eleventh grade longitudinal sub-population (N = 296): Male students who were in the school system at the eleventh grade level and continued through the twelfth grade (N = 255) or who dropped out (N = 41).

Excluded from these sub-populations were:

1. Students who participated in special education programs or in experimental programs.

2. Students for whom complete data were not available.
(absentees during testing, transfer students, etc.)

3. Female students - dropout data were not available.

4. Black students - prior research in this population indicates that differences exist between racial groups in self-concept and certain other variables.

The sub-population overlap in subject composition; each succeeding sub-population includes additional students who transferred into the school systems under study and who later dropped out. As described in the section dealing with Major Variables, there was little discernible difference between those dropouts who transferred into the system and those who were initially enrolled in the school systems under study.

Major Variables and Instrumentation

High school dropout

Information on white males who voluntarily dropped out of school during the tenth, eleventh and twelfth grades was provided by Dr. Kenneth Harding. These three particular grade levels were selected on the assumption that most potential dropouts reach


2Harding, op. cit.
the legal age for this action in one of these grades. Furthermore, overaged students, i.e., those who become sixteen years old prior to their sophomore year, would be less likely to be included in the study.

The following criteria were used in the classification of dropouts:

1. They were neither suspended nor expelled from school.
2. No transcripts or records had been sent to another school.
3. The students had not withdrawn from school due to illness or poor health.

These measures were intended to exclude all students who may have left the school system to transfer to another school. There may have been some students who dropped out of school even though transcripts had been forwarded to another system, but this possibility was difficult to follow up. The total number of dropouts consisted of 96 white males. Forty-two of the dropouts terminated their school career during either the eleventh grade or the first three months of the twelfth grade. Twenty-one of these dropouts were students who had transferred from other cities to one of the three high schools under study at the eleventh grade level. Since there were no tenth grade data for the 21 transfer students who dropped out, they were compared with the 21 non-transfer
eleventh grade dropouts.¹ No significant differences between the two groups were discovered that might be attributed to the major or the control variables used in the Harding study² and in the current project.

**Educational Aspirations (Ed Asp)**

The scales for this and the following constructs were developed for the three longitudinal Cooperative Research Projects Nos. 845, 1636, and 2831 from which this study has been derived.

Educational Aspirations indicate a point in the formal educational system grade levels which a person desires to or would like to achieve but does not necessarily expect to reach.

This variable was determined by student responses to the question: "If you were free to go as far as you wanted to go in school, how far would you like to go?" Responses varying in order from: "I would like to graduate from college" and "I would like to graduate from high school" were placed in seven categories ranging from "Quit now" to "Go to graduate school." (See Appendix A)

**Educational Plans (Ed Pl)**

Educational Plans to obtain higher levels of schooling were obtained by asking the question "Sometimes what we would like to do isn't the same as what we expect to do. How far in school do you

¹Harding, op. cit., p. 79. ²loc. cit.
expect you will really go?" Answers such as "I expect to graduate from high school" and "I expect to graduate from college" were also placed in seven categories ranging from "Quit now" to "Go to graduate school." These responses were assumed to indicate the level in the educational system which a person actually expects to achieve or to which he has reason to foresee himself as reaching. (See Appendix B)

Other Variables

Self-Concept of Academic Ability (SCA)

The process by which a student compares and evaluates his academic ability with reference to other pupils in his social system is referred to as the subject's General Self-Concept of Academic Ability (SCA).

This variable, which stems from a Meadian definition of the self, is measured by summing a subject's responses to questions contained in the Michigan State General Self-Concept of Ability Scale which consists of eight multiple choice items which were developed under the U.S.O.E. Cooperative Research Project #845. The scoring of these items, which request each student to compare himself with other pupils, ranges from one to five; the higher scores are indicative of higher self-concepts. (See Appendix C)

The reliability coefficients of the SCA scale as determined by
Hoyt's analysis of variances were found to be greater than those of other more typical attitude measurements, but the original investigators emphasize that this particular instrument is to be used only for group research and not for comparison of individuals.¹

Socioeconomic Status (SES)

The Duncan Scale², a device which entails assigning values ranging from 100 (highest) to 01 (lowest) to subject responses concerning the occupation of the father or the head of the household, was utilized for the purpose of measuring socioeconomic status.

Intelligence (IQ)

Students' scores on the California Test of Mental Maturity were used for the purpose of assigning levels of academic ability. Since this test was administered at the ninth grade only, this grade alone will be examined in order to determine the predictive utility of the two major variables while controlling for variations in IQ.

Data Collection Procedures

All seventh grade students attending four junior-high schools in a mid-western city were given a questionnaire during the Fall

¹Brookover, _et. al._, _Project #2831_, op. cit., p. 60.
²_loc. cit._, p. 65.
semester of 1960. For the next five years, these same students, along with those who transferred into the school system under study, filled out the same type of questionnaire each Fall term.

Dr. Wilbur B. Brookover and research assistants directed the administration of the questionnaire during each session.

Each year, academic background data and information were gathered in the month of January, approximately two to three months after the administration of the mass testing technique. School records were perused to gather data relevant to academic achievement and academic ability, e.g., reading scores, grade point averages, etc.

Dr. Kenneth Harding initially identified all tenth grade, eleventh grade and twelfth grade male dropouts by noting those students who were not present when the questionnaires were administered. He then distinguished absentees from withdrawals by examining the student record files of the three high schools included in the Brookover longitudinal projects. By this method, he was also able to eliminate black students and females from the dropout population. A check list of dropouts was then compiled for the purpose of determining the exact cause of student withdrawals as was indicated by surveying the records of the central Child Accounting Office.¹

¹Harding, op. cit., p. 45.
The original data were coded and punched on IBM cards at Michigan State University. These card decks were furnished to the present author by Brookover and associates. For the purposes of the current study, data from these decks were used to construct longitudinal summary decks. Data from the original decks also provided useful information concerning eighth grade and ninth grade background material on those dropouts who were in the school systems under surveillance during that time.

Data Analysis Procedures

The Western Michigan University Computer Center provided the use of an IBM 1620 Computer for the calculation of the means, variances, standard deviations, and correlations of the major and control variables in the new longitudinal decks. Because some of the data pertaining to dropouts were missing, certain calculations were executed on the manual calculators in the Center for Sociological Research at Western Michigan University.

The general hypotheses to be tested are that students with more limited educational plans should have a higher frequency of dropout than do those students who have more extensive plans. It is also assumed that these relationships will be systematically ordered in a decreasing pattern from the lowest plan level through the highest.

In order to determine this type of relationship, the "L"
test\(^1\) is employed to test hypothesized ranking on high school dropout on the bases of subjects' indicated Educational Plans and Educational Aspirations. This statistic, an analysis of variance test which has been demonstrated to be more powerful than the omnibus F test\(^2\), tests the alternative hypothesis against the ordered hypothesis:

\[ H_1: m_1 > m_2 > \ldots > m_k. \]

As a schematic illustration, this hypothesized ranking would be as follows for the construct of Educational Plans as used in the prediction of high school dropout:

<table>
<thead>
<tr>
<th>Educational Plan Level</th>
<th>Predicted Rank of Dropout Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Quit school as soon as possible</td>
<td>1</td>
</tr>
<tr>
<td>2 = Continue in high school for a while</td>
<td>2</td>
</tr>
<tr>
<td>3 = Graduate from high school</td>
<td>3</td>
</tr>
<tr>
<td>4 = Go to trade or business school</td>
<td>4</td>
</tr>
<tr>
<td>5 = Go to college for a while</td>
<td>5</td>
</tr>
<tr>
<td>6 = Graduate from college</td>
<td>6</td>
</tr>
<tr>
<td>7 = Go to graduate school</td>
<td>7</td>
</tr>
</tbody>
</table>

In order to determine the extent of a systematic order of a decreasing pattern of dropout rates from the highest plan level to


the lowest plan level, relationships are examined in the following manner:

\[
\begin{array}{c|cccc}
 m & \text{Grade Level} & n & \text{Ed Plan Level} \\
 \hline
 & 1-2 & 3 & 4-5 & 6-7 \text{ (Hypothesized ranking of Dropout Rates)} \\
 \hline
8 & 1 & 2 & 3 & 4 \\
9 & 1 & 2 & 3 & 4 \\
10 & 1 & 2 & 3 & 4 \\
11 & 1 & 2 & 3 & 4 \\
\hline
m \sum x_{ij} & 4 & 8 & 12 & 16 \\
\hline
m \sum y_{ij} & 4 & 16 & 36 & 44 \\
\hline
L = \sum \frac{m}{n} \sum (y_{ij} x_{ij}) = 120 \\
\end{array}
\]

In order to ascertain reliability, the grade levels are split into two random groups; the same test is repeated as a means of examining whether a systematic order of decreasing dropout rates as associated with each consecutively higher level of plans or aspirations occurs in the hypothesized manner under conditions of randomization. (See Appendix D)

This procedure is utilized to determine the predictive utility of each concept, i.e., Educational Plans and Educational Aspirations, for each grade as follows:

\[1\text{Categories shall be collapsed as indicated when small cell frequencies make this necessary.}\]
Educational Plans indicated by students in the eighth grade are used to predict voluntary withdrawal from school in grades ten through twelve.

Educational Aspirations assessed in the eighth grade are used to predict dropouts in the tenth, eleventh and twelfth grades.

Ninth grade plans are used to predict dropout rates in grades ten through twelve.

Ninth grade aspirations are used to predict dropout in grades ten through twelve.

In the same manner, Educational Plans and Educational Aspirations indicated in the tenth and in the eleventh grade are employed to predict rates of dropout behavior which occurs any time during the tenth, eleventh and twelfth grade levels.

In addition to the initial examination of the two major independent variables in the prediction of high school dropout behavior, a test shall be conducted to determine which concept is the more powerful predictor. As previously stated, it is hypothesized that the proportions of dropouts predicted shall be greater under the concept of Educational Plans.

Other variables used for purposes of exploratory analyses will be examined with the use of the "L" test in order to determine if there are differences in rank-orderings that may occur while the variables of socioeconomic status, IQ, and self-concept of ability
are controlled.

Summary

In Chapter II an account has been given of the research procedures involved in the present study. Specifically discussed were the methods employed in identifying the population under study, the hypotheses to be tested, a description of the instruments that had been used, operational specifications of the variables, and a description of the statistical procedures to be used in the treatment of the data in Chapter III.
CHAPTER III
ANALYSIS AND FINDINGS

As developed in the previous chapters, the primary objective of this study is to determine if the theoretical constructs of Aspirations and Plans are useful predictors of behavior. The criterion of behavior in this study is whether a student voluntarily drops out of school. The criterion for Aspirations and Plans, as previously elaborated upon, are respectively: (1) a student's indicated desire for staying in or dropping out of school and (2) his indicated expectations of whether he will graduate from school.

Secondary objectives of this study are: (1) to determine which, aspirations or plans, result in the least error when predicting high school dropout, (2) to determine whether plans and aspirations have an additive independent effect, i.e., if the use of both plans and aspirations as predictors result in less error of prediction than when prediction is made on the basis of only plans or aspirations, and (3) the relative predictive utility of aspirations and plans while controlling for three variables which have, in prior research, been shown to be associated with student dropout. These control variables are socioeconomic status, student self-concept of academic ability, and measured intelligence.
Educational Plans as Predictors of High School Dropout

Findings which are relevant to the power of Educational Plans as predictors of high school dropout are presented for the following derived hypotheses.

Major Hypothesis One

Educational Plans are predictive of high school dropout.

Sub-hypothesis 1a

Level of Educational Plans is associated with dropout rate.

In order to assess Levels of Educational Plans, student responses were grouped as follows on the basis of their responses to the question "Sometimes what we would like to do isn't the same as what we expect to do. How far in school do you expect you will really go?":

Group One: Students who indicated that they planned to "Quit now" or to "Continue in high school for a while."

Group Two: Students who indicated that they intended to "Graduate from high school."

Group Three: Students who indicated that they intended to "Go to business or trade school" or "Go to college for a while."
Group Four: Students who indicated that they intended to "Graduate from college" or "Go to graduate school."

Operational hypothesis 1a

Group One students will have the largest proportion of students who drop out of school, followed by Groups Two, Three and Four respectively.

\[ H_{R1}: P_{1} > P_{2} > P_{3} > P_{4} \]

Statistic: L - Test Analysis of Variance

\[ \alpha = .05 \text{ level} \]

As indicated in Table 3.1, in certain cases Groups One and Two had to be combined for statistical testing because of insufficient numbers of subjects in adjacent cells. In such cases, the hypothesis to be tested with the same statistic as above is:

\[ H_{Ra}: P_{1} > P_{2} > P_{3} \]

Findings

The groups that contributed the largest proportion of students that voluntarily left high school at any time was that group which indicated that they expected to "Quit now" or to "Continue in high school for a while." This was true for each of the four grade levels. The greatest association between low plan levels and dropout behavior occurred in the tenth grade where 100% (\(N = 4\)) actua-
ally left school after stating that they intended to do so. The lowest relationship to be found is that of dropout rates as associated with the plan levels which were assessed in the eighth grade; however, of the eighth graders who indicated that they did not plan to finish high school, 50% actually left school prior to graduation.

In the cases where the categories were collapsed, the relationship is still significant. For those categories that were collapsed, the results are that 26% of the eighth grade students who had low plans left school, 45% of the ninth graders later withdrew, 39% of the tenth graders and 35% of the eleventh graders dropped out of school. (See Table 1, Appendix D) Thus, the hypothesized rank orderings of dropout rates matched the observed rankings of proportions of students who dropped out in every case, even when the smaller categories were collapsed.

The second category of Educational Plan levels produced the second largest proportion of high school dropouts as was predicted. The students in this group had previously stated that they expected to "Graduate from high school." For this level of plans, the strongest relationship to dropout behavior is found in the ninth grade - nearly 43% of the students in that grade who had planned to finish high school withdrew from school at a later date. The tenth grade had the second highest proportion of dropouts in this category; 40% of these students dropped out. In the eleventh grade,
nearly 33% left school after indicating that they intended to finish. Again, the lowest relationship is to be found in the eighth grade - 24% of those who planned to complete high school actually left school before doing so.

For each grade level, the group which produced the third largest proportion of high school dropouts was that one which indicated Educational Plans to "Go to business or trade school" or to "Go to college for a while." The greatest percentage of students who dropped out while holding these Plan levels came from the tenth grade - nearly 30% of these students withdrew from school. In both the ninth and the eleventh grade, 20% of the students who planned to obtain some form of education beyond that of high school were dropouts. In the eighth grade, the relationship is again the lowest of the four grade levels - only 16% of the students in this group dropped out of high school.

The lowest proportion of students who had been grouped according to levels of Educational Plans and who later withdrew from school were those who had previously stated that they expected to "Graduate from college" or to "Go to graduate school." In this case, the eighth grade group had the highest percentage of dropouts - only 9% of those who anticipated finishing college never completed high school. The eleventh grade contributed the lowest percent - 5% of these pupils left school. Nearly 7% of the students
holding this Plan level dropped out of school after indicating their plans in the ninth and tenth grade.

Tables 1 and 2 in Appendix D demonstrate that the above relationships hold true even when the grade levels have been split into two randomly assigned groups. For each group in each grade level, the observed rankings of the dropout rates correspond to that of the hypothesized ranks. In each case, there was a perfect association between dropout rates and previously assessed levels of Educational Plans. As shown in Table 1, the research hypotheses $P_{gp} > P_{gp'} > P_{gp''} > P_{gp'''}$ are accepted. Educational Plan levels are perfectly associated with magnitudes of dropout rates in each grade.

Sub-hypothesis 1b

A further test of the predictive utility of Educational Plans is to contrast errors of prediction based on students' Educational Plans and the errors incurred with the use of known population parameters. For instance, in this study, it is known that of the eighth grade population that was followed up through the twelfth grade ($N = 295$), $14\% (N = 40)$ did in fact drop out of school. If dropout had been predicted for everyone in this population, $86\%$ of the predictions would have been in error. The question is: can this error be reduced, as hypothesized, by knowledge of the
TABLE 3.1

PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF PREVIOUSLY INDICATED EDUCATIONAL PLAN LEVELS

<table>
<thead>
<tr>
<th>Grade When Educational Plan Levels</th>
<th>N</th>
<th>Predicted Rank</th>
<th>Observed % Who Later Dropped Out</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans Were Assessed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gp¹ 1-2 (low)</td>
<td>6</td>
<td>1</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>gp²</td>
<td>62</td>
<td>2</td>
<td>24.1%</td>
<td>2</td>
</tr>
<tr>
<td>gp³</td>
<td>45</td>
<td>3</td>
<td>15.5%</td>
<td>3</td>
</tr>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gp¹ 1-2</td>
<td>7</td>
<td>1</td>
<td>71.0%</td>
<td>1</td>
</tr>
<tr>
<td>gp²</td>
<td>70</td>
<td>2</td>
<td>42.8%</td>
<td>2</td>
</tr>
<tr>
<td>gp³</td>
<td>45</td>
<td>3</td>
<td>20.0%</td>
<td>3</td>
</tr>
<tr>
<td>10th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gp¹ 1-2</td>
<td>4</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>gp²</td>
<td>68</td>
<td>2</td>
<td>40.0%</td>
<td>2</td>
</tr>
<tr>
<td>gp³</td>
<td>57</td>
<td>3</td>
<td>29.8%</td>
<td>3</td>
</tr>
<tr>
<td>11th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gp¹ 1-2</td>
<td>5</td>
<td>1</td>
<td>60.0%</td>
<td>1</td>
</tr>
<tr>
<td>gp²</td>
<td>55</td>
<td>2</td>
<td>32.7%</td>
<td>2</td>
</tr>
<tr>
<td>gp³</td>
<td>59</td>
<td>3</td>
<td>20.3%</td>
<td>3</td>
</tr>
<tr>
<td>gp³</td>
<td>170</td>
<td>4</td>
<td>5.2%</td>
<td>4</td>
</tr>
</tbody>
</table>

Categories grouped where indicated because of insufficient N's in cells to test hypotheses.

For Grades 8, 9, 10, 11: \( H_{R1}: P_{gp¹} > P_{gp²} > P_{gp³} \) \( P < .001 \)

(See Appendix D, Table 1)

¹Educational Plan Levels:
1 = Quit now
2 = High school a while
3 = Graduate from high school
4 = Business or trade school
5 = College a while
6 = Graduate from college
7 = Go to Graduate School

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students' plans?

Operational hypothesis 1b

The error in predicting dropout using Educational Plans will be less than the error of prediction using the value of the parameter of dropout rates.

\[ H_{RIb} : p - P > 0 \]

As shown in Table 3.2, for four sub-populations (Grades eight through twelve, nine through twelve, ten through twelve, and eleven through twelve) grouped on the basis of previously assessed plans to quit school, the magnitudes of predictive successes using population parameters as estimates of dropout rates were respectively: 14%, 17%, 20%, and 14%. In all cases, the use of Educational Plans considerably reduced the amount of error in predicting dropout behavior when compared to the knowledge of the percent of the total population who were likely to drop out of school.

Findings

As is indicated in Table 3.2, in the ninth grade longitudinal population, there were 16 students who stated plans to drop out of school; 75% of this group actually did leave school. By this method of prediction, there was an error of 25% as compared to the error of 83% that would have been made had dropouts been predicted on the basis of the value of the parameter. The proportions
### TABLE 3.2

PERCENTAGES OF ERROR OF PREDICTION BASED ON PARAMETER COMPARED TO PERCENTAGES OF ERROR OF PREDICTION BASED ON EDUCATIONAL PLANS

<table>
<thead>
<tr>
<th>Longitudinal Sub-Populations</th>
<th>Number Who Planned To Drop Out</th>
<th>Percent of Error of Prediction Based On:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Parameter</td>
</tr>
<tr>
<td>Beginning 8th Grade</td>
<td>15</td>
<td>.86</td>
</tr>
<tr>
<td>Beginning 9th Grade</td>
<td>16</td>
<td>.83</td>
</tr>
<tr>
<td>Beginning 10th Grade</td>
<td>8</td>
<td>.80</td>
</tr>
<tr>
<td>Beginning 11th Grade</td>
<td>5</td>
<td>.86</td>
</tr>
<tr>
<td>Total Percent of Errors of Prediction</td>
<td></td>
<td>.83</td>
</tr>
</tbody>
</table>

of errors in prediction have been reduced by 55% in the tenth grade and by 46% in the eleventh grade.

For those readers who are interested in the magnitudes of successful predictions based on using Educational Plans compared to the population parameter as broken down by longitudinal sub-populations, see Table 1, Appendix F.

Educational Aspirations as Predictors of High School Dropout

In order to test the predictive utility of the concept of Educational Aspirations, the following hypotheses have been formulated.

**Major Hypothesis Two**

Educational Aspirations are predictive of high school dropout.
Sub-hypothesis 2a

Level of Educational Aspirations are associated with rate of dropout.

In order to assess Levels of Educational Aspirations, student responses were grouped as follows on the basis of their responses to the question "If you were free to go as far as you wanted to go in school, how far would you like to go?":

Group One: Students who indicated that they desired to "Quit now" or to "Continue in high school for a while."

Group Two: Students who indicated that they desired to "Graduate from high school."

Group Three: Students who indicated that they desired to "Go to business or trade school" or to "Go to college for a while."

Group Four: Students who stated that they wished to "Graduate from college" or to "Go to graduate school."

Operational hypothesis 2a

Group One students will have the largest proportion of students who drop out of high school followed by Groups Two, Three and Four respectively.
As indicated in Table 3.3, certain of the above groups had to be combined for statistical testing because of insufficient numbers of subjects in adjacent cells. In such cases, the hypothesis to be tested with the same statistic as above is:

$$H_{R2}: P_{gp1} > P_{gp2} > P_{gp3} > P_{gp4}$$

Statistic: L-Test Analysis of Variance

$$\alpha : .05 \text{ Level}$$

Findings

The group that had the largest proportions of students who voluntarily left high school was that one which expressed the lowest levels of Educational Aspirations. This was true for each grade level. A visual inspection of Table 3.3 indicates that from 50% to 100% of those who previously expressed a wish or desire to drop out of school actually did so at a later date. When the categories are collapsed in order to deal with the small number of respondents in the lowest levels, it is found that low levels of Educational Aspirations still have a high relationship with dropout. In the eighth grade, 28% of those who had low aspirations dropped out of school. In the ninth grade level, 49% of those who desired to leave school actually did so. In the tenth grade, the strongest relationship once again prevails as 62% of those who stated that
TABLE 3.3

PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF EDUCATIONAL ASPIRATION LEVELS

<table>
<thead>
<tr>
<th>Grade When Asps Were Assessed</th>
<th>Ed Asp Category</th>
<th>Ed Asp Level*</th>
<th>Predicted Rank</th>
<th>Observed % Who Dropped Out Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th Grade</td>
<td>gp⁴ 1-2 (low)</td>
<td>6</td>
<td>1</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 2</td>
<td></td>
<td>2</td>
<td>25.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 3</td>
<td>27</td>
<td>3</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 4-5</td>
<td></td>
<td>4</td>
<td>8.5%</td>
</tr>
<tr>
<td>9th Grade</td>
<td>gp⁴ 1</td>
<td>4</td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 2</td>
<td>39</td>
<td>2</td>
<td>43.5%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 3</td>
<td>23</td>
<td>3</td>
<td>21.7%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 6-7</td>
<td>239</td>
<td>4</td>
<td>12.1%</td>
</tr>
<tr>
<td>10th Grade</td>
<td>gp⁴ 1</td>
<td>4</td>
<td>1</td>
<td>75.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 2</td>
<td>35</td>
<td>2</td>
<td>60.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 3</td>
<td>40</td>
<td>3</td>
<td>35.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 6-7</td>
<td>229</td>
<td>4</td>
<td>8.7%</td>
</tr>
<tr>
<td>11th Grade</td>
<td>gp⁴ 1</td>
<td>2</td>
<td>1</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 2</td>
<td>20</td>
<td>2</td>
<td>35.0%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 3</td>
<td>40</td>
<td>3</td>
<td>25.7%</td>
</tr>
<tr>
<td></td>
<td>gp⁴ 6-7</td>
<td>223</td>
<td>4</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

For all Grade Levels: $H_{R2}: P_{gp1} > P_{gp2} > P_{gp3} \ P < .001$

(See Table 1, Appendix E)

*Ed Asp Levels:
1 = Quit now
2 = High school a while
3 = Graduate from high school
4 = Business or trade school
5 = College a while
6 = Graduate from college
7 = Go to graduate school

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they wished to drop out of school actually did so. For the eleventh grade, there were 36% that quit school after previously expressing their desire to do so.

The group that had the second largest proportion of voluntary dropouts was that one which was classified under the Educational Aspiration level of wishing to "Graduate from high school." The grade level with the greatest percentage of dropouts under this category of aspirations was the tenth grade - 60% of these pupils who wished to graduate from high school did not do so. The next strongest relationship is to be found in the ninth grade where nearly 44% left school. In the eleventh grade, 35% withdrew; and the lowest association between aspirations for graduating from high school and dropout rates occurred in the eighth grade where 26% of the pupils in this category at that time left school at a later date.

The group with the third largest proportion of students who voluntarily withdrew from high school was the one which indicated a desire to "Go to business or trade school" or to "Go to college for a while." The percentages of high school dropouts associated with this level of Educational Aspirations ranged from nearly 22% in the eighth and the ninth grade to a high of 35% in the tenth grade. Nearly 26% of those in the eleventh grade who wished for higher education did not complete high school.
In accordance with the research hypothesis, the lowest proportion of students which had been grouped according to previously expressed Educational Aspiration levels that later dropped out of high school came from the group that desired to "Graduate from college" or to "Go to graduate school." The percentage of students who actually did drop out after expressing wishes for formal education ranged from 8% who held this type of aspiration in the eighth, tenth, and eleventh grade to a high of 12% in the ninth grade.

The Analysis of Variance L-test, illustrated in Table I, Appendix E, demonstrates that in all cases with the exception of the eighth grade, the observed rankings of the proportions of dropouts matched that of the predicted ranks as set forth in the research hypothesis. For the eighth grade, the observed rankings, had they not been collapsed, would also correspond with the predicted order; however, when the cases are small and the categories are collapsed, the lowest level of aspirations loses a degree of its strength of association in one case, i.e., the eighth grade.

The results of the L-test were significant beyond the .001 level. Therefore, it must be concluded that the concept of Educational Aspirations makes a contribution to the prediction of high school dropout behavior.
Sub-test 2b

A further test of the predictive utility of Educational Aspirations is to contrast errors of prediction based on this concept with the errors that would be made by using the known population parameter. For example, it is known that 14% of the population that was followed up from the eighth grade to the twelfth grade actually dropped out. The question to be asked is whether a more successful prediction, i.e., with less errors, can be made with sub-populations which are grouped on the basis of known Educational Aspirations.

Operational hypothesis 2b

The error in predicting dropout using Educational Aspirations will be less than the error of prediction using the value of the parameter of dropout rates.

$$H_{R2b} : p - P > 0$$

Findings

As indicated in Table 3.4, there were eleven students in the eighth grade sub-population who aspired to drop out of school. Using this as a basis for prediction, the percentage of errors that was made is 55%; the percentage of error that would have been made by using the parametric value would be 86%. In the ninth grade, the percentage of error made by using Educational Aspira-
TABLE 3.4

PERCENTAGES OF ERROR OF PREDICTION BASED ON PARAMETER COMPARED TO PERCENTAGES OF ERROR OF PREDICTION BASED ON EDUCATIONAL ASPIRATIONS

<table>
<thead>
<tr>
<th>Longitudinal Sub-populations</th>
<th>Number Who Desired to Drop Out</th>
<th>Percent of Error of Prediction Based On:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Parameter</td>
</tr>
<tr>
<td>Beginning 8th Grade</td>
<td>11</td>
<td>.86</td>
</tr>
<tr>
<td>Beginning 9th Grade</td>
<td>9</td>
<td>.83</td>
</tr>
<tr>
<td>Beginning 10th Grade</td>
<td>6</td>
<td>.80</td>
</tr>
<tr>
<td>Beginning 11th Grade</td>
<td>5</td>
<td>.83</td>
</tr>
<tr>
<td>Total Percent of Errors of Prediction</td>
<td></td>
<td>.83</td>
</tr>
</tbody>
</table>

s in predicting voluntary dropout is only 22%; an error percentage of 83% would have been made with the use of the parameter. Similarly, in the tenth grade, the percentage of errors made in predicting dropout is reduced from 80% to 33%; and in the eleventh grade, the percentage of errors in prediction is reduced by 43%.

As shown in Table 2 of Appendix F, the magnitudes of predictive successes using Educational Aspirations to predict dropout behavior for the four sub-populations (Grades 8-12, 9-12, and 11-12) were respectively: 45%, 78%, 67%, and 60%. In contrast, the magnitudes of predictive successes using population parameters as estimates of dropout rates were respectively 14%, 17%, 20%, and 14%. In all cases, the use of Educational Aspirations
greatly enhanced success in predicting dropout behavior over the rates that might have been made by predicting with the knowledge of the percent of the total population who were likely to drop out of school.

Comparison of the Predictive Utility of Educational Plans and Educational Aspirations

The statistical analysis of the predictive utility of Educational Plans and Educational Aspirations demonstrates that both concepts may be used in the prediction of high school dropout behavior. In line with the theoretical framework of this study, however, it has been hypothesized that the concept of Educational Plans will have a greater predictive power than that of Educational Aspirations for this type of behavior. In order to examine this issue, the following hypothesis has been formulated.

Major Hypothesis Three

Of the two constructs, i.e., Educational Plans and Educational Aspirations, perceptions of expectations for the future will be more predictive of dropout behavior than will be aspirations.

Research hypothesis 3

The proportion of errors in predicting dropout on the basis of Educational Plans will be less than the proportion of errors in predicting dropout on the basis of Educational Aspirations.
Findings

As indicated in Table 3 of Appendix F, when all of the predictions are combined, i.e., for each grade level sub-population, less errors in prediction were made on the basis of Educational Plans (33%) than were made on the basis of Educational Aspirations (45%). In other words, Educational Plans predicted high school dropout more accurately than did Educational Aspirations. However, as illustrated in Table 3 of Appendix F, this general tendency for Plans to be more predictive did not hold up across all sub-populations. Whether this is due to sampling error is not discernible at this time and is only reported to show the variation around the central tendencies of predictive efficiency. In summary, it is concluded that the concept of Educational Plans has more predictive efficiency for high school dropout than does Educational Aspirations.

Additive Effects of Aspirations and Plans as Predictors

As has been demonstrated, both aspirations and plans are predictive of high school dropout behavior. This leads to a new hypothesis relevant to the exploratory question of the additive effects of aspirations and plans in the prediction of dropout rates.

Hypothesis Four

The predictive efficiency (predicting dropout), using both
aspirations and plans will be greater than the predictive efficiency when using either plans or aspirations to predict dropout rates.

Research hypothesis 4

\[ \text{Ed pl} + \text{Ed Asp} > \text{Ed Pl} \]
\[ \text{Ed Pl} + \text{Ed Asp} > \text{Ed Asp} \]

Table 3.5 presents the findings to this question.

**TABLE 3.5**

**ADDITIVE AND INDEPENDENT UTILITY OF EDUCATIONAL PLANS AND EDUCATIONAL ASPIRATIONS IN SUCCESSFUL PREDICTION OF HIGH SCHOOL DROPOUT RATES**

<table>
<thead>
<tr>
<th>Desired to Leave School</th>
<th>Planned to Leave School</th>
<th>Percent of Successful Prediction of Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>.66</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>.55</td>
</tr>
</tbody>
</table>

**Findings**

There were thirteen students who indicated one or more times that they both wished to leave high school prior to graduation and that they expected to leave before graduating. As shown in Table 3.5, 77% of these students did in fact drop out of school. In as much as the error of prediction was less when using both Aspirations and Plans than when using either concept alone, it is concluded that while each concept accounts for some dropout
independently of the other, there is an additive effect between the two variables in the prediction of dropout behavior.

The addition of student wishes to the knowledge of student plans does appear to increase the predictive utility of this variable in the area of dropout behavior. In summary, it is concluded that students' Educational Plans are not only of greater utility in the prediction of high school dropout behavior, but there is also an additive effect between the two concepts that enhances the prediction of this type of behavior.

EXPLORATORY QUESTIONS

Aspirations and Plans Controlling for SES, IQ, and Self-Concept

1. Are Educational Plans predictive of dropout when variations in high and low socio-economic status are controlled?

Table 3.6 gives the results of this exploratory question. In this table, variations in socio-economic class are accounted for by classifying subjects into high and low categories on the basis of scores assigned to them based on the Duncan Scale of Socio-economic Status. In order to differentiate the two groups for the purpose of this analysis, the score of 50, which falls at the mid-point of the Duncan Scale, was arbitrarily selected as the cutting point.

Findings

It may be noted that those pupils in the higher socioeconomic
**TABLE 3.6**

PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF EDUCATIONAL PLAN LEVELS AND UNDER CONDITIONS OF HIGH AND LOW SOCIOECONOMIC STATUS

<table>
<thead>
<tr>
<th>Ed Pl by Grade Level</th>
<th>Predicted Rank</th>
<th>Observed High SES: Dropout, %</th>
<th>Observed Rank</th>
<th>Observed Low SES: Dropout, %</th>
<th>Observed Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0.0%</td>
<td>-</td>
<td>6</td>
<td>66.6%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>66.6%</td>
<td>2</td>
<td>56</td>
<td>23.3%</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>33.3%</td>
<td>1</td>
<td>32</td>
<td>6.2%</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>8.3%</td>
<td>3</td>
<td>96</td>
<td>9.3%</td>
</tr>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
<td>6</td>
<td>66.6%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>36.3%</td>
<td>2</td>
<td>59</td>
<td>44.0%</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>7.6%</td>
<td>3</td>
<td>32</td>
<td>21.3%</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>4.9%</td>
<td>4</td>
<td>102</td>
<td>7.8%</td>
</tr>
<tr>
<td>10th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
<td>3</td>
<td>100.0%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>66.6%</td>
<td>2</td>
<td>62</td>
<td>40.0%</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>9.0%</td>
<td>3</td>
<td>46</td>
<td>35.0%</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>5.0%</td>
<td>4</td>
<td>110</td>
<td>8.0%</td>
</tr>
<tr>
<td>11th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0.0%</td>
<td>-</td>
<td>5</td>
<td>60.0%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>60.0%</td>
<td>1</td>
<td>50</td>
<td>28.0%</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>9.5%</td>
<td>2</td>
<td>38</td>
<td>26.3%</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>2.5%</td>
<td>3</td>
<td>97</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

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status groupings are much less likely to hold low Educational Plans than are those students that were placed in the lower SES category. In each grade level, the number of students from higher SES backgrounds who plan to drop out of school as soon as possible never amounts to more than one individual. On the other hand, there is a much greater proportion of lower class students who do not plan to go beyond high school at every grade level.

Again, in every grade level, with the exception of the eighth grade, the observed rankings of proportions of dropouts occurred in the predicted manner. Thus, in answer to the above question, it is concluded that educational plans are associated with dropout rates when controlling for high and low socioeconomic status.

2. Are Educational Aspirations predictive of school dropout when variations in high and low socioeconomic status are controlled?

Findings

Table 3.7 illustrates that the observed rankings of proportions of dropouts occurred in the predicted manner in nearly all cases for each grade level. There is some variation away from the predicted rank-orderings in the eighth and ninth grade upper socioeconomic groups.

It may be noted that there is a very small proportion of
### TABLE 3.7

**PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF EDUCATIONAL ASPIRATION LEVELS UNDER CONDITIONS OF HIGH AND LOW SOCIOECONOMIC STATUS**

<table>
<thead>
<tr>
<th>Ed Asp by Grade Level</th>
<th>Predicted Rank</th>
<th>High SES Observed N</th>
<th>Observed Dropout, %</th>
<th>Low SES Observed Rank</th>
<th>Observed Dropout, %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8th Grade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
<td>80.0%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>2</td>
<td>50.0%</td>
<td>2.5</td>
<td>30</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>4</td>
<td>50.0%</td>
<td>2.5</td>
<td>25</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>92</td>
<td>8.6%</td>
<td>4</td>
<td>129</td>
</tr>
<tr>
<td><strong>9th Grade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>3</td>
<td>66.6%</td>
<td>1.2</td>
<td>100.0%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
<td>40.0%</td>
<td>2</td>
<td>34</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>1</td>
<td>00.0%</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>98</td>
<td>6.1%</td>
<td>3</td>
<td>141</td>
</tr>
<tr>
<td><strong>10th Grade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>00.0%</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
<td>60.0%</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>3</td>
<td>33.3%</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>84</td>
<td>6.0%</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td><strong>11th Grade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>00.0%</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>33.3%</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>10</td>
<td>30.0%</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>91</td>
<td>3.2%</td>
<td>3</td>
<td>132</td>
</tr>
</tbody>
</table>

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upper SES students who have Educational Aspirations lower than that of graduating from college. For the higher social class group, there seems to be evidence that there is at least a small proportion who desire to graduate from college but do not actually plan to (as compared with Table 3.6). The same phenomenon holds for those students in the lower SES grouping; as compared with Table 3.6, there is a consistently greater proportion who wish to graduate from college than there is who actually plan to do so. Furthermore, there is a consistently smaller proportion of those who desire to terminate their educational careers early than there is who actually plan on doing so.

However, it does appear that for each prospective academic attainment level that has been measured in each grade level, the concept of Educational Aspirations is the better predictor. In other words, there seems to be a considerably smaller proportion of students in both social class groupings who actually wish to quit school early; but those who do desire to quit early seem to do so more often than those students who anticipate early withdrawal. There are, obviously, variations between proportions who drop out under the two different concepts of Aspirations and Plans between grade levels; but in the cases of the lower levels of Aspirations, there is a slightly higher proportion of dropouts than is true with the lower levels of Plans.
Therefore, it must be said that when variations in socioeconomic status are accounted for, Educational Aspirations are still predictive of high school dropout. Although there are fewer students who hold low levels of Educational Aspirations than who have low levels of Educational Plans, as compared across social class groupings, those few students who do desire to quit school seem quite likely to do so.

3. Are Educational Plans predictive of school dropout when variations in students' self-concepts of academic ability are controlled?

Table 3.8 presents the results of this exploratory question. In Table 3.8 it may be seen that, with the exceptions of those students in the eighth grade who have low self-concepts, the observed rankings of proportions of high school dropouts occur in the predicted manner even when variations in Self-Concepts of Academic Ability are controlled.

The population mean score for SCA was 27.76 on a 40-point scale. This score was used as the cutting point for the purpose of classifying students into high and low groups.

First, it may be noted that those students who have a low self-concept and plan to drop out of school do so at rather high rates. Of the students with these characteristics in the eighth grade, 50%...
# TABLE 3.8

**Predicted and Observed Rank of Proportions of Students Who Dropped Out of High School on the Basis of Educational Plans and Under Conditions of High and Low Self-Concepts of Academic Ability**

<table>
<thead>
<tr>
<th>Ed Plans by Grade Level</th>
<th>Predicted Rank</th>
<th>High SCA Observed Dropout, %</th>
<th>Observed Rank</th>
<th>Low SCA Observed Dropout, %</th>
<th>Observed Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>19</td>
<td>43</td>
<td>25.5%</td>
<td>3</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>22</td>
<td>23</td>
<td>17.3%</td>
<td>4</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>150</td>
<td>30</td>
<td>26.6%</td>
<td>2</td>
</tr>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>66.6%</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>12</td>
<td>58</td>
<td>43.1%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>22</td>
<td>23</td>
<td>21.7%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>158</td>
<td>25</td>
<td>8.0%</td>
<td>4</td>
</tr>
<tr>
<td>10th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>10</td>
<td>58</td>
<td>46.5%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>22</td>
<td>35</td>
<td>40.0%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>143</td>
<td>42</td>
<td>21.4%</td>
<td>4</td>
</tr>
<tr>
<td>11th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>75.0%</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>13</td>
<td>42</td>
<td>35.7%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>32</td>
<td>37</td>
<td>21.6%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>141</td>
<td>29</td>
<td>10.3%</td>
<td>4</td>
</tr>
</tbody>
</table>
dropped out; 67% in the ninth grade, 100% in the tenth grade, and 75% in the eleventh grade. For the groups that had low self-concepts and planned to graduate from high school, 26% of those that held this type of plan in the eighth grade dropped out at a later date; 43% in the ninth grade; 47% in the tenth grade; and 36% who planned to graduate from high school while being in the eleventh grade dropped out.

Those students who planned to go to business or trade school and had low self-concepts while in the eighth grade had a 17% dropout rate; the ninth grade had 22%; 40% in the tenth; and 22% in the eleventh.

The construct of Self-Concept of Academic Ability seems to be an influential determinant of behavior as may be evidenced in those groups of students who had low Self-Concepts and still planned to graduate from college. Over 26% of the eighth graders in this category dropped out of school; 21% of the tenth graders withdrew; 10% of the eleventh grade students dropped out; and 8% of these in the ninth grade with low self-concepts and high plans voluntarily left school.

Those students who have a high SCA are much more likely to have high Educational Plans than are those who received a low SCA score. In this group there was only one person in the ninth and one person in the eleventh who actually planned to leave school.
For those having high SCA scores and who planned to graduate from high school while in the eighth grade, 21% dropped out; 42% of those in the ninth grade left school, 30% in the tenth grade, and 23% in the eleventh grade.

In the eighth, ninth, and tenth grade, those with high self-concepts who planned to go to business or trade school and who later dropped out amounted to less than 14% in each group. In the eleventh grade, 18% of the students in this group dropped out.

Finally, it may be seen that those students with high self-concepts and high Educational Plans are quite unlikely to leave school. The ninth grade contributed the greatest proportion - 6% of these students left school; 5% from the eighth grade later quit school; and less than 4% from the tenth and the eleventh grade dropped out.

In summary, it is concluded that educational plans are still predictive of school dropout when variations in self-concept of academic ability is controlled.

4. Are Educational Aspirations predictive of school dropout when variations in students' Self-Concept of Academic Ability are controlled?

Table 3.9 presents the results of this exploratory question. As was done in the case of Table 3.8, the population mean score of 27.76 on the 40-point scale of the General Self-Concept of
### Table 3.9

Rank Orderings of the Observed Proportions of High School Dropout as Predicted on the Basis of Educational Aspirations under Conditions of High and Low Self-Concepts of Academic Ability

<table>
<thead>
<tr>
<th>Ed. Asps. by Grade Level</th>
<th>Predicted Rank</th>
<th>High SCA Observed N</th>
<th>Observed Dropout, %</th>
<th>Observed Rank</th>
<th>Low SCA Observed N</th>
<th>Observed Dropout, %</th>
<th>Observed Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>1</td>
<td>00.0%</td>
<td>-</td>
<td>5</td>
<td>60.0%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>25.0%</td>
<td>1</td>
<td>24</td>
<td>25.0%</td>
<td>3</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>10</td>
<td>10.0%</td>
<td>2</td>
<td>17</td>
<td>29.4%</td>
<td>2</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>167</td>
<td>4.7%</td>
<td>3</td>
<td>54</td>
<td>18.5%</td>
<td>4</td>
</tr>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>00.0%</td>
<td>-</td>
<td>4</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>60.0%</td>
<td>1</td>
<td>34</td>
<td>41.1%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>9</td>
<td>11.1%</td>
<td>2</td>
<td>14</td>
<td>28.5%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>179</td>
<td>8.3%</td>
<td>3</td>
<td>60</td>
<td>23.3%</td>
<td>4</td>
</tr>
<tr>
<td>10th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>0</td>
<td>00.0%</td>
<td>-</td>
<td>4</td>
<td>75.0%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>60.0%</td>
<td>1</td>
<td>30</td>
<td>60.0%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>9</td>
<td>22.2%</td>
<td>2</td>
<td>31</td>
<td>38.7%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>160</td>
<td>2.5%</td>
<td>3</td>
<td>70</td>
<td>24.2%</td>
<td>4</td>
</tr>
<tr>
<td>11th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>1</td>
<td>00.0%</td>
<td>-</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>25.0%</td>
<td>2</td>
<td>16</td>
<td>37.5%</td>
<td>2</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>7</td>
<td>28.5%</td>
<td>1</td>
<td>33</td>
<td>27.7%</td>
<td>3</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>164</td>
<td>4.9%</td>
<td>3</td>
<td>49</td>
<td>16.9%</td>
<td>4</td>
</tr>
</tbody>
</table>

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Academic Ability Scale was used for purposes of categorizing high and low groups.

As compared with Table 3.8, it may be noted that a much greater proportion of students in both high and low SCA categories are much more likely to have high Educational Aspirations than is true in the case of Educational Plans. Furthermore, the rank-ordering of the observed proportions of dropouts does not occur in the predicted manner as consistently as is true under the concept of Educational Plans.

For those students with low self-concepts, there are considerably fewer who indicated low levels of Educational Aspirations than is true of their levels of Educational Plans. However, the percentages of those who dropped out after stating lower levels of aspirations is nearly the same for most grade levels as those proportions who dropped out while holding the lower levels of Educational Plans. This indicates that, while only a few students who have a low self-concept actually desire to drop out of school, just as great a proportion of these students will leave school as is true for students who have low self-concepts and who actually plan to leave school. On the other hand, many students with low self-concepts desire to graduate from college - but there is a relatively large percentage who don't finish high school. Of these kinds of students in the eighth grade, 19% dropped out; 23% in the ninth grade, 24% in the tenth grade, and
17% in the eleventh grade.

For those students who have high self-concepts, the vast majority wish to graduate from college. In this group, there is a relatively small proportion who do drop out of school. In each grade level, there is only a small number of students who do not wish to finish high school who have high self-concepts. However, of this small group, a rather large proportion does drop out. Of those in the eighth grade who only desired to graduate from high school, 25% left school; 60% from the ninth grade and the tenth grade, and 25% from the eleventh grade.

Thus it may be concluded that for those few students who do have low levels of Educational Aspirations, this concept maintains its predictive utility even when variations are considered in students' self-concepts of academic ability.

5. Are Educational Plans predictive of school dropout when variations in intelligence are controlled?

Table 3.10 presents the results for this exploratory question. In Table 3.10 only the ninth grade IQ scores and Educational Plan levels are utilized for analysis. The ninth grade level was when the IQ tests were administered to the population under examination; for this reason, only this grade level has been studied in order to determine the predictive power of the concept of Educational Plans.
**TABLE 3.10**

PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF EDUCATIONAL PLANS AND UNDER CONDITIONS OF HIGH AND LOW IQ

<table>
<thead>
<tr>
<th>Ed Plans by Grade Level</th>
<th>Predicted Rank</th>
<th>High IQ Observed</th>
<th>Observed Dropout, %</th>
<th>Low IQ Observed</th>
<th>Observed Dropout, %</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>2</td>
<td>00.0%</td>
<td>-</td>
<td>5</td>
<td>100.0%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>16</td>
<td>50.0%</td>
<td>1</td>
<td>54</td>
<td>40.7%</td>
</tr>
<tr>
<td>4-5</td>
<td>3</td>
<td>30</td>
<td>16.6%</td>
<td>2</td>
<td>15</td>
<td>20.0%</td>
</tr>
<tr>
<td>6-7</td>
<td>4</td>
<td>146</td>
<td>4.1%</td>
<td>3</td>
<td>37</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

The population mean score for academic ability or IQ was 105.6. Any score exceeding the mean was classified as a high score; those scores falling below the mean were classified as low scores.

It may be seen that when variations in intelligence are controlled for, the observed rankings of proportions of dropouts are ordered in the hypothesized manner.

In the ninth grade, all of those students with low IQ's who planned to quit school as soon as possible actually did so. Nearly 41% of those with low intelligence scores who anticipated graduating from high school did not do so.

For those students who had low IQ's and planned to go to trade or to business school, 20% dropped out before finishing high school. Sixteen percent of those with low intelligence scores who expected to...
graduate from college did not finish high school.

The great majority of those pupils with high intelligence scores expected to graduate from college. None of those with high scores who planned to quit school actually did so ($N = 2$). Of the 16 students who expected to graduate from high school, one-half did not do so. Of those students with high IQ's and who expected to go to trade school or to business school, 16% did not finish high school.

Thus, it may be concluded that Educational Plans are predictive of school dropout when variations in intelligence are controlled.

6. Are Educational Aspirations predictive of school dropout when variations in intelligence are controlled?

Table 3.11 presents the results of this exploratory question. In Table 3.11 it may be noted that the observed rank orderings of dropout behavior occurred in the predicted manner only for those students who had higher levels of Educational Aspirations.

In both intelligence groups, more students have high Educational Aspirations than they do high Educational Plans. In this particular instance, however, it does seem that the possession of high levels of Educational Aspirations does not necessarily serve to hold low IQ students in school. Nearly 27% of those in the low intelligence group who desired to graduate from college did not finish high school. For the low IQ group, there is little difference in the propor-
TABLE 3.11

PREDICTED AND OBSERVED RANK OF PROPORTIONS OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL ON THE BASIS OF EDUCATIONAL ASPIRATIONS AND UNDER CONDITIONS OF HIGH AND LOW IQ

<table>
<thead>
<tr>
<th>Ed Asps</th>
<th>Predicted Rank</th>
<th>High IQ</th>
<th>Low IQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed N</td>
<td>Observed Dropout, %</td>
<td>Observed N</td>
</tr>
<tr>
<td>9th Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>36.3%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>22.2%</td>
<td>14</td>
</tr>
<tr>
<td>4-5</td>
<td>9</td>
<td>6.3%</td>
<td>67</td>
</tr>
</tbody>
</table>

For the higher intelligence group, there is a considerable difference in the numbers of students who selected different goals for their Plans and Aspirations. Of the 16 higher IQ students who planned to finish high school, eight did not graduate (Table 3-10). However, of the eleven who desired to finish high school, there were only four who dropped out.

It must be concluded that the concept of Educational Aspirations predicts differentially between groupings of high and low IQ students.
Knowing that an intelligent student has low aspirations does not enable one to predict dropout as well as knowledge of Educational Plans. However, one's predictive ability is somewhat enhanced by knowing that a student has low Educational Aspirations and a low IQ; this type of student is slightly more likely to leave school than is a student who has a low IQ and low levels of Educational Plans.
CHAPTER IV
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Objectives

The general purpose of this study was to examine two constructs that are commonly employed by sociologists to account for behavior, i.e., aspirations and plans. The more specific objective of the study was to determine whether students' Educational Plans and Educational Aspirations are useful predictors of who will or will not drop out of school.

Procedures

Population

The basic population selected for this study consisted of 350 Caucasian males who had been classified as eighth graders during the 1961-1962 academic school year. This population was broken down into four sub-populations; at each successive grade level from eight to eleven, all students in the school system who met the established criteria were treated as a sub-population. Excluded from the sample were females, black males, students for whom complete records were not available (transfers, absentees, etc.), and students who participated in special education and experimental programs.
There was a total of 255 students who remained in school from the eighth grade through the twelfth grade and who were examined in each sub-population. A total of 95 students in the school system under study voluntarily dropped out; although some of these students transferred into the school system at the time that the original longitudinal projects were under progress, there was no significant differences found between the transfer students who dropped out and the non-transfer students who dropped out.

Variables Examined

The two independent variables examined in this study are Educational Plans and Educational Aspirations.

In a questionnaire which was designed and mass-administered by Brookover and associates, a student's Educational Plans were determined by asking the question "Sometimes what we would like to do isn't the same as what we expect to do. How far in school do you expect you will really go?" Seven response categories ranging from "Quit now" to "Go to graduate school" were provided with the assumption that students will indicate the level in the educational system that they actually expect to achieve.

Educational Aspirations, which indicate how far in the school system a person would like to go even though not actually expecting to, were measured by asking the question, "If you were free to go
as far as you wanted to go in school, how far would you like to go?"
The students' responses were placed in seven categories ranging from "Quit now" to "Go to graduate school."

In the present study, the three control variables which were used for the purpose of asking exploratory questions were: (1) socioeconomic status; (2) self-concept of academic ability; and (3) intelligence scores.

The data for socioeconomic status and self-concept of academic ability were obtained through the mass-administration of a questionnaire which was developed as a part of the larger longitudinal study from which the present study was derived. This questionnaire, which is now classified as The Michigan State General Self-Concept of Ability Scale was administered to all students in one Midwestern urban public school system who were in the seventh grade during the 1960-1961 school year. This questionnaire was re-administered annually to the same group of students for the next five years. In this manner, data were collected on the same group of students from the seventh grade through the twelfth grade. For the purpose of this study, dropouts were predicted from non-dropouts on the basis of data which had been gathered at each grade level. There were instances in which dropouts had transferred into the school system while the larger longitudinal project was under way; in these cases, the questionnaire data were used for those grades in which
the students had been tested. Data on IQ were acquired by using the students' scores on the California Test of Mental Maturity.

**Data Analysis Procedures**

For the general hypotheses, it was assumed that students with more limited educational Plans and Educational Aspirations would have a higher frequency of dropout than those students with higher Aspirations and Plans. It was also assumed that these relationships would be systematically ordered in a decreasing pattern from the lowest Plan and Aspiration levels through the highest. The "L" test, which tests the alternative hypothesis against the ordered hypothesis, was employed to test the hypothesized rankings of dropout rates on the bases of previously indicated levels of Educational Plans and Educational Aspirations.

Each grade level was randomly assigned into two groups for further statistical analysis with the "L" - test analysis of variance in order to determine whether the hypothesized rank orderings held up under these conditions. A presentation of this analysis is included in Appendix D and E.

For each analysis, a table was presented which depicted the number of students at each grade level who selected one of the seven levels of Educational Plans or Educational Aspirations. The proportions of students who dropped out are presented in conjunction with
their previously stated desired or anticipated levels of education. The proportions of dropouts were rank-ordered in each table on the basis of size of proportions in order to demonstrate whether the observed rank-orders of dropouts corresponded to the predicted rank-orderings.

In order to assess which concept had the greater predictive utility, sub-populations were grouped on the basis of levels of aspirations or plans and successes in prediction of dropouts were calculated and compared to the population parameter. Tables in Appendix F presenting the results of this analysis afford a visual inspection of the differential predictability for each Plan and Aspiration level at each grade level.

For the exploratory questions, the variables of socioeconomic status, self-concept of academic ability, and intelligence were divided into high and low categories. By thus controlling the high and low variations, each variable was in turn used for control purposes. The same type of procedure was employed to test the predictive utility of the two independent variables.

The total population of the study was used in the prediction of dropouts on the basis of the two independent variables in research hypotheses and exploratory questions; in other instances, sub-populations grouped on the basis of level of Educational Plans or Educational Aspirations are employed to provide further tests of the
predictive efficiency of each concept.

Summary of Significant Findings

The findings of this study are listed according to the results obtained by testing the four research hypotheses and seven exploratory questions found in Chapter III.

1. Ed Pls as predictors of high school dropout:

   For each grade level, students with more limited Educational Plans had higher frequencies of dropout than did students with more extensive Plans. The rates of dropout were systemically ordered in a decreasing pattern from the lowest level of Educational Plans through the highest.

   In a further test of predictive efficiency, it was found that the use of levels of Educational Plans greatly reduced the amount of error in predicting dropout behavior as compared to the errors of prediction that would have been incurred by utilizing the knowledge of the total percentage of students who were likely to drop out of school.

2. Ed Asps as predictors of high school dropout:

   For each grade level, there was an initially perfect systematic ordering in a decreasing pattern from the lowest levels of Educational Aspirations through the highest. When some categories were collapsed to compensate for low frequencies in the lowest levels,
however, the perfect association was lost at the eighth grade level.

In a further test, it was found that the use of levels of Educational Aspirations considerably reduced the amount of error in the prediction of dropout behavior as compared to the errors of prediction that would have been made based on the knowledge of the total percentage of students who were likely to drop out of school.

3. Comparison of the predictive utility of Ed PI and Ed Asps:

It was found that when all predictions of dropout made for each grade level were combined, there were less errors in prediction made on the basis of Educational Plans (33%) than were made on the basis of Educational Aspirations (45%). As illustrated in Table 3, Appendix F, however, the greater predictive efficiency of Educational Plans did not hold up across all grade level sub-populations.

4. Additive effects of Ed PI and Ed Asps as predictors:

It was found that while Educational Plans has greater utility in the prediction of dropout behavior, there is an additive effect between the two constructs that enhances the prediction of this type of behavior. The percentages of successful predictions of dropout were 66%, 55%, and 77% respectively for Ed PI, Ed Asps, and Ed PI + Ed Asps.

5. Ed PI as predictor; Socioeconomic status controlled:

In every grade level with the exception of the eighth grade, the observed rankings of proportions of dropouts were systematically
ordered in a decreasing pattern from the lowest to the highest level of Educational Plans. It was concluded that Educational Plans are associated with dropout when controlling for high and low socioeconomic status.

6. Ed Asps as predictors; SES controlled:

For every group, with the exception of upper socioeconomic status students in the eighth and ninth grade levels, there was a systematic rank-ordering of proportions of dropouts in a decreasing pattern from the lowest level of Educational Aspirations to the highest level. In all grade levels, there were fewer students in both upper and lower socioeconomic groupings who held low levels of Educational Aspirations than there were who had low levels of Educational Plans; but those who desired to quit, while controlling for SES, are more likely to do so than those who plan to. It was concluded that Educational Aspirations are associated with dropout when high and low variations in SES are controlled.

7. Ed Pl as predictors; SCA controlled:

In all cases with the exception of eighth graders with low self-concepts, there was a perfect rank-ordering of proportions of dropouts that fell in a decreasing pattern from the lowest to the highest levels of Ed Pl. It was concluded that Ed Pl are associated with dropout when variations in high and low levels of Self-Concept of Ability are accounted for. It is further concluded that knowledge of
levels of SCA enhances the predictive utility of Educational Plans.

8. Ed Asps are predictors; SCA controlled:

In most cases, the hypothesized association was found between proportions of dropouts and levels of Ed Asps while controlling for variations in SCA. For eighth graders with low levels of Self-Concept of Ability and eleventh graders with high SCA's, however, variations in the predicted rank-order of dropout rates were noted.

It was concluded that the predictive utility of the construct of Educational Aspirations acquires greater power when it is known that students hold low levels of SCA.

9. Ed Pl as predictor; IQ controlled:

In the ninth grade, the only grade examined in this exploratory question, the proportion of dropouts fell in a perfect rank-ordering in a decreasing pattern from the lowest levels of Ed Pl through the highest, when variations in measured intelligence are controlled.

There was a 100% dropout rate for those students who had low IQ's and who planned to quit school. It was concluded that Ed Pl are associated with dropout when variations in measured intelligence are controlled.

10. Ed Asps as predictors; IQ controlled:

For the high IQ group in the ninth grade, there was a perfect association between the rankings of dropout rates and Ed Asps. In the lower IQ group, however, there were noted variations in the
association of these variables. It was concluded that the construct of Ed Asps predicts differentially between groupings of students categorized on the basis of high and low IQ.

Conclusions

On the basis of the findings summarized above, the following conclusions have been derived.

1. It is concluded that the concepts of Educational Plans and Educational Aspirations are mutually exclusive and that each concept may make an independent contribution to the prediction of high school dropout behavior. This conclusion is supported by the findings of the numerous studies reviewed in Chapter I of this study. In the present study, it was found that even as early as in the eighth grade, it may be predicted that 50% of those students who report that they expect to drop out of high school will actually do so.

2. It is concluded that, of the two concepts, Educational Plans is the better predictor of dropout behavior. This conclusion is supportive of the findings of the more recent studies reviewed in the first chapter of this study. There are considerable variations evidenced in the predictive utility of each concept within grade levels; in the overall study, however, the greater utility of Educational Plans in predicting differences of proportions of dropouts was demonstrated to be statistically significant.
3. It is concluded that knowledge of a student's aspirations and plans may be helpful in two ways. Knowing that a student possesses both low aspirations and plans increases an investigator's predictive powers pertaining to dropout behavior considerably better than that obtained from the knowledge of only one of these variables. On the other hand, knowing that students possess high levels of both aspirations and plans considerably enhances the chances that these persons will remain in high school. In other words, those students that are high on both levels are more likely to stay in school than are those who measure high on only one of the two conceptualized levels.

4. It is concluded that Educational Plans and Educational Aspirations make independent contributions to the prediction of high school dropout behavior even when variations in other relevant variables are controlled. Findings of other studies reviewed in Chapter I of this study gave support to the hypothesis that each concept is differentially associated with such variables as socioeconomic status, self-concept of ability, and intelligence. It was found in this study that, while there is a more consistent rank-ordering of dropout rates as related to previously indicated levels of Educational Plans, both concepts may be used to predict substantial proportions of dropout rates independently of such variables as SES, SCA, and IQ.

5. It is concluded that the predictive power of each concept increases as students progress through school from the eighth grade.
to the tenth. With each successive year, there is a demonstrably stronger progressive relationship between both aspirations and plans and dropout behavior. In the eleventh grade, however, the association becomes somewhat weaker. This may be due in part to the fact that the tenth grade is the point when many students reach the age that they are permitted to withdraw from school. This would support the Meadian contention that human behavior is built up as it goes along. The fact that the relationship is weaker in the eleventh grade may perhaps be attributed to various other factors operating on the students' behavior, e.g., parental pressures, peer influences, etc. At this point, however, such conclusions are mere conjectures as there is little theoretical or empirical work on which to speculate about which factors do contribute to the weaker associations in the later years.

6. It is tentatively concluded on an empirical basis that aspirations and plans are separate and viable constructs which have theoretical utility in the explanation of career behavior; knowledge of these two constructs would be of great theoretical and empirical value to the numerous other variables used in the many studies reviewed in Chapter I. It is believed, on the basis of this study, that efforts to identify potential dropouts would be greatly enhanced by merely addressing the following question to students: "How far in school do you want to go?"
Recommendations

Based on the findings in this study and the information acquired from reviewing the literature, the following recommendations for further research are made:

1. Replicative studies using other populations of students should be conducted. This study is limited by the fact that it excluded females, black males, special education students, students in experimental programs designed to enhance their self-concepts, and was conducted in a small midwestern city.

2. Many previous studies on high school dropout behavior have found significant differences between dropouts and non-dropouts on the basis of variables other than those examined in the present study. Only a few of these studies, however, have controlled for such variables as Educational Plans and Educational Aspirations. It is recommended that replicative studies be made of these previous studies while using the concepts of Educational Aspirations and Educational Plans as control variables.

3. Similar longitudinal studies should be made using conceptual clarifications of other types of aspirations and plans, e.g., Occupational Plans and Occupational Aspirations. This would lend further support to the theoretical utility of these constructs.

Implications for Educational Practice

Based on the data examined in this study and the information
acquired from reviewing the literature, the following recommendations are made for educational practices.

1. Many suggestions and recommendations have been made in order to encourage every possible effort to identify as early as possible those individuals who are likely to drop out of school. The results of the present study may be indicative of a more direct and powerful approach of identifying potential dropouts, i.e., the direct assessment of students' Educational Plans and Educational Aspirations. However, while these constructs have been demonstrated to be powerful for research purposes, it remains an open question whether the constructs of aspirations and plans are useful for diagnostic purposes.

2. Since the relevance of the constructs of Educational Plans and Educational Aspirations as related to dropout behavior has been demonstrated, the next question leads to the issue of the successful modification of students' aspirations and plans. Perhaps the same theoretical orientation which guided this study would provide guidelines for educators to use in this area, i.e., Meadian social psychology. Experiments in this field seem to be in order.

Closing Statement

There are many inherent difficulties involved in the attempt to identify the potential dropout. One of the first steps is that of defin-
ing the problem and its causes. It is believed that the present study has made a contribution in this area. It has been demonstrated that as early as the eighth grade, 50% of those students who will drop out of school at a later date may be identified by merely asking them if they intend to do so. Considering that only 14% of this particular total sub-population did in fact drop out of school, this amounts to a considerable increase in predictive efficiency. In the tenth grade, nearly 100% of those students who stated that they either planned or desired to leave school later left high school.

In this instance, however, the application of a sociological theory to educational practice presents several problems. One of the basic problems is that of how to make formal education a more meaningful and rewarding experience for potential dropouts. Although not all students need extensive assistance in order to realize their individually projected goals, there does seem to be a few who do need additional guidance before such results may be attained.

One of the major difficulties in assisting those students who may need the help the most has been due to the fact that these students often do not overtly ask for the available kinds of assistance. This problem has been a great challenge to both teachers and counselors. Furthermore, there may be some question as to what kind of assistance this type of student may need.

It is the position of the present author that the use of question-
naires for the purposes of assessing students' levels of Educational Plans and Educational Aspirations may provide useful and instructive indices of the nature of the school climate in which the student participates. This could also serve as one perspective in the formulation of administrative goals. The use of these single items of information may further prove beneficial to the guidance endeavors of teachers and counselors and to the policy-making activities of administrators.
APPENDIX A

EDUCATIONAL ASPIRATIONS

Circle the letter in front of the statement which best answers the question.

If you were free to go as far as you wanted to go in school, how far would you like to go?

a. I think I would quit school as soon as I can.
b. I think I would continue in high school for a while.
c. I think I would graduate from high school.
d. I think I would go to secretarial or trade school.
e. I think I would go to college for a while.
f. I think I would graduate from college.
g. I think I would do graduate work beyond college.
APPENDIX B

EDUCATIONAL PLANS

Circle the letter in front of the statement which best answers the question.

Sometimes what we would like to do isn't the same as what we expect to do. How far in school do you expect you will really go?

a. I think I really will quit school as soon as I can.
b. I think I really will continue in high school for a while.
c. I think I really will graduate from high school.
d. I think I really will go to secretarial or trade school.
e. I think I really will go to college for a while.
f. I think I really will graduate from college.
g. I think I really will do graduate work beyond college.
APPENDIX C

SELF-CONCEPT OF ABILITY - GENERAL

Circle the letter in front of the statement which best answers each question.

1. How do you rate yourself in school ability compared with your close friends?
   a. I am the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am the poorest.

2. How do you rate yourself in school ability compared with those in your class at school?
   a. I am among the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am among the poorest.

3. Where do you think you would rank in your class in high school?
   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

4. Do you think you have the ability to complete college?
   a. Yes, definitely
   b. Yes, probably
   c. Not sure either way
   d. Probably not
   e. No
5. Where do you think you would rank in your class in college?
   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

6. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think it is that you could complete such advanced work?
   a. very likely
   b. somewhat likely
   c. not sure either way
   d. unlikely
   e. most unlikely

7. Forget for a moment how others grade your work. In your own opinion how good do you think your own work is?
   a. my work is excellent
   b. my work is good
   c. my work is average
   d. my work is below average
   e. my work is much below average

8. What kind of grades do you think you are capable of getting?
   a. mostly A's
   b. mostly B's
   c. mostly C's
   d. mostly D's
   e. mostly E's
## APPENDIX D

### ANALYSIS OF VARIANCE TEST OF HYPOTHESIS ONE

#### TABLE 1

**OBSERVED PROPORTIONS OF STUDENTS WHO DROPPED OUT ON THE BASIS OF EDUCATIONAL PLANS: GRADE LEVELS RANDOMLY ASSIGNED INTO TWO GROUPS**

<table>
<thead>
<tr>
<th>Grade Levels Assigned to Random Groups</th>
<th>Educational Plan Levels</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1-2 (n)</td>
<td>3 (n)</td>
<td>4-5 (n)</td>
</tr>
<tr>
<td>8th Grade</td>
<td>Group 1</td>
<td>1.000</td>
<td>2</td>
<td>.360</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>.250</td>
<td>4</td>
<td>.176</td>
</tr>
<tr>
<td>9th Grade</td>
<td>Group 1</td>
<td>.833</td>
<td>6</td>
<td>.419</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>.000</td>
<td>1</td>
<td>.358</td>
</tr>
<tr>
<td>10th Grade</td>
<td>Group 1</td>
<td>1.000</td>
<td>8</td>
<td>.459</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>1.000</td>
<td>8</td>
<td>.419</td>
</tr>
<tr>
<td>11th Grade</td>
<td>Group 1</td>
<td>.500</td>
<td>2</td>
<td>.228</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>.666</td>
<td>2</td>
<td>.450</td>
</tr>
</tbody>
</table>

\[
H_{R_1} : P_{gp_1} > P_{gp_2} > P_{gp_3}
\]
TABLE 2

HYPOTHESESIZED AND OBSERVED RANKINGS OF DROPOUT RATES ON THE BASIS OF EDUCATIONAL PLAN LEVELS - GRADE LEVELS ASSIGNED TO TWO RANDOM GROUPS

<table>
<thead>
<tr>
<th>Ed. Plan Levels</th>
<th>1-3</th>
<th>4-5</th>
<th>6-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Ranks</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observed Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th Grade</td>
</tr>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
<tr>
<td>9th Grade</td>
</tr>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
<tr>
<td>10th Grade</td>
</tr>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
<tr>
<td>11th Grade</td>
</tr>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
</tbody>
</table>

\[
X_{ij} = 8 \ 16 \ 24 \\
Y_{ij} = 8 \ 32 \ 72 \\
\]

\[
L = \sum (Y_i X_{ij}) = 112 \\
P < .005
\]
## APPENDIX E

ANALYSIS OF VARIANCE TEST OF MAJOR HYPOTHESIS TWO

### TABLE 1

OBSERVED PROPORTIONS OF STUDENTS WHO DROP OUT ON THE BASIS OF EDUCATIONAL ASPIRATIONS: GRADE LEVELS ASSIGNED INTO TWO RANDOM GROUPS

<table>
<thead>
<tr>
<th>Grade Levels Assigned to Random Groups</th>
<th>Educational Aspiration Levels</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>1-2 (n)</td>
<td>3 (n)</td>
<td>4-5 (n)</td>
<td>6-7 (n)</td>
</tr>
<tr>
<td>8th Grade</td>
<td>Group 1 666</td>
<td>.357</td>
<td>14</td>
<td>.416</td>
<td>.090</td>
</tr>
<tr>
<td></td>
<td>Group 2 333</td>
<td>.166</td>
<td>18</td>
<td>.071</td>
<td>.085</td>
</tr>
<tr>
<td>9th Grade</td>
<td>Group 1 1.000</td>
<td>.529</td>
<td>17</td>
<td>.363</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>Group 2 1.000</td>
<td>.363</td>
<td>22</td>
<td>.083</td>
<td>.063</td>
</tr>
<tr>
<td>10th Grade</td>
<td>Group 1 750</td>
<td>.666</td>
<td>15</td>
<td>.450</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>Group 2 0.000</td>
<td>.550</td>
<td>20</td>
<td>.250</td>
<td>.094</td>
</tr>
<tr>
<td>11th Grade</td>
<td>Group 1 0.000</td>
<td>.300</td>
<td>10</td>
<td>.222</td>
<td>.072</td>
</tr>
<tr>
<td></td>
<td>Group 2 1.000</td>
<td>.400</td>
<td>10</td>
<td>.318</td>
<td>.088</td>
</tr>
</tbody>
</table>

\[ H_{R2}: P_{gp1} > P_{gp2} > P_{gp3} \]
<table>
<thead>
<tr>
<th>Ed. Asp. Levels</th>
<th>1-3</th>
<th>4-5</th>
<th>6-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Ranks</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Observed Ranks**

<table>
<thead>
<tr>
<th>8th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
</tr>
<tr>
<td>Group 2</td>
</tr>
</tbody>
</table>

\[ \sum \frac{X_{ij}}{Y_{ij}} = 110 \]  

\[ P < .05 \]
APPENDIX F

TABLE 1

SUB-POPULATIONS BASED ON EDUCATIONAL PLAN LEVELS OF EXPECTING TO NOT FINISH HIGH SCHOOL: MAGNITUDE OF PREDICTIONS COMPARED TO MAGNITUDE OF PREDICTION BASED ON POPULATION PARAMETER

<table>
<thead>
<tr>
<th>Grade Level When Plans to Quit Were First Assessed</th>
<th>Longitudinal Population</th>
<th>Total Dropout</th>
<th>% of N (Parameter)</th>
<th>Total</th>
<th>Sub-Population, % Who Dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longitudinal Population</td>
<td>N 8</td>
<td></td>
<td>DO</td>
<td>N 9</td>
<td></td>
</tr>
<tr>
<td>Beginning 8th Grade</td>
<td>6</td>
<td>50%</td>
<td>5</td>
<td>60%</td>
<td>2</td>
</tr>
<tr>
<td>Beginning 9th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning 10th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning 11th Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Grade Level When Aspirations to Quit Were First Assessed</th>
<th>Longitudinal Population</th>
<th>N 8 DO</th>
<th>N 9 DO</th>
<th>N 10 DO</th>
<th>N 11 DO</th>
<th>Total Dropout</th>
<th>% of N (Parameter)</th>
<th>Sub-Population, % Who Dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning 8th Grade</td>
<td>5 40%</td>
<td>2 100%</td>
<td>3 67%</td>
<td>1 0%</td>
<td>40</td>
<td>14%</td>
<td>295</td>
<td>45%</td>
</tr>
<tr>
<td>Beginning 9th Grade</td>
<td>- -</td>
<td>5 100%</td>
<td>3 67%</td>
<td>1 0%</td>
<td>54</td>
<td>17%</td>
<td>309</td>
<td>78%</td>
</tr>
<tr>
<td>Beginning 10th Grade</td>
<td>- - - - -</td>
<td>4 75%</td>
<td>2 50%</td>
<td>64</td>
<td>20%</td>
<td>319</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Beginning 11th Grade</td>
<td>- - - - -</td>
<td>5 60%</td>
<td>41</td>
<td>14%</td>
<td>296</td>
<td>60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 3

PERCENTAGES OF ERRORS IN PREDICTING DROPOUT ON THE BASIS OF EDUCATIONAL PLANS COMPARED TO PERCENTAGE OF ERRORS USING EDUCATIONAL ASPIRATIONS

<table>
<thead>
<tr>
<th>Longitudinal Sub-Populations</th>
<th>Educational Plans to Quit School: Percent of Errors of Prediction of Dropout</th>
<th>Educational Asps to Quit School: Percent of Errors of Prediction of Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning 8th Grade</td>
<td>47%</td>
<td>55%</td>
</tr>
<tr>
<td>Beginning 9th Grade</td>
<td>25%</td>
<td>22%</td>
</tr>
<tr>
<td>Beginning 10th Grade</td>
<td>25%</td>
<td>33%</td>
</tr>
<tr>
<td>Beginning 11th Grade</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Total Percent of Errors of Prediction</td>
<td>33%</td>
<td>45%</td>
</tr>
</tbody>
</table>

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