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The interaction between community forces and family structure as these relate to levels of aspiration, achievement motivation, and achievement values among Negroes is examined. The total sample consisted of 2,826 Negro and white students from four schools in a large, northern city and four schools in a large southern city. Also involved were two follow-up samples. The following dependent variables were used in most of the analyses: (1) verbal ability, (2) grades in school, and (3) amount of expected future education. Independent variables were grouped as follows: (1) social structure, (2) personality and attitude variables, and (3) family structure. Among the findings were the following: (1) large differences exist between vocabulary test performance of northern and southern urban high-school students; and (2) a student's self-concept of academic ability correlates strongly with his actual grades and anticipated future education. In addition, a study which investigated the effect of race of experimenter and approval or disapproval on need for achievement scores, hostility scores, and vocabulary scores of Northern and Southern Negro students is also reported. (Author/SK)

Final Report

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A STUDY OF THE RELATION OF FAMILY BACKGROUND TO ACHIEVEMENT ORIENTATION AND PERFORMANCE AMONG URBAN NEGRO HIGH SCHOOL STUDENTS

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with the assistance of

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U.S. DEPARTMENT OF
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*On leave of absence while serving as Director, Division of Behavioral Science Research, Carver Research Foundation, Tuskegee Institute, Alabama.

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CHAPTER I

INTRODUCTION

There is a tendency for teachers and other professionals who are charged with the responsibility of providing services for minority groups, disadvantaged persons, culturally deprived individuals, or poor people (depending upon current fads) to blame most of their problems on lack of motivation. Thus, poor people are on welfare because they are not "motivated," their children perform poorly in school because they are not "motivated," their teen-aged offspring drop out of school because they lack "motivation," and they have low aspirations because they are "undermotivated."

Since motivation is thought to play such a pervasive role in the problems of poor people, one would assume that the subject has been thoroughly researched by social psychologists and educators. Unfortunately, this is not the case. Most of the important motivational research has dealt with limited samples, neglecting for the most part Negroes and other ethnic groups of low socioeconomic status in which the problem of unrealized potential is acute. The experiences and adaptations of individuals growing up in such subcultures have only recently begun to be investigated systematically in relation to motivational theory (Gurin and Katz, 1966; Katz, 1964, 1967; Lessing, 1968).

This study is an investigation of the relationship between socioeconomic status, type of socialization (family structure, as well as socialization practices, attitudes and values of parents), and high school students' motivation, aspirations and performance. The major research question is: How do family structure and socialization practices interact with community forces to produce various levels of aspiration, achievement motivation and achievement values among Negroes?

RELATED RESEARCH

Research on Social Structure and Personality

One of the specific concerns of this study is the relation between some aspects of family structure and socialization practices and achievement motivation, achievement values and achievement behavior. Previous research indicates that social class and race differences in socialization practices affect achievement motivation, achievement values and achievement behavior (Davis, 1948; Davis and Havighurst, 1946; Douvan, 1958; Lott and Lott, 1963; Rosen, 1959; Veroff, Atkinson, Feld and Gurin, 1960). Generally, these studies indicate that there is a positive relationship between social class and achievement orientation and that Negroes are less achievement oriented than whites. Within the Negro group, social class is held to be positively related to achievement orientation as it is within the white group. Frazier (1957) argues that although all Negro children in the United States must learn a racial identification which is different from that of the dominant white population, the content of this learning differs considerably from one class to another within the Negro caste. Middle-class Negro children are socialized in a milieu which more closely approximates that of white America.

One question which this study attempts to answer is: "What aspects of family structure are important determinants of achievement orientation?" Several studies suggest that family structure influences achievement motivation and behavior (Rosen and D'Andrade, 1959; Strauss, 1962; Strodtbeck, 1958; Veroff, et al., 1960). Findings from these studies suggest that maternal dominance, separation or divorce and death of one or both parents are variables which must be considered in a study of family influences on achievement orientation. One study (Anastasi, 1956) suggests that size of family may influence intelligence test performance, while another implies that maternal employment may be important (Epps, Katz, Axelson, 1964).

It is a generally accepted truism in American sociology that the absence of a father in the home has dire consequences for the personality development and life chances of the children. Recent summaries of the literature of child development and socialization tend to support this conclusion (Bronfenbrenner, 1967; Clausen and Williams, 1963). In addition, a recent report by Moynihan (1965) argues that the effect of father absence on children's life chances is so great that alleviating this problem should be a major focus of the "war on poverty." (This question is also treated in Moynihan, 1968.)

In spite of the great stress placed on the importance of this variable and the nearly universal acceptance of the belief that father absence is an important causal variable in the socialization process, not much research evidence exists to support this position. One major study even suggests that many of the supposed "father absence" effects can be largely attributed to other factors associated with broken homes (McCord, McCord and Thurber, 1962). A recent survey of southern Negro high school students and their mothers also found little relationship between father absence and student aspirations (Krystall and Epps, 1968). Because so much emphasis is placed on this variable, while at the same time there is insufficient research on Negro subjects, this study can make a significant contribution to the literature on socialization by systematically exploring the process by which father absence exerts its influence on achievement orientation among Negro students.

Another question to which this research is directed is "what effect does parental behavior have on achievement related motivation and behavior in children?" Several studies have investigated this question with white children (Chance, 1961; Feld, 1967; Winterbottom, 1958). The results, though they are not all consistent, suggest that mothers who said they expect their sons to be independent relatively early have boys with high achievement motives. There is some evidence that reversals occur in the relationship of maternal attitudes toward independence and achievement motives in high school boys. Rosen (1959) argues that motivation is generated by at least two kinds of socialization practices: achievement training that teaches the child to do things well and independence training that teaches him to do things on his own. Achievement training fosters a strong valuation of high goals and the realization of such goals. Rosen found that the various ethnic groups (Greeks, Jews, Italians, French Canadians, Negroes and white Protestants) placed different emphasis upon such training in the rearing of children. Studies of African child rearing practices have produced inconsistent results, raising questions about the cross-cultural validity of the theory of the origins of need achievement (Jahoda, 1968).

Scanzoni (1967), in a recent study of socialization and achievement, found no meaningful relationship between parent-child relationships and occupational achievement values. This is in direct opposition to much reported research

which tends to suggest that "warm" parent-child interaction is positively associated with high achievement values (McClelland, 1961).

Veroff (1965) predicted and found results that suggest that moderate demands for independence and achievement are most effective in developing high achievement motivation. Veroff also hypothesizes (1964) that "maternal attitudes reflecting moderately early pressures for achievement will induce higher achievement motives than attitudes reflecting either very early or late pressures for achievement." He suggests that the role of the father, the parents' general nurturance and the family power structure should be examined as conditioner variables in this hypothesis.

In addition to these family background variables, several studies suggest that the caste position of the Negro has a negative effect on the development of achievement motivation, values and behavior (Davis and Dollard, 1940; Kardiner and Ovesey, 1951; Karon, 1958). These studies support the view that the effects of caste pressures on Negro youth are greater in the south than in the north. As stated by Lott and Lott (1963), "The specific conditions of lower caste status vary with the laws and customs of particular communities . . . . It is to be expected, then, that cultural differences associated with color will vary among communities with: (a) the nature of the existing segregation-integration pattern; and (b) the degree to which differences exist in socio-economic status." Relative access to prescribed paths for goal attainment should be greater in the north than in the south.

There is evidence from previous research which indicates that living in the north tends to raise the standardized test scores of Negro children (Klineberg, 1935; Lee, 1951). Nuttal's survey of male and female Negro subjects using TAT pictures (1964) also supports the view that being raised in the north or south has a definite effect on achievement motives and their correlates. He found that for northern raised men and women, there is a positive correlation between need for achievement and occupational and educational status. For southern raised men and women, these correlations tend to be negative. There was, however, a positive correlation between need for achievement and family income which was raised when education was partialed out. This latter finding suggests that among individuals with equal amounts of education, achievement motivation plays an important role in determining income level (degree of success).

These studies imply that subcultural attitudes and values which have negative influences on achievement orientation may be more evident in the south than in the north. Thus, northern raised Negro children should have higher achievement motivation scores than southern raised Negro children. The northern raised subjects should also have stronger achievement related values and exhibit more achievement related behavior.

In summary, we may detect two broad strands of achievement related research in the literature relevant to this proposed study. On the one hand, achievement orientations have been related to broad societal status categories - social class and race. On the other hand, these orientations have been related to family structure and socialization practices. Both approaches have been integrated in a series of studies which have focused on family structure and socialization practices as the crucial variables for interpreting the relationship between social class and achievement orientation - arguing that the social classes differ in family socialization practices and these differences in turn help create the differences in the achievement orientations of the people socialized in the different class groupings.

The integration of these two approaches, however, has been predominantly confined to studies of the social class differences within white populations. With the exception of Rosen's study, previous studies have not investigated the process by which achievement motives and values are instilled in children by Negro parents during socialization. Even Rosen's study concentrated on northern Negro families, so that there is no previous research on the effects of socialization practices on the achievement orientation of southern Negro children and no studies have investigated possible differences between socialization practices of northern and southern Negro families and their relation to achievement orientation.

There is also virtually no research on the effects of family structure on achievement motivation among Negroes. There is some fairly substantial evidence that performance differences may be related to family structure but the interrelationships with socialization, achievement motives and values have not been made clear. Much psychological research has deliberately been confined to middle-class white populations in order to avoid "uncontrollable racial and social class influences." (See for example, Hummel and Sprinthall, 1965.)

A major focus of this research, then, is to extend to Negro populations the study of the relationships between achievement orientation and family structure and socialization practices. Moreover, by studying Negro populations in both north and south, with their differing patterns of discrimination and segregation, we will be able to investigate the ways in which the family may mediate the effects of caste on the child. Ausubel (1963) suggests that the type of home life a Negro enjoys may be far more crucial for governing the influence of segregation upon his personality than the form the segregation takes. This possible role of the family in mediating the effects of caste on the child has received little or no attention from researchers. It is expected that this investigation will clarify to some extent the effects of family socialization on reactions to the caste system.

Research on Reaction Patterns in Competitive-Evaluative Situations

This review has been concerned so far with the effects of socialization and family structure on the development of achievement motivation and achievement values. An implicit assumption has been that there is a positive relationship between achievement motives, achievement values and performance. A series of recent studies (reviewed by Katz, 1964) suggests that one result of growing up within the Negro subculture may be the development of self-concepts and reaction patterns which intervene between achievement values, achievement motives and performance. In effect, it is possible that family socialization, interaction with peers and adults in the community and exposure to contacts with the dominant group, either directly or through the mass media, may result in perceived inferiority accompanied by defensive reactions (even among achievement oriented Negro youth) which interfere with effective performance.

According to Katz, the factors responsible for reactions detrimental to performance may be (1) low probability of success; (2) perceived social threat; and (3) failure threat. Support for the hypothesis that low probability of success operates as a deterrent to effective Negro performance was found in an experiment conducted by Katz, Roberts and Robinson (1965) in which white and Negro experimenters administered digit-symbol tasks to southern male Negro college students. When the task was described as a test of eye-hand coordination, the subjects worked more efficiently when tested by a white than when

tested by a Negro test administrator. When the task was described as a test of intelligence, rather than as a test of motor coordination, scores were markedly lowered in the white tester group and slightly elevated with a Negro tester. The authors argue that on an intellectual task, the Negro subject sees very little likelihood of meeting a white person's standard of excellence. In that situation, with a white tester, the subject perceives a marked reduction in the probability of success as compared to the situation in which the task is described as one of motor coordination (an ability which Negroes are not stereotyped as lacking). As an additional source of impairment in this situation, low expectancy of success could have aroused fear of earning the white tester's disapproval (failure threat).

Katz, Epps and Axelson (1964) found additional support for the low probability of success hypothesis in an experiment with southern male Negro college students. Digit-symbol tasks were administered with three types of instructions: no test, scholastic aptitude test with own-college norms, and scholastic aptitude test with white college norms. Subjects scored higher when told that they would be compared with other students at their own college than they did when anticipating comparison with whites or when given no test instructions (a Negro faculty member administered the tasks in all conditions). At the same time, subjects' responses on a post-experimental questionnaire indicated strongest concern about their performance in the white norms condition. Thus, the prevailing motive of subjects in the white norms condition could have been fear of not attaining white standards of performance because of a perceived lower probability of success in the white norms condition than in the Negro norms condition.

Related to this is Morgan's work, based on a field study, which demonstrated that Negroes were significantly lower than whites in measures of subjective probability of success in specific activities and tended to a greater extent than whites to perceive success as being dependent on luck and chance.

The contention that perceived social threat may have detrimental effect on the performance of Negro subjects is supported by the results of two experiments involving northern Negro male college students. In the first experiment, Katz and Benjamin (1960) set up biracial work teams at a northern university and observed that Negroes made fewer suggestions in cooperative problem solving than did white partners of equal ability. Negro subjects also tended to underrate their own performance relative to that of their white companions on a variety of intellectual tasks.

These findings may have been a result of social threat, failure threat, or low task motivation. The special pertinance of social threat as the explanatory variable is suggested in a second experiment. Katz and Cohen (1962) found that Negroes tended to accept passively the suggestions of their white companions even when they had the correct answer and the white teammate has to be in error. As a consequence of the problem-solving experience in this condition, Negroes showed increased social compliance on another task. In an attempt to modify Negro behavior toward white partners in the direction of greater assertiveness and autonomy, the men were given their answer sheets from a previous session when they had worked alone. On every problem, the two partners were required to read aloud their previous answers before negotiating a team reply. Thus, Negro subjects had the experience of openly announcing correct solutions in about half of all instances of disagreement (both men read approximately the same number of correct answers). After being forced to act independently in this manner, Negro subjects tended to increase the amount of influence they had over

the white partner. The results suggest that Negro submissiveness with the white companion was an effect primarily of social threat and that probability of success was a relatively unimportant factor. The experience of openly disagreeing with a white partner probably reduced anxiety about instigating white hostility in a competitive situation.

The experiments discussed above involved social threat in face-to-face interaction between Negro subjects and white peers and white experimenters. It can be conjectured that Negro subjects may perceive social threat in non-face-to-face situations in which they are required to excel at tasks requiring skills which are stereotyped as being weak or absent among Negroes. This perceived social threat should be stronger among southern raised Negroes than among northern raised Negroes. Nuttal (1964) found that high need achievement Negro men from the south tend to repress hostility, to deny being victimized by discrimination and to have low racial militancy. This was not true of southern raised Negro women. There is also evidence from another study (Katz, Robinson, Epps and Waly, 1964) that inhibited hostility may contribute to impaired performance by Negro males in a testing situation involving a white administrator. Repressed hostility is probably a manifestation of a learned reaction to perceived social threat gained as a result of socialization in a restrictive southern setting. Meerbaum (1961) reports considerable emphasis on hostility and aggression in the imagery produced by Negro seventh graders on a projective test administered by a Negro. It would be interesting to see if this type of imagery was suppressed with a white administrator and how this affected achievement imagery and/or performance. Cothran (1951) reports that lower-class Negroes express more intense anti-white feelings than middle- and upper-class Negroes. There may, therefore, be some class related factors operating to enhance or negate the effects of debilitating hostility on Negro performance.

Except for these experimental studies of Irwin Katz and his collaborators, little has been done in this whole area of investigation concerning reaction patterns which may intervene between motives and performance of Negroes and other disadvantaged groups. Moreover, the work of Katz has been largely confined to reactions of male Negro college students in experimental settings. Little is known of the processes by which these reactions develop. It is not clear how they affect performance in nonexperimental settings. Some of these questions are investigated in this study which, by combining interview and experimental approaches, relates reactions of students in the experimental setting to a broad range of motivational, socialization and family data obtained in interviews with these students and their parents. Also, by studying noncollege populations in the north and south, girls as well as boys, we will be able to test the generality of the experimental findings that Katz and his collaborators have obtained and whether the processes underlying some of these self-defeating reactions vary according to sex and environmental setting.

This brief survey of the research of other investigators led to the development of a series of questions which served as guides during the formative stages of this study. These questions are presented below.

1. What effect does socioeconomic status within the Negro community have on family structure and socialization practices as these relate to the development of achievement orientation in children?

2. What aspects of family structure are related to achievement orientation? How do death, divorce and separation, and other forms of broken homes affect achievement orientation?

3. How does family power structure affect socialization for achievement? Are there differences in the motivation scores of children from equalitarian, father dominant and mother dominant homes? How does the employment of the mother affect achievement orientation?

4. What specific socialization practices are related to achievement orientation? Does consistent early pressure for achievement lead to high achievement motivation or does moderate early pressure lead to high achievement motivation? What are the differential effects when parental demands are severe or lax or moderate?

5. How effective are parental encouragement (rewarding) of achievement behavior and parental discouragement (punishment) of nonachievement in developing positive achievement motives, values and behavior?

6. To what extent are there differences in socialization practices among northern and southern Negro families? What effects do such differences have on the development of positive achievement motives, values and behavior? Are these differences related to measurable differences in levels of occupational and educational aspiration among northern and southern Negro youth; to measurable differences in achievement motivation, achievement values and achievement related behavior; to measurable differences in self-esteem?

7. Do Negro children perceive the opportunity structure as relatively closed to them? Do they feel that there is a low probability that they can attain their occupational and educational goals?

8. Is there a difference in the way southern and northern Negro youngsters perceive the opportunity structure?

9. How do the pressures of segregation and discrimination affect the perception of the opportunity structure? Do Negro youth in a restrictive community, compared to those in a less restrictive community, view the opportunity structure as relatively closed?

10. To what extent do Negro youth internalize negative stereotypes? Do they develop feelings of inferiority relative to whites? Do feelings of inferiority tend to be related to skill areas which Negroes are stereotyped as lacking? Are there north-south differences in self-esteem?

11. To what extent to Negro youngsters fear or resent competition and evaluation by middle-class standards? Does the fear or resentment impair performance in competitive-evaluative situations involving middle-class standards? Are there north-south differences in this fear or resentment? Are fear and resentment expressed as anxiety and hostility in competitive situations?

12. Is there a relationship between perceiving low probability of success and low motivation, apathy, low aspirations? Do fear of failure, perceived social threat and low probability of success interact to produce low incentives in Negro youth? Is this more prevalent in the south than in the north?

13. Can experimental situations be arranged which will arouse threat of failure? When failure threat is aroused, is there a difference in the reactions of northern and southern Negro students? Can experimentally aroused failure threat be related to socialization practices, achievement motivation and levels of aspirations?

In the section which follows, the conceptual framework of the study will be developed in greater detail.

Conceptual Framework for Measuring Achievement Orientation

The theoretical model of motivation that is used throughout this report is that of achievement motivation. The usage here is based on the recent refinements of the theory presented by Atkinson (1964) and Atkinson and Feather (1966). In addition to positive motives, Atkinson postulates that the tendency to approach success is the result of the combined positive and negative effects of fear of failure, perceived probability of success, and the incentive value of the task goal. A major objective of this study is to test the assumption that socialization of motivation takes the same form among Negroes as among whites. An additional objective is to explore techniques of measuring various aspects of achievement motivation with self-administered questionnaires. This latter objective was stimulated by a need to reduce the amount of effort involved in administering and scoring the standard TAT measure of n achievement (Atkinson, 1966, pp. 351-53). Katz (1967) has raised other questions about the value of this technique. The n achievement model does, however, have the advantage of providing empirically derived conceptualizations of the achievement oriented and failure threatened personalities. These characterizations can serve as guides for the development of survey measures of achievement orientations. These "syndromes" are presented below.

Atkinson and Feather (1966) describe the achievement oriented personality as follows:

> The achievement-oriented person is generally attracted to activities which require the successful exercise of skill. He is not particularly interested in (reckless) gambling, where the outcome depends upon chance. Among activities that pit his skill against some standard or the skill of others, he is more challenged by the task of intermediate difficulty, the 50-50 risk, than easier and safer ventures or much more difficult and speculative ones. If he is successful, he will raise his sights; if he is unsuccessful, he will lower them accordingly. He is realistic. Although less interested in easy or very difficult tasks, he is more likely than others to undertake even these when they are the only available opportunities. He does this because he likes the challenge and the sense of having done something well, a good deal more than others do, and probably a good deal more than he likes other potentially gratifying activities. Whatever the level of the challenge to achieve, he will strive more persistently than others when confronted with an opportunity to quit and undertake some different kind of activity instead. But within the context of his effort to achieve, he does not waste time in pursuit of the impossible nor rest content with continual mastery of old familiar tasks when there are new, realistic possibilities of accomplishment open to him. In contrast to those who are not really much involved in the effort to achieve, he will not stick doggedly at a highly improbable

venture when there is a more moderate risk available to him. Although he does not exhaust himself in the pursuit of illusory (impossible) goals, he does believe that substantially greater prizes should be awarded to persons who perform very difficult feats rather than easier ones. This is an expression of his pride in accomplishment and the extent to which he, more than others, sensitively appraises differences in merit. When he approaches a task in which there is considerable ambiguity about the possibility of success, he will be more confident than others. Why? This is probably because his realistic approach to challenges in the past, his enthusiasm, and persistence have made him more successful than others. He extrapolates this higher "batting average" (i.e., more frequent success) to the new venture when little concrete information about his chances is available. Consequently, many tasks which appear very difficult to others are likely to be viewed as realistic or calculated risks by the achievement-oriented personality. He is so often surrounded by ambiguous possibilities than he can construct for himself a world of interesting challenges. This he does in imagination, providing the most generally useful measure of the strength of his motive to achieve. (p. 368)

The authors then present the following description of the failure threatened personality:

In contrast, we have the individual in whom the motive to avoid failure greatly exceeds the motive to achieve. He is dominated by the threat of failure, and so resists activities in which his competence might be evaluated against a standard or the competence of others. Were he not surrounded by social constraints (i.e., spurred by a need to be approved for doing what is generally expected by his peers) he would never voluntarily undertake an activity requiring skill when there is any uncertainty about the outcome. When forced into achievement-oriented activities, he is most threatened by what the other fellow considers the greatest challenge. Constrained, but given a choice, he will defend himself by undertaking activities in which success is virtually assured or activities which offer so little real chance of success that the appearance of trying to do a very difficult thing (which society usually applauds) more than compensates for repeated and minimally embarrassing failures. Given an opportunity to quit an activity that entails evaluation of his performance for some other kind of activity, he is quick to take it. Often constrained by social pressures and minimally involved, not really achievement-oriented at all, he will display what might be taken for dogged determination in the pursuit of the highly improbable goal. But he will be quickly frightened away by failure at some activity that seemed to him to guarantee success at the outset. The dogged persistence is really rigid, apathetic compliance, as is his tolerance for continual routine success at tasks offering virtually no possibility of failure. This fellow's general resistance to achievement-oriented activity opposes any and all sources of positive motivation to undertake the customary competitive activities of life. Thus he suffers a chronic decrement in achievement tests. His long history of relative failure means he will view his chances in new ventures more pessimistically than others unless there is specific information to contradict a simple generalization from past experience. Most startling, perhaps, are the erratic changes in his level of aspiration, which take

place when the least likely outcome occurs. Should this fellow fail at a task he undertook as a reasonably safe venture, he might respond with a startling increase in his level of aspiration instead of persistence at the initial activity. Should he begin to succeed at a task initially conceived as very difficult, he might then exhibit a dramatic decrease in his level of aspiration, a retreat to the safest of ventures. These apparently irrational moves - like his inability to move away from continual failure when the probability of success is remote - are to be understood as aspects of a defensive strategy, the avoidance of an intermediate degree of risk, the peak of competitive activity, where his anxiety reaches an intolerable level.

The level of anxiety is symptomatic of the degree of resistance to an activity. When it is strong we know that the individual has been constrained to overcome great resistance. When it is weak the resistance to that activity must be weak. Because the level of experienced anxiety is symptomatic of the strength of resistance (i.e., the tendency to avoid failure) we are able to assess the strength of this man's motive to avoid failure from self-report questionnaires concerning the great amount of anxiety he has experienced in the nonvoluntary achievement tests endured in schooling. In the strange pattern of defensive behavior expressed by the person who is dominated by dread of failure, we confront pathology in the domain of achievement-oriented activity.

While no doubt wrong in some or even many particulars, these images of two distinctively different types of men have the scientific virtue of being derived from the inexorable logic of an explicitly stated theory. It is a theory which gives equal emphasis to the role of enduring properties of personality and to transient features of the immediate environment in its analysis of the process of motivation. A scientific theory is not a settled creed but a policy, a guide for future experiments (Conant, 1952). We are confident that future experiments will correct the inadequacies in this, our current conception of achievement motivation. (pp. 369-70)

In this formulation, therefore, the achievement-oriented person perceives himself as competent and thrives on challenge. The failure threatened person tends to view his chances pessimistically and to avoid challenging activity.

In this study of students attending northern and southern high schools, we will attempt to clarify the relationship between background experiences, social class, self-perception and motivation for academic achievement. The methods employed in the study are described in the chapter which follows.

CHAPTER II

RESEARCH PROCEDURES

The Sample

Students included in this study attended four schools in a large northern city and four schools in a large southern city. Schools were selected on the basis of social status characteristics of the student body as reported by school officials in each city. Our aim was to select schools in each city which differed in the proportion of middle-class children included in the student body. The original plan of the study also called for two racially integrated and two racially segregated schools in each city. Changing attendance patterns in the southern city made it impossible for us to include any integrated southern schools. One of the southern schools was biracial when permission was obtained for its inclusion in the study (April, 1966), but by the time data were collected (October, 1966), all but a few white students had left the school (many of the white teachers and administrators remained at the school, thereby making it the only southern school in our study with a biracial faculty). Our southern sample, therefore, is an all Negro sample. The only racial variable of interest in the southern city is the desegregated faculty at Southern School Number 3. Two biracial schools are included in the northern city. This permits us to use racial composition of the student body as a variable in the north. All of the faculties in the northern schools are biracial, thus eliminating race of teachers as a variable.

Data were collected in three phases. In the fall of 1966, the Phase I Questionnaire and the Vocabulary Tests were administered to 2,826 students. For each of the southern schools, selections were made from the entire school population. The schools sent lists to Ann Arbor where, by use of a table of random numbers, 125 students were selected in each of grades nine through twelve. The one exception to this procedure involved Southern School Number 3. At this recently desegregated school, the junior and senior classes were so small (152 and 72, respectively) that all students in these grades were asked to participate in the study. All selected students present on the day of administration (1,572) constitute our southern sample. The southern sample includes 721 males and 851 females.

Method of student selection in the northern schools was more diversified. At Northern School Number 1, we were given access to the entire school population. We selected (using the table of random numbers) 140 students in each of grades ten through twelve (this school contained no ninth graders). A modification in selection was made, however, which changed the character of our sample. The principal of this school insisted that students be informed that their participation was purely voluntary and not in any way required. This resulted in a small sample which must be viewed as voluntary rather than representative or random.

At Northern School Number 2 (which also contained only grades ten through twelve), school officials would not give us access to the total student body because they wanted to avoid teacher resistance to pupil loss of class time for questionnaire administration. We agreed, therefore, to draw our sample from

English classes (required of all students) where teachers were willing to have their students participate in the study during school hours. A list of teachers who volunteered their classes was obtained as our sampling frame. At this school, English classes are based on ability grouping. Classes are labeled H, x, y, z (H = Honors, x = fast, y = average, and z = slow). With this knowledge, we attempted to select approximately equal numbers of students in each ability group within each grade (using the table of random numbers).

At Northern School Number 3, we encountered no difficulties. We were, therefore, able to select students at random from the entire school population. At Northern School Number 4, the duty of student selection was assigned (by the school principal) to the school counselors. We explained that we wanted a completely random selection of students, but school officials insisted that actual selection be performed by school personnel. We were informed by the counselors that a systematic random sample within each grade was selected (taking every nth student in each counselor's case load). Northern Schools 3 and 4 contained grades nine through twelve. The sample of ninth graders comprises a larger proportion of the total grade population than is true for other grades because the population of ninth graders was relatively small (ninth graders should be attending junior high schools, but were placed at these schools because of lack of space at the local junior high schools).

Our total sample in the northern city includes 1,254 students. There are 550 males and 704 females. The racial distribution at the integrated schools is as follows: Negro males, 111; Negro females, 158; white males, 150; white females, 138. The number of Negro males at the two segregated schools is 289, while the number of Negro females at the two segregated schools is 408. In all, there are 400 Negro males and 566 Negro females in the northern sample as compared to 150 white males and 138 white females.

The data presented in Tables 1 and 2 (based only on grades 10 through 12 for comparability), demonstrate the extent of socioeconomic differentiation that exists among the students selected for our sample from the eight schools. From these data, it is obvious that we were successful in obtaining schools with student populations that are vastly different in socioeconomic status as determined by parent's occupation and education. In the northern city, the two working-class schools are nearly identical on all three indicators of social status (father's occupation, father's education, and mother's education). The middle-class school and the lower-class school represent more extreme positions at the high and low ends of the status continuum, respectively. White students at the two biracial schools differ considerably in socioeconomic characteristics. Ninety percent of the students at School Number 1 are from white-collar backgrounds, while only 22 percent of students at School Number 2 are from white-collar backgrounds.

In the southern city, the two schools in the middle of the distribution are quite similar with respect to father's occupation, but differ in level of parental education. As in the north, we have arbitrarily called the school with the largest proportion of students from white-collar backgrounds "middle class;" the two schools with intermediate proportions of students from white-collar backgrounds are designated as "working class;" and the school with the smallest proportion of students from white-collar backgrounds is labeled "lower class." As can be seen from Tables 1 and 2, schools with similar labels in the north and south may differ considerably in social characteristics. When Negro students in northern schools are compared with those in southern schools, it is obvious that

TABLE 1

*Socioeconomic Status of Schools

School Socioeconomic Status	Percent of Fathers With White-Collar Occupations		Percent of Fathers With Post-High School Training		Percent of Mothers With Post-High School Training	
	Percent	N	Percent	N	Percent	N
Northern White (Total)	40	260	27	239	23	259
1. Middle class	90	70	67	67	56	68
2. Working class	22	190	11	172	11	191
Northern Negro (Total)	24	634	21	605	25	700
1. Middle class integrated	38	92	35	83	45	92
2. Working class integrated	20	138	19	132	29	144
3. Working class segregated	24	225	21	215	24	251
4. Lower class segregated	18	179	14	175	16	213
Southern Negro (Total) (all segregated)	22	857	17	939	18	1,062
1. Middle class	33	232	28	238	25	266
2. Working class	20	236	22	246	20	290
3. Working class	22	203	10	236	16	263
4. Lower class	13	186	7	219	10	243

*Using the six social characteristics presented in Tables 1 and 2, we ranked the schools within each city on socioeconomic status. The scores (4 schools x 6 characteristics) have a maximum possible range of 24 and minimum possible range of 6. In the north, the school scores were 23, 15, 15 and 7; in the south they were 23, 15, 14.5 and 7.5 following the order in which they are listed in the tables.

socioeconomic status is slightly higher in the northern schools. Differences in parental education are larger than differences in father's occupational status. The proportion of Negro students from white-collar backgrounds is small in both samples; only about one-fourth of the northern students and approximately one-fifth of the southern students come from white-collar homes. The difference in percent of fathers with white-collar jobs when the "high status" schools and the "low status" schools are compared is about the same in the north and south. Data in Table 2 show how the schools compare on family intactness, number of siblings and proportion of students who grew up in homes where the father was the main breadwinner. Families of northern students are more likely to be intact than families of southern students and white students' families are much more

likely to be intact than Negro students' families. Southern students reported more siblings than northern students. Forth-nine percent of the southern students and 42 percent of the northern Negro students report four or more siblings. This compares with only 19 percent of white students reporting four or more siblings. Students from the lowest status school in each city are most likely to come from large families. Northern Negro students were also more likely than southern students to report that the father was the main breadwinner in the family when they were growing up (55 percent vs. 44 percent). Seventy-eight percent of the white students reported that the father was the main breadwinner in the family when they were growing up.

TABLE 2

Social Characteristics of Schools

School Socioeconomic Status	Percent With Parents Living Together		Percent With Four or More Siblings		Percent With Father as Main Breadwinner	
	Percent	N	Percent	N	Percent	N
Northern White (Total)	88	266	19	286	78	285
1. Middle class	88	69	16	73	81	73
2. Working class	88	197	20	213	77	212
Northern Negro (Total)	63	632	42	786	55	783
1. Middle class integrated	77	97	39	103	64	104
2. Working class integrated	70	152	44	163	61	162
3. Working class segregated	59	243	35	268	51	270
4. Lower class segregated	56	218	51	252	53	247
Southern Negro (Total) (all segregated)	59	1,030	49	1,185	44	1,187
1. Middle class	67	254	42	286	49	290
2. Working class	49	270	38	317	42	314
3. Working class	67	273	59	302	48	301
4. Lower class	52	233	59	280	39	282

Our Phase II sample included 819 students. To some extent, they constitute a volunteer sample. On the last page of the Phase I Student Questionnaire (Appendix A), students who were willing to participate in the second phase of the study (for which they would be paid $2.00) were asked to give the name and address of their parent or guardian, who would also be interviewed. From these volunteers, approximately 135 students were chosen from each school. We again tried to select approximately equal numbers of males and females at each school and approximately equal numbers of students in each grade. Within each grade

and sex, however, selections were completely random. Letters were sent to each selected student informing him of the time and place of the test administration. The Phase II students completed the Follow-Up Questionnaire (Appendix B), the vocabulary tests, and the experimental materials The demographic composition of the follow-up sample was as follows: 405 southern and 414 northern students; 382 males and 437 females; 725 Negro and 94 white students. Phase II data were collected in the spring of 1967.

Phase III data are based on interviews with 599 parents of students who provided addresses in Phase I of the study. Data collection occurred in the spring of 1967. Because of limitations on time and money, we were able to include only five schools in this phase of the study. These were the four southern schools and the working class segregated school in the north (Northern School Number 3). When we are reporting data from the parent interview our numerical base is 599. For a number of analyses, we will be interested in the data reported by parents of children for whom we have data for all three phases of the study. Our numerical base for these analyses is 440. In Table 3, we present additional social characteristics of students based on data from the parent interview. Our purpose in presenting these data here is the same as our

TABLE 3

School Social Characteristics: Parent Interview

Social Characteristics	*School 1	2	3	4	5	All Schools
1. Husbands earning more than $100 per week	53%	28%	28%	11%	76%	40%
2. Mothers on welfare	11	18	18	15	16	15
3. Mothers who work outside the home	61	70	68	71	50	64
4. Mothers who report that husband had control of money	37	25	30	20	31	29
5. Mothers who report that husband has control of children	32	14	13	14	25	20
6. Mothers who have most of the responsibility for child discipline	21	49	29	48	54	44
7. Mothers who say they are very satisfied with their husband's occupation	20	25	22	38	24	26
8. Mothers who say they are very satisfied with life	20	36	20	28	20	25
9. Mothers who say that the husband spends all of his free time with the children	27	36	44	42	33	36
10. Mothers who were born after 1925	48	41	58	50	51	51
11. Mothers who have lived in the (study) city less than 20 years	18	19	33	24	36	26

*Numbers represent the following schools: (1) Southern middle class; (2) southern working class; (3) southern working class; (4) southern lower class; (5) northern working class segregated. For all schools, the Ns on which percent ages are based range from 305 to 599. For individual schools, the Ns on which percentages are based range from 60 to 119.

objective in presenting the data in Tables 1 and 2. We want to demonstrate that the schools differ considerably in their social characteristics. We will argue later that differences in the average social characteristics of students attending these schools have a strong impact on the average motivation and performance of students at these schools.

Instruments Used in the Study

As pointed out in Chapter 1, this investigation has been guided by the theory of achievement motivation. One of our basic goals is to increase our understanding of the process of socialization, with special emphasis on the socialization of competence among Negro students. The works of a number of authors were reviewed in a search for instruments with conceptual relevance and empirical validity. Many of these instruments were pretested on southern and northern Negro high school students before they were finally selected for inclusion in this study (Epps, 1967a, 1968). Those instruments which were effective predictors of Negro student achievement (as measured by school grades or achievement test scores) and which were conceptually relevant were selected for inclusion in Phase I of this study. Two relatively untried measures were included in the questionnaire on an exploratory basis (The Test of Insight measure of achievement motivation and the Intellectual Achievement Responsibility Scale). The whole of the Follow-Up Questionnaire used in Phase II is exploratory in nature and will be analyzed in detail when resources permit. Some preliminary work will be reported in a later chapter of this report.

In referring to conceptual relevance, we have been concerned with the attempt to select measures which assess such attitudinal or motivational areas as: (1) perceived probability of success; (2) fear of failure; and (3) incentive value of success. These conceptual areas are based on achievement motivation theory.

Recent work by a number of authors has tended to find a communality of theoretical content in areas peripherally related to the theory of achievement motivation. Smith (1968) has brought much of this material together in the formulation of a provisional view of "the competent self." In this treatment, the self is perceived as causally important, as effective in the world, as likely to be able to bring about desired effects, and as accepting responsibility when effects do not correspond to desire. In this regard, favorable self-evaluation in general terms should be moderately associated with "the competent self," but it is less important than the sense of efficacy or potency. Rotter's measure of internal versus external control (Rotter, 1966), the Intellectual Achievement Responsibility Scale developed by Crandall, Katovsky, and Crandall (1965), and the three item measure used in Equality of Educational Opportunity (Coleman, et al., 1966) all represent efforts to measure sense of potency or competence as the term is used by Smith. Recent works by Gerald Gurin (1967) and Patricia Gurin and Daniel Katz (1966) have demonstrated the utility of this concept for motivational research involving Negro students

A related measure which seems to have escaped the attention of Smith, but which appears to fit into the framework of the competent self, is Brookover's Self-Concept of Ability Scale (Brookover, Erikson, and Joiner, 1967). Other measures of self-esteem such as those of Rosenberg (1965) and Coopersmith (1967) focus on general self-evaluation but are only modestly related to competence. Brookover's measure focuses specifically on academic competence and has been found to be strongly related to both achievement test performance and school

grades. As I have pointed out elsewhere (Epps, 1967b), the development of academic self-confidence is probably a circular process based on interaction with adults and peers early in the child's exposure to formal and informal education. In the work cited, Brookover acknowledges his indebtedness to the symbolic-interactionist tradition stemming from George Herbert Mead (1934).

Smith also raises the question of the role of the general relevance of the competent self. "Is this only another projection of middle-class values reflecting culture-bound bias?" (Smith, 1968, p. 287.) Smith says that the competent person is optimistic. "Corresponding to generalized favorable self-evaluation is an attitude of optimistic trust" (p. 282). He also states that these dispositions of self are accompanied by an array of knowledge, skills, habits, and abilities that are required to translate hopeful expectations and active orientations into effective behavior. These skills include components of interpersonal competence, intelligence, skills in inquiry, and in the use of informational resources. It is apparent that these suggestions are more relevant for middle-class society than for lower-class society. It would also appear that this type of competence would be less relevant for minority group populations in which the demands of society are considerably different than demands for the majority. In other words, the "probability of success" is sufficiently low in a minority population that the competence syndrome is less prevalent than in the general society. For those minority group members who are "socialized for competence," however, the likelihood of achieving success in middle-class terms is greater than for those who adopt a fatalistic view.

Smith also points out the relatedness of this sense of competence to power, respect and opportunity. "Restriction of opportunity not only blights hope; it excludes the person from the chance to acquire the knowledge and skill that would in turn enable him to surmount the barriers to effectiveness" (p. 313). Other authors have approached the study of "sense of control" through the concepts of powerlessness (Dean, 1961) and alienation (Seeman, 1959). Smith states that incompetence goes with powerlessness and hopelessness. He is aware, however, that "deviant" forms of competence (not rewarded by the larger society) exist in abundance in the ghetto. These alternative modes of competence may be viewed within the framework of deviant behavior theory as espoused by Cloward and Ohlin (1960), Cohen (1955), Merton (1957), and Short and Strodtbeck (1965). Recent work by Landis and Scarpitti (1965) has resulted in the development of a scale which measures "awareness of limited opportunities;" the extent to which a young person thinks his chances for success are limited by inequities in the social system or barriers to individual social mobility. Persons who view the opportunity system as relatively closed will, according to this approach, place little value (low incentive) on the attainment of skills which lead to success in the middle-class sense. They are more likely to passively accept a lower-class way of life, or aggressively seek alternative routes to success (deviance).

In summary, then, the "competence syndrome" involves: (1) ability; (2) favorable self-evaluation; (3) a sense of efficacy (potency or competence); (4) a belief that success is possible and probable (optimism about opportunities for success); (5) achievement values; and (6) achievement motivation. The remainder of this chapter will describe the instruments used in attempting to measure these concepts

Ability. Several measures of ability are included in the data collected for this study Academic achievement was measured by grades in four subject matter areas: English, mathematics, science and social studies The Grade

Point Average Index was constructed by summing the grades for each marking period and dividing by the total number of grading periods. Scores ranged from 0 to 50. Test ability was measured by scores on the School and College Ability Tests in the north and the Otis IQ Test in the south. Since the northern and southern populations did not have comparable ability measures available, we administered a short (five minute) vocabulary test to all students in Phase I and Phase II. This test contained the 20 items used by Miner (1957) and an additional 40 items chosen from popular magazines. Scores on our short vocabulary test were highly correlated (product moment coefficient of correlation) with standardized measures of ability and modestly correlated with school grades (Table 4). Since there is a relatively strong relationship between Vocabulary Test scores and SCAT and Otis scores, we decided to use Vocabulary Test scores as our measure of test ability. This results in substantial loss of predictive efficiency relative to school grades only in the case of white males (Table 5). Further inspection of the data indicated that most of the loss occurred at the Working Class Integrated School. Data for white students of both sexes at these schools are presented in Table 6. We mentioned earlier in this chapter that we sampled within ability groups (based on SCAT score) at the Working Class Integrated School. This probably accounts for the strong association of grades and SCAT scores at the school as compared to Vocabulary Test scores and grades.

TABLE 4

Correlation of Vocabulary Test With Grades and Other Measures of Ability for Selected Subsamples

Measures of Ability	Southern Negro Males	Southern Negro Females	Northern Negro Males	Northern Negro Females	Northern White Males	Northern White Females
English Grades	.444	.530	.362	.415	.342	.543
Math Grades	.342	.435	.079	.185	.316	.388
Science Grades	.437	.465	.326	.319	.484	.560
Social Studies Grades	.505	.519	.363	.373	.343	.542
Otis IQ Score	.727	.663	-	-	-	-
SCAT Score	-	-	.667	.638	.648	.763

TABLE 5

Correlation of Standardized Ability Measures With Grades

Subject	Southern Males (OTIS)	Southern Females (OTIS)	Northern Negro Males (SCAT)	Northern Negro Females (SCAT)	Northern White Males (SCAT)	Northern White Females (SCAT)
English Grades	.484	.552	.414	.475	.528	.611
Math Grades	.455	.441	.224	.336	.549	.448
Science Grades	.486	.500	.361	.386	.615	.551
Social Studies Grades	.506	.495	.373	.450	.497	.615

TABLE 6

Relation of Test Scores to Grades Among White Students

Grades	Middle-Class School		Working-Class School	
	Vocabulary	SCAT	Vocabulary	SCAT
English	.479	.567	.399	.449
Math	.601	.707	.224	.420
Science	.576	.511	.418	.492
Social Studies	.547	.483	.390	.573

Because some students do not achieve as well in school as their verbal ability scores would lead us to expect, we have also formed groupings based on both ability and grades. Four groups were formed as follows: (1) Students who are above average in both grades and vocabulary test scores (HH); (2) Students who have above averages grades but below average verbal ability scores (HL); (3) Students who have above average ability scores but below average grades (LH); (4) Students who are below average in both grades and ability (LL). Groups 1 and 4 are congruent with respect to ability and achievement; Groups 2 and 3 represent discrepant or incongruent patterns of achievement.

Self-Evaluation. Two measures of self-esteem are used in this study. One of these is the Self-Concept of Ability Scale (Brookover, 1962, 1967). This scale consists of eight five-choice items (see Items 49-56, Appendix A). It is a measure of the student's subjective assessment of his own ability relative to his friends and classmates. This scale has been validated on a number of samples using Guttman scalogram analysis, Likert type scoring and factor analysis. These items have been found to constitute a single dimension using the Guttman technique and a single factor using factor analysis. The scale is about equally effective whether scored by the Guttman method or the Likert method. It was pretested for this study on northern and southern Negro high school students.

The other measure of self-esteem used in this study is a ten item scale developed by Rosenberg (1965). It measures general self-esteem rather than academic self-esteem (see Items 87-96, Appendix A). Rosenberg developed a Guttman Scale using these items. They are scored in the Likert manner for this analysis. This scale was also pretested on northern and southern Negro high school students.

Sense of Efficacy or Potency. The basic instrument used to measure this variable is the internal versus external control scale developed by Rotter (1966). We used a 25 item version, scoring for internal control. High scores reflect a strong sense of efficacy. Previous work by Patricia Gurin (1966) suggested that it would be advantageous to construct two subscales; one based on items having a first person referent, and one based on items with a third person referent. The personal control I-E Scale contains five items (121, 125, 126, 133, 145, Appendix A). The third person I-E Scale contains 12 items (118-119, 122-123, 127, 129-131, 134, 136-138, Appendix A). This instrument was pretested with northern students.

Another measure of efficacy is the Intellectual Achievement Responsibility Scale (Crandall, Katovsky and Crandall, 1965) We used ten of the items from

the original scale. This scale measures the extent to which a student accepts responsibility for his success or failure in school. This scale was not pretested. The items used are 139-148 in Appendix A.

A third measure of sense of control (efficacy) was included in the Phase II questionnaire. It consisted of four items similar to those used by Coleman, et al. (1966). The items were:

a. Every time I try to get ahead, something or somebody stops me;
b. If a person is not successful in life, it is his own fault;
c It's mostly luck if one succeeds or fails;
d. It doesn't make much difference what a person tries to do; some folks are just lucky, others are not.

Responses were on a five-point scale ranging from strongly agree to strongly disagree. This measure was not pretested.

Another related measure is called the Alienation-Fear of Success Scale. Items 97-99 of Appendix A are from the "Achievement Values Scale" used by Rosen (1959). Item 100 is similar to one of Srole's (1956) Anomia items. These items may be considered measures of alienation or powerlessness. The other four items in this scale (101-104) were designed to measure "fear of success." These items were pretested with northern Negro students.

Perceived Opportunity for Success We have one measure in this conceptual area. The Awareness of Limited Opportunities Scale (Landis and Scarpitti, 1965) consists of 14 items (73-86, Appendix A) scored in the Likert manner. It measures the extent to which a student perceives the opportunity structure as closed (high score means a belief that opportunities are limited). This scale was pretested with northern and southern Negro students.

Achievement Values. We include in this realm aspirations for educational and occupational success. We asked students how far they would like to go in school if they could go as far as they like. This is our measure of educational aspiration. We also asked them how far they actually expect to go in school. This is considered a more realistic measure of aspiration, but is called a measure of expectancy in this study.

Occupational aspirations were measured by (1) a structured item (Appendix A, Item 23) with eight occupations ranging from Night Watchman to Doctor; (2) an open-ended item asking what job the student would like to have when he grows up; and (3) a similar item asking for the occupation he actually thinks he will have when he grows up. The latter two items were scored using the Duncan Index (1961).

We also included a Criticism of Education Scale (Moore and Holtzman, 1965) as a measure of achievement values. High scores mean negative attitude toward education (Items 105-110)

The other scale included in this area is the Conformity Scale (Feagin, 1965). This scale measures the tendency to "go along with the crowd." It may be considered a measure of the extent to which one is dependent upon peer acceptance. There are three items in this scale (111-113). Agreement indicates a lack of independence and is indicative of low motivation for achievement (or that achievement has low incentive value as compared to peer acceptance).

Achievement Motivation. The most direct measure of achievement motivation used in this study is a version of the TAT measure described by Atkinson (1958). This instrument used verbal leads rather than pictures to elicit achievement imagery. The Atkinson scoring system was used. One person, trained by an expert scorer, did all of the TAT scoring.[1] The TAT was administered to Phase II respondents as part of an experiment (reported in a later chapter).

An indirect measure of achievement motivation was included in the Phase I Questionnaire. This was the Test Anxiety Questionnaire. We used a 16 item version (Appendix A, Items 57-72) [2] This scale is usually used to measure fear of failure. We scored it so that high scores mean low anxiety. Thus, in this study high scores mean positive motivation. For Phase II students, TAT and TAQ are combined to construct a measure of resultant motivation.

Two exploratory measures were also included in the Phase I Questionnaire. One of these is based on the Test of Insight (French, 1958). We used a multiple-choice form which attempts to measure n ach through self-reports (Items 149-160, Appendix A). The achievement responses are those stressing the desire to excel or compete with a standard of excellence.[3]

The other exploratory measure is called an Achievement Attitudes Scale. It attempts to measure achievement related tendencies by self-report. The six items in this scale are: 24-25, 43, 45-46, 48.[4] The conceptual components of the scale are (1) commitment to education, (2) self-confidence, (3) desire for upward mobility, (4) few failure experiences, (5) realistic shift after failure, and (6) belief that education is relevant for future success.[5]

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[1]We are indebted to Judith Kovan Cohen for the scoring and to Mr. Joel Raynor for a reliability check. Inter-coder reliability was above .80 for a sample of the respondents.

[2]Items 66, 70 and 71 were dropped from the final version of the scale because of low correlations with scores on the total scale. We, therefore, used a 13 item scale with a range of scores from 13-65.

[3]In the final version of the scale, Items 155 and 159 were dropped due to low item-scale intercorrelations. We, therefore, used a ten-point scale. Each achievement stem is counted as one point. For Items 151, 152 and 160, response number one is the achievement stem; for Items 150, 153, 154, 156, 157 and 158, response number two is the achievement stem; for Item Number 149, response number three is the achievement stem. Scores range from 0 to 10.

[4]For Item 24, response number four is the achievement stem; for Item 25, responses four and five are achievement stems; for Item 43, the achievement response is number one; for Item 45, responses one and two are indicative of achievement orientation; for Item 36, three and four are achievement responses; and for Item 48, the achievement response is number one. Each achievement response counted for one point, resulting in a range of 0 to 6 for the scale.

[5]A Need for Affiliation Scale and a Need for Recognition Scale were constructed from the Test of Insight measure, but they were not found to be strongly related to achievement orientation.

Socialization Variables

It is generally assumed that one's position in the social structure determines the type of socialization he receives. Thus, socioeconomic status, neighborhood, and region are thought to be important structural determinants of socialization. The relationship of each of these variables to ability, achievement, motivation, and aspiration is thought to be the result of differences in patterns of socialization. In this study, the relationship will be examined by first looking at the amount of association between structural variables and outcome variables such as ability, achievement, and aspirations. We will then determine whether different techniques of socialization are related to outcome variables with region and socioeconomic status controlled.

Socioeconomic status is determined by father's occupation and education and mother's education. Each of these variables is used as a single indicator of status in some analyses. For other analyses, we have developed a composite measure controlled for region and race. For the composite measure, we used mother's education and father's occupation (weighted). The scores were computed separately for northern and southern Negro students (we did not compute a composite measure of SES for white students). Thus northern and southern SES scores are not comparable, but SES scores of students are comparable within each region.[5]

Neighborhood is characterized by the school attended. As we pointed out earlier, social characteristics of students attending each school differ considerably. This is consistent with the approach of Litwak and Meyer (1967). These authors state that:

> In a large city, with the tendency for homogeneous residential segregation, one is more likely to find high schools homogeneous in terms of class race and religion. In short, in the large cities high school boundaries may in fact coincide with sociological neighborhoods, assuming that neighborhoods in most American communities are shaped by the rule of status homogeneity (p. 85).

It is also generally recognized that peers exert considerable influence on adolescent socialization. Coleman, et al. (1966) have argued that ". . . a pupil's achievement is strongly related to the educational backgrounds and aspirations of the other students in the school . . . " (p. 22). Wilson (1959) has also demonstrated that schools affect level of aspiration. According to Coleman (1967, p. 293) the socioeconomic status level of the majority of students exerts a strong influence on the academic climate of a school.[6] The academic

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[5] Our rationale for constructing a "local" measure of SES is based on reference group theory. We assume that the referents of students in a city are primarily local. Thus, high status may mean different objective statuses in northern and southern cities. Our measure permits us to say how Negro students who differ in status within a city compare in ability, achievement, motivation, etc.

[6] Coleman (p. 293) states that ". . . schools, as currently organized, are quite culturally homogeneous . . . . Given this homogeneity, the principal agents of effectiveness in the schools - teachers and other students - act to maintain or reinforce the initial differences imposed by social origins."

climate of the school in turn, either encourages or discourages academic motivation and aspiration.

Coleman, et al. (1966) also state that "the variability between individual pupils within the same school . . . is roughly four times as large as the variability between schools. Thus individual socioeconomic status should be related to academic motivation and achievement within each school, while the average SES level of each school is also expected to be related to academic motivation and achievement.

Region is dichotomized resulting in northern Negro and southern Negro groups. It is expected that northern students will be more achievement oriented than southern students.

Family structure is another variable which is often associated with socialization for achievement. We will be concerned with family power structure (paternal influence), family intactness and family size. Family cohesiveness and amount of parental support are also considered to be important for the socialization of achievement.

Specific socialization techniques considered are: type of discipline, age child is expected to be independent, and parental reactions to success or failure. The latter two variables are based on data from the parent interview. Age at which child is expected to be independent is measured by the Winterbottom (1958) scale.

Analysis Plan. Ability, academic achievement, and occupational and educational aspiration are dependent variables in this study. Self-evaluation, sense of efficacy, perceived opportunity for success, attitude toward education, peer conformity, and achievement motivation are intervening variables. Independent variables are socioeconomic status, neighborhood, region, family structure, and socialization techniques.

Results are presented in the following order. In chapter three we present data on the relationship of social structure (SES, region, neighborhood) to ability, academic achievement and aspirations. Chapter four presents data on the relationship of the intervening variables to the outcome variables. Chapter five is an investigation of the relationship of socialization (family structure and socialization techniques) to the outcome variables. Chapter six will explore the interrelationships between independent, intervening and dependent variables. Chapter seven summarizes the results of the survey part of the study. Chapter eight is a report on the experimental aspect of the study. Finally, in Chapter nine we present our conclusions and recommendations.

CHAPTER III

SOCIAL STRUCTURE AND ACHIEVEMENT ORIENTATION

In this chapter, the focus will be on ecological variables which have been found in previous research to influence achievement orientation. The specific variables with which we will be concerned are region, socioeconomic status, neighborhood, sex, and race.

Regional Differences. In Chapter II, it was pointed out that northern Negro students have slightly higher socioeconomic status than southern Negro students. We have hypothesized that northern students will also have higher achievement orientation (ability and aspirations) than southern students. When we compare these students on verbal ability, we do find substantial north-south differences. Table 7 presents mean scores for northern and southern Negro students by sex. Means in this table are based on the scores of students in grades 10-12 so that grade level is comparable at all schools.[1]

The pattern of verbal ability scores is much as one would predict from the results of previous studies. There is a clear-cut superiority of northern students over southern students. The difference is statistically significant for both sexes (.001). It is also apparent from these data that the north-south discrepancy is larger for boys than for girls.[2]

Occupational and educational aspirations of northern and southern students in grades 10-12 were also compared. These data are also presented in Table 7. Male and female mean occupational aspiration scores are not comparable because the referent for girls was occupation of "future husband." Northern boys had significantly higher occupational expectations than southern males (.001). The north-south difference was not significant for girls. When we look at educational aspirations, it is apparent that the relationship is similar to that for occupational expectations. Within each sex, there is a slight tendency for northern students to have higher aspirations than southern students, the difference reaches significance only for males. The same pattern appears for educational expectations; small but consistent differences favoring northern students, but significant only for males.

In summing up this section, we have shown that northern students have substantially higher verbal ability scores than southern students. They also have higher occupational and educational aspirations than southern students. In every case, the differential is larger for males than for females. In both ability and aspirations, southern boys are the most disadvantaged group. Aspiration differences are not significant for girls.

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[1] No regional comparison of school grades was attempted because it was felt that such a comparison would have little meaning across school systems.

[2] The mean verbal ability score for the total sample of 2,806 students in grades 9-12 is 17.72 with a standard deviation of 7.88. Northern students in Table 7 have mean scores higher than the sample mean. Southern students are below the mean.

TABLE 7

Regional Differences: Negro Students, Grades 10-12

Variables	South $\bar{X}$	South SD	North $\bar{X}$	North SD	F (1,N)
Verbal Ability					
Males	15.273	6.934	19.844	7.463	F (1,849) = 81.884**
Females	17.000	7.154	20.101	6.769	F (1,1127) = 53.700**
Occupational Expectations					
Males	4.244	2.682	5.012	2.778	F (1,713) = 12.865**
Females	5.819	2.412	5.931	2.665	F (1,979) = 0.474
Educational Aspirations					
Males	5.138	1.572	5.447	1.418	F (1,849) = 8.328*
Females	5.117	1.533	5.204	1.459	F (1,1122) = 0.924
Educational Expectations					
Males	4.395	1.504	4.729	1.427	F (1,854) = 10.316*
Females	4.560	1.441	4.616	1.384	F (1,1123) = 0.424

*p < .01
**p < .001

Socioeconomic Status Differences

As Coleman, et al. (1966) point out, "It is known that socioeconomic factors bear a strong relation to academic achievement." The question we raise is whether or not this relationship holds for Negro students attending schools of differing academic quality. Data in Tables 8a-d show that students with high socioeconomic status (SES) have higher verbal ability scores, higher occupational expectations, higher educational aspirations, and higher educational expectations than Low SES students. The relationship holds true for both sexes and both regions.

TABLE 8a

Vocabulary Score by SES

	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)*
Southern Males	16.62	7.19	249	14.06	6.47	270	F (1,517) = 18.265
Northern Males	21.39	7.56	118	19.03	7.26	195	F (1,311) = 7.552
Southern Females	18.80	7.52	280	15.77	6.49	372	F (1,650) = 30.465
Northern Females	21.75	6.96	149	19.42	6.52	310	F (1,457) = 12.290

*All F's in Tables 8a-d are significant beyond the .05 level.

TABLE 8b

Occupational Expectation by SES

	High SES			Low SES			
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	F (1,N)
Southern Males	4.52	2.75	217	3.97	2.59	243	F (1,458) = 4.787
Northern Males	5.60	2.59	92	4.61	2.84	149	F (1,239) = 7.336
Southern Females	6.08	2.29	245	5.64	2.46	321	F (1,564) = 4.845
Northern Females	6 65	2.16	133	5.55	2.83	269	F (1,400) = 15.477

TABLE 8c

Educational Aspiration by SES

	High SES			Low SES			
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	F (1,N)
Southern Males	5.31	1.57	248	5.00	1.57	269	F (1,515) = 4.94
Northern Males	5.71	1.27	119	5.31	1.49	197	F (1,314) = 5.854
Southern Females	5.62	1.38	278	4.75	1.54	369	F (1,645) = 54.845
Northern Females	5.64	1.38	149	5.00	1.45	310	F (1,457) = 20.524

TABLE 8d

Educational Expectation by SES

	High SES			Low SES			
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	F (1,N)
Southern Males	4.68	1.48	248	4.17	1.49	271	F (1,417) = 15.209
Northern Males	5.01	1.39	120	4.57	1.43	199	F (1,317) = 7.079
Southern Females	5.10	1.38	278	4.16	1.35	369	F (1,645) = 74.909
Northern Females	5.15	1.34	150	4.34	1.33	310	F (1,458) = 36.731

A more effective test of the influence of SES on ability and aspirations is a comparison of SES differences within schools. These data are presented in Tables 9-13. Contrary to expectations, SES differences within schools are not as pervasive as SES differences for the total sample within each city. At one northern school and two southern schools, the SES difference in verbal ability is not significant for either sex, while at one school (Working Class Integrated North), Low SES boys have slightly higher scores than High SES boys. In all, only six of sixteen mean differences reach significance when comparisons involve High and Low SES students attending the same school. This suggests that much of the overall SES difference is attributable to school differences as well as SES differences.

TABLE 9

Vocabulary Score by SES and School

North	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Middle Class Integrated							
Males (Negro)	25.67	7.56	21	24.00	9.18	10	F (1,29) = 0.287
Females (Negro)	24.03	6.28	33	22.74	5.33	35	F (1,66) = 0.834
Working Class Integrated							
Males (Negro)	19.94	6.30	32	21.48	6.34	42	F (1,72) = 1.075
Females (Negro)	21.75	7.14	32	18.26	6.53	55	F (1,85) = 5.411*
Working Class Segregated							
Males	21.06	7.89	47	18.10	7.88	72	F (1,117) = 4.025*
Females	19.83	6.57	42	19.78	6.55	106	F (1,146) = 0.002
Lower Class Segregated							
Males	19.83	7.45	18	17.82	6.27	71	F (1,87) = 1.374
Females	21.88	7.37	42	18.63	6.52	114	F (1,154) = 7.092*
South							
Middle Class							
Males	16.96	7.52	82	15.36	6.61	45	F (1,125) = 1.444
Females	20.48	7.81	92	15.37	5.48	67	F (1,157) = 21.081*
Working Class (1)							
Males	17.18	6.39	74	15.09	6.05	56	F (1,128) = 3.556
Females	19.65	7.80	79	18.04	7.57	104	F (1,181) = 1.972
Working Class (2)							
Males	17.98	7.41	56	14.93	7.02	73	F (1,127) = 5.708*
Females	17.72	6.38	65	15.48	5.99	101	F (1,164) = 5.291*
Lower Class							
Males	12.68	6.49	37	12.18	5.86	96	F (1,131) = 0.182
Females	15.39	6.75	44	13.97	5.76	100	F (1,142) = 1.659

*Significant at .05 or beyond.

Surprisingly, data in Table 10 indicate that SES has less effect on school grades than on verbal ability. In this case, only four of sixteen mean differences reach significance. For males, Low SES students are as likely as High SES students to have high grades. Three of the four significant relationships involve girls and there are no reversals for girls.[3]

[3]The same pattern was revealed in the overall comparison of High SES and Low SES students on grades. The SES differences were not significant for northern and southern boys. The SES difference was highly significant (.001) for southern girls and barely significant for northern girls (.05).

TABLE 10

Grade Point Average by SES

North	High SES X̄	High SES SD	High SES N	Low SES X̄	Low SES SD	Low SES N	F (1,N)
Middle Class Integrated							
Males (Negro)	25.14	4.94	22	26.17	7.26	12	F (1,32) = 0.241
Females (Negro)	28.31	5.68	32	27.78	6.06	36	F (1,66) = 0.140
Working Class Integrated							
Males (Negro)	26.87	5.20	31	27.02	5.41	41	F (1,70) = 0.015
Females (Negro)	31.91	6.06	33	28.91	6.15	54	F (1,85) = 4.931*
Working Class Segregated							
Males	27.73	6.17	44	25.73	5.57	71	F (1,113) = 3.209
Females	30.33	6.24	43	29.24	6.06	103	F (1,144) = 0.951
Lower Class Segregated							
Males	28.67	5.56	15	28.69	4.76	67	F (1,80) = 0.000
Females	33.05	6.08	41	31.31	6.97	105	F (1,144) = 1.980
South							
Middle Class							
Males	27.44	7.72	78	24.44	6.33	43	F (1,119) = 4.721*
Females	31.69	8.07	91	29.64	7.78	67	F (1,156) = 2.570
Working Class (1)							
Males	28.35	6.88	69	29.02	6.03	53	F (1,120) = 0.317
Females	34.84	6.72	79	31.67	6.64	101	F (1,178) = 9.940*
Working Class (2)							
Males	26.29	8.02	55	27.35	7.80	66	F (1,119) = 0.538
Females	29.19	6.99	62	28.09	6.81	93	F (1,153) = 0.964
Lower Class							
Males	25.67	7.30	33	26.76	7.10	92	F (1,123) = 0.568
Females	34.46	6.93	39	31.17	6.46	93	F (1,130) = 6.834*

*Indicates significant relationship ($p < .05$).

The aspiration data (Tables 11-13) also indicate that the SES effect within school is not as great as the overall SES effect. For Occupational Expectations, High SES students have significantly higher means in six of sixteen comparisons; for Educational Aspirations, the number of significant comparisons is also six of sixteen; and for Educational Expectations, ten of sixteen comparisons are significant. There are only two nonsignificant reversals (Low SES higher than High SES) among the 48 comparisons, indicating a strong SES effect on aspirations even when students at the same school are compared. These data also indicate that at most of the schools, the SES effect is more likely to be significant for girls than for boys. Of the 24 comparisons involving males, only five were statistically significant. For girls, 17 of 24 comparisons were significant.

TABLE 11

Occupational Expectation by SES

North	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Middle Class Integrated							
Males (Negro)	5.00	2.81	19	4.75	2.82	8	F (1,25) = 0.045
Females (Negro)	7.23	1.56	31	5.63	2.77	32	F (1,61) = 7.916*
Working Class Integrated							
Males (Negro)	5.10	2.87	29	5.19	2.82	31	F (1,58) = 0.015
Females (Negro)	6.36	2.50	28	4.71	2.87	48	F (1,74) = 6.418*
Working Class Segregated							
Males	6.26	2.23	35	4.49	2.91	55	F (1,88) = 9.403*
Females	6.31	2.60	35	5.41	2.84	93	F (1,126) = 2.703
Lower Class Segregated							
Males	5.89	2.21	9	4.38	2.83	55	F (1,62) = 2.318
Females	6.69	1.82	39	6.08	2.76	96	F (1,133) = 1.614
South							
Middle Class							
Males	4.47	2.81	79	3.71	2.34	44	F (1,121) = 2.350
Females	6.46	2.14	76	6.08	2.42	60	F (1,134) = 0.924
Working Class (1)							
Males	4.39	2.72	61	3.77	2.49	44	F (1,103) = 1.432
Females	5.93	2.39	70	4.95	2.56	92	F (1,160) = 6.198*
Working Class (2)							
Males	4.67	2.95	45	4.37	2.74	65	F (1,108) = 0.294
Females	6.71	1.76	59	5.79	2.57	87	F (1,144) = 5.726*
Lower Class							
Males	4.66	2.50	32	3.91	2.65	90	F (1,120) = 1.926
Females	4.70	2.54	40	5.92	2.11	82	F (1,120) = 7.770*

*Significant relationship ($p < .05$).

TABLE 12

Educational Aspiration by SES

North	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Middle Class Integrated							
Males (Negro)	5.70	1.58	23	5.42	1.51	12	F (1,33) = 0.254
Females (Negro)	5.91	1.33	33	4.94	1.39	36	F (1,67) = 8.614*
Working Class Integrated							
Males (Negro)	5.63	1.19	32	5.33	1.63	43	F (1,73) = 0.775
Females (Negro)	5.59	1.34	32	4.87	1.55	55	F (1,85) = 4.811*

TABLE 12 (Cont)

North (Cont)	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Working Class Segregated							
Males	5.78	1.15	46	5.30	1.39	71	F (1,115) = 3.909*
Females	5.67	1.49	43	4.92	1.47	106	F (1,147) = 0.060
Lower Class Segregated							
Males	5.67	1.33	18	5.30	1.53	71	F (1,87) = 0.882
Females	5.44	1.34	41	5.16	1.39	133	F (1,152) = 1.238
South							
Middle Class							
Males	5.56	1.48	80	5.12	1.47	43	F (1,121) = 2.551
Females	5.89	1.34	92	5.05	1.58	66	F (1,156) = 13.167*
Working Class (1)							
Males	5.30	1.52	73	4.96	1.48	56	F (1,127) = 1.603
Females	5.60	1.24	78	4.64	1.53	104	F (1,180) = 20.437*
Working Class (2)							
Males	5.43	1.49	58	5.25	1.66	73	F (1,129) = 0.438
Females	5.63	1.42	65	4.78	1.61	100	F (1,163) = 12.093*
Lower Class							
Males	4.57	1.77	37	4.78	1.58	97	F (1,132) = 0.466
Females	5.05	1.48	43	4.65	1.44	99	F (1,140) = 2.265

*Significant relationship ($p < .05$).

TABLE 13

Educational Expectation by SES

North	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Middle Class Integrated							
Males (Negro)	4.87	1.63	23	4.42	1.51	12	F (1,33) = 0.639
Females (Negro)	5.61	1.12	33	4.22	1.17	36	F (1,67) = 25.074*
Working Class Integrated							
Males (Negro)	4.91	1.33	32	4.77	1.46	43	F (1,73) = 0.179
Females (Negro)	5.12	1.24	33	4.42	1.33	55	F (1,86) = 6.050*
Working Class Segregated							
Males	5.11	1.27	45	4.42	1.44	72	F (1,117) = 7.130*
Females	4.81	1.61	43	4.34	1.34	106	F (1,147) = 3.415
Lower Class Segregated							
Males	5.11	1.57	18	4.64	1.40	72	F (1,88) = 1.566
Females	5.17	1.18	41	4.37	1.38	113	F (1,152) = 10.886*

TABLE 13 (Cont)

South	High SES $\bar{X}$	High SES SD	High SES N	Low SES $\bar{X}$	Low SES SD	Low SES N	F (1,N)
Middle Class							
Males	4.96	1.35	80	4.02	1.41	44	F (1,122) = 12.337*
Females	5.42	1.23	92	4.34	1.34	67	F (1,157) = 27.810*
Working Class (1)							
Males	4.66	1.50	74	4.11	1.50	56	F (1,128) = 4.366*
Females	5.00	1.28	78	4.10	1.30	104	F (1,180) = 21.772*
Working Class (2)							
Males	4.83	1.57	58	4.44	1.58	73	F (1,129) = 1.972
Females	4.98	1.45	64	4.23	1.50	101	F (1,163) = 10.134*
Lower Class							
Males	3.92	1.34	36	4.07	1.44	98	F (1,132) = 0.316
Females	4.77	1.63	44	4.04	1.25	97	F (1,139) = 8.542*

*Significant relationship ($p < .05$).

Neighborhood (School), Sex and SES

The data presented above indicate that SES affects males and females differently and that the SES effect may be partially a school effect. We have referred to the school effect in terms of neighborhood socioeconomic characteristics. All schools can be considered representative of a geographical area within each city with one exception. The Northern Middle-Class Integrated School, because of special programs for high ability students, is an "open" school which draws students from outside its official school zone boundaries. Thus its high academic quality and its unusually high proportion of middle-class white students are attributable to selection factors rather than to neighborhood characteristics in a large degree. For this reason, we will focus on the school effect rather than the neighborhood effect in this analysis.

In order to investigate the relationship of school, sex and SES to outcome variables, a multivariate analysis of variance was performed (Program for IBM 360 available from the Institute for Social Research, The University of Michigan). Data for northern and southern students were analyzed separately. Looking first at verbal ability data for northern students, there are significant main effects for school and SES, but not for sex (Table 14). There is also a significant school x sex x SES interaction effect. Boys at the integrated schools did not follow the same pattern as boys at the two segregated schools. Low SES boys actually had higher mean verbal ability scores than High SES boys at these schools (statistically significant at the Working Class Integrated School). For occupational expectations, there were significant main effects for sex and SES. The sex difference may be attributable to the difference in the referents of males and females, since the sex effect is not present for educational aspirations or educational expectations. For these latter variables, SES is the only significant variate. In both instances, the SES effect is significant beyond the .001 level of confidence (Tables 15-17). The relationship of school, sex

TABLE 14

Verbal Ability by School, Sex and SES

Northern Schools	Males		Females	
	Low SES N = 107	High SES N = 64	Low SES N = 223	High SES N = 115
Middle Class Integrated	25.5714 N = 7	24.2308 N = 18	22.6552 N = 29	24.5862 N = 29
Working Class Integrated	25.1579 N = 19	20.0000 N = 15	19.0312 N = 32	23.0000 N = 20
Working Class Segregated	20.0454 N = 44	23.2758 N = 29	20.2771 N = 83	18.9062 N = 32
Lower Class Segregated	18.7027 N = 37	20.2857 N = 7	19.4557 N = 79	22.3823 N = 34

	F		F	
School x Sex x SES	4.3935	($p < .05$)	School	4.9045 ($p < .05$)
School x Sex	1.1565		Sex	0.7517
School x SES	0.7099		SES	7.7778 ($p < .01$)
Sex x SES	0.1737			

TABLE 15

Occupational Expectation by School, Sex and SES

Northern Schools	Males		Females	
	Low SES N = 107	High SES N = 64	Low SES N = 223	High SES N = 115
Middle Class Integrated	4.2857	4.6154	5.5862	7.1724
Working Class Integrated	5.8947	5.4667	5.0625	6.2500
Working Class Segregated	4.5682	6.5517	5.4578	6.1875
Lower Class Segregated	4.6486	5.7143	6.1013	6.7059

	F		F	
School x Sex x SES	1.6911		School	0.4925
School x Sex	2.7936		Sex	10.9832 ($p < .001$)
School x SES	0.4499		SES	14.9870 ($p < .001$)
Sex x SES	0.0385			

TABLE 16

Educational Aspiration by School, Sex and SES

Northern Schools	Males Low SES N = 107	Males High SES N = 64	Females Low SES N = 223	Females High SES N = 115
Middle Class Integrated	5 5714	5.2308	4.9310	5.8276
Working Class Integrated	5.7368	5.6667	4.7500	5.4500
Working Class Segregated	5.2273	5.9655	4.9518	5.7500
Lower Class Segregated	5.2703	5.8571	5.2532	5.7059

	F		F	
School x Sex x SES	0.9059	School	0.4928	
School x Sex	1.1619	Sex	2.6916	
School x SES	0.4623	SES	19.2347	($p < .001$)
Sex x SES	0.9548			

TABLE 17

Educational Expectation by School, Sex and SES

Northern Schools	Males Low SES N = 107	Males High SES N = 64	Females Low SES N = 223	Females High SES N = 115
Middle Class Integrated	4.2857	4.2308	4.2414	5.5517
Working Class Integrated	5.0000	4.8000	4.4687	4.9000
Working Class Segregated	4.5682	5.3448	4.4096	4.7812
Lower Class Segregated	4.6486	5.4286	4.4684	5.3235

	F		F	
School x Sex x SES	1.7904	School	0.3803	
School x Sex	2.0165	Sex	0.3517	
School x SES	1.1940	SES	20.8717	($p < .001$)
Sex x SES	2.3700			

and SES to school grades is presented in Table 18. There are significant main effects for school and sex with sex having the greater effect. SES is not significantly related to school grades in this population. There is a sex x SES interaction effect that is significant at the .05 level. Low SES boys have slightly higher grades, while High SES girls have slightly higher grades. The relatively high grades of Low SES boys was unanticipated and raises the question of sampling bias especially at the two integrated schools (see Chapter II for a description of sampling problems in northern schools). Analysis of covariance using SES as a covariate did not result in changing any of the school or sex results.

TABLE 18

School Grades by School, Sex and SES

	Males		Females	
Northern Schools	Low SES N = 107	High SES N = 64	Low SES N = 223	High SES N = 115
Middle Class Integrated	27.1429	24.3846	27.0690	28.1379
Working Class Integrated	29.6842	25.2667	29.7500	33.5500
Working Class Segregated	26.4545	28.1379	29.3494	30.2197
Lower Class Segregated	30.2162	27.5714	31.7342	33.0294

	F		F	
School x Sex x SES	2.5731	School	11.2877	($p < .001$)
School x Sex	0.2397	Sex	21.1084	($p < .001$)
School x SES	0.3713	SES	0.0136	
Sex x SES	4.1705 ($p < .05$)			

In the southern schools, we find significant main effects for all three independent variables when we look at verbal ability (Table 19). The strongest effect is for SES. Girls have higher ability scores than boys, the lower class school has a lower average ability score than the other schools, and High SES students have higher scores than Low SES students. Only sex and SES are significantly related to occupational expectations, with sex having much the greater effect. This is probably due to the difference in referent for the two sexes. SES differences are in the expected direction. Significant main effects for educational aspirations were found for school and SES, with SES having the greater effect. A significant sex x SES interaction effect was also revealed. Inspection of the means in Table 21 reveals that High SES girls have higher mean scores than High SES boys, but that there is little difference between Low SES males and females. For educational expectations, there were significant main effects for all three independent variables and one significant interaction effect. The strongest effect is for SES, followed by school and sex. High SES girls are more optimistic about their educational outlook than all other students in the southern sample. The highest expectations are held by students at the middle-class school (Table 22). All three independent variables are significantly related to grades in the south and there is a significant sex x SES interaction. Sex has the strongest relationship to grades. Even Low SES girls have higher grades than both Low and High SES boys. The interaction effect for sex and SES seems to be based on a lack of difference between High and Low SES boys and a significant difference between High and Low SES girls which favors the High SES girls (Table 23).

Race Differences

We were able to make racial comparisons at the two northern integrated schools. For both sexes, whites were significantly higher in verbal ability than Negroes. Negroes at the Middle-Class Integrated School had mean verbal ability scores comparable to those of whites at the working class school (Table 24). White students of both sexes at both schools also had significantly higher

TABLE 19

Verbal Ability by School, Sex and SES

	Males		Females	
Southern Schools	Low SES N = 169	High SES N = 170	Low SES N = 270	High SES N = 202
Lower Class	14.1224 N = 49	14.3500 N = 20	14.6721 N = 61	16.3636 N = 22
Middle Class	15.3125 N = 32	18.2985 N = 67	15.5714 N = 56	21.0000 N = 67
Working Class (1)	15.9167 N = 36	17.9800 N = 50	18.0610 N = 82	20.5323 N = 62
Working Class (2)	16.1154 N = 52	18.0303 N = 33	15.7746 N = 71	18.3529 N = 51

	F		F	
School x Sex x SES	0.2347	School	6.4149	($p < .05$)
School x Sex	1.0183	Sex	8.2872	($p < .01$)
School x SES	1.8958	SES	37.9192	($p < .001$)
Sex x SES	2.1673			

TABLE 20

Occupational Expectation by School, Sex and SES

	Males		Females	
Southern Schools	Low SES N = 169	High SES N = 170	Low SES N = 270	High SES N = 202
Lower Class	3.9388	4.9500	5.7377	4.9545
Middle Class	4.0937	4.5970	6.0714	6.3731
Working Class (1)	3.6944	4.3000	4.9756	5.9677
Working Class (2)	4.3462	4.6364	5.7606	6.6667

	F		F	
School x Sex x SES	1.6696	School	3.2117	
School x Sex	0.4300	Sex	78.2069	($p < .001$)
School x SES	0.8295	SES	6.4009	($p < .05$)
Sex x SES	0.0088			

TABLE 21

Educational Aspiration by School, Sex and SES

Southern Schools	Males		Females	
	Low SES N = 169	High SES N = 170	Low SES N = 270	High SES N = 202
Lower Class	4.9388	4.8500	4.6885	5.5455
Middle Class	5.2812	5.7761	5.0357	6.0597
Working Class (1)	4.9782	5.3000	4.6707	5.6452
Working Class (2)	5.1923	5.3636	4.9577	5.8235

	F		F	
School x Sex x SES	0.1312	School	4.3288	($p < .05$)
School x Sex	0.1158	Sex	0.1111	
School x SES	0.4852	SES	49.1050	($p < .001$)
Sex x SES	9.6137 ($p < .01$)			

TABLE 22

Educational Expectation by School, Sex and SES

Southern Schools	Males		Females	
	Low SES N = 169	High SES N = 170	Low SES N = 270	High SES N = 202
Lower Class	4.3265	3.9000	4.1803	5.2727
Middle Class	4.1875	5.1348	4.4107	5.6716
Working Class (1)	4.1111	4.5000	4.1341	5.0323
Working Class (2)	4.6346	4.8788	4.4507	5.0196

	F		F	
School x Sex x SES	1.4596	School	5.0972	($p < .05$)
School x Sex	0.7788	Sex	4.4257	($p < .05$)
School x SES	2.7090	SES	54.7333	($p < .001$)
Sex x SES	8.6027 ($p < .01$)			

grades than Negro students. Data on educational aspirations are presented in Tables 25 and 26. These data indicate that northern Negro and white students have very similar aspirations as a whole, but middle-class whites have much higher educational aspirations and expectations than working-class whites and Negroes. The smallest proportion of students aspiring to college education or beyond was registered by white students at the working-class school. The pattern was the same for both sexes. Students at the southern schools are included in the tables for purposes of comparison. The proportion of Negro and white students aspiring to white-collar jobs is presented in Table 27. Again, whites at the middle-class integrated school have the highest aspirations; whites at the working class integrated school have the lowest aspirations.

TABLE 23

School Grades by School, Sex and SES

Southern Schools	Males		Females	
	Low SES N = 169	High SES N = 170	Low SES N = 270	High SES N = 202
Lower Class	27.7959	28 4000	32.6229	35.5454
Middle Class	24 9375	28.0597	30.2679	32.4478
Working Class (1)	29.5278	28.4000	31.5975	35.0323
Working Class (2)	27.7500	26.7273	28.2253	29.7843

	F			F	
School x Sex x SES	1.2708		School	8.7332	($p < .01$)
School x Sex	2.7356		Sex	29.3814	($p < .001$)
School x SES	0.7450		SES	5.2233	($p < .05$)
Sex x SES	3.9770	($p < .05$)			

TABLE 24

Race Differences in Verbal Ability at Northern Integrated Schools

School and Sex	Race						
	Negro			White			
	X	SD	N	X	SD	N	z
Males							
Middle Class Integrated	25.129	8.003	31	30.917	8.060	36	-2.94
Working Class Integrated	20.760	6.301	75	23.982	6.216	114	-3.46
Females							
Middle Class Integrated	23.232	5.869	69	33.568	8.312	37	-6.52
Working Class Integrated	19.546	6.930	87	23.090	6.738	100	-3.54

TABLE 25

Aspirations by Schools (Males)

Schools	Educational Aspiration: Percent College Graduate	Educational Aspiration: N	Expected Education: Percent College Graduate	Expected Education: N
Northern White (Total)	64	146	40	149
Middle Class	92	36	61	36
Working Class	55	110	33	113
Northern Negro (Total)	64	322	42	325
Middle Class Integrated	69	35	43	35
Working Class Integrated	65	76	43	76
Working Class Segregated	63	119	43	121
Lower Class Segregated	64	92	39	93
Southern Negro (Total)	57	529	34	531
Middle Class	64	127	36	128
Working Class	58	130	37	131
Working Class	61	137	41	137
Lower Class	46	135	24	135

TABLE 26

Aspirations by Schools (Females)

Schools	Educational Aspiration: Percent College Graduate	Educational Aspiration: N	Expected Education: Percent College Graduate	Expected Education: N
Northern White (Total)	52	138	42	138
Middle Class	89	37	84	37
Working Class	39	101	27	101
Northern Negro (Total)	54	468	36	468
Middle Class Integrated	57	70	44	70
Working Class Integrated	53	87	39	88
Working Class Segregated	55	150	31	150
Lower Class Segregated	55	158	35	158
Southern Negro (Total)	52	659	36	659
Middle Class	68	160	49	161
Working Class	50	185	33	185
Working Class	51	169	35	169
Lower Class	39	145	25	144

TABLE 27

Occupational Expectations of Northern Negro and White Students
(Percent of Males Aspiring to White Collar Jobs)

Comparison Group		Percent	Number
White Students:	Middle Class School	77.7	36
Negro Students:	Middle Class School	51.4	35
Negro Students:	Working Class Integrated School	50.0	76
Negro Students:	Working Class Segregated School	48.8	123
Negro Students:	Lower Class Segregated School	42.0	93
White Students:	Working Class Integrated School	42.1	114

$X^2 = 15.53$, df = 5, $p < .01$.

SUMMARY

In this chapter we have explored the influence of region, SES, school, sex, and race on Negro students' verbal ability, occupational expectations, educational aspirations and school grades. Our results indicate each of the independent variables is significantly related to one or more of the outcome variables.

In brief, we found that northern students of both sexes have higher ability than southern students of both sexes and northern males have higher aspirations than southern males. High SES students have higher ability and aspirations than low SES students, but this relationship was found to vary by school in both magnitude and direction. SES was found to have less influence on grades than on verbal ability. In the north, the school a student attends has a significant influence on both ability and grades. For example, High SES males earn better grades at segregated schools than at integrated schools but do not have higher ability. For Low SES males, attending an integrated school seems to enhance ability. Girls were found to have significantly higher grades than boys in the north but the sexes did not differ in verbal ability. In the south, girls had higher ability, grades and educational expectations. Both school attended and SES were also influential in the south, in the expected direction. In both the north and the south, SES was far more significant than either school or sex for all variables except grades. Sex was the most significant predictor of grades. In comparing Negro and white students at integrated schools, we found that within each school white students have higher ability and grades. Whites at the middle-class school have higher aspirations, but whites at the working-class school have lower aspirations than Negroes.

CHAPTER IV

PERSONALITY, ATTITUDES AND ACHIEVEMENT ORIENTATION

In this chapter the relationship of personality and attitude variables to the outcome variables is explored. The primary analysis technique is product moment correlation. The relationship between the outcome variables and selected attitude and personality variables for the total sample is presented in Table 28. It is of interest to look first at the amount of association between the outcome variables. The achievement variables, vocabulary test score and grade point average, are related at a fairly high level (r = .498). None of the other variables correlates as highly with either grades or vocabulary test score. Educational aspirations and educational expectations are highly correlated with each other (.689) and moderately related to grades and vocabulary test scores (r's range from .349 to .368). Educational aspirations and educational expectations are related to occupational expectations at about the same level as they are to grades and verbal ability (r = .341 and .370, respectively). Grades and verbal ability are not highly related to occupational expectations in this population (r = .232 for grades and .169 for verbal ability).

In examining the other variables, it will be helpful to look at those which measure a similar concept together. The discussion will follow the order in which variables were described in Chapter II: Self-Evaluation, Sense of Efficacy, Perceived Opportunity for Success, Achievement Values, and Achievement Motivation.

Self-Evaluation. The two variables which comprise this dimension are Self-Concept of Ability and Self-Esteem. Self-Concept of Ability is more strongly related to all five outcome variables than Self-Esteem although both are positively and significantly related to the outcome variables. For Self-Concept of Ability, the correlation coefficients range from a low of .311 (Occupational Expectations) to a high of .470 (Educational Expectations), while the range for Self-Esteem is from a low of .102 (Occupational Expectations), to a high of .241 (Educational Expectations). Self-Concept of Ability has a correlation coefficient of .444 with grades and .337 with vocabulary test scores. Self-Esteem correlates .232 with grades and .201 with vocabulary test scores. These results are comparable to those of Brookover, et al.(1967), who also found that Self-Concept of Ability is a better predictor of academic achievement than Self-Esteem, as measured by the Rosenberg scale (1965). The two measures of self-evaluation are related, but the correlation coefficient is modest (r = .38). This indicates that the variables are measuring somewhat different constructs. It might be said that one measures academic specific self-concept while the other is a more general evaluation of self. Obviously the former is more useful for predicting academic achievement.

Sense of Efficacy. The variables we have used to measure this concept are the Interval vs. External Control Scale (IE) and its two subscales (First Person I-E Scale and Third Person I-E Scale), the Intellectual Achievement Responsibility Scale (IAR), the Alienation-Fear of Success Scale (AL), and the Personal Control Scale (PC). The PC was included in the Follow-Up Questionnaire, therefore, results are not available for the total sample.[1] Results for the PC are

[1]See Follow-Up Questionnaire Items 77, 78, 131 and 139.

TABLE 28

Correlates of Ability and Aspirations: Total Sample, File I Variables

Variable Name	Vocabulary Test Score	Educational Aspirations	Educational Expectations	Occupational Expectations	GPA
Educational Aspirations	.349	-	.689	.341	.356
Educational Expectations	.368	.689	-	.370	.386
Occupational Expectations	.169	.341	.370	-	.232
Vocabulary Score, I	-	.349	.368	.169	.498
Self-Concept of Ability Index	.337	.410	.470	.311	.444
Awareness of Limited Opportunities Index	-.427	-.325	-.409	-.203	-.359
Self-Esteem Index	.201	.189	.241	.102	.232
Alienation Index	-.388	-.279	-.295	-.113	-.326
Criticism of Education Index	-.248	-.170	-.185	-.078	-.236
Conformity Index	-.377	-.203	-.242	-.115	-.285
Internal-External Index	.268	.197	.194	.059	.255
Intellectual Achievement Response Index	.265	.207	.194	.053	.260
Need for Recognition Index	-.144	-.101	-.144	-.033	-.126
Fear of Failure Index	-.036	-.040	-.043	-.011	-.027
Paternal Influence Scale	.079	.030	.077	-.020	.020
Family Cohesiveness Scale	-.027	.132	.165	.131	.186
Parental Support Scale	.053	.134	.196	.116	.139
Achievement Attitude Scale	.167	.271	.297	.152	.206
Total Grade Point Average	.498	.356	.386	.232	-
Test Anxiety Questionnaire Index	.242	.147	.172	.026	.161
Self Report n Ach	.188	.138	.142	.029	.163
Need for Affiliation	-.210	-.125	-.108	-.027	-.187
Personal Control, Internal-External	.229	.140	.164	.052	.178
Third Person I-E	.258	.186	.181	.046	.224
Personal Control (N = 819)	.341	.222	.265	.113	.371

N = 2,778 to 1,972. Number of respondents varies for each correlation coefficient because the computer program eliminates individuals who have missing data on one of the variables involved. A correlation coefficient of .081 is significant at the .01 level when N = 1,000.

based on the follow-up sample of 819 students; results for the other variables are based on the total sample of 2,826 students. The N unpon which each correlation coefficient is based will vary depending upon the number of students for whom we have data on both variables.

The relationship between the measures of Sense of Efficacy is moderately high. The IE Scale correlates .405 with IAR, -.408 with AL, and .450 with PC. The IAR Scale correlates are -.318 for AL and .295 for PC. The correlation coefficient for PC and AL is -.439. This indicates that all of the measures have about the same amount of association with the IE Scale, but they are all measuring something different since none explains more than about one-fifth of the variance of any other variable. The IAR seems to have least in common with the other variables in this conceptual area.

The PC Scale is the best predictor of achievement and aspirations among the locus of control variables. It is most highly correlated with school grades (.371), followed closely by vocabulary test score (.341). Correlations with other outcome variables are smaller but significant and positive. The IE Scale and the IAR Scale are about equally effective, with correlation coefficients of about .26 for vocabulary test scores and grades, .19 for educational aspirations and expectations, and .05 for occupational expectations. Neither of the IE subscales is quite as effective as the total scale, although the Third Person IE Subscale is more effective than the First Person Subscale for this population.

The Alienation-Fear of Success Scale (AL) has a slightly higher average correlation with the five outcome variables than the PC Scale. The coefficients for the individual variables are: Vocabulary Score, -.388; Grades, -.326; Educational Expectations, -.295; Educational Aspirations, -.279; and Occupational Expectations, -.113. The AL Scale is, of course, negatively related to achievement orientation, while the other scales in this conceptual domain are positively related to achievement orientation.

Perceived Opportunity for Success. The Awareness of Limited Opportunities Scale (ALO) is the only measure of perceived opportunity for success in our questionnaire. One might, however, consider the educational and occupational aspiration measures as additional indicators of perceived opportunity for success. As predicted, scores on the ALO Scale are negatively related to the outcome variables. The highest correlation is with vocabulary test score (-.427). Other relatively high correlations are found for Educational Expectations (-.409) and school grades (-.359). Smaller associations are found for Educational Aspirations (-.325) and Occupational Expectations (-.203).

Achievement Values. The variables used to measure this concept are: Educational Aspirations, Educational Expectations, Occupational Expectations, the Criticism of Education Scale, and the Conformity Scale. In addition, four variables from the Follow-Up Questionnaire are included in this conceptual area. The variables in question are the Strodtbeck (1958) Achievement Values Scale (Ach V), the Moore-Holtzman Scale (1965), the Lower-Class Values Scale (Landis and Scarpitti, 1965), and the Preferred Job Characteristics Scale (PJC). These variables and the outcome variables are presented in a correlation matrix in Table 29.

After verbal ability, the variable which has the highest correlation with grades is Preferred Job Characteristics. The PJC scale is composed of ten items. Respondents are asked to indicate on a five-point scale how much importance they give to certain job characteristics. The scale is scored for middle-class preference. The items composing the scale are listed in the Follow-Up Questionnaire as Numbers 188 through 202. A forced-choice version of this scale based on the work of Farquhar (1963) was tried in a pretest but was not found to be effective (Epps, 1967a) in that form. (See Farquhar, 1964, for the complete

instrument.) In the present form, correlation coefficients of .429 and .464 were found for grades and verbal ability, respectively. The coefficients for Occupational Expectations (.142), Educational Aspirations (.270), and Educational Expectations (.284) were smaller, but significant.

The Lower-Class Values Scale is strongly related to the outcome variables in a negative direction. This scale was developed by Landis and Scarpitti (1965) as a measure of acceptance of lower-class values. It is a 13-item Likert type scale (see Follow-Up Questionnaire, Items 103 to 139). This scale is negatively related to the PJC (r =-.518). This scale correlates most highly with verbal ability (-.463) and grades (-.417). The correlation coefficients between LCV and Educational Aspirations, Educational Expectations, and Occupational Expectations are, respectively, -.290, -.303, and -.152.

The Conformity Scale (CS) is also negatively related to the outcome variables. For the total sample, results are found in Table 28. For the follow-up sample, results are presented in Table 29. All relationships are significant and negative. Correlation coefficients are slightly higher for the follow-up sample. The CS is more closely related to verbal ability (-.388, -.416) and grades (-.285, -.339) than to the aspiration variables. It is, as one would expect, positively related to LCV (.345) and negatively related to PJC (-.328).

The Strodtbeck Achievement Values Scale[2] and the Moore-Holtzman Scale[3] are positively related to the outcome variables. They are also positively related to the PJC (.353 and .406, respectively). They are negatively related to OCV and the CS. Like most of the other variables, the Ach V and M-H scales are more strongly related to grades (.272 and .369) and vocabulary test scores (.346 and .343) than to aspirations and expectations.

The last variable to be considered in this conceptual area is the Criticism of Education Scale. The relation of this variable to the outcome variables is found in Table 28. (Results for the follow-up sample may be found in Table 29.) The CE is about equally related to grades and verbal ability (-.236 and -.240). The correlation coefficients for Educational Aspirations (-.17), Educational Expectations (-.185), and Occupational Expectations (-.059) are smaller. The CE is positively related to LCV (.279), and the CS (.16) but is negatively related to PJC (-.224), the M-H Scale (-.292), and Ach V (-.173).

Achievement Motivation. Four measures are included in this conceptual area. The first is achievement motivation as measured by a variation of the McClelland technique (n Ach). The McClelland scoring technique was used with verbal descriptions of situations rather than pictures. Different verbal cues were used with males and females. The actors in the male situations were described as males, while the actors in the female situations were described as females. Mean scores were higher for males than for females on this variable, but this difference may be due to the difference in the stimulus descriptions used for males and females. This question will have to be answered by additional research. Other measures of achievement motivation included the Test Anxiety Questionnaire (TAQ) which is scored for low anxiety in this analysis, thus yielding a measure

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[2]This scale is composed of Items 79-91 in the Follow-Up Questionnaire.

[3]This scale includes Items 102-168 of the Follow-Up Questionnaire.

TABLE 29

Correlates of Achievement Values (N = 819)

	GPA	Vocab	Ed Asp	Ed Exp	Occ Exp	CE	CS	Ach V	M-H	LCV	PJC
School Grades	-	.468	.373	.379	.247	-.208	-.339	.272	.369	-.417	.429
Vocabulary (II)	.468	-	.360	.374	.200	-.209	-.416	.346	.343	-.463	.464
Educational Aspirations	.373	.360	-	.724	.343	-.196	-.243	.164	.201	-.290	.270
Educational Expectations	.379	.374	.724	-	.394	-.196	-.309	.192	.270	-.303	.284
Occupational Expectations	.247	.200	.343	.394	-	.059	-.144	.100	.132	-.152	.142
Criticism of Education	-.208	-.209	-.196	-.196	-.059	-	.161	-.173	-.292	.279	-.224
Conformity Scale	-.339	-.416	-.243	-.309	-.144	.161	-	-.346	-.294	.345	-.328
Strodtbeck Achievement	.272	.346	.164	.192	.100	-.173	-.346	-	.292	-.340	.353
Moore-Holtzman Scale	.369	.343	.201	.270	.132	-.292	-.294	.292	-	-.480	.406
Lower Class Values	-.417	-.463	-.290	-.303	-.152	.279	.345	-.340	-.480	-	-.518
Preferred Job Characteristics	.429	.464	.270	.284	.142	-.224	-.328	.353	.406	-.518	-

of positive motivation; a Self-Report measure of achievement motivation (SR Ach); and an achievement attitudes scale (Ach Att). The correlation matrix constructed for these variables and the outcome variables is presented in Table 30.

Looking first at the intercorrelations among the measures of achievement motivation, it is apparent that none of them are strongly related. Although several correlation coefficients reach statistical significance with an N of 800+, the amount of variance explained is negligible. Thus, whatever the other instruments measure, they are not measuring the type of fantasy need for achievement measured by the TAT type instrument.

When we look at the relationship between these measures and the outcome variables, we find also that they are not very efficient predictors of academic achievement or aspirations. The strongest correlate of verbal ability is n Ach, with a correlation coefficient of .198 for the first vocabulary test and .205 for the second vocabulary test which was administered at the same time as the n Ach measure. The relationship is stronger when males are viewed separately from females (Table 30b). For males, the correlation coefficient is .250 between n Ach and the second vocabulary test score and .240 between n Ach and grades. It is of even greater interest that TAQ correlates .310 with the second vocabulary test score and .243 with the first vocabulary test score. As has occurred throughout the history of n Ach research, these measures are more effective in predicting the behavior of males than females. Neither of these measures has a very strong relationship to aspirations. The weakest correlate of achievement orientation is the SR Ach measure. The only respectable correlation coefficients are those involving the vocabulary test scores, grades and test anxiety. These are small, but statistically significant. Like the other measures of n Ach, they are more effective for males than for females. The achievement attitude scale is significantly related to all of the variables except SR Ach (the correlation with n Ach of .087 is significant at the .05 level with the N in this sample). This measure is most strongly related to educational expectations and aspirations. When we look at the males, the relationship between Ach Att and occupational expectations (.249) approaches the same level as that between Ach Att and educational expectations. The relationship with vocabulary test scores is also higher for males alone than for both sexes together. The Ach Att measure has a higher correlation with grades for females (.205) than for males (.169). This accounts for the higher correlation coefficient for both sexes than for males alone when grades are used as a dependent variable. The relationship between Ach Att and educational aspirations and expectations is about the same for girls (.290 and .270) as for boys (.237 and .273).

In summarizing the data on achievement motivation, it is apparent that none of these variables is a strong correlate of academic achievement or educational and occupational aspirations. The best correlate of verbal ability for both sexes is n Ach, while TAQ is the best correlate of ability for males. The Ach Att measure is the strongest correlate of aspirations for both sexes as well as for males when they are considered alone. The SR Ach measure is significantly related to both grades and verbal ability, but at a lower level than the other measures. It is not significantly related to aspirations.

Summary. The variables considered in this chapter seem to have some promise as nonintellective predictors of academic achievement. The highest average correlation across the five outcome variables was found for SCA (.394). Others

TABLE 30

Correlates of Achievement Motivation

Variables	a. Total Sample (N = 819)				b. Males Only (N = 382)			
	n Ach	TAQ	SR Ach	Ach Att	n Ach	TAQ	SR Ach	Ach Att
TAT n Ach	-	.100	.025	.087	-	.103	.060	.078
(Low) Test Anxiety	.100	-	.176	.166	.103	-	.197	.166
Self-Report n Ach	.025	.176	-	.063	.060	.197	-	.077
Achievement Attitudes	.087	.166	.063	-	.078	.166	.077	-
Grades	.185	.156	.139	.181	.240	.192	.154	.169
Vocabulary Score, II	.205	.196	.106	.124	.250	.310	.170	.189
Educational Aspirations	.122	.117	.117	.265	.149	.115	.048	.237
Educational Expectations	.153	.113	.105	.268	.196	.137	.057	.273
Occupational Expectations	-.008	.011	.017	.138	.090	.143	.007	.249
Vocabulary Score, I	.198	.191	.146	.152	.217	.243	.206	.234

with relatively high average correlations were ALO (-.344), LCV (-.325), and PJC (.318). The strongest correlate of school grades is ability (.498), followed closely by SCA (.444), PJC (.429) and LCV (-.417). The variables which correlate with ability at a relatively high level are grades (.498), PJC (.464), LCV (.463), ALO (-.427), and Conformity (-.416). The best correlates of the aspiration variables are, in order, SCA, grades, ALO, and verbal ability.

It is of some interest to note that the two variables with the strongest theoretical grounding in experimental research (n Ach and IE) are not highly correlated with grades and verbal ability. This suggests that other approaches may yield more fruitful results with respect to the prediction of academic achievement. The theories may serve as useful leads to other measures of the dimensions in question (e.g., the Personal Control Scale as a measure of locus of control).

CHAPTER V

FAMILY STRUCTURE, SOCIALIZATION AND ACHIEVEMENT ORIENTATION

Family Social Status. We presented data in Chapter III which showed that SES (as indicated by a composite measure) is strongly related to achievement orientation for the following groups: southern males, northern males, southern girls, northern girls. The relationship was not, however, very pronounced when students attending the same school were compared. In this section, results of a correlation analysis are presented to explicate the way different indicators of SES relate to the outcome variables for selected subgroups.

Data in Table 31 indicate that there is a regional difference in the way the SES indices relate to achievement. For both males and females in the south, the most effective SES correlate of achievement is mother's education. Mother's education is most strongly related to educational expectations (.232), Otis IQ Score (.194), and vocabulary score (.184) for southern boys. For southern girls, educational expectations (.342), educational aspirations (.262), vocabulary score (.235), English grade (.208), and Otis IQ (.195) are the strongest correlates of mother's education. There is little to choose from between father's education and father's occupation for southern males, but father's education appears to work a little better than father's occupation for southern girls. These results support data from a pretest in Jacksonville, Florida (Epps, 1968) in which we found that mother's education was the most effective predictor of personality characteristics.

Northern Negro students exibit a different pattern. For northern boys, the most effective correlate of educational aspirations and expectations is father's education (.194 and .212, respectively). Father's occupation has the strongest relationship to vocabulary test score (.199), while mother's education is the strongest correlate of occupational expectations (.216) and scholastic achievement test score (.159). For northern girls, mother's education and father's education are about equally effective correlates of achievement orientation, with perhaps a slight advantage for mother's education. Father's education yields the largest correlation coefficient for SCAT score (.231), while mother's education is the strongest correlate of vocabulary test score (.249) and expected education (.312).

One of the more interesting characteristics of this table is the consistent absence of any sizable relationship between SES variables and grades (southern girls are the exception). The fact that any advantage high SES students may have in ability is not carried over to the classroom situation may be an indication that class bias is less in evidence in the grading practices of these schools than is commonly believed. The reader will recall from Chapter III that SES was less strongly related to school grades than to ability and aspirations. This correlational analysis provides additional support for the contention that social class of Negro pupils plays a relatively small role in the grading practices they encounter. (Our data do show consistent race differences in grades received, which may indicate that SES within the Negro population plays a minor role, while SES and race are operative when whites are involved.)

Father Absence. The question of the effect of father absence on achievement and aspirations has been raised repeatedly, but little research has been

TABLE 31

SES Correlates of Achievement Orientation

Variables Correlates	Father's Occupation	Father's Education	Mother's Education
a. Southern Males (N = 721)			
Father's Occupation	-	.425	.280
Father's Education	.425	-	.508
Mother's Education	.280	.508	-
Educaticnal Aspiration	.118	.134	.163
Educational Expectation	.211	.195	.232
Occupational Expectation	.130	.086	.167
Vocabulary Score	.136	.144	.184
English Grade	.023	.010	.053
Math Grade	.037	.014	.071
Otis IQ Score	.091	.073	.194
b. Southern Females (N = 851)			
Father's Occupation	-	.415	.272
Father's Education	.415	-	.555
Mother's Education	.272	.555	-
Educational Aspiration	.173	.199	.262
Educational Expectation	.205	.284	.342
Occupational Expectation	.095	.099	.092
Vocabulary Score	.119	.176	.235
English Grade	.085	.071	.208
Math Grade	.036	.097	.145
Otis IQ Score	.140	.165	.195
c. Northern Males (Negro Only, N = 400)			
Father's Occupation	-	.456	.304
Father's Education	.456	-	.474
Mother's Education	.304	.474	-
Educational Aspiration	.086	.194	.179
Educational Expectation	.164	.212	.173
Occupational Expectation	.168	.194	.216
Vocabulary Score	.199	.145	.137
English Grade	.009	.004	.073
Math Grade	.037	.011	.016
SCAT Score	.116	.133	.159
d. Northern Females (Negro Only, N = 566)			
Father's Occupation	-	.442	.265
Father's Education	.442	-	.529
Mother's Education	.265	.529	-
Educational Aspiration	.095	.199	.261
Educational Expectation	.199	.272	.312
Occupational Expectation	.138	.217	.219
Vocabulary Score	.072	.231	.249
English Grade	.047	.123	.107
Math Grade	.047	.046	.012
SCAT Score	.125	.231	.156

done on the subject. Recently, some doubt has been cast on the utility of this variable as a predictor of academic achievement (Baughman and Dahlstrom, 1968), and aspirations (Krystall and Epps, 1968). This variable was subjected to extensive analysis in this study in an effort to clarify its relation to achievement orientation. First, the data for all Negro males were arranged in a 3 x 2 table for a chi square analysis of the relationship of family intactness to educational expectations (Table 32). Fifty-three percent of the males in the sample report that their parents are living together (intact families); 34 percent say that parents are separated or divorced and 13 percent indicate that

TABLE 32

Family Intactness and Educational Expectations
(Negro Males)

Family Structure	Do Not Expect to Graduate From College	Expect to Graduate From College	Total	N
Intact Family	58%	42%	100%	452
Separated or Divorced	68	32	100	285
Other	74	26	100	109
Total Males	63	37	100	846

$x^2 = 14.93$, df = $p < .01$

some other arrangement exists.[1] As Table 32 indicates, the relationship between family intactness and expected education is very significant. A comparable analysis for girls resulted in non-significant results. The relationship was explored further by looking at family structure during childhood. Respondents were asked to indicate who they lived with while they were growing up. Results were dichotomized so as to compare "both parents" (intact families) with "mother only." In addition, separate analyses were performed for high SES and low SES students within each regional and sex grouping (See Table 33).

Of the eight chi square tests computed, only one reached statistical significance. High SES southern boys from intact homes are more likely than high SES boys from broken homes to expect to attend college. There is a non-significant tendency for students from intact families to have an advantage on this variable in all other subgroups except High SES Northern males and females.

Analysis of variance was used to explore the relationship of family intactness to several other variables in addition to educational expectation (Table 34). The variables included occupational expectation (not significantly related to family intactness), vocabulary test score, school grades, Self-Concept of Ability (SCA), and Awareness of Limited Opportunities (ALO). The latter two variables were the strongest personality-attitude correlates of achievement orientation

[1] For the total sample of 2826 boys and girls of both races, the distribution was: Intact, 55%; separated or divorced, 30%; other (including death of one or both parents), 15%.

TABLE 33

Percent of Negro Students Expecting to Attend College by SES, Sex and Family Status

Expected Education	*Males		Females	
	Intact	Mother Only	Intact	Mother Only
Southern High SES Students				
College	58%	42%	66%	59%
Noncollege	42	58	44	41
Total	100%	100%	100%	100%
	(N=126)	(N=122)	(N=150)	(N=128)
Southern Low SES Students				
College	41%	33%	33%	28%
Noncollege	59	67	67	72
Total	100%	100%	100%	100%
	(N=133)	(N=138)	(N=191)	(N=178)

Northern High SES Students	Intact		Mother Only		Intact		Mother Only	
	N	%	N	%	N	%	N	%
College	51	65	27	64	61	67	42	71
Noncollege	27	35	15	36	30	33	17	29
Total	78	100	42	100	91	100	59	100
Northern Low SES Students								
College	61	55	40	45	71	43	49	34
Noncollege	50	45	48	55	96	57	94	66
Total	111	100	88	100	167	100	143	100

*$\chi^2 = 6.452$, df = 1, $p < .02$. All other comparisons are not significant.

TABLE 34

Family Intactness and Achievement Orientation

Northern Females	Living Together X	Separated or Divorced X	Other X	F
Educational expectation	4.703	4.508	4.412	NS
Occupational expectation	5.759	6.085	6.400	NS
Vocabulary test score	20.173	19.065	15.059	F(2,495) = 5.935
Grade point average	3.040	2.880	2.853	F(2,529) = 3.390
Self concept ability	27.529	27.170	25.294	NS
ALO	24.550	26.409	29.412	F(2,484) = 13.100
Southern Females				
Educational expectation	4.559	4.500	4.370	NS
Occupational expectation	6.142	5.996	5.840	NS
Vocabulary test score	16.693	15.291	15.259	F(2,718) = 3.325
Grade point average	3.117	3.004	2.996	NS
Self concept ability	27.665	26.527	26.269	F(2,709) = 7.774
ALO	26.678	27.445	27.462	NS
Northern Males				
Educational expectation	4.764	4.626	4.538	NS
Occupational expectation	5.128	4.802	5.182	NS
Vocabulary test score	19.421	18.333	20.357	NS
Grade point average	2.682	2.711	2.379	NS
Self concept ability	27.838	27.173	25.929	NS
ALO	25.559	27.618	29.615	F(2,334) = 7.162
Southern Males				
Educational expectation	4.527	4.193	3.952	F(2,620) = 4.523
Occupational expectation	4.321	4.275	4.765	NS
Vocabulary test score	14.292	14.375	13.143	NS
Grade point average	2.705	2.643	2.390	NS
Self concept ability	27.023	26.533	24.895	F(2,612) = 2.997
ALO	27.919	28.489	32.048	F(2,601) = 5.144

(Chapter IV). Northern girls and southern boys have equal numbers of significant relationships. Northern boys appear to be least affected by broken homes. Only the ALO Score is significantly related to family structure for northern boys. For southern girls, vocabulary test score and SCA are significantly related to family intactness. Educational Expectations, Self Concept of Ability, and Awareness of Limited Opportunities are significantly related to family intactness for southern boys, although ability and grades are not affected. Family structure seems to exert the greatest influence on northern girls. Both verbal ability and grades are related to family intactness, as is ALO. The F values are larger for northern girls than for any other subgroup.

The one consistently significant variable is ALO. This suggests that the broken home exerts its influence through a sense of felt deprivation which leads to pessimism concerning one's opportunities for success. There is also a differential sex effect. Verbal ability is affected for both northern and southern girls, but for neither group of boys. There is also a relationship with grades for northern girls. Although only six of twenty-four tests were statistically significant, there is a strong trend favoring intact families throughout the table with few exceptions. Covariance controls for SES might nullify this trend, however, if we are correct in assuming that much of the variance associated with family intactness can be accounted for by SES.

Since the absent father's influence seems to be unrelated to verbal ability and performance among boys, much of the force of recent discussions of the importance of father absence for academic achievement seems to be misdirected. Our data seem to provide strong evidence that, for boys, the feeling of deprivation resulting from the father's absence (presumably economic deprivation) is its strongest effect. Table 35 presents additional data on this variable, comparing students who report being reared by both parents with those who report being reared by "mother alone." The results are similar to those in Table 34. Our "validation" variable, Paternal Influence (a scale based on items asking questions like "which parent has the most influence in making decisions), is strongly related to father absence as expected. But, while the absent father exerts less influence than the present father, the effects are not strongly related to most of our achievement variables.

Death of parents. The majority of students report that both parents are living (84 percent). A smaller proportion report death of the mother (5%) than of the father (10%), while only a few report that both parents are not living (1%). Although the relationship is statistically significant only for southern boys (F test), there is a tendency for death of the mother to be associated with low academic achievement. Southern boys who report that "mother is not living" have significantly low mean scores on our ability and aspiration measures (vocabulary, grades, expected occupation, and expected education). The same pattern is present for the other subgroups, but does not reach statistical significance.

Number of Siblings (Family Size). This variable was found to be significantly related to educational expectations for both males and females. Distributions were dichotomized (college expectations vs. non-college and small family - [2 or fewer sibs] vs. large family [more than two sibs]). Students from small families are significantly more likely to expect to graduate from college than students from large families (.01 for both sexes). One way analysis of variance revealed that number of siblings was not significantly related to grades,

TABLE 35

Family Intactness as a Predictor of Achievement Orientation
Mean Comparison: Both Parents vs. Mother Alone

	$\bar{X}$ Difference	Z Score
a. Educational Aspiration		
Southern Males	.241	.491
Northern Males	.027	.140
Southern Females	.115	.339
Northern Females	.010	.064
b. Educational Expectation		
Southern Males	.358	2.671
Northern Males	.256	1.454
Southern Females	.145	1.188
Northern Females	.203	1.371
c. Occupational Expectation		
Southern Males	.071	.270
Northern Males	.375	.612
Southern Females	.251	1.200
Northern Females	.304	1.037
d. Vocabulary Test		
Southern Males	1.089	1.642
Northern Males	1.047	1.213
Southern Females	1.391	3.265
Northern Females	1.847	2.792
e. Self Concept of Ability		
Southern Males	.216	.576
Northern Males	.400	.656
Southern Females	1.220	3.588
Northern Females	.880	1.821
f. Perception of Limited Opportunities		
Southern Males	1.826	3.079
Northern Males	2.260	3.889
Southern Females	.615	1.269
Northern Females	1.935	3.524
g. I.E. Index		
Southern Males	.004	.011
Northern Males	.565	1.225
Southern Females	.089	.209
Northern Females	.090	.240
h. Paternal Influence Scale		
Southern Males	2.024	13.675
Northern Males	2.088	10.086
Southern Females	1.788	17.192
Northern Females	1.367	9.493

and was significantly related to vocabulary score only for northern girls. There was, however, a fairly consistent trend favoring small families. Those students who reported having one sibling had the highest mean score in most comparisons.

Paternal Influence. The items included in the Paternal Influence Scale are presented in Table 36. High scores indicate strong father influence, while low scores indicate an absence of paternal influence. By inference, the amount of influence exerted by the mother is inversely proportional to the amount of paternal influence. To some extent, this is an artifact of the way the scale is scored, but it seems reasonable to assume that in actual family situations the relative influence of the mother diminishes as the influence of the father increases. The scores on this scale could range from zero to seven.

TABLE 36

Paternal Influence Scale

Item Number	Item Content	Item Correlation with Total Scale Score
14	Which parent are you most like? (Father or male guardian)	.47
15	Which parent has final say about child discipline? (Responses 1, 2, and 3 indicate father more than mother)	.68
17	Who was the main financial supporter in your family when you were growing up? (Father)	.41
28	Which parent disciplines, punishes, or corrects you more often? (Responses 1 and 2 indicate father)	.61
29	When important family problems come up, which parent usually has the most influence in making the decision? (Responses 1 and 2)	.68
32	Would you like to be the kind of person your father is? (Responses 1 and 2 indicate strong father identification)	.51
33	If you had a personal problem, with whom would you talk it over? (Responses 1 and 3: This item dropped in later analyses)	.12

The validity of this scale is tentatively established by a comparison of the mean paternal influence scores of students from intact and non-intact homes. For each subgroup (northern males, northern females, southern females, southern males), the mean scores of students from intact families were significantly higher (.001) than the mean scores of students from broken homes (Table 35).

Although this scale does seem to measure paternal influence as perceived by students, it is not a very effective correlate of achievement. Correlation coefficients indicate that this scale is minimally related[2] to educational expectations (.077), grades (.020), and verbal ability (.079).

[2]A Family Cohesiveness Scale and a Parental Support Scale were also constructed. These scales were significantly, but negligibly related to our achievement variables (see Table 28).

We also explored the extent to which responses to individual items are related to achievement orientation. One-way analysis of variance was used as a test of significance of differences. This analysis was limited to students from intact families. The dependent variables included are expected education, expected occupation, vocabulary test score, and grades. Tests for northern males, northern females, southern males and southern females were computed separately.

The first question involved family power structure. Students were asked: "When important family problems come up, which parent usually has the most influence in making the decision?" The relationship of student responses to achievement orientation is presented in Table 37. There is a tendency for higher achievement to be associated with strong father influence. The relationship reaches significance in only five of sixteen comparisons. For northern males there are significant F values for educational and occupational expectations. There is no clear support for a patriarchal family, however, because the highest mean scores on some variables for northern males occur for the response "both about the same but mother more." There were no significant relationships for either southern males or northern girls. This variable yielded significant results for southern females involving the three most important achievement variables, expected education (.01), vocabulary test score (.05), and grades (.05). In all three instances, the patriarchal response is favored. The small number of significant relationships and the small size of the F values suggest that this variable has little predictive value for educational purposes.

The next question focuses on the effect of maternal and paternal roles in discipline on academic achievement. Again, there is little of value for educational prediction. The two significant differences occur for southern males and females and involve verbal ability. The pattern seems to favor <u>either</u> mother <u>or</u> father, but not any combination of the two[3] (Table 38).

We were also interested in the relationship of identification with the same or cross-sexed parent to academic achievement. Three questions address themselves to this question: (1) which parent are you most like? (2) Would you like to be the kind of person your mother is? (3) Would you like to be the kind of person your father is? The data are presented in Tables 39, 40 and 41. Again, there is nothing to excite educators. There are only eight significant relationships among 48 comparisons and six of these involve southern females. It is probable that even these unimpressive results would be eliminated if we introduced socioeconomic status as a control variable. The tendency for southern girls seems to favor wanting to be like the cross-sexed parent "in many ways," but not completely.

Since paternal absence, paternal influence and parental identification do little to explain how the family influences academic achievement, we will now look at another popular variable, type of parental discipline. We asked a number of questions concerning discipline. These will be examined individually in subsequent paragraphs.

The first question with which we will be concerned is type of punishment (Table 42). Type of punishment is significantly related to verbal ability (.01)

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[3]This probably means that consistency is the key factor involved.

TABLE 37

Which Parent Has Most Influence in Decisions

Educational Expectation	Father X	Both, Father More X	Both Equally X	Both, Mother More X	Mother X	F(df)*
Southern male	4.72	4.58	4.41	4.72	4.13	1.36(4,337)
Northern male (.05)	4.93	5.00	4.31	5.12	4.67	2.37(4,226)
Southern female (.01)	4.83	4.62	4.75	4.47	4.08	3.35(4,415)
Northern female	4.41	4.80	5.00	4.40	4.78	2.11(4,286)
Occupational Expectation						
Southern male	4.78	4.25	3.95	3.92	4.71	1.30(4,300)
Northern male (.01)	5.10	5.75	5.05	5.85	3.23	3.59(4,180)
Southern female	6.42	6.13	6.33	6.09	5.67	1.16(4,363)
Northern female	5.45	5.95	5.36	5.57	6.36	1.13(4,241)
Vocabulary Score						
Southern male	15 77	13.17	14.29	14.21	15.63	1.82(4,340)
Northern male	21.17	19.70	17.98	18.77	19.15	1.51(4,223)
Southern female (.05)	19.01	16.65	16.24	16.29	16.12	2.39(4,415)
Northern female	20.27	21.23	19.80	19.60	20.22	.561(4,285)
Total GPA						
Southern male	2.85	2.72	2.77	2.69	2.41	2.21(4,316)
Northern male	2.81	2.67	2.57	2.76	2.64	1.29(4,217)
Southern female (.05)	3.38	3.17	3.06	3.02	3.04	2.85(4.392)
Northern female	3.13	2.98	3.01	3.01	3.09	.495(4,283)

*An F value of 2.37 is needed for the .05 level of significance.

TABLE 38

Which Parent Disciplines Student More Often

Educational Expectation	Father X	Both, Father More X	Both Equally X	Both, Mother More X	Mother X	F(df)*
Southern male	4.52	4.61	4.54	4.58	4.52	.043(4,337)
Northern male	4.74	4.88	4.83	5.17	4.48	1.25(4,221)
Southern female	4.33	4.60	4.63	4.46	4.63	.440(4,421)
Northern female	4.46	4.57	5.15	4.65	4.63	1.76(4,285)

TABLE 38 (Cont)

Occupational Expectation	Father X	Both, Father More X	Both Equally X	Both, Mother More X	Mother X	F(df)*
Southern male	4.47	4.25	4.70	3.89	4.28	.856(4,300)
Northern male	4.79	5.46	5.02	5.85	4.44	1.26(4,175)
Southern female	5.67	6.22	6.58	6.07	5.98	1.23(4,370)
Northern female	5.81	5.96	6.21	5.74	5.53	.492(4,240)
Vocabulary Score						
Southern male (.05)	16.47	12.15	14.32	14.07	15.90	3.27(4,338)
Northern male	20.24	18.38	20.43	17.89	20.33	1.07(4,218)
Southern female (.001)	18.63	16.55	15.28	15.48	18.84	5.14(4,421)
Northern female	19.11	18.57	20.74	20.73	20.54	.994(4,283)
Total GPA						
Southern male	2.78	2.57	2.78	2.64	2.84	1.30(4,314)
Northern male	2.70	2.64	2.66	2.75	2.75	.260(4,213)
Southern female	3.24	3.12	3.05	3.02	3.25	1.52(4,398)
Northern female	2.95	3.08	3.08	2.93	3.12	1.08(4,281)

*An F value of 2.37 is needed for the .05 level of significance.

TABLE 39

Which Parent Are You Most Like

Educational Expectation	Father X	Mother X	F(df)*
Southern male	4.61	4.48	.582(1,311)
Northern male	4.86	4.60	1.787(1,212)
Southern female (.05)	4.78	4.45	4.65(1,413)
Northern female	4.83	4.60	1.62(1,268)
Occupational Expectation			
Southern male	4.27	4.33	.027(1,279)
Northern male (.05)	5.50	4.49	5.14(1,168)
Southern female	6.21	6.08	.252(1,362)
Northern female	5.73	5.78	.020(1,233)

TABLE 39 (Cont)

Vocabulary Score	Father X	Mother X	F(df)*
Southern male	14.83	14.57	.097(1,312)
Northern male	20.26	18.12	3.721(1,209)
Southern female (.05)	17.89	16.11	5.88(1,414)
Northern female	20.09	20.21	.020(1,266)
Total GPA			
Southern male	2.79	2.63	2.97(1,293)
Northern male	2.66	2.64	.052(1,203)
Southern female	3.19	3.09	1.44(1,390)
Northern female	3.02	3.01	.017(1,264)

*An F value of 3.84 is needed for the .05 level of significance.

TABLE 40

Would You Like To Be Person Mother Is

Educational Expectation	Yes X	In Most Ways X	In Many Ways X	In Few Ways X	Not at All X	F(df)*
Southern male	4.43	4.74	4.64	4.38	4.43	.78(4,340)
Northern male	5.33	4.78	4.75	4.74	4.50	.967(4,217)
Southern female	4.59	4.69	4.73	4.25	4.46	1.56(4,427)
Northern female	4.54	4.59	4.82	4.91	4.56	.888(4,288)
Occupational Expectation						
Southern male	4.65	4.34	4.41	4.18	4.23	.259(4,302)
Northern male	5.19	5.21	5.57	5.17	4.78	.263(4,174)
Southern female	6.49	5.89	6.07	5.87	6.57	1.50(4,374)
Northern female	5.77	5.64	6.02	5.79	5.63	.157(4,243)
Vocabulary Score						
Southern male (.05)	11.80	14.18	16.07	14.46	14.93	2.95(4,343)
Northern male	18.32	18.94	18.32	20.55	18.46	.945(4,214)
Southern female	16.46	17.66	17.36	15.96	14.25	1.68(4,428)
Northern female	18.34	20.56	21.73	20.28	19.27	2.01(4,287)
Total GPA						
Southern male	2.61	2.70	2.89	2.72	2.41	2.32(4,320)
Northern male	2.47	2.69	2.82	2.68	2.64	1.06(4,208)
Southern female	3.07	3.21	3.22	3.07	2.81	1.91(4,403)
Northern female	2.93	3.02	3.11	3.17	2.83	2.25(4,285)

*An F value of 2.37 is needed for the .05 level of significance.

TABLE 41

Would You Like To Be Person Father Is

Educational Expectation	Yes X	In Most Ways X	In Many Ways X	In Few Ways X	Not at All X	F(df)*
Southern male	4.34	4.81	4.62	4.54	3.98	2.26(4,345)
Northern male	5.00	4.91	4.88	4.65	4.54	.700(4,225)
Southern female (.001)	4.51	4.96	4.63	4.68	4.02	5.08(4,426)
Northern female	4.78	4.76	5.17	4.69	4.47	1.50(4,286)
Occupational Expectation						
Southern male	4.58	4.42	4.00	4.32	4.32	.306(4,307)
Northern male	5.62	5.13	5.17	5.13	4.68	.321(4,179)
Southern female (.05)	6.78	5.92	5.52	6.07	6.33	2.45(4,374)
Northern female	5.54	6.47	5.89	5.87	5.20	1.33(4,242)
Vocabulary Score						
Southern male	12.46	14.38	13.39	15.43	14.87	1.89(4,348)
Northern male	19.37	19.88	18.41	20.68	17.86	1.01(4,222)
Southern female (.05)	16.05	17.37	17.77	17.41	14.74	2.59(4,427)
Northern female	20.83	20.92	20.82	20.05	19.62	.413(4,285)
Total GPA						
Southern male	2.52	2.78	2.80	2.78	2.45	2.35(4,325)
Northern male	2.63	2.68	2.70	2.71	2.65	.110(4,216)
Southern female (.01)	2.91	3.21	3.20	3.28	2.87	5.35(4,402)
Northern female	3.18	3.11	3.18	2.99	2.98	1.05(4,283)

*An F value of 2.37 is needed for the .05 level of significance.

and grades (.01) for southern males. The type of punishment associated with high achievement for these boys is physical (spanking). Northern males' expected education and vocabulary scores are affected by type of discipline, physical punishment and taking away privileges are equally effective. The least effective technique for these boys is "talking it over." Southern girls, like southern boys, have significant relationships involving verbal ability and grades. Physical punishment is the most effective, followed in order by taking away privileges, scolding, and talking it over. Type of discipline is related only to the two expectancy variables for northern girls. For these girls, the more middle class pattern of "talking it over" also yields positive results. The striking finding in this table is that, with the possible exception of northern girls, commonly held assumptions about which types of discipline are most effective are invalid.

We also asked our student respondents: "In general, how are most decisions made between you and your mother (father)?" Data are presented in Tables 43

and 44. Northern girls' achievement orientation has little relationship to the way they answer these questions. Responses of the remaining three subgroups yielded approximately the same number of significant relationships (4). The pattern which appears to emerge from these data is one in which achievement orientation is higher among those students who participate in decision making with parents. (I have considerable opportunity to make my own decisions, but my mother [father] has the final word; my opinions are as important as my mother's [father's] in what I should do; I can make my own decisions, but my mother [father] would like for me to consider her [his] opinion). There is a tendency for authoritarian (just tells me what to do) responses and "parents don't care" responses to be negatively related to achievement orientation. There seems to be little doubt that much if not all of this relationship is attributable to SES. The responses which are positively related to achievement orientation are negatively related to Awareness of Limited Opportunities in a fairly consistent manner.

TABLE 42

When You Did Something Wrong as You Were Growing Up, How Did Parents Punish You Most Often

Educational Expectation	Used Physical Punishment X	Took Away Privileges X	Scolded (Yelled) X	Talked it Over X	F(df)*
Southern male	4.56	4.43	4.59	4.43	.228(3,328)
Northern male (.01)	4.98	4.90	4.58	4.06	4.08(3,201)
Southern female	4.56	4.65	4.31	4.52	.374(3,408)
Northern female (.01)	4.78	4.48	4.10	4.98	3.91(3,267)
Occupational Expectation					
Southern male	4.49	3.82	4.24	4.32	.743(3,292)
Northern male	5.62	5.05	3.86	4.85	2.08(3,164)
Southern female	6.22	5.81	6.09	6.26	.583(3,357)
Northern female (.05)	5.90	4.91	5.38	6.33	2.71(3,226)
Vocabulary Score					
Southern male (.01)	15.67	13.87	14.82	11.52	6.64(3,328)
Northern male (.05)	20.25	20.32	19.11	15.97	3.04(3,198)
Southern female (.001)	18.04	17.74	16.65	14.33	7.25(3,409)
Northern female	20.63	20.76	20.20	18.25	1.86(3,265)
Total GPA					
Southern male (.01)	2.83	2.74	2.39	2.53	4.16(3,306)
Northern male	2.78	2.60	2.81	2.50	2.34(3,193)
Southern female (.001)	3.23	3.22	3.20	2.89	5.40(3,384)
Northern female	3.10	2.99	2.97	3.03	.539(3,263)

*An F value of 2.60 is needed for the .05 level of confidence.

TABLE 43

Decisions Made With Mother

Northern Females	Mother Not Care	Mother Tells Me	Mother Listens	Have Opportunity, Mother Final Word	Equal Opinion	Own Decisions, Consider Mother	Do What I Want	F*
Educational Expectation	3.600	4.107	4.560	4.590	4.758	4.673	6.000	NS
Occupational Expectation	4.200	6.545	5.890	5.613	6.311	6.076	1.000	NS
Vocabulary Score	18.800	19.893	18.559	19.145	20.303	20.106	6.000	NS
Grade Point	2.625	2.857	2.989	2.989	2.997	2.975	1.800	NS
Self Concept	24.800	26.250	27.030	27.030	27.682	27.437	27.000	NS
ALO	31.800	28.222	25.068	25.068	24.969	24.716	25.000	F(5,502) = 4.446
Southern Females								
Educational Expectation	3.333	4.080	4.310	4.663	5.012	4.742	5.00	F(6,770) = 5.042
Occupational Expectation	4.200	6.227	6.013	5.930	6.377	5.994	7.667	NS
Vocabulary Score	12.500	12.766	14.528	16.935	16.728	18.371	13.000	F(6,775) = 9.151
Grade Point	3.167	2.704	2.981	3.153	3.208	3.228	2.867	F(6,741) = 5.632
Self Concept	26.667	26.867	26.994	27.227	28.203	27.282	25.000	NS
ALO	34.667	30.197	27.847	25.953	26.312	25.347	36.000	F(6,753) = 11.244
Northern Males								
Educational Expectation	4.000	3.741	4.536	5.000	4.735	4.714	4.00	F(6,364) = 3.559
Occupational Expectation	5.250	3.682	5.051	5.429	5.325	4.846	1.00	NS
Vocabulary Score	19.333	14.538	18.130	20.520	18.809	20.711	16.667	F(6,359) = 3.554
Grade Point	2.733	2.387	2.685	2.702	2.854	2.764	2.900	NS
Self Concept	25.800	24.630	27.254	27.952	28.826	28.264	27.667	F(6,353) = 3.010
ALO	31.400	30.231	27.136	25.496	25.638	25.391	27.667	F(6,347) = 4.271
Southern Males								
Educational Expectation	3.000	3.912	4.220	4.538	4.519	4.797	3.875	F(6,663) = 6.128
Occupational Expectation	3.727	3.790	4.083	4.467	4.625	4.304	5.000	NS
Vocabulary Score	7.077	9.913	12.640	15.598	15.436	17.203	14.250	F(6,664) = 16.431
Grade Point	2.125	2.343	2.519	2.876	2.761	2.824	2.362	F(6,626) = 7.778
Self Concept	27.786	26.647	26.444	26.791	26.736	26.974	26.500	NS
ALO	34.077	33.281	28.875	26.863	27.396	25.881	32.375	F(6,642) = 19.493

*An F value of 2.09 is needed for the .05 level of significance

TABLE 44

Decisions Made With Father

Northern Females	Father Not Care	Father Tells Me	Father Listens	Have Opportunity, Father Final Word	Equal Opinion	Own Decisions, Consider Father	Do What I Want	F*
Educational Expectation	3.826	4.554	4.522	4.589	4.977	4.734	4.571	NS
Occupational Expectation	6.500	5.745	6.217	5.630	5.976	5.690	6.364	NS
Vocabulary Score	18.261	19.923	19.085	19.103	20.727	20.505	18.857	NS
Grade Point	2.740	2.888	3.017	3.074	2.972	3.013	2.908	NS
Self Concept	25.696	26.308	27.771	27.673	28.750	27.319	26.500	F(6,407) = 2.174
ALO	29.739	27.125	25.296	24.471	23.721	24.065	28.214	F(6,402) = 7.407
Southern Females								
Educational Expectation	4.207	3.899	4.363	4.747	4.961	4.876	4.286	F(6,590) = 6.174
Occupational Expectation	5.444	6.076	6.047	6.122	5.891	6.200	5.333	NS
Vocabulary Score	12.448	13.101	15.272	17.701	17.294	17.810	20.714	F(6,591) = 8.095
Grade Point	2.814	2.751	3.038	3.207	3.150	3.270	2.929	F(6,563) = 5.527
Self Concept	25.621	26.045	27.354	27.869	27.569	27.874	24.571	F(6,584) = 4.151
ALO	30.259	30.047	27.104	25.781	26.646	25.050	30.571	F(6,575) = 9.379
Northern Males								
Educational Expectation	3.692	4.135	4.636	5.278	4.780	4.672	5.000	F(6,310) = 4.664
Occupational Expectation	2.375	3.917	5.537	5.500	5.364	5.191	2.333	F(6,244) = 3.432
Vocabulary Score	18.250	18.649	18.076	20.920	18.975	20.561	14.000	NS
Grade Point	2.500	2.628	2.567	2.756	2.833	2.798	3.067	NS
Self Concept	27.273	26.079	27.145	28.575	29.769	28.446	25.667	F(6,298) = 3.173
ALO	29.273	29.417	26.517	24.908	25.575	24.400	27.333	F(6,293) = 5.189
Southern Males								
Educational Expectation	3.543	4.081	4.444	4.513	4.714	4.737	3.833	F(6,520) = 3.853
Occupational Expectation	3.310	3.987	4.396	4.175	4.645	4.451	5.167	NS
Vocabulary Score	12.647	11.345	12.815	14.974	15.895	17.434	12.500	F(6,522) = 8.373
Grade Point	2.432	2.460	2.626	2.695	2.886	2.745	2.400	F(6,486) = 2.211
Self Concept	25.676	26.647	26.913	26.625	27.216	27.235	25.167	NS
ALO	30.968	30.512	28.253	27.252	27.444	26.250	32.833	F(6,505) = 6.379

*An F value of 2.09 is needed for the .05 level of significance.

A related question is: "When you don't know why your parents make a particular decision or have certain rules for you to follow, will they explain the reason?" The results tended to favor frequent explanation but they were not linear (Table 45). "Usually" was the response category in which students most often had the highest mean achievement scores. Northern males were exceptions, with the "never" category being checked most often by high achieving students (see Table 45) in this group. Strength of parental discipline was considered to be another source of parental influence on achievement. "Firm, but not harsh" discipline is most often positively related to achievement orientation. "Very strict" discipline as perceived by students seems to be the most unfavorable for achievement (Table 46).

TABLE 45

Frequency Parents Explain Rules

Northern Females	Never X	Once in A While X	Sometimes X	Usually X	Always X	F*
Educational Expectation	5.133	4.522	4.292	4.608	4.791	F(4,546) = 2.573
Occupational Expectation	6.000	5.661	5.716	5.927	6.257	NS
Vocabulary Score	24.312	18.896	18.755	20.791	18.549	F(4,547) = 5.527
Grade Point	3.275	2.900	2.903	3.051	2.916	F(4,537) = 2.231
Self Concept	28.933	26.522	26.170	27.623	27.739	F(4,542) = 3.272
ALO	25.687	26.910	26.293	25.443	24.266	F(4,537) = 4.536
Southern Females						
Educational Exp	4.077	4.510	4.311	4.738	4.587	F(4,830) = 2.674
Occupational Exp	4.800	5.976	5.528	5.971	6.273	F(4,735) = 4.069
Vocabulary Score	17.038	14.961	15.515	17.888	15.583	F(4,836) = 4.479
Grade Point	2.969	3.008	3.022	3.281	3.008	F(4,799) - 4.844
Self Concept	26.815	27.000	26.506	27.010	27.479	NS
ALO	31.444	29.771	28.608	26.466	25.995	F(4,806) = 12.588
Northern Males						
Educational Exp	4.000	4.388	4.600	4.806	4.781	NS
Occupational Exp	3.500	4.659	5.312	5.543	4.625	F(4,295) = 2.436
Vocabulary Score	19.091	19.900	18.937	20.406	17.944	NS
Grade Point	2.430	2.682	2.724	2.757	2.699	NS
Self Concept	24.182	27.277	26.431	28.162	28.426	F(4,370) = 4.084
ALO	28.909	28.047	27.371	26.264	24.821	F(4,363) = 4.547
Southern Males						
Educational Exp	3.913	4.303	4.064	4.566	4.485	F(4,690) = 3.484
Occupational Exp	4.895	3.953	3.934	4.425	4.642	F(4,618) = 2.065
Vocabulary Score	12.190	14.091	12.511	16.255	14.226	F(4,693) = 7.149
Grade Point	2.332	2.607	2.570	2.817	2.656	F(4,654) = 3.538
Self Concept	26.476	26.520	26.402	26.785	27.069	NS
ALO	31.524	29.653	29.718	26.794	27.342	F(4,668) = 9.667

*An F value of 2.37 is needed for the .05 level of significance.

TABLE 46

Strength of Discipline

Northern Females	Very Strict X	Firm, Not Harsh X	Usually Own Way X	Always Own Way X	Inconsistent X	F
Educational Expectation	4.200	4.895	4.667	4.600	4.460	F(4,543) = 3.666
Occupational Expectation	6.028	6.222	6.292	6.400	5.718	NS
Vocabulary Score	18.150	19.995	19.704	17.200	19.444	NS
Grade Point	2.815	3.064	2.994	2.780	2.941	NS
Self Concept	25.854	28.180	27.132	26.500	26.966	F(4,540) = 3.561
ALO	28.659	24.783	25.815	26.750	25.282	F(4,535) = 5.131
Southern Females						
Educational Expectation	4.305	4.840	4.696	4.133	4.358	F(4,811) = 5.789
Occupational Expectation	6.11	6.095	6.293	4.923	5.879	NS
Vocabulary Score	13.203	17.738	14.087	9.867	16.112	F(4,815) = 11.388
Grade Point	2.970	3.229	2.774	2.293	3.072	F(4,780) = 9.479
Self Concept	27.586	27.817	27.239	24.733	26.559	F(4,809) = 6.140
ALO	30.404	25.814	26.349	31.071	27.125	F(4,794) = 9.707
Northern Males						
Educational Expectation	4.281	4.948	4.593	3.250	4.580	F(4,376) = 3.209
Occupational Expectation	4.680	5.333	5.250	.667	4.890	F(4,289) = 2.369
Vocabulary Score	15.394	20.288	18.870	18.250	19.575	F(4,373) = 3.250
Grade Point	2.500	2.754	2.704	2.400	2.729	NS
Self Concept	25.968	28.597	26.685	27.333	27.640	F(4,368) = 3.170
ALO	29.448	25.316	26.377	30.000	26.605	F(4,361) = 3.947
Southern Males						
Educational Expectation	4.444	4.567	4.328	3.692	4.303	F(4,663) = 2.561
Occupational Expectation	4.254	4.390	4.593	4.174	4.235	NS
Vocabulary Score	10.795	15.406	15.390	8.708	15.079	F(4,664) = 11.452
Grade Point	2.296	2.851	2.604	2.146	2.656	F(4,630) = 11.096
Self Concept	26.329	27.228	26.448	26.773	26.311	NS
ALO						

Our last discipline related question inquired about frequency of discipline.[4] It was assumed that infrequent discipline would be positively associated with achievement. The category "occasionally" yielded the highest mean verbal ability score for all groups and contained the highest mean grade point average for all groups except northern males. For northern males, "frequent" discipline produced the best results. The response "punished occasionally" was the most favorable for achievement orientation more often than any other response category.

Mother's Employment. Working mothers tend to exert more influence than nonworking mothers. This inference is drawn from Table 48a. Mean paternal influence is consistently higher for housewives than for working wives. It is of interest to note that males perceive more paternal influence than females and southern girls perceive the father as least powerful.

The relation of mother's employment to academic achievement is explored in Tables 48b through 48d.[5] It is readily apparent that the type of work the mother performs is more important for academic achievement than the fact of work itself. The effect is different for different student subgroups. Southern males have higher achievement when the mother works, even at a low status job, than when she is a housewife. Southern sons of mothers with high status jobs are significantly more likely to expect to attend college than sons of housewives or mothers with low-status jobs. The same pattern is found for the vocabulary scores of southern boys. For northern boys, sons of working mothers who have high status jobs have the highest vocabulary scores and the lowest ALO scores. Northern sons of housewives also have higher vocabulary scores ($p < .10$) than northern sons of working mothers with low status jobs. Mother's employment is not significantly related to expected education for northern boys. Northern girls, like southern boys, seem to fare better educationally with working mothers even when the mother has a low status job. The exception to this is the ALO score where daughters of mothers with low-status jobs feel most deprived. Mother's employment is not significantly related to any of these variables for southern girls.

Parental Support (Nurturance). The parental support scale is based on items which asked students questions like "Does your mother (father) ever give you praise or support?" Responses ranged from very often to never, permitting the construction of a summated rating scale. Scores on this scale were found to be significantly correlated (product moment coefficient) with educational aspirations (.134) educational expectations (.196), and grades (.139).[6] While statistically significant, these values are not large enough to have much educational significance. Parental support is most strongly associated with Self-Esteem (.27) and Self-Concept of Ability (.22), although even these relationships are rather small (but statistically significant well beyond the .01 level).

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[4]The following question was asked: How often were you disciplined as you were growing up? The responses were: (1) punished severely for every little thing; (2) punished frequently; (3) punished occasionally; (4) rarely punished; (5) never punished.

[5]This variable is not significantly related to grades in school. Therefore, grades are not included in Table 48.

[6]These correlation coefficients are based on the total sample of Negro and white boys and girls from the north and south. The total number of students is 2,826.

TABLE 47

Frequency of Discipline

Northern Females	Severely for Everything X	Frequently X	Occasionally X	Rarely X	Never X	F
Educational Expectation	4.417	4.766	4.718	4.437	4.435	NS
Occupational Expectation	6.421	6.383	5.882	5.935	5.524	NS
Vocabulary Score	17.792	20.223	20.835	18.164	14.261	F(4,549) = 8.882
Grade Point	2.717	3.007	3.032	2.951	2.735	F(4,537) = 2.051
Self Concept	25.125	27.556	27.609	27.270	26.182	F(4,543) = 2.180
ALO	29.542	26.022	24.739	25.372	27.286	F(4,539) = 6.140
Southern Females						
Educational Expectation	4.200	4.636	4.662	4.649	3.680	F(4,811) = 6.347
Occupational Expectation	5.702	6.206	5.825	5.964	6.426	NS
Vocabulary Score	12.393	15.779	18.127	16.067	11.118	F(4,816) = 19.915
Grade Point	2.693	3.047	3.286	3.035	2.557	F(4,782) = 17.630
Self Concept	25.902	27.721	27.292	27.021	26.314	F(4,811) = 3.105
ALO	31.746	27.067	25.837	26.463	30.400	F(4,792) = 17.868
Northern Males						
Educational Expectation	4.250	4.814	4.823	4.519	3.400	F(4,378) = 4.285
Occupational Expectation	3.182	5.442	5.275	5.017	2.769	F(4,291) = 3.992
Vocabulary Score	14.750	21.721	19.437	18.256	14.929	F(4,375) = 4.846
Grade Point	2.573	2.708	2.710	2.792	2.421	NS
Self Concept	26.833	28.412	27.874	27.171	25.500	NS
ALO	31.364	26.841	25.475	27.219	28.071	F(4,362) = 4.467
Southern Males						
Educational Expectation	4.125	4.513	4.546	4.345	3.385	F(4,672) = 6.130
Occupational Expectation	3.966	4.462	4.527	4.104	3.829	NS
Vocabulary Score	10.727	15.181	16.176	13.870	6.789	F(4,674) = 23.861
Grade Point	2.293	2.867	2.845	2.574	2.294	F(4,638) = 10.014
Self Concept	26.242	26.681	26.924	26.862	26.306	NS
ALO	31.905	28.191	26.615	27.692	33.026	F(4,656) = 20.050

TABLE 48

Relation of Mother's Employment to Selected Variables

Subgroup	Housewife	Employed: Low Status Job	Employed: High Status Job	F*
a. Paternal Influence vs. Mother's Occupational Status		Mean Paternal Influence		
Southern Males	3.408	2.143	2.357	F(2,158) = 7.65
Northern Males	3.625	3.298	2.906	NS
Southern Females	2.156	1.677	1.739	NS
Northern Females	2.407	1.764	2.429	NS
b. Educational Expectation vs. Mother's Occupational Status		Mean Educational Expectation		
Southern Males	4.288	4.310	5.059	F(2,170) = 3.685
Northern Males	5.070	4.592	4.750	NS
Southern Females	4.877	4.510	4.792	NS
Northern Females	4.475	4.719	5.548	F(2,160) = 8.613
c. Vocabulary Test Score vs. Mother's Occupational Status		Mean Vocabulary Test Score		
Southern Males	13.906	15.733	19.000	F(2,170) = 5.392
Northern Males	20.930	18.388	22.778	F(2,128) = 3.916
Southern Females	16.646	16.182	16.708	NS
Northern Females	18.279	20.211	23.548	F(2,157) = 8.669
d. Awareness of Limited Opportunities (ALO) vs. Mother's Occupational Status		Mean ALO		
Southern Males	28.020	26.849	25.706	NS
Northern Males	26.225	26.229	23.429	F(2,120) = 4.024
Southern Females	25.391	26.536	25.136	NS
Northern Females	24.197	26.339	22.878	F(2,155) = 6.134

*An F value of 3.07 is needed for the .05 level of significance.

Family Cohesiveness. This scale score is positively associated with grades (r = .186) and educational expectation (r = .165), but one item from this scale has a much higher correlation with grades than the total scale score. Therefore, no further analysis with the total scale was attempted. The relevant item is discussed in detail in the next section.

Parental Satisfaction With Grades. The most significant family background variable for academic achievement is how parents feel about their children's grades. We asked students "How do your parents feel about the grades you get in school?" The relation of the responses to this question to our outcome variables is presented in Table 49. As one would expect from the content of the question, the relationship with grades is strongest. Highly significant results are found for all four subgroups. The relationship is greater for girls than for boys. This variable is also significantly related to vocabulary test score (for all groups except northern males) and expected education (for all groups except southern males). It is significantly related to occupational expectation only for southern girls (.05).

Because this variable proved to be so highly significant in predicting grades, further analyses were undertaken. After observing that the relationship with grades was linear for all subgroups and the relationship with vocabulary score was linear for all groups except northern males, it was decided that it might be useful to treat this variable as a four-point scale and include it in a product moment correlation matrix. For the total sample, the correlation coefficient (Parental Satisfaction with Grades vs. GPA) was .428; for Negro males it was .315; for Negro females it was .449; for white males it was .643; and for white females it was .590. It is especially significant to note that this variable is minimally related to achievement test scores. For the Negro sample, correlation with vocabulary test score is .119, with Otis IQ score it is .211, and with SCAT score it is .112. With the large sample, these coefficients are statistically significant but not as large or as important as the association with grades.

The correlational results lead to an inference that Parental Satisfaction with Grades bears a strong relationship to school grades that is relatively independent of measured ability. To test this hypothesis, partial correlation coefficients were computed (Table 50). Data are presented for the total sample, white males, Negro males, and the total Negro sample. The results indicate that parental satisfaction with grades makes an independent contribution to the prediction of student grades that is as large as or larger than the independent contribution of measured ability. The relationship is much stronger for white males than for Negro males. Data not included in Table 50 indicate that the relationship is also stronger for white girls than for Negro girls, but the gap is not as large as that between white and Negro boys. Multiple correlations involving the Table 50 variables and student grades produced the following results: white males .775; and Negro males .624. Total Negro sample .667; and total sample .697.[7]

Mother's Personality and Student Personality. A number of scales were included in the Mother's Interview Schedule which were either identical or similar in content to scales included in the student questionnaire. There was little or no correlation between mother's score and child's score on Self-Esteem, Alienation-Fear of Success, Internal vs. External Control, Achievement Values (Strodtbeck Scale), or Anxiety. There were no significant correlations for southern students and only one for northern students among a possible sixteen computations for each subgroup. For northern boys, mother's score on

[7]The proportions of total variance in grades explained by these multiple correlation coefficients are, respectively: .60, .39, .44 and .49.

TABLE 49

How Do Parents Feel About Grades

Educational Expectation	Very Well Satisfied X	Satisfied X	Rather Dissatisfied X	Dissatisfied X	F(df)
Southern males	4.84	4.58	4.39	4.56	1.10(3.340)
Northern males (.01)	4.67	5.25	4.57	4.19	6.30(3,226)
Southern females (.01)	5.27	4.53	4.31	3.83	10.74(3,423)
Northern females (.01)	5.28	4.77	4.49	4.03	7.04(3,286)
Occupational Expectation					
Southern males	4.76	4.50	3.99	4.33	1.04(3,302)
Northern males	4.36	5.58	5.06	4.68	1.23(3,179)
Southern females (.05)	6.49	6.31	5.72	5.39	3.04(3,371)
Northern females	5.83	5.79	5.67	5.63	.062(3,240)
Vocabulary Score					
Southern males (.05)	14.79	15.40	13.53	12.35	2.62(3,343)
Northern males	20.05	19.64	18.98	19.51	.162(3,224)
Southern females (.001)	20.35	16.29	15.83	14.07	9.28(3,424)
Northern females (.001)	23.07	19.65	19.29	18.63	5.58(3,285)
Total GPA					
Southern males (.001)	3.01	2.86	2.55	2.26	11.01(3,321)
Northern males (.001)	3.26	2.83	2.59	2.32	12.06(3,218)
Southern females (.001)	3.74	3.10	2.90	2.47	31.35(3,399)
Northern females (.001)	3.65	3.09	2.76	2.62	35.64(3,282)

the Awareness of Limited Opportunities Scale is positively related to student's score on the same scale ($r = .341$, $N = 37$, $p < .05$). Thus, there seems to be little direct transference of personality characteristics from mother to child in this sample of northern and southern students.

There is some evidence that the same factors in the environment that are associated with student's personality traits are also associated with mothers' personality traits. For example, we explored the relationship between school characteristics and personality scale scores for both mothers and students. A tentative pattern emerged from this analysis. The northern school was found to have mothers and students with higher mean scores on several variables that are positively related to academic achievement than the southern schools. The lower class southern school mothers and students tended to score lower on these variables than all other schools with few exceptions. There is relatively little differentiation among the other three southern schools, but there is a trend favoring the middle class school.

TABLE 50

Relationship of Measured Ability and Parental Satisfaction With Grades To Grade Point Average Among Selected Subgroups of Students

Variable Name	Subgroup: White Males	Negro Males	Total Negro Sample	Total Sample
Zero Order Correlation Coefficients				
Parental satisfaction with grades	.643	.315	.401	.428
Vocabulary score	.438	.429	.467	.498
SCAT score	.635	.454	.470	.550
Otis IQ score*	-	-	.583	-
Partial Correlation Coefficients (Effects of Vocabulary Score, SCAT and/or Otis IQ Statistically Eliminated)				
Parental satisfaction with grades	.575	.298	.361	.380
Vocabulary test score	.087	.002	.051	.024
SCAT score	.415	.163	.159	.244
Otis IQ score*	-	-	.324	-

*Available for southern Negro students only.

Geographic Mobility. We asked students to indicate where their parents were born. Precoded responses were: (1) in this city or county; (2) in this state outside this city or county; (3) in another state in the south; (4) in another state in the north or west; (5) in a country other than the United States. We had predicted that having a father or mother born in the city (Detroit or Atlanta) would be positively associated with academic performance for both northern and southern students and that northern students whose parents were born in the south would have poor academic performance. As data in Tables 51 and 52 clearly demonstrate, we were completely wrong on both predictions. Students whose parents migrated from another state usually had better vocabulary scores and grades than those who said their parents were born in the students' present city of residence. For northern students, having parents who were born in another state either in the north or in the south is positively associated with academic performance. Southern girls present a slightly different pattern; the best performance is registered by those girls who say that their parents were born in another county within the same state (Georgia) or migrated from another state in the south. Southern boys whose parents migrated into the city from within the state or from another state in either the north or south have better performance than those whose parents were born in the city of Atlanta. In other words, contrary to our expectations, the children of migrants to southern or northern cities have better academic performance than the children of native born Negro parents. A recent study of North Carolina school children provides support for these results (Baughman and Dahlstrom, 1968).

TABLE 51

Place Father Born

Northern Females	This City	This State	State South	State North	Another Country	F
Educational Expectation	4.331	4.667	4.709	5.216	5.000	F(4,501) = 3.317
Occupational Expectation	6.091	5.958	5.838	6.806	6.750	NS
Vocabulary Score	18.434	17.821	20.503	21.135	17.625	F(4,500) = 3.631
Grade Point	2.8375	2.6107	3.0718	3.1216	2.3500	F(4,489) = 7.525
Self Concept	26.648	261286	27.678	27.676	25.000	F(4,496) = 2.157
ALO	26.392	27.667	24.825	23.806	26.571	F(4,493) = 4.304
Southern Females						
Educational Expectation	4.454	4.744	4.700	4.950	4.133	F(4,152) = 2.314
Occupational Expectation	5.989	6.037	5.719	5.286	5.867	NS
Vocabulary Score	15.187	18.467	18.829	14.952	9.200	F(4,757) = 15.614
Grade Point	2.997	3.298	3.288	2.880	2.314	F(4,724) = 11.689
Self Concept	27.034	27.407	28.129	27.048	27.857	NS
ALO	27.570	25.628	25.574	27.524	31.818	F(4,732) = 6.728
Northern Males						
Educational Expectation	4.543	4.714	4.768	4.786	5.222	NS
Occupational Expectation	5.086	4.429	4.959	5.542	7.111	NS
Vocabulary Score	18.091	15.800	19.680	21.414	24.444	F(4,358) = 3.383
Grade Point	2.609	2.814	2.742	2.688	2.689	NS
Self Concept	27.189	27.714	28.024	28.500	28.111	NS
ALO	27.091	26.800	25.767	25.074	24.714	NS
Southern Males						
Educational Expectation	4.311	4.448	4.980	4.606	3.667	F(4,610) = 2.740
Occupational Expectation	4.463	4.302	4.652	5.133	3.200	NS
Vocabulary Score	13.203	16.610	16.353	17.382	9.167	F(4,613) = 10.580
Grade Point	2.579	2.844	2.823	2.882	2.233	F(4,579) = 4.879
Self Concept	26.465	27.159	28.061	27.147	25.400	F(4,607) = 2.301
ALO	28.783	27.284	26.620	25.969	33.600	F(4,595) = 4.944

TABLE 52

Place Mother Born

Northern Females	This City	This State	State South	State North	Another Country	F
Educational Expectation	4.390	4.424	4.694	5.308	4.143	F(4,534) = 3.961
Occupational Expectation	6.171	5.778	5.839	5.572	7.500	NS
Vocabulary Score	18.765	16.212	20.350	21.821	15.143	F(4,534) = 6.123
Grade Point	2.9295	2.6727	3.0295	3.2243	2.2714	F(4,523) = 5.872
Self Concept	26.791	26.281	27.588	28.395	24.286	F(4,528) = 2.700
ALO	25.055	27.839	24.984	22.895	30.714	F(4,525) = 7.330
Southern Females						
Educational Expectation	4.414	4.791	4.753	5.000	4.222	F(4,798) = 3.698
Occupational Expectation	5.974	5.991	5.625	6.400	6.500	NS
Vocabulary Score	14.880	19.016	17.615	14.533	8.722	F(4,802) = 22.208
Grade Point	2.981	3.347	3.129	3.054	2.153	F(4,767) = 17.211
Self Concept	26.859	27.704	27.883	26.267	26.235	F(4,796) = 2.955
ALO	27.660	25.575	25.632	25.538	33.231	F(4,777) = 10.035
Northern Males						
Educational Expectation	4.695	4.917	4.747	5.00	4.625	NS
Occupational Expectation	4.864	5.545	4.960	6.316	6.333	NS
Vocabulary Score	17.864	15.462	20.377	20.640	20.429	F(4,366) = 3.442
Grade Point	2.691	2.775	2.737	2.717	2.788	NS
Self Concept	27.772	27.769	27.864	28.417	29.625	NS
ALO	26.082	27.615	26.211	24.500	29.167	NS
Southern Males						
Educational Expectation	4.338	4.421	4.178	5.192	3.000	F(4,655) = 4.104
Occupational Expectation	4.461	4.109	4.195	4.840	4.444	NS
Vocabulary Score	13.834	16.376	15.089	15.889	7.11	F(4,658) = 7.118
Grade Point	2.608	2.897	2.537	2.912	2.350	F(4,623) = 5.573
Self Concept	26.663	26.859	27.023	28.269	28.333	NS
ALO	28.399	27.368	27.844	25.741	31.889	F(4,635) = 2.830

Mobility involving the respondents themselves was found to be negatively related to academic performance as predicted. The relationship was not linear, however, and was stronger for southern students than for northern students. Students who said their family had moved more than 50 miles five or more times in the past ten years were the poorest performers in all subgroups (Table 53). Those students whose families had not moved or had moved only one time usually have the highest mean scores (northern males were the exception to this pattern, those who had moved three times had the highest mean vocabulary score). We also compared those students who were born in the city (Atlanta or Detroit) with those who had been born in other places but had moved to the city. We predicted that those born in the city in which they resided at the time of the study would have higher average ability and academic performance than those who moved to the city from other places. Our expectations were partially supported. Local residents did have better grades on the average than migrants from outside the state, but did not differ from students born in the same state. Migrants from another country had extremely low scores on both ability and grades measures.

Independence Training. We pointed out earlier that mother's personality characteristics are not directly related to student's personality or academic performance in a significant manner. In this analysis we attempted to determine if specific socialization practices are related to students' academic performance. We were especially interested in the age at which the mother expected the child to be independent (see Parent Interview, Item 88). Other researchers (Feld, 1967; Winterbottom, 1958) have found this variable to be related to achievement motivation and test anxiety. Pearsonian product moment correlation techniques failed to yield significant relationships between this variable and either TAT, n Ach or Test Anxiety in this population. The only achievement related variable that was significantly related to age at which southern girls were expected to be independent was their vocabulary test score ($r = -.17$). For southern boys, there was a significant relationship with mother's education ($r = -.18$) and school grades ($r = -.214$). There were no significant relationships for northern males, but for northern girls, mother's education ($r = -.42$) and Self-Concept of Ability ($r = -.278$) were significantly related to age at which they were expected to be independent.

The effect of independence training (age of achievement socialization) on achievement orientation was also examined by use of a multivariate analysis of variance technique. Independent variables included in this analysis were: Independence Training (age); socioeconomic ststus (SES); sex, and region (north-south). All variables were dichotomized.[8] Dependent variables were TAT n Ach, Test anxiety (TAQ), occupational expectation, educational aspiration, educational expectation, vocabulary test score, grade point average, internal vs. external control and Self-Concept of Ability. Independence training was found to be significantly related to Test anxiety score (Table 54) and vocabulary score (Table 55). No significant main effect for Independence Training was found for any of the other variables. The Test Anxiety results support the earlier work of Feld (1967) with middle-class white children. Our data indicate that the relationship is independent of socioeconomic status and region for this sample. Children who are expected to be independent relatively early tend to be less anxious (high TAQ scores) than those who are expected to be independent at a

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[8]The "low" third and "high" third of the age of socialization distribution are used in this analysis.

TABLE 53

Number of Times Family Moved

	None X	One X	Two X	Three X	Four X	Five or More X	F
Northern Females							
Educational Expectation	4.708	4.707	4.364	4.276	4.737	4.516	NS
Occupational Expectation	6.023	5.882	5.850	6.00	7.067	5.080	NS
Vocabulary Score	19.654	20.827	18.659	18.862	19.526	17.774	NS
Grade Point	3.0282	2.9703	2.8488	2.9724	2.6611	2.7419	F(5,530) = 2.278
Self Concept	27.316	27.932	26.762	27.517	27.263	27.633	NS
ALO	25.012	24.569	26.833	28.143	28.211	25.200	F(5,531) = 4.287
Southern Females							
Educational Expectation	4.727	4.333	4.085	4.400	4.133	4.000	F(5,821) = 5.137
Occupational Expectation	6.024	6.051	5.883	5.667	6.385	5.437	NS
Vocabulary Score	16.939	16.243	13.972	14.742	13.733	11.946	F(5,827) = 6.098
Grade Point	3.185	3.033	2.784	2.940	2.653	2.588	F(5,791) = 8.491
Self Concept	27.212	27.212	27.329	26.533	24.214	26.944	NS
ALO	26.422	27.171	28.667	29.833	29.750	29.943	F(5,799) = 5.620
Northern Males							
Educational Expectation	4.799	4.404	4.160	5.273	4.333	4.158	F(5,385) = 2.368
Occupational Expectation	5.286	4.457	4.381	4.600	3.667	4.625	NS
Vocabulary Score	19.679	19.167	15.556	21.364	17.833	17.789	F(5,382) = 2.005
Grade Point	2.730	2.720	2.425	2.689	2.960	2.700	NS
Self Concept	27.669	27.478	27.577	29.000	28.000	28.474	NS
ALO	26.068	26.977	27.760	26.000	25.833	26.053	NS
Southern Males							
Educational Expectation	4.430	4.224	4.346	4.176	3.952	4.257	NS
Occupational Expectation	4.307	4.414	4.826	3.967	4.053	4.233	NS
Vocabulary Score	15.357	12.914	12.827	11.794	13.200	10.167	F(5,692) = 6.995
Grade Point	2.759	2.596	2.617	2.552	2.090	2.139	F(5,655) = 7.071
Self Concept	26.833	26.533	26.804	26.941	26.333	26.129	NS
ALO	27.137	29.490	29.216	30.406	32.333	32.334	F(5,669) = 10.845

later age. The same pattern is present for vocabulary scores; early independence training is associated with higher vocabulary scores.

TABLE 54

Independence Training (Age of Achievement Socialization) and Test Anxiety

	Males		Females	
South	Low Age	High Age	Low Age	High Age
Low SES	48.8333 N = 12	44.6364 N = 22	43.0952 N = 21	38.7391 N = 23
High SES	45.8000 N = 20	45.7600 N = 25	48.3182 N = 22	39.3684 N = 19
North				
Low SES	46.0769 N = 13	46.2000 N = 5	45.1429 N = 7	38.6000 N = 5
High SES	53.4286 N = 7	43.0000 N = 1	45.7500 N = 4	41.0000 N = 4

	F		F
SES x Age x Sex x Region	1.5100	Age x Sex	.3644
SES x Age x Sex	.8012	Age x Region	.0004
SES x Age x Region	.0741	Sex x Region	.0304
SES x Sex x Region	.9594	SES	1.3380
Age x Sex x Region	.0522	Age of achievement socialization	8.8323 (.01)
SES x Age	.2017	Sex	7.0204 (.01)
SES x Sex	.4190	Region	.8350
SES x Region	2.6089		

Summary

We have demonstrated that indicators of social status do not predict achievement orientation with the same effectiveness in different subgroups. None of the SES indices is very strongly related to academic achievement (although statistically significant). The largest correlation between a family status variable and an achievement variable is .342 (mother's education vs. expected education of southern girls). Most studies of stratification indicate that father's occupation is the most effective SES indicator. Our data indicate that it is the least effective among the three used here. Mother's education, father's education and father's occupation is the relative ranking for the Negro youngsters in this study. Father's occupation yields slightly higher correlation coefficients where males are involved than when female scores are correlated.

Our data suggest that father absence is related to achievement orientation in a statistically significant manner, but that the strength of the relationship

TABLE 55

Independence Training (Age of Achievement Socialization) and Vocabulary Score

	Males		Females	
South	Low Age	High Age	Low Age	High Age
Low SES	17.4167	15.7273	17.8095	13.4348
High SES	16.0500	13.1600	16.4545	16.5789
North				
Low SES	19.6154	19.0000	21.0000	19.4000
High SES	25.0000	13.0000	26.2500	15.7500

	F			F	
SES x Age x Sex x Region	.0826		Age x Sex	1.4226	
SES x Age x Sex	1.6750		Age x Region	.7368	
SES x Age x Region	4.6200	(.05)	Sex x Region	.0000	
SES x Sex x Region	1.2495		SES	.0005	
Age x Sex x Region	.1895		Age of achievement socialization	7.5305	(.01)
SES x Age	.0696		Sex	.3563	
SES x Sex	.9153		Region	19.2578	(.001)
SES x Region	.0569				

is not large enough to be educationally significant. We estimate that socio-economic status has a stronger effect than father absence on student achievement. The major effect of father absence on achievement seems to be its strong relationship to perceived deprivation and the related pessimism about opportunities for upward mobility.

Of the family "functioning" variables, those related to type of discipline appear to be most helpful in explaining the relationship of family style to academic achievement. The "firm but not harsh" type of discipline seems to be most effective. Other aspects of discipline that are positively related to academic achievement include willingness to explain decisions and willingness to involve students in the decision making process. The fact that "spanking" (while growing up) is positively related to achievement in this population should caution students of family relationship against the current tendency to generalize results based on middle-class white populations to other class and ethnic populations.

There is little evidence of direct transference of personality characteristics from mothers to children. There is, however, some evidence that environmental influences affect mean distributions of mothers and students' traits in a similar fashion. Geographic mobility (migration) of parents was found to be positively related to student achievement. Frequent mobility involving the students themselves is found to be negatively related to academic achievement. We also found, however, that place of birth of the student is minimally related to achievement unless it involves being born in another country.

Independence training (average age at which mother reported expecting children to be able to do things for themselves) was found to be significantly related to test anxiety score and vocabulary score, but this variable does not seem to have much educational significance.

Parental satisfaction with grades (as reported by the students) turned out to be the family variable which is most strongly correlated with actual student performance. Factor analysis (not reported in this chapter) revealed that this variable is similar in content to self-concept of ability. It has a higher loading on the SCA factor (about .40) than on any other factor. The fact that the correlation with grades is higher for white students than for Negro students suggests that parental academic standards are involved. A combination of high parental standards and high parental satisfaction is probably most favorable for high achievement.

CHAPTER VI

BACKGROUND, PERSONALITY AND ACHIEVEMENT

In Chapter III we explored the relationship of family socioeconomic status to achievement orientation. The relationship of personality and attitude variables to achievement was examined in Chapter IV, and the relation of socialization to achievement was the focus of Chapter V. Results of the above analyses indicate that SES is not as strongly related to academic achievement as personality and attitude variables. Even in the area of socialization, the most striking result is that a self-concept related item (How satisfied are your parents with the grades you get in school?) is the strongest correlate of school grades.

This chapter presents results of two special analyses designed to explore interrelationships among background, personality and attitudes, and achievement. In the first section of the chapter, results of a factor analysis and a partial correlation analysis are explored. In the second half of the chapter, special analyses on selected subsamples are presented.

Partial Correlation Analysis

A correlation matrix including 18 variables was computed for the total Negro sample of 2,538 male and female students. The computer program used in this analysis computes partial correlation coefficients for each variable while controlling for the effects of all other variables included in the correlation matrix. It also computes multiple correlation coefficients representing the combined effect of all variables included in the matrix. In this case, the multiple correlation coefficients for this set of variables and the three dependent variables considered here are: grades, .64; vocabulary score, .61; and expected education, .58.

Factor Analysis

Inspection of the partial correlation coefficients in Table 56 suggests that many of the variables are making little independent contribution to the prediction of grades, verbal ability and expected education. This is probably due to the considerable amount of intercorrelation among the personality variables. With this in mind, a small number of variables was selected for more intensive study.

Factor analysis of items included in the Self-Concept of Ability Scale, the Self-Esteem Scale, the Perception of Limited Opportunities Scale, the Alienation Scale, the Conformity Scale, the Test Anxiety Scale and the item on how parents feel about grades students get in school was undertaken in order to obtain a smaller number of conceptually meaningful variables. Factor analyses were computed separately for northern males, northern females, southern males and southern females. Only those items which had factor loadings of .40 or greater on a given factor for all four samples were retained for all scales except the conformity scale. Low loadings on this factor were found for southern males.

This procedure resulted in five scales, each of which makes an independent contribution to the prediction of one or more of the dependent variables. The five scales are conceptualized as measures of self-perception which are related to a "competence syndrome."

Self-Perception Scales

The first scale in this category is called a self-concept of ability scale (Brookover, 1967). The original version of this scale consisted of eight items (five response categories). Factor analysis of 56 items including the items of the self-concept of ability scale resulted in adding two items to the scale. One item asked students "How do your parents feel about the grades you get in school?" Four choices of response were allowed ranging from very well satisfied to dissatisfied. The other new item stated that "A person like me has a pretty good chance of going to college." Choices (four) ranged from strongly agree to strongly disagree. The combination of items resulted in a scale with a possible range of 10 to 48. The correlation between the two versions of the scales is .96 for the total sample.

TABLE 56

Partial Correlation of Selected Variables With Grades, Verbal Ability and Expected Education (Total Negro Sample)

	Grades	Verbal Ability	Education Expectation
1. How Parents Feel About Grades	-.31 (-.40)*	.09 (-.12)*	.02 (-.17)*
2. Verbal Ability	.29 (.47)	1.00	.09 (.35)
3. Self-Concept of Ability	.13 (.42)	.06 (.32)	.23 (.45)
4. Perception of Limited Opportunities	-.04 (-.34)	-.13 (-.42)	-.13 (-.38)
5. Self-Esteem	-.01 (.25)	-.04 (.24)	-.04 (.24)
6. Alienation	-.05 (-.30)	-.06 (-.37)	-.05 (-.28)
7. Criticism of Education	-.02 (-.24)	-.03 (-.26)	.02 (-.17)
8. Conformity	-.08 (-.25)	-.15 (-.33)	-.06 (-.22)
9. I-E Index	.03 (.25)	.03 (.28)	-.02 (.18)
10. IAR Index	.10 (.28)	.08 (.30)	.01 (.18)
11. Achievement Attitudes	.01 (.20)	-.01 (.18)	.11 (.28)
12. Grades	1.00	.29 (.47)	.09 (.36)
13. Mother's Occupation**	-.05 (.02)	.05 (.11)	.03 (.10)
14. Expected Occupation	.06 (.21)	.00 (.16)	.18 (.32)
15. Expected Education	.09 (.36)	.09 (.35)	1.00
16. Father's Occupation	-.04 (.05)	.07 (.15)	.11 (.20)
17. Test Anxiety***	-.08 (.16)	.09 (.25)	-.02 (.16)
18. Self-Report n Ach	.03 (.19)	.03 (.22)	.01 (.15)

*Zero order coefficients are in parentheses.
**Mother's occupation was coded as follows: 1 = housewife; 2 = employed, low status job; 3 = employed, high status job.
***Scored for low anxiety in this analysis.

A general self-esteem scale based on Rosenberg's work (1965) was also included. Factor analysis of Rosenberg's original items (included in a pool of 56 items) yielded a positive self-esteem scale of five items. The possible range of scores was from 5 to 20. (The new scale vs. original scale correlation coefficient = .66.)

A short version of the Test Anxiety Questionnaire (Mandler and Sarason, 1952) was used to measure fear of failure (test anxiety). The version used here included five items. This version correlated .93 with a thirteen item scale which included these items. Little predictive value was lost by reducing the number of items in the scale. The thirteen item version is correlated with vocabulary score at a modest level (-.24) as is the shortened scale (-.19) for the total sample of 2,826 white and Negro students of both sexes.

The fourth scale measures a passive-conforming orientation toward the world. This is a factor analytically derived scale based on two sets of items. Two items were taken from the achievement values scale used by Rosen (1959). These are identified as items measuring "Present-Future Orientation" and "Passivistic-Activistic Orientation" in the work cited. The remaining three items in the scale are Feagin's (1965) conformity scale. For convenience the scale used in this analysis is referred to as the conformity scale. The maximum score possible on this scale is 23, the minimum score is 5.

The fifth scale in this set of variables measures students' perceptions of limited opportunities for success. This scale is based on the thirteen item "awareness of limited opportunities scale" (Landis and Scarpitti, 1965). It includes items such as "my family can't affort to give me the opportunities that most kids have." Four responses ranging from strongly agree to strongly disagree were allowed for each item. The new scale included seven items which permitted a range of scores from 7 to 28. The new scale-old scale correlation coefficient is .89.

Socioeconomic status was determined by father's occupation for northern boys (seven-point scale) and mother's education (eight-point scale) for southern males, southern females and northern females. This procedure was adapted because father's occupation is more strongly correlated with verbal ability (vocabulary score) than mother's education for northern boys, while mother's education is the strongest correlate of verbal ability for the other groups.

Expected future education is based on student responses to a question which asks how far the respondent actually expects to go in school. There are seven response categories.

Results of New Scale Correlation Analysis

Descriptive statistics are presented in Table 57. There is considerable variation in average scores among the four samples, but the differences in personality-attitude variables are smaller than the North-South Vocabulary Score difference. Southern students have higher perception of limited opportunities scores and conformity scores than northern students. Females have higher test anxiety than males, but self-concept of ability and self-esteem are about equal for all groups.

TABLE 57

Mean Scale Scores by Sex and Region

Variable Name	Sex and Regional Group: Northern Males (N = 400) X	SD	Southern Males (N = 721) X	SD	Northern Females (N = 566) X	SD	Southern Females (N = 851) X	SD
Self-Concept of Ability	34.3	6.0	33.6	5.5	34.2	6.1	34.2	5.3
Perception of Limited Opportunities	12.4	3.9	14.1	4.2	11.9	3.6	13.3	4.4
Test Anxiety	11.5	4.6	12.4	4.6	13.1	4.8	14.3	5.0
Self-Esteem	16.9	2.3	16.5	2.7	16.7	2.3	16.8	2.3
Conformity	14.0	4.1	15.7	4.2	13.5	4.4	15.1	4.5
Vocabulary Score	19.2	7.3	14.2	7.1	19.5	6.6	16.1	7.1
Amount of Expected Future Education	4.7	1.4	4.4	1.5	4.6	1.4	4.5	1.5
Father's Occupation	3.4	1.8	3.1	1.8	3.2	1.8	3.0	1.9
Mother's Education	4.2	1.5	3.8	1.4	4.0	1.5	3.6	1.4
Grade Point Average	2.7	.6	2.7	.8	3.0	.7	3.1	.8

Socioeconomic Status and Personality Characteristics

SES is significantly and positively related to self-concept of ability, but the correlation coefficients are very small (Table 58). The negative correlation of SES with perception of limited opportunities and conformity is slightly higher. As one would expect, students with low family status are more likely than those with high family status to feel that their opportunities for occupational and educational success are limited. They are also more likely to adopt a passive conforming approach to life. Extremely weak relationships are found between test anxiety and SES and self-esteem and SES.

Personality Characteristics and Achievement

In presenting results of this portion of the analysis, grades, verbal ability, and amount of expected future education are each treated separately as dependent variables. The zero-order correlation coefficients are presented in Table 59. Self-concept of ability and self-esteem are positively correlated with grade point average. As expected, perception of limited opportunities and conformity are negatively related to grades. Although some correlation coefficients are quite small, all of the relationships are statistically significant; this is due essentially to the large size of the samples (minimum number of cases is 356 for personality and achievement variables).

It is apparent that self-concept of ability is the strongest personality correlate of grades. For northern students, this variable is more highly correlated with grades than vocabulary score. While the relationship of self-concept of ability to grades is strong in the south, it is not as good a predictor of grades as vocabulary score. Next to self-concept of ability and vocabulary score, amount of expected future education is the variable most consistently related to grades among the four groups of students.

TABLE 58

Correlation of Socioeconomic Status With Personality and Achievement[1]

Variable Name	Correlation With SES by Sex and Region: Northern Males (N = 400)	Southern Males (N = 721)	Northern Females (N = 566)	Southern Females (N = 851)
Self-Concept of Ability	.10*	.09**	.16***	.14***
Perception of Limited Opportunities	-.17***	-.21***	-.23***	-.23***
Test Anxiety	.00	-.05	.05	-.08**
Self-Esteem	.08	-.07	.03	.03
Conformity	-.07[2]	-.15***	-.22***	-.18***
Vocabulary Score	.21***	.18***	.25***	.24***
Grade Point Average	.01	.08*	.06	.21***
Amount of Expected Future Education	.19***	.23***	.30***	.34***

*Significant at .10 level of significance.
**Significant at .05 level of significance.
***Significant at .01 level of significance.

[1]The SES indicator is mother's education for all groups except northern males for whom father's occupation is the SES measure. This procedure yields the largest correlation coefficients when SES is correlated with verbal ability. The number of cases in each comparison varies slightly due to missing data for one or both variables.

[2]This variable correlated -.12 ($p < .05$) with mother's education for northern males.

Sex and regional differences in the strength of association between negative personality characteristics and grades are evident. Perception of limited opportunities is more strongly related to grades in the southern sample than in the northern sample, while conformity is more strongly related to grades of females than of males. Test anxiety is not strongly related to grades in this population, but is most strongly associated with grades among southern males.

Since most of the variables examined in this study are interrelated, partial correlation coefficients were computed to determine how much each variable independently contributes to the prediction of academic achievement. The partial correlation coefficients provide a statistical estimate of the contribution of each variable when the influence of all other variables is statistically controlled. For example, when predicting grades, the independent variables are: (1) self-concept of ability, (2) perception of limited opportunities, (3) test anxiety, (4) self-esteem, (5) conformity, (6) vocabulary score, (7) SES, and (8) expected education. Results of the partial correlation analysis are presented in Table 60. These partial correlation coefficients should be interpreted as follows: the coefficient of .32 between self-concept of ability and grades (Table 60, Column 1) indicates the partial correlation between self-concept of ability and grades with the effect of all other variables in the table (statistically) eliminated. Significance of partial correlation coefficients is determined in the same manner as for zero-order correlation coefficients.

TABLE 59

Zero Order Correlation Coefficients by Sex and Region*

Variable Name	Northern Males (N = 400)	Southern Males (N = 721)	Northern Females (N = 566)	Southern Females (N = 851)
a. Grades as Dependent Variable				
Self-Concept of Ability	.499	.427	.596	.442
Perception of Limited Opportunities	-.107	-.323	-.144	-.389
Test Anxiety	-.129	-.195	-.149	-.137
Self-Esteem	.258	.261	.237	.152
Conformity	-.251	-.251	-.393	-.392
Vocabulary Score	.337	.492	.420	.569
Amount of Expected Future Education	.383	.381	.157	.379
Father's Occupation	.011	.029	.065	.070
Mother's Education	.029	.080	.060	.211
b. Vocabulary Score as Dependent Variable				
Self-Concept of Ability	.327	.272	.364	.319
Perception of Limited Opportunities	-.211	-.430	-.226	-.431
Test Anxiety	-.201	-.206	-.192	-.219
Self-Esteem	.316	.337	.185	.177
Conformity	-.315	-.372	-.412	-.461
Grade Point Average	.337	.492	.420	.569
Amount of Expected Future Education	.364	.352	.365	.362
Father's Occupation	.209	.136	.095	.119
Mother's Education	.131	.184	.249	.235
c. Expected Education as Dependent Variable				
Self-Concept of Ability	.561	.382	.528	.419
Perception of Limited Opportunities	-.240	-.310	-.284	-.398
Test Anxiety	-.207	-.097	-.133	-.151
Self-Esteem	.206	.155	.237	.224
Conformity	-.362	-.213	-.338	-.276
Vocabulary Score	.364	.352	.365	.362
Grade Point Average	.383	.381	.357	.379
Father's Occupation	.186	.211	.207	.205
Mother's Education	.166	.232	.304	.342

*The number of cases on which these correlation coefficients are based varies slightly due to missing data for some students on several variables.

TABLE 60

Partial Correlation Coefficients by Sex and Region*

Variable Name	Northern Males (N = 400)	Southern Males (N = 721)	Northern Females (N = 566)	Southern Females (N = 851)
a. Grades as Dependent Variable				
Self-Concept of Ability	.324	.280	.460	.294
Perception of Limited Opportunities	.047	-.077	.077	-.115
Test Anxiety	.013	-.039	.055	.088
Self-Esteem	.016	.034	-.023	-.061
Conformity	-.120	-.062	-.219	-.144
Vocabulary Score	.169	.300	.227	.374
Socioeconomic Status**	-.092	-.067	-.128	.029
Amount of Expected Future Education	.082	.150	.009	.072
b. Vocabulary Score as Dependent Variable				
Self-Concept of Ability	-.002	-.002	.004	.011
Perception of Limited Opportunities	.004	-.156	-.021	-.149
Test Anxiety	-.103	-.014	-.124	-.077
Self-Esteem	.200	.243	.034	.060
Conformity	-.180	-.245	-.215	-.247
Grade Point Average	.169	.300	.227	.374
Socioeconomic Status**	.173	.110	.163	.071
Amount of Expected Future Education	.132	.106	122	.066
c. Expected Future Education as Dependent Variable				
Self-Concept of Ability	.438	.260	.341	.250
Perception of Limited Opportunities	-.062	-.147	-.092	-.192
Test Anxiety	-.049	.073	.027	.029
Self-Esteem	-.131	-.020	.008	.071
Conformity	-.231	-.038	-.101	-.060
Vocabulary Score	.132	.106	.122	.066
Socioeconomic Status**	.125	.156	.192	.251
Grade Point Average	.082	.150	.009	.072

*The number of cases on which these correlation coefficients are based varies slightly due to missing data for some students on several variables.

**Father's occupation is the SES measure for northern boys - mother's education is the SES measure for all other groups. This procedure yields the largest zero-order correlation between SES and vocabulary score for each group.

It is quite clear from the partial correlation coefficients in Table 60 that self-concept of ability and vocabulary score account for most of the explained variation in grades. The partial correlation between self-concept of ability and grades is significant for all groups while the partial correlation of conformity and grades is significant for all groups except southern males. Expected education is not significantly related to grades when the effects of other variables are removed except among southern males. The partial correlation between SES and grades is negative in three of the sex and regional samples but reaches significance only among northern girls. In summing up the results of this analysis, it is apparent that the correlation of most of these variables with grades is based on their intercorrelation with other variables. Most of the relationship between grades and perception of limited opportunities, self-esteem, expected education, and test anxiety, is probably explainable in terms of their relatively high correlation with either vocabulary score or self-concept of ability or both.

The combined effects of several variables is indicated by the technique of multiple correlation. The combination of variables in Table 5 resulted in the following multiple correlation coefficients with grades as the dependent variable: northern boys, .55; southern boys, .61; northern girls, .67; and southern girls, .66. Thus, these variables are least effective for predicting academic achievement among northern boys and most effective for predicting academic achievement among northern and southern girls.

Personality Characteristics and Vocabulary Scores

The correlation between grades and vocabulary score is larger than the correlation between vocabulary score and any other variable. The negative attribute scales, perception of limited opportunities and conformity, yield larger correlation coefficients than any of the positive variables. All scales are differentially predictive by sex and region. Perception of limited opportunities is more strongly related to vocabulary score among southern students ($r = -.43$) than among northern students. The association between conformity and vocabulary score is greater for females than for males in both regions. The same type of sex and regional differences appear when the positive scales are considered. Self-concept of ability is more strongly related to vocabulary scores of northern students than of southern students, but self-esteem is more strongly related to male scores than to female scores. Test anxiety is related to vocabulary score at a low level (average $r = -.20$) in all four samples. Amount of expected education is also consistently related to vocabulary score across samples (average $r = .36$). This variable is the strongest correlate of vocabulary score among northern males.

The partial correlation results for vocabulary score were somewhat different than those for grades. A larger number of variables are found to be significantly related to vocabulary score even with the effects of other variables controlled. The partial correlation between vocabulary score and grades is stronger among southern students than the partial correlation between any personality variable and vocabulary score. This is also true for northern females. Only among northern males do the other variables yield larger partial correlation coefficients with vocabulary score than does the student's grade point average. Conformity is a strong correlate of Vocabulary Score in all four samples. It is the only personality variable with a consistently significant partial correlation coefficient. All other variables (except grades) vary in their relation to vocabulary score by sex or region. Perception of limited opportunities is

significantly related to vocabulary score among southern students but not among northern students. Test anxiety is significantly correlated with vocabulary score among northern students but not among southern students. Self-esteem (positive self-regard) and expected education are positively related to vocabulary score at a significant level only among males. The partial correlation of SES and vocabulary score is stronger for northern students than for southern students of both sexes. Self-concept of ability, the most effective scale for predicting grades, is not significantly related to vocabulary score when the effects of other variables are eliminated by partial correlation.

When the combined effect of this set of variables is examined, regional differences in their effectiveness are quite apparent. With vocabulary score as the dependent variable, the respective multiple correlation coefficients are: northern males, .53; southern males, .64; northern females, .56; and southern females, .66. Vocabulary scores of southern students are predicted more effectively than those of northern students.

Correlates of Amount of Expected Education

In the treatment of grades and vocabulary score, amount of expected education was discussed as an independent variable. In this discussion, it is treated as a dependent variable. As pointed out earlier, SES is more strongly related to this aspect of academic achievement than to either vocabulary score or grades. The two achievement measures, grades and vocabulary score, are about equally correlated with amount of expected education in all four groups (the average correlation coefficient for grades is about .37; the average correlation for vocabulary score is .36). For northern students of both sexes, self-concept of ability is by far the most effective correlate of amount of expected education. Among southern students, self-concept of ability is a little more highly correlated with expected education than grades and vocabulary score. Conformity is more related to expected education among northern students (r = about -.35) than among southern students (r = about -.24). It is interesting to note that self-esteem which was more strongly related to male's vocabulary score, is more strongly associated with female's educational expectations. Test anxiety is weakly related to expected education.

The partial correlation between self-concept of ability and amount of expected education is considerably larger than the partial correlation of any other variable with amount of expected education among all groups except southern girls. For southern girls, mother's education (SES) is an equally important correlate of expected education. The partial correlation between SES and expected education is positive and significant in all four groups. SES is the second most effective correlate of expected education (after self-concept of ability) among northern females and southern males (barely). Vocabulary score is significantly related to amount of expected education (positively) in all groups except southern females. The partial correlation between conformity and expected education is negative among all students, but is significant only among males. The reverse of this pattern is found when the relationship of perception of limited opportunities to expected education is examined. The negative partial correlation is more significant for southern students than for northern students. Interestingly, self-esteem is negatively related to amount of expected education among males when other variables are controlled. The partial correlation between self-esteem and expected education for northern males is significant and negative. Test anxiety is not significantly related to amount of expected education when other variables are held constant. Finally, the partial

correlation between grades and amount of expected education is significant only among southern males.

The combined effect of these variables for predicting educational expectations varies by region. The amount of expected future education is predicted more effectively among northern males (multiple correlation coefficient = .65) and northern females (multiple correlation coefficient = .60) than among southern males and females (multiple correlation coefficients = .53 and .58, respectively) by this combination of variables.

Summary

Socioeconomic status was found to be negligibly related to student grades for northern males, southern males, and northern females. Only for southern females is SES significantly related to grades. SES is significantly related to vocabulary score and amount of expected education for all four groups of students, although the relationship between SES and expected education is stronger than that between SES and vocabulary score. SES is not strongly related to the personality-attitude variables examined in this study, although some statistically significant relationships are present. Results indicate that SES is very weakly related to test anxiety and self-esteem (positive self-regard), but is more strongly related to perception of limited opportunities and conformity (negatively). Low family status is associated with high perceived limitations on opportunities and a passive conforming approach to life.

Results of zero order and partial correlation analyses indicate that intercorrelation among variables explains some of the correlation between personality variables, vocabulary score, grades, and amount of expected education. With grades as the dependent variable, only self-concept of ability and vocabulary test score are significant predictors when other variables are controlled. Self-concept of ability is not related to vocabulary score when other variables are controlled, but conformity is a strong correlate of vocabulary score in all four samples. Sex and regional differences in relative effectiveness of other variables for predicting vocabulary score were quite prevalent. For example, partial correlation indicates that perception of limited opportunities score is significantly related to vocabulary score for northern students but not for southern students, test anxiety is significantly related to vocabulary score for northern students but not for southern students, self-esteem and expected education are significantly related to vocabulary score only among males, and the partial correlation of SES and vocabulary score is stronger for nothern students than for southern students.

The High Achieving Negro Student[1]

The Scales

Scales included in this analysis are the versions of the scales described in Chapter 2 (not the new scales of the previous section of Chapter VI). The scales and indices used are: (1) Test anxiety; (2) self-concept of ability; (3) self-esteem; (4) alienation; (5) criticism of education; (6) conformity; (7) I-E Index; (8) Intellectual Achievement Responsibility Scale; (9) Need for Achievement vs. Fear of Failure (S-R n Ach); (10) the achievement attitudes scale. Indices of parental occupation and education and students' occupational and educational aspirations are also included in this analysis as are vocabulary scores and school grades.

School Characteristics

Of the original eight in this project, three high schools were chosen for the study, two in Detroit, Michigan, and one in Atlanta, Georgia. All three are large urban public schools within the city limits and are comparable with respect to the social-class backgrounds of the students' families. The effects of segregation and north-south differences in schooling were interests of the study, and one school was picked as an example of a northern segregated school, another as a northern biracial one, and the third as a southern and segregated institution.

An inner-city school, the northern segregated school was attended by students from an all-black neighborhood. Most of the parents are blue-collar workers of whom many are employed in the automobile industry at quite remunerative salaries. A main attraction to many Negroes coming north to Detroit has been the steady availability of good-paying jobs in manufacturing. A wide spectrum of social classes makes up the student body at this school. A substantial number are from middle-class families, who often move out of the area into neighborhoods in which occupancy is being opened to prosperous Negro citizens. Consequently, the school population is constantly changing and perhaps in the future will become more uniformly lower class. The faculty includes many white teachers and is accustomed to asserting stern authority over the classes. Disciplinary incidents within the school are common and police continually patrol the general area which has a high crime rate.

The students of the biracial northern school live in biracial neighborhoods where workers are chiefly semiskilled factory employees. Very little or no differential separates the educational and occupational levels of whites and Negroes there. At the time of the study, the experimental sample of students was predominantly white, though since 1966 many whites have moved to the suburbs and the school has become mostly Negro with prospects of becoming more so. Like the segregated school, the biracial school is a large, inner-city school, and the teachers are burdened by over-sized, often unruly classes. However, the biracial school is situated in a more stable neighborhood and fewer local incidents require police intervention.

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[1] Material in this section is adapted from the doctoral dissertation of Joseph Morris (Personal Adjustment of the High Achieving Negro Student, Ann Arbor, The University of Michigan, 1968, Chapters 4 and 6).

The southern school is located in a respectable, lower-middle-class neighborhood of Negro families in Atlanta. All the teachers were black at the time of the study. It has modern facilities and a fair proportion of the students continue their education in college.

Ninth graders were excluded from this aspect of the study because they had relatively few recorded high school grades. Therefore, the final size of the sample was: northern segregated 212, northern biracial 230, and southern 218.

Selection of Experimental Subjects

An ability (vocabulary score) distribution for the students of each school was plotted for this analysis. The students in each school were divided into incremental levels or "strata," each of which contained students within five points of each other on vocabulary score.[2] The frequencies have approximately normal distributions.

Within each stratum, the 20 percent who were achieving the highest grades with respect to their abilities were chosen. This group was the "high-achievers."

The 20 percent who were achieving closest to the mean of the students in the stratum in relation to ability were designated the "average-achievers."

Of the three schools, only one was biracial: 96 Negroes and 134 whites in the experimental sample. The high and average achievers were first chosen from the entire sample and then the whites were eliminated from the two groups. Thus, the groups of Negro high and average achievers are relative to the entire school population in each case, not to other Negroes within the school.

The Cluster Sample

To discover groups of individuals across races who had similar kinds and degrees of attitudes, a cluster analysis was performed. A random sample of 40 blacks and 40 whites was chosen for this purpose from the experimental sample of 230 at the biracial school. Sample sizes are presented in Table 61.

Overview of Results

Three types of statistical analyses are presented in this section. First, t-test comparisons of group means are given; the attitudes of students who differ on achievement, sex, or type of school attended are compared respectively. This procedure provides tests of Hypotheses I to IV, dealing with the relationships of these variables to personal and academic adjustment. A regression analysis follows in which a search is made for the attitudinal variables which most highly predict academic success for the boys and the girls in each school. Finally, the cluster analysis highlights groups of students, both black and white, who have similar patterns of achievement. A discussion of the results and their implications is then given.

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[2]The vocabulary score used in this section is based on a 100-item "easy" vocabulary test and a 60-item "hard" vocabulary test. Scores on the two instruments were combined to obtain a single ability measure.

Hypothesis I

Hypothesis I states that:

> Achieving Negro students will have attitudes less hampered by racial stigma than average Negro students.
>
> The high achievers will have a more positive self-concept and less fear of failure; stronger feeling of personal control and less alienation; higher occupational and educational expectations, less peer group conformity, and more anxiety about school performance.

The results for the two groups are given in Table 62. The high achievement group was the combined sample of the high achievers from each of the three schools studied. Likewise, the average achievement group included all the average achievers. The high achievers numbered 99 and the average achievers 112.

TABLE 61

Size of Negro Sample by School, Sex, and Achievement Group

Schools	Boys	Girls	Total
Northern Segregated School			
Sample size	89	123	212
High achievers	16	26	42
Average achievers	19	23	42
Northern Biracial School			
Sample size	38	58	96
High achievers	1	10	11
Average achievers	12	12	24
Southern School			
Sample size	93	124	217
High achievers	11	35	46
Average achievers	20	26	46
Total			
Sample size	220	305	525
High achievers	28	71	99
Average achievers	51	61	112

The achieving groups at the northern biracial school were chosen from a school-wide sample of 230 students which included 134 whites.

Except for the finding that educational aspirations but not educational expectations were significantly higher for the high achievers ($p < .05$), all of the 12 hypothesized differences between the means were in the direction of

confirming Hypothesis I. However, only a few of them were significant. The application of a simple Sign Test, however, indicates that the probability of obtaining this number of positive differences by chance is less than .003. Thus, over the entire questionnaire, the high achievers showed a significant but small edge in personal and academic adjustment over the average achievers. From 12 differences, at least one result significant beyond the .10 level would be obtained by chance.[3]

TABLE 62

Comparisons of Means for the High Achievers and Average Achievers

Variable	High Achievers Mean	High Achievers Sigma	Average Achievers Mean	Average Achievers Sigma	T-Ratio	p
Vocabulary	291.02	107.90	283.52	129.34	.45	NS*
TAQ Index	42.58	12.23	41.56	10.41	.65	NS
SCA Index	29.74	4.13	27.49	3.84	4.09	.001
Self-Esteem	31.43	4.53	30.32	4.76	1.73	.10
Alienation	15.49	3.88	17.28	4.60	-3.02	.01
Criticism of Education	14.69	2.75	15.71	3.26	-2.46	.05
Conformity	7.77	2.62	9.21	2.65	-3.95	.001
I-E Index	17.01	3.85	16.26	3.51	1.48	NS
IAR Index	9.61	9.15	8.50	1.57	1.26	NS
Fear of failure	1.80	1.35	2.08	1.57	-1.24	NS
Achievement Attitudes	3.51	1.85	3.22	1.67	1.16	NS
Occupational Expectations	3.61	2.09	3.50	2.51	.34	NS
Educational Aspirations	3.19	.99	2.89	1.00	2.18	.05
Educational Expectations	2.49	.88	2.38	.95	.94	NS
Mother's Occupation	2.16	1.28	2.30	1.64	-.70	NS
Father's Occupation	3.24	2.22	2.92	2.22	1.05	NS
Mother's Education	3.34	1.75	3.01	1.44	1.52	NS
Father's Education	3.34	2.25	3.30	2.37	.12	NS
Total GPA	37.06	5.75	28.71	3.96	12.39	.001
English	2.65	.56	1.94	.71	7.96	.001
Math	2.53	.68	1.76	.70	8.06	.001
Science	2.59	.93	2.09	1.52	2.83	.01
Social Studies	3.07	1.76	2.31	1.62	3.25	.01

*It appears that vocabulary scores have been inflated by 200 points and that the sigma is also inflated. Personal correspondence with Dr. Morris will be necessary before this point can be clarified.

[3]Actually, chance frequencies would be somewhat higher than this since the variables are correlated.

The individual results of significance were a higher self-concept of ability and less conformity for the high achievers (both, $p < .001$). On the measure of self-esteem, the high achievers scored slightly higher than the average group ($p < .10$), and they exhibited less alienation ($p < .01$).

The high achievers also had greater educational aspirations than the average achievers ($p < .05$), but essentially the same expectations for educational attainment. Hypothesis I had predicted the reverse - higher expectations but similar aspirations.

Hypothesis II

Hypothesis II states:

> There will be a greater proportion of girls than of boys among the high achieving Negro students. The high achieving girls will be freer from the attributes associated with racial stigma than the high achieving boys. They will have a more positive self-concept and less fear of failure; stronger feelings of personal control and less alienation; and higher occupational and educational expectations.

Comparisons were made of the average achieving boys and the average achieving girls, the high achieving boys and girls, and the high and average achievers for each sex. Again, by chance the multiple application of t-tests would produce one result significant beyond the .10 level in each set of comparisons.

Hypothesis II explicitly concerns only the comparisons of the high achieving boys and girls, but the other comparisons are given as reference points to show the changes in attitudes over achievement level and sex.

First to be examined are the average achievers, boys and girls, who will serve as a baseline group for the other comparisons. Data indicate several clear differences: boys showed less test anxiety ($p < .01$), more conformity ($p < .05$), and slightly less criticism of education than the girls ($p < .10$).[4]

Though their overall marks were the same as the girls', the boys did poorer in English, but better in science. In the mathematics and social studies classes, differences were nonsignificant. Attitudinal differences between the sexes tended to converge when the average achievers were compared with the high achievers. One difference remained approximately the same; both male and female high achievers exhibited less conformity than the average achievers of their sex, but the females continued to be less conforming than the males in the high group ($p < .10$). This was the only (and barely) significant attitudinal difference between the male and female high achievers out of 14 possibilities; the direction of the nonsignificant differences did not favor either sex. Among the high achievers, the test anxiety of the boys rose slightly from that of the average ones so that it was no longer significantly different from that of the females. Similarly, though the average achieving girl was more critical of education than the average boy, the high achieving girl had much less of this attitude. Consequently, high achievers of both sexes had fairly equal degrees of criticism of education.

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[1]Tables are not presented here. The interested reader may find the tables in Morris, 1968, Chapter 6.

Since the criteria of high achievement was based on total grade point, high achievers weren't required to have grades higher than the average group in every subject. The high achieving girls showed a consistently high pattern of academic achievement, however. Not only did they have higher marks than the average achieving girls in all four subjects ($p < .001$ for every subject), but they also out-performed the high achieving boys in English and social studies (both $p < .05$) and had a slightly higher total grade average ($p < .10$). The high achieving boys were less consistent; they easily outstripped the average achievers in English and mathematics grades (both at $p < .001$), but their marks in science and social studies were not significantly different.

For both sexes, higher self-concept of ability and less conformity were associated with the high achievement group. No other measures significantly differentiated the achievement groups for both sexes. In the male group, high achievers also have more sense of personal control ($p < .05$) and tend toward less fear of failure and higher maternal education (both at $p < .10$). Less alienation and criticism of education and higher educational aspirations separated the high achieving girls from the average ones.

Hypothesis III

Hypothesis III states that:

> The high achieving Negro student will have a stronger middle-class orientation than the student doing only average work. Specifically, he will have a higher need for achievement and more favorable attitudes toward teachers. His parents will be somewhat more likely to be of middle-class socioeconomic status.

Table 62 shows the differences between the high and average achievers on the variables related to social-class membership and orientation.

Neither the education nor the occupation of the parents differed significantly between the high and average groups. However, the high achievers had less criticism of education than the average group ($p < .05$) and a tendency toward more need for achievement ($p < .10$).

Hypothesis IV

Hypothesis IV states that:

> Attending a southern rather than a northern school and a segregated rather than a nonsegregated high school will have a negative effect on attitudes associated with racial stigma and social class among the high achievers.

The attitudinal scores of the high achievers in three high schools were compared: a segregated Negro school in Detroit; a biracial school in Detroit; and a segregated Negro school in Atlanta, Georgia.

In summarizing the results of the school comparisons, data indicate that high achievers from the northern biracial school showed slightly better personal adjustment than the ones from the northern segregated school or the southern segregated school. The high achievers of the southern school did not differ significantly from those at the northern segregated school except for the fact

that southern high achievers showed significantly more test anxiety than those at the northern segregated school. Southern students also showed significantly more test anxiety than students at the biracial northern school. The schools did not differ significantly on socioeconomic status.

Multiple Regression Analyses

Multiple regression analyses were performed on the attitudinal and social class variables by sex and school. The objectives of this operation were:

1. To discover the combinations of variables which most highly discriminated the high from the average achievers. Separate comparisons of means could not make these distinctions since the variables were intercorrelated.

2. To determine the effect of school and sex differences on the ordering of variables which were the effective discriminators.

Five multiple regression analyses were done: northern segregated school boys, northern segregated school girls, northern biracial school students of both sexes, southern boys, and southern girls. The biracial school sample was not divided by sex since it numbered only 11 students. Each of the five groups included only high or average achievers as defined. None at any other level of achievement were included.

Table 63 gives a summary perspective by presentation of the attitude-achievement correlations for each of the five groups. It is difficult to see much uniformity in the predictive combinations across all five groups. The order and composition are quite different in each case. The combinations include variables relating to both academic and general adjustment, but the academic variables are definitely more frequent predictors. Self-concept of ability and criticism of education thus are the most common components of the combinations, being in four out of the total of five. Appearing in three of the combinations are educational expectations, personal control in academic situations, and test anxiety. The general variables, self-esteem, general sense of personal control, and need for achievement only figure in two combinations.

Cluster Analysis

A cluster analysis delineates groups of subjects who have statistically similar profiles on psychological variables; in this study, students who have similar strenghts and lacks over the 14 attitudinal measures. The intent was:

1. To determine whether different kinds of attitudinal patterns exist and, if so, their composition and frequency; and

2. To discover whether race, sex, or achievement are related to any of the "clusters" of students with similar patterns of attitudes.

So far, the survey has been confined to an all-Negro sample. An important question was whether the attitudes interacted the same for whites and Negroes. For example, does self-concept of ability differentiate the Negro high achievers from the Negro average in the same way as it differentiates the white groups? Are there general achievement orientations that are characteristically white or Negro?

The cluster analysis embraced a sample of both black and white students at the biracial school. Forty of each race were randomly selected from the student body population.

The distribution of achievement in relation to ability for the Negro and white sample and the combined samples was plotted graphically. Inspection of the graph indicated that the Negro sample underachieved by an average of 11.5 percent; i.e., their grades fell by that percentage beneath the prediction based on their vocabulary scores. The white sample had grades close to that predicted; their marks averaged only 1.2 percent below the estimates.

TABLE 63

Correlations of Variables With Achievement Level for Each Regression Group

	Regression Group				
Variable	Northern Segregated School Boys	Northern Segregated School Girls	Biracial School Students	Southern School Boys	Southern School Girls
TAQ Index	-.17	-.09	-.04*	.22*	.11*
SCA Index	.28*	.31*	.33*	.31	.30*
Self-Esteem	.18	.17	.25*	.16*	-.03
Alienation	-.29	-.12*	-.18	-.13	-.33
Criticism of Education	-.30*	-.16	.26*	-.09*	-.43*
Conformity	-.11	-.22	-.32*	-.46*	-.21
I-E Index	.24*	.01*	.11	.31	.00
IAR Index	.18*	-.06	.18*	.08	.15*
Need for Achievement	.06	-.03	.08	.20*	.25*
Fear of Failure	-.03	.04	.14	-.13	-.27
Achievement Attitudes	-.01	.00	.27	-.12	.13
Occupational Expectations	.01	.08	-.02	-.03	.02
Educational Aspirations	.29*	.10	.12	-.11	.22*
Educational Expectations	.16*	-.18*	.24	.03	.17*
Mother's Occupation	.07*	-.02*	-.18	-.19	.07
Father's Occupation	-.09	.21*	.03	-.03	.12
Mother's Education	.16	.20*	.16	.33*	-.04
Father's Education	.10	.05	-.02*	-.01*	-.08
Total Multiple Correlation	.66	.69	.69	.78	.62

*Asterisks indicate variables which were among the seven which had the highest multiple correlation with achievement in each group.

The shapes of the black and white distributions were quite similar. A striking thing about the distribution curves of the white and Negro subjects was that, though the latter were behind the whites ten percent in achievement expectancies, the profile of their distribution was essentially not shifted by that

amount to the left of the whites. The peaks and dips of the Negro sample had mostly the same locations as those of the whites. In the middle range of the distribution, from -10 percent to 9 percent, the number of blacks (15) was similar to the number of whites (13).

The chief difference was the frequencies of extreme scores. Blacks predominated in the lower end of the distribution and were relatively scarce in the upper end. Of those falling 31 percent or more below achievement predictions, blacks were 9 of 13. Among those exceeding the predictions by 20 percent or more, blacks numbered 1 out of 8. The flagging of Negroes in the high achievement range was more pronounced than their presence in the low achieving area.

The total distribution, as well as the separate distributions for black and whites, had some positive skewness. Scores bunched up in the lower ranges and the negative scores exceeded the positive by 43 to 37.

Race is a variable of little or no relevance in cluster formation. Blacks were approximately half the membership of each one; there was no all white or all black cluster. Also, the proportion of males and females in each cluster showed little variability from the overall 50/50 percentage in the cluster sample, although Cluster 7 with four people was all male. The clusters did differ in the amounts of over and underachievement.

Table 64 lists the means of the scale scores for each cluster. The size of the clusters varied from the first four clusters, each of which contained at least 14 members, to the last three clusters, which totaled only 14.

Cluster 1 is labeled the Neophytes.[5] It contains three Negro boys (NB), four Negro girls (NG), three white boys (WB), and four white girls (WG). As a group, these 14 individuals came from families whose parents had the lowest educations and occupations of any of the clusters. They in turn had the lowest aspirations and expectations of any group for their own education. Their vocabularies and grades were about average, however, and they indicated low amounts of alienation and criticism of education. They had higher needs for achievement than any other cluster and strong self-esteem.

Cluster 2, the Achievers, contained 16 people: four NB, three NG, seven WB, two WG. The members had the highest grade average of all clusters, and the highest in relation to their verbal scores, which were above average. On self-concept of ability, self-esteem, educational aspirations and expectations, they scored the highest of all the clusters. They had little alienation or criticism of education.

The Low-Ability Grinds, the 15 members of Cluster 3, four NB, six NG, three WB, two WG, had the lowest verbal score of all the clusters but still managed to obtain average grades. Their fathers, though not mothers, have the highest educational level of all the clusters and above average occupations. The highest test anxiety of the clusters and almost the lowest self-esteem was associated with this cluster. Yet the students had a strong sense of personal control and the lowest conformity score.

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[5]The order of presentation of the clusters has no implied psychological significance. It follows their statistical derivation.

Cluster 4, the largest with 21 members, rivaled Cluster 5 in exhibiting the most negative combination of academic attitudes and the most underachievement. It contained four NB, nine NG, five WB, and five WG - two-thirds female. Having low verbal ability, the Alienated had parents who possessed little education compared to other clusters but average occupations. The students had high test anxiety and the greatest alienation, criticism of education, and conformity of any group. Also, they had the lowest self-esteem.

The next three clusters involved much smaller numbers of students and should be given more tentative consideration.

The six students of Cluster 5, the Disturbed, had parents of the highest education and occupation of the clusters and have superior verbal abilities. Yet they had the lowest self-concept of ability. Also, they had a weak sense of personal control, high fear of failure, and low occupational expectations. They were conforming, alienated, critical of education, and the least motivated to achieve. They had the lowest grade average and the lowest in relation to their verbal scores. Two NB, one WB and three WG made up the group.

Cluster 6, the Able Students, had by far the highest verbal scores of all the groups. Its four members, two NG, one WB and one WG, reflected confidence in their abilities by having the lowest test anxiety and fear of failure of all groups and a high self-concept of ability, educational aspirations and expectations. They are achieving on a par with their verbal abilities. The parents tended to have superior educational backgrounds but had lower-status jobs, compared to the other groups.

The four males that made up Cluster 7 might be called the Clock Punchers. They had low grades, mediocre ability, and were achieving below their capabilities. Their fathers had the highest status occupations in the clusters but below-average educational attainment. Perhaps reflecting parental influence, the students had the highest occupational expectations of the clusters but contrastingly low educational aspirations and expectations. However, they had the least criticism of education of all groups. Though they had relatively the highest sense of general personal control, they had the lowest sense of it in academic situations. They possessed low test anxiety.

Summary and Discussion[6]

In the population studied, the results suggest that the high achievers had at least as good a personal adjustment as the average achievers, for in no case did their attitudes differ negatively from the average students. The few significant differences between the high and average achievers were on the scales of academically related attitudes and the ones relating to more generalized attitudes or other contexts ran a poor second. Strong self-concept of ability characterized the high achievers more than high self-esteem, and they had greater hopes for educational attainment, but the same career expectations. Neither was a greater need for achievement or less fear of failure manifest in the high group, and they didn't have a significantly greater sense of personal control.

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[6]This discussion is taken from Chapter 6 of Morris, 1968, with slight revision.

The high achievers seemed more academically involved than average, but the degree of it wasn't impressive. Whether male or female, high achievers aspired to very little more than a high school diploma. More surprisingly, they didn't expect even to attain that level. These expectations approximated the actual educational attainment of the parents. They expected to be working in blue-collar jobs, again no higher than the actual status of their fathers and mothers.

But, as for nearly every finding of the study, generalities are dangerous. Interesting school differences were present. At the biracial Detroit high school, the high achievers showed the highest mobility expectations in both educational and occupational areas, followed by the other northern school in occupation and the southern school in education. Attending a school which was integrated or northern was accompanied by occupational mobility expectations; being in an integrated one was found with educational mobility expectations. The result complements findings that school integration raises these expectations of Negro children (Wilson, 1959). Moreover, past studies usually have not considered the parents' level of education and occupation in relation to their children's expectations. A child expecting to graduate from high school should not be painted as pessimistic if his parents are dropouts.

The issue of school integration immediately raises the question of why it had a positive effect, and the answer probably lies in the different kinds of relationships with teachers, students, and other people with whom the Negro student comes into contact. It is plausible that if students have a reference group of fellow students who are ambitious, they will adjust their hopes to accord with the others'. If they cannot identify with, are frightened or repulsed by the reference group, as might be the case in a newly integrated southern school, its influence on their goals would probably be minimal.

A confounding factor is that probably many of the biracial school students lived in integrated neighborhoods. Therefore, the advantages of integration may not have been produced by the school attended but the area in which one is living. Other studies of school integration have been confounded by simultaneous occurrences like these.

In the southern school, the best discriminator between the high and average achieving boys was conformity ($r = -.46$), but for the northern students, it was less important. Perhaps at the southern school, the high achiever had to assert his independence of a peer group which is skeptical and "turned off" by educational values. In the other two schools, he may have been more likely to find a reference group that shares his orientation toward high achievement. A supplemental finding was a significantly higher degree of test anxiety for the southern high achievers than for those of the northern schools. While the high achievers in the north tended to have slightly less test anxiety than the average group in their school, the southern group had more.

The beginning of a case can be made that the southern high achievers were perceived as deviants by the other students. Unlike the girls of other schools, the high achieving southern females didn't register any rise in self-esteem over the average group, though the boys do show a small elevation. High achievers of all the schools appeared to be moderately nonconforming. Conformity was positively correlated with alienation and criticism of education, both of which were less common among the high achievers. They are probably aware that their optimistic views of education were not shared by many of their classmates. Theirs was a minority view, and it may have caused some social friction.

The cluster analysis produced two main findings: race was not a relevant variable in the attitudinal similarities among the biracial school students and academic achievement was. The first finding is striking. Being Negro had no systematic or global effect on the attitudes of this sample. The range and kinds of attitudes were similar for blacks and whites. The result doesn't imply that there are no differences; it would be surprising to find that blacks had the same self-esteem as whites when much previous research has reported the contrary. Rather it suggests that the similarities greatly outweigh the differences.

Future researchers would do well to ponder this result. Racial differences are not difficult to find if the sample size is large enough and if the attitude has a specific application to racial differences. Questions which probe the living opportunities and social acceptability between Negroes and whites will certainly elicit race differences if the respondents are asked about themselves. But these responses are perceptions of reality, not discrepant attitudes. The latter are subjective and emotional. Many of one's orientations to life are planted in the early years of childhood by experiences within the family, and perhaps the social stigma of race is a largely irrelevant factor then (Milner, 1953). Confidence in one's own potential, a basically positive and cooperative relation to others and consistent moral standards are examples of these.

It is possible that Negroes actually have the most uniformly American values and goals. As much as any other ethnic group in the United States, they are concerned about being accepted in society and often tend to conform rigorously to its values. Glazer and Moynihan (1963) point out similar behavior in the Irish, who have attempted to become the most American in their patriotism and values to offset the disdain of Anglo Saxon and German Americans. What ethnic holiday has been more American than St. Patrick's Day, what actor more beloved by the population than Pat O'Brien? Negro spirituals are sung by all and Al Jolson in black-face is a sentimentalized part of the American heritage. Blue-blooded Americans have warned the Irish, as white southerners have warned the Negroes, "We will befriend and cooperate with you, even imitate and love you. But remember, keep your distance."

Black ghettos are bombarded by tidings of the new and desirable consumer products available, the latest political maneuverings, and other national happenings through mass media that give them full access to the accepted values of society. Perhaps much of the impetus for urban rioting is that blacks want essentially the same things from life as other Americans but are frustrated in their efforts to obtain them.

CHAPTER VII

Summary of Survey Results

The total sample involved in this survey included 2,826 Negro and white students of both sexes from inner-city schools in a large northern city and a large southern city. Two follow-up samples were also involved: (1) the first follow-up sample included 819 students from the total sample who volunteered to participate in an experiment and who were willing to provide the research team with the names and addresses of their parents; (2) the second follow-up sample includes those students at one nothern school and four southern schools whose parents were interviewed (599). This latter group is an all Negro sample. A total of 440 Negro children were included in all three phases of the study.

Three dependent variables were used in most of the analyses: (1) verbal ability; (2) grades in school; and (3) amount of expected future education. Independent variables were grouped as follows: (1) social structure, including region, socioeconomic status, and race; (2) personality and attitude variables, including self-concept, motivation and aspirations; and (3) family structure, including father absence, number of siblings, amount of paternal influence, type of discipline, pattern of decision making, employment of mother, and willingness of parents to explain rules to children. Other family related variables considered were parental satisfaction with grades, amount of geographic mobility, and age at which independence training began. Summaries of results within each of these broad categories will be presented below.

Social Structure and Achievement. Survey results indicate that there are large differences in vocabulary test performance when northern and southern urban Negro high school students are compared. This finding holds true for both sexes although the difference is not as great for girls as for boys. This supports other research involving rural southern students (Baughman and Dahlstrom, 1968) which reported that girls' scores on achievement tests were closer to a national norm than boys' scores. We found that northern students of both sexes have significantly higher vocabulary test scores than southern students. Northern males also have higher educational and occupational aspirations than southern males, although northern and southern girls do not differ significantly with regard to aspirations.

Socioeconomic status is also significantly related to vocabulary test performance and aspirations. High SES students were found to have higher ability and aspirations than low SES students, but this relationship was found to vary by school in both magnitude and direction. A relatively important finding was that socioeconomic status has much less influence on grades than on verbal ability. To some extent, this is probably due to differences in grading standards at schools attended by high and low SES students. We find a significant school effect and a nonsignificant SES effect for northern students, but for southern students both school and SES effects are significant although the school effect is of greater significance. The most significant predictor of grades, however, is sex; in both regions, girls consistently have higher grades than boys. In both the north and the south, SES was a better predictor of vocabulary score and aspirations than either school or sex.

Our data indicate that measures of socioeconomic status do not predict achievement with the same effectiveness in different populations. For example, we find that father's occupation is the best predictor of verbal ability for northern Negro boys, but that mother's education is the best predictor for southern Negro boys, southern Negro girls, and northern Negro girls.

Comparisons between achievement and aspirations of Negro and white northern students attending the same schools were the same. For both sexes, whites had higher vocabulary scores and higher grades than Negroes attending the same school. The reader should be aware of methodological weaknesses in the design before making too much of these race differences. No attempt was made to control for socioeconomic status or school track in making these comparisons. Race differences in grades were also influenced by the school. Data not reported in Chapter III indicate that Negro and white students attending a predominantly middle-class school differed more in grades than Negro and white students attending a predominantly working-class school. Differences were greater for girls at the middle-class school than for boys, but the reverse was true at the working-class school. Negro students at the middle-class school had verbal ability scores comparable to the scores of white students at the working class school.

Data on educational and occupational aspirations indicate that Negro and white students differ less in aspirations than in grades and vocabulary test scores. White students at the middle-class school had much higher aspirations than Negroes at both schools. They also had much higher aspirations than whites at the working-class school. In fact, whites at the working-class school tended to have lower educational and occupational aspirations than Negroes at either school.

Personality, Attitudes, and Achievement. Data in Chapter IV (and in Chapter VI) indicate that a student's self-concept of academic ability is a strong correlate of both his actual grades in school and his anticipated future education. A general self-esteem scale was found to be much less effective for predicting grades and aspirations. Measures of internal versus external control of the environment based on the work of Rotter (1966) and Crandall, et al. (1965), proved to be much less effective correlates of grades, vocabulary test scores, and aspirations than a measure based on items similar to those used in the Coleman survey (Coleman, et al., 1966). This Personal Control Scale correlates .37 with school grades and .34 with vocabulary score. Further inspection of the data indicate that this variable is an equally effective predictor of grades for students of both sexes, but that the correlation with vocabulary scores is higher for boys (.39) than for girls (.30). Since the Personal Control Scale was included in the follow-up questionnaire rather than in the initial questionnaire, a check was made to see if the correlation coefficients for the I-E scale and the Intellectual Achievement Responsibility Scale differed appreciably for the original sample and the follow-up sample. The follow-up sample coefficients were slightly smaller than those of the original sample, thus supporting the statement that Personal Control is a better predictor of achievement than either I-E or IAR in this population. A correlation of .45 between the Personal Control Scale and the I-E Scale suggests that they are conceptually related but not identical measures.

The student's perception of his opportunities for success was also found to be a strong correlate of achievement. This measure is negatively related to achievement as expected. Data in Chapter VI based on a shortened version of

this scale indicate that this variable is significantly and negatively related to the student's socioeconomic status. The detailed analyses in Chapter VI also suggest that this variable is much more effective for predicting achievement and aspirations of southern Negro students than of northern Negro students. Subsequent analysis found this regional difference to hold for the longer version of the scale as well. Scores on this variable are also more strongly related to vocabulary test performance than to grades and aspirations.

Several measures of achievement values were found to be correlated with achievement and aspirations at a fairly high level. These include the Conformity Scale, Alienation (discussed along with the sense of control variables in Chapter IV), Lower Class Values, Ach V (Strodtbeck Scale) and Preferred Job Characteristics. Of these, the Lower Class Values Scale (Landis and Scarpitti, 1965), and the Conformity Scale were most strongly associated with achievement and aspirations. Each of these variables is significantly related to the Personal Control Scale (correlation coefficients are: Lower Class Values versus Personal Control = -.641; Preferred Job Characteristics versus Personal Control = .419; Conformity versus Personal Control = -.295) and the Alienation Scale (correlation coefficients are respectively: LCV versus Alienation = .488; PJC versus Alienation = 0.394; Conformity versus Alienation = .416). These results strongly suggest that the values found to be most predictive of academic achievement are those related to the conceptual framework referred to as a "sense of control over the environment."

Measures of achievement motivation, including a TAT based measure of n Ach, were not found to be as strongly related to academic achievement as the other personality attitude variables. Correlation coefficients were of the magnitude of .20 to .25 between n Ach and vocabulary score, grades, and educational expectations. Test anxiety is a little more strongly related to vocabulary scores than is n Ach for males, but on the whole, the achievement motivation variables are not strong correlates of academic achievement.

Family background variables tended to be related to academic achievement but the relationships are not as strong as those involving personality and attitude variables. For example, socioeconomic status, though significantly related to ability scores, was relatively nonproductive when the size of the correlative coefficients is taken into consideration. The largest correlation between a socioeconomic status variable and an ability measure was .25 for our Negro students. Except for southern girls, socioeconomic status was not significantly related to grades of Negro students.

Father absence has received considerable attention in the literature in recent years. Results of this survey indicate that there are significant differences between children of father absent families and children of intact families. The effect of father absence on vocabulary scores seems to be smaller than the effect of socioeconomic status. Father absence is significantly and negatively related to grades and test scores of girls, but is not significantly related to boys' scores. It appears that father absence has a stronger effect on a student's perception of his opportunities than on his academic achievement. As one would expect, father absence is most strongly related to the student's report of his father's influence in the family. It is worthy of note, however, that the amount of reported paternal influence is minimally related to academic achievement.

The pattern of discipline in the home is also significantly related to achievement orientation. Interestingly, physical punishment is positively related to achievement in this sample of Negro students. This result, when considered along with other aspects of discipline, leads us to conclude that the type of discipline used is of less importance than the fact that the parents are using a pattern of discipline which the student perceives as "firm but not harsh." In other words, one might find that an effective pattern of discipline includes spanking, and a willingness to discuss rules and to provide the child with an opportunity to have his opinion considered when parents are making decisions that concern him.

Working mothers exert more influence in family decision making than non-working mothers. But the socioeconomic status of the mother's occupation is an important determinant of the effects of mother's employment on academic achievement. Children whose mothers have high status occupations have higher vocabulary test scores than those whose mothers have low status occupations and those whose mothers are housewives. Mother's employment is not related to school grades, self-concept of ability, self-esteem, test ability, or alienation. It is significantly related to conformity, but only for southern males and northern females. In both of these samples, high conformity scores are found among children of housewives and mothers who have low status jobs.

Parental satisfaction with student's grades seems to be the most significant family background variable for academic achievement. Factor analysis revealed that this variable is similar in content to the Self-Concept of Ability Scale. Combinations of this variable with the other self-concept of ability items resulted in a slightly more effective Self-Concept of Ability Scale (see Chapter VI). It is probable, however, that this one item is about as good for predicting grades as the original Self-Concept of Ability Scale. Both of these variables yield larger correlation coefficients for white students than for Negro students. For example, the revised ten item Self-Concept of Ability Scale correlates .57 with grades of northern Negro boys attending biracial schools, but correlates .73 with grades of white boys attending the same schools. The pattern is similar for Negro and white girls at these schools (.55 and .64 respectively). We conjecture that this reflects different definitions of satisfactory performance in the Negro and white samples. Both students and parents in the Negro community may be satisfied with a lower level of performance than white students and parents.[1] We have no way of testing this hypothesis with the present data, but it may be a useful lead for further study.

Mothers' scores on personality scales were not strongly related to students' vocabulary scores or grades. In general, there is not much evidence of direct transfer of personality traits from mother to child in this sample. Correlation analysis (not reported in Chapter V) does indicate, however, that there is a tendency for children of mothers who have high internal control scores to have higher vocabulary scores than children of mothers with low control scores. In the southern sample, mother's alienation and perception of limited opportunities scores were negatively (and significantly) related to vocabulary scores of students. Comparing mean scores of mothers of students attending

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[1] This may also reflect a perception that teachers do not grade Negro students as liberally at the upper end of the grade distribution as they do whites.

different schools leads us to conclude that the same ecological variables that are associated with students' personality scores are also related to the mother's personality scores. It is our opinion, however, that little of educational value will result from studying mothers' personality traits.

Geographic mobility in the parents' generation was found to be positively related to students' academic achievement. Contrary to our predictions, children of migrants to either a southern or a northern city have higher academic achievement than children of persons born in the city. As predicted, however, mobility involving the students in our study tends to be negatively related to academic achievement.

Age at which the mother reported expecting children to be able to do things for themselves (early independence training) was found to be significantly related to test anxiety and vocabulary scores, but to be nonrelated to most other variables in this study. The relationship between age of independence training and grades was significant only for southern boys ($r = -.214$).

In the first half of Chapter VI, the interrelationship among background variables, personality variables, and achievement was explored using multiple and partial correlation techniques with five revised scales. Scale revisions were based on a factor analysis of 56 items from the Phase I questionnaire. In this analysis, socioeconomic status was found to be less strongly related to the achievement and aspiration variables than were the personality attitude variables. Results of this analysis also indicate that socioeconomic status is not strongly related to the personality and attitude variables in this sample of Negro students, although some statistically significant relationships are present. For example, low socioeconomic status is associated with a high level of perceived limitations on opportunities and a passive conforming approach to life.

Partial correlation results indicate that only self-concept of ability and vocabulary score are significant predictors of grades when other variables are controlled (other variables included perception of limited opportunities, self-esteem, conformity, and test anxiety). The relationship between self-concept of ability and vocabulary scores disappears when other variables are controlled. Conformity is the most consistent personality correlate of vocabulary score. Sex and regional differences in the relative effectiveness of self-esteem, perception of limited opportunities and test anxiety were quite prevalent.

An analysis which compares the adjustment of high and low achieving Negro students at two northern schools and one southern school is presented in the second half of Chapter VI. This analysis (taken from the thesis by Joseph Morris) found that few of our scales differentiate between high and low achievers at a statistically significant level. The high achievers (grades) had higher mean self-concept of ability scores ($p < .001$), and lower mean conformity ($p < .001$), and alienation scores ($p < .01$). The results for self-concept of ability and conformity held true for both sexes, while the alienation difference was not significant for boys. Neither the education nor occupation of the parents differed significantly between the high and average groups.

Multiple regression analyses were computed for five groups: northern segregated school boys, northern segregated school girls, northern biracial school students of both sexes (because of small sample), southern boys, and southern girls.

There was little uniformity in the predictive combinations across all five groups. The academic variables were usually better predictors than the general adjustment variables. Self-concept of ability and criticism of education each figured in the predictive combinations of four of the five groups.

Cluster analysis, a technique which delineates groups of subjects who have statistically similar profiles on psychological variables, was used to investigate possible differences between Negro and white students at the biracial school. In this study, clusters include students who have similar strengths and lacks over the fourteen attitudinal measures. This analysis was designed to answer the following question: "Are there general achievement orientations that are characteristically white or Negro?" Results indicate that race is a variable of little or no significance in cluster formation. The same was true for sex. Clusters did differ in the amounts of over and underachievement. Students in the high achievement clusters tended to have high self-concept of ability scores, high self-esteem, and high aspirations. They tended to be lower than average in alienation and criticism of education. The low achieving clusters were characterized by an opposite pattern, high test anxiety, alienation, criticism of education, and conformity, but low self-concept of ability and self-esteem.

In summing up the results of this survey, it seems apparent that the personality characteristics of the individual students rather than family structure or socioeconomic status are the best predictors of academic achievement of Negro students (within each sex and region). There are important regional, racial and sex differences in achievement, but the design of the study does not permit us to explain these differences satisfactorily. Even the best design would encounter serious problems in attempting to account for race, regional, and sex differences in grades since it is probable that there is a strong interaction of student characteristics, teacher grading practices, and different educational expenditures, traditions, and facilities.

We should not be too surprised that questions asking the student how well he is doing in school (or how satisfied his parents are with his school work) are the best predictors of grades. These self reports are based on the students' actual experiences and, therefore, should be predictive in all school settings. It is instructive to note that mean Self-Concept of Ability Scores do not differ very much by school and that they are most effective as predictors in the most competitive schools. Of great significance is the fact that self-concept of ability is more effective than verbal ability scores for predicting grades of northern Negro students.

The students' perception of his own competence may be viewed as the personality characteristic that is most strongly associated with academic achievement. In school achievement, this is reflected by his self-concept of his ability relative to his peers. If achievement is measured by performance on tests, sense of personal control (also measured by conformity scores, alienation scores, and perception of limited opportunities scores) is the most relevant variable. These same variables, together with ability scores, account for much of the variation in aspirations.

Finally, social background seems to exert its greatest influence in the area of aspirations. The strongest effects of socioeconomic status and father absence seem to be in the areas of perception of limited opportunities and amount of expected future education. These results indicate that structual barriers to higher education for lower status students should be a primary target of future intervention efforts.

CHAPTER VIII

Results of Experiment: Situational Factors, Motivation and Performance[1]

The results of previous research (Katz and Greenbaum, 1963; Katz, Roberts, and Robinson, 1965; Katz, Robinson, Epps, and Waly, 1964) suggest that the race of the person administering a test may influence test results of Negro high school and college students. In an experiment involving Negro elementary school children (Katz, Henchy and Allen, 1968), it has also been demonstrated that the race of the experimenter influences learning.

One explanation of the race of experimenter effect is that approval by a white person has a facilitating effect on Negro motivation and performance (Katz, 1964), while disapproval by a white person has a debilitating effect on Negro motivation and performance. Unpublished research by this author and his colleagues also suggests that previous experience with white peers and authority figures mediates the race of experimenter effect. Thus, one would expect the effect to be greater in the south than in the north, and greater in segregated northern schools than in integrated northern schools.

Previous research has focused on the effect of race of experimenter on attitudes, performance and learning. This study investigates the effect of race of experimenter and approval (success instructions) or disapproval (failure instructions) on need for achievement scores (n Ach), hostility scores, and vocabulary scores of northern and southern Negro students. We predicted significant main effects for: (1) Race of Experimenter; (2) Instructions; (3) Sex; and (4) Region. Sex and region were included as variables because previous research found that Negro girls scored higher than Negro boys on measures of n Ach (Mingione, 1965), while another study (Nuttall, 1964) found that both region of birth and sex interacted with n Ach scores to predict racial militancy. Racial militancy or willingness to express hostility toward a white person might be reflected in n Ach scores when the experimenter is white.

Method

Approximately 400 students from each of four high schools in Atlanta, Georgia, and Detroit, Michigan, were randomly selected to participate in a study in which they were administered vocabulary tests and an attitude and background questionnaire. From this group of students, 125 were later chosen from each high school to be subjects (Ss) in the present experiment. Each of these students was then, also on a random basis, assigned to one of four experimental conditions: (1) White experimenter with instructions that S performed above average on the previous tests given; (2) white experimenter with instructions that S had performed below average; (3) Negro experimenter with instructions that S had performed above average; and (4) Negro experimenter with instructions that S had performed below average on previous tests. Two of the Detroit high schools involved in this experiment were integrated, but the white students who participated were left out of the analysis since the main purpose was to study n Ach of urban Negro high school youths. Therefore, the total number of students

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[1]Judith Kovan Cohen is co-author of this chapter.

involved in this study is 725; 405 from Atlanta and 320 from Detroit. Each student who participated in the experiment was paid $2 for his time.

As each student entered the room of his experimenter, he was handed an envelope containing his "results" on the previous test, more vocabulary tests, a Follow-Up Questionnaire, and a TAT protocol. The TAT did not use the standard pictures, but was made up of word cues, i.e., a one-line word picture written on each protocol was presented to the students as stimulus material. The male protocols consisted of the following image phrases:

1. Two men in a shop working on a machine.
2. A man working alone in his office at night.
3. A boy at his desk with some work in front of him, with his head resting on his hand.
4. A young man talking about something important with an older man.
5. A young man seated at his desk in his office.

The cues for female protocols consisted of:

1. Two women in an office typing.
2. A woman working alone in her office at night.
3. A girl at her desk with some work in front of her, with her head resting on her hand.
4. A young woman talking about something important with an older woman.
5. A young woman seated at her desk in her office.

The students were given five minutes per phrase and were asked to answer the following questions for each one:

a. Who is this person? What is he doing?
b. What has led up to this? What went in before?
c. What does he want? How does he feel?
d. What will happen? How will it end?

Before the students were asked to complete the protocols, they were first introduced to their experimenters who presented themselves as being from a college in the surrounding area. They were then given the Michigan Vocabulary Test Number 1; a three-minute test of very easy words which was more of a speed and motivation test than a test of vocabulary knowledge. Secondly, they were given a harder vocabulary test entitled Vocabulary Test, Form III, 1966; another three-minute test which tested knowledge and ability along with motivation. Both of these vocabulary tests had been administered to these same students along with several others in the previous testing situation. After this, the students were given the TAT phrase-image stories and asked to complete each one within a specified time limit. Finally, they were given time to complete a long questionnaire containing questions about family life and personality characteristics.

TAT protocols were scored for n Ach and amount of hostility present in the themes. All scoring was done by one person who was trained by an expert scorer in the Atkinson (1958) scoring system. Vocabulary scores are change scores; second test score minus first test score. A constant of 100 was added to raw change scores

Results

Achievement Motivation

Significant main effects were predicted for race of experimenter, success or failure feedback, sex, and region of residence. Therefore, a multiple analysis of variance program was used, with n Ach as the dependent variable and sex, race of experimenter, type of feedback, and region as independent variables. The results of this 2 x 2 x 2 x 2 analysis are presented in Table 64. Only one significant result emerged from this analysis of variance; male n Ach scores were significantly higher than those of females. There was a strong tendency for students who received instructions which said that their previous performance was below average (failure instructions) to have higher scores than students who were told that their previous performance was above average (success instructions), but the results were not statistically significant. The race of the experimenter and the student's region of residence were not related to their achievement motivation scores.

Expression of Hostility

The expression of hostility in the imaginative production of our students was significantly more prevalent among northern students than among southern students (Table 65). This supports previous research (Karon, 1958) which found the tendency to suppress hostility to be stronger among southern Negro students than among northern students. We had expected a race of experimenter effect, but this did not turn out to be statistically significant. There was a significant interaction involving race of experimenter and type of instructions. When the experimenter was Negro, hostility scores were usually higher for students who were told their previous performance was above average. This result was strongest in the south. When the experimenter was white, there was no consistent pattern. The race of experimenter x sex interaction was almost significant. Females expressed more hostility when the experimenter was white; northern males expressed more hostility when the experimenter was Negro; southern males' hostility was affected by instructions and did not result in a consistent pattern with respect to race of experimenter.

Vocabulary Change Scores

Changes in scores on the "hard" vocabulary test (Table 66) were relatively unaffected by any of the independent variables included in the analysis of variance. The main effect for sex almost reached significance, as did the race x instructions interaction effect. Girls tended to have higher scores than boys. Changes in scores on the "easy" vocabulary test were related to sex (main effect significant at .01 level). A significant sex by race of experimenter effect was also present. Girls tended to have higher scores when the experimenter was Negro; boys scores were higher when the experimenter was white (Table 67).

Discussion

The results reported above indicate the dependent variables, n Ach, hostility, and performance on hard and easy vocabulary tests, are relatively unaffected by such situational variables as race of test administrator, success or failure instructions. These results may indicate that need for achievement and patterns of test performance have stabilized by the time a student reaches high

TABLE 64

Achievement Motivation Score by Sex, Race of Experimenter, Instruction (C), and Region

Sex	Race of Experimenter	Region: South, Instructions: Above	Region: South, Instructions: Below	Region: North, Instructions: Above	Region: North, Instructions: Below
Male	Negro	5.7561 (41)	6.6078 (51)	5.7273 (33)	6.5143 (35)
Male	White	5.2857 (59)	6.2500 (48)	6.4103 (39)	6.7333 (30)
Female	Negro	5.622 (45)	4.2123 (56)	4.5556 (45)	5.1304 (46)
Female	White	4.2549 (51)	4.6400 (50)	4.1163 (43)	5.0930 (43)

	F (1,689)		F
Sex x Race x Inst x Region	0.1568	Race x Inst	.2984
Sex x Race x Inst	1.6701	Race x Region	.9377
Sex x Race x Region	.4459	Inst x Region	.8020
Sex x Inst x Region	2.5940	Sex	33.4180**
Race x Inst x Region	.9341	*Race	.4806
Sex x Race	.3909	Instructions	2.3168
Sex x Inst	1.7412	Region	.2967
Sex x Region	1.1906		

*Race of experimenter.
**.001

TABLE 65

Hostility Score by Sex, Race of Experimenter

Sex	Race of Experimenter	Region: South, Instructions: Above	Region: South, Instructions: Below	Region: North, Instructions: Above	Region: North, Instructions: Below
Male	Negro	6.3902 (41)	5.7451 (51)	6.8485 (33)	7.4286 (35)
Male	White	5.9388 (49)	6.0625 (48)	6.7692 (39)	6.8000 (30)
Female	Negro	6.3556 (45)	5,8750 (56)	6.5333 (45)	6.1739 (46)
Female	White	6.9412 (51)	6.2800 (50)	6.7674 (43)	6.7442 (43)

TABLE 65 (Cont)

	F (1,689)		F
Sex x Race x Inst x Region	1.8065	Race x Inst	4.9099***
Sex x Race x Inst	.0418	Race x Region	.1941
Sex x Race x Region	.0913	Inst x Region	1.7360
Sex x Inst x Region	.0809	Sex	.0030
Race x Inst x Region	.2231	*Race	.9237
Sex x Race	3.4223**	Instructions	1.8306
Sex x Inst	1.6410	Region	10.1706****
Sex x Region	.1911		

*Race of experimenter.
**almost .05
***.05
****almost .0001

TABLE 66

Hard Vocabulary Change Score by Sex, Race of Experimenter, Instructions, and Region

Sex	Race of Experimenter	Region: South, Instructions: Above	Region: South, Instructions: Below	Region: North, Instructions: Above	Region: North, Instructions: Below
Male	Negro	100.5610 (41)	100.8039 (51)	101.4848 (33)	101.8286 (35)
Male	White	101.5102 (49)	101.6667 (48)	101.2820 (39)	103.8667 (30)
Female	Negro	101.8889 (45)	102.4464 (56)	101.9778 (45)	103.0217 (46)
Female	White	102.4118 (51)	102.9800 (50)	101.7907 (43)	101.3488 (43)

	F (1,689)		F
Sex x Race x Inst x Region	1.6123	Race x Inst	3.0533
Sex x Race x Inst	1.1338	Race x Region	1.3305
Sex x Race x Region	.8948	Inst x Region	.3156
Sex x Inst x Region	.9028	Sex	3.7875*
Race x Inst x Region	.0125	Race	.6919
Sex x Race	1.8163	Inst	2.1480
Sex x Inst	.1119	Region	.3584
Sex x Region	.0008		

*Almost .05

TABLE 67

Easy Vocabulary Change Scores by Sex, Race of Experimenter, Instruction and Region

Sex	Race of Experimenter	Region: South, Instructions: Above	Region: South, Instructions: Below	Region: North, Instructions: Above	Region: North, Instructions: Below
Male	Negro	106.2927 (41)	108.8039 (51)	108.5757 (33)	105.1429 (35)
Male	White	109.0408 (49)	108.6250 (48)	108.9231 (39)	110.0667 (30)
Female	Negro	113.6000 (45)	110.6071 (56)	111.5333 (45)	115.8913 (46)
Female	White	110.7255 (51)	104.8800 (50)	112.9302 (43)	108.3721 (43)

	F (1,689)		F
Sex x Race x Inst x Region	2.5863	Race x Inst	1.4446
Sex x Race x Inst	1.9971	Race x Region	.2351
Sex x Race x Region	.0002	Inst x Region	.3320
Sex x Inst x Region	2.4506	Sex	6.7527**
Race x Inst x Region	.0038	Race	1.4175
Sex x Race	7.0004**	Instructions	1.2062
Sex x Inst	1.1603	Region	1.6284
Sex x Region	2.0705		

**.001

school and are, therefore, resistant to temporary situational influences. The finding that hostility scores are subject to regional variation and that race of experimenter and instructions interact to predict hostility scores suggests that this variable is more sensitive to situational influences than need for achievement in this population. The significant interaction of sex and race of experimenter in predicting change scores on the easy vocabulary test supports the notion that the relative effect of these situational variables depends on the susceptibility of the dependent variable to situational influences as well as the characteristics of the population being studied.

The finding that achievement motivation scores of males are significantly higher than those of girls can be best explained as an instrumentation effect. The cue phrases used to elicit the imaginative production upon which the n Ach scores are based were different for the two sexes. Subsequent experimentation with a small sample of southern Negro college girls suggests that girls' n Ach scores are higher on the average when they are asked to respond to the same cue phrases used with males. Mean differences between two groups of girls tested with neutral instructions were significant at the .05 level of confidence. The difference favored the girls who responded to the "male" cues. This hypothesis should be further tested in future research with this instrument.

The relationship of achievement motivation to other variables was also explored. The n Ach scores of Negro students attending segregated northern schools were compared with those of Negro students attending biracial northern schools. A multiple analysis of variance using sex, race of experimenter and type of instructions to predict n Ach scores produced the results presented in Tables 68 and 69. Again, there was a significant main effect only for sex. Male scores (because of the instrumentation) were higher than female scores. In both samples, in addition, there was a significant interaction of race of experimenter and instructions. Students attending segregated schools had highest achievement motivation scores when told their previous performance was below average by a Negro experimenter, and their next highest scores when told that their previous performance was above average by a white experimenter. These students' n Ach scores were lowest when they were given failure instructions by a Negro experimenter. Students attending biracial schools showed an opposite pattern. At biracial schools, students exhibited highest n Ach when they were told by a white experimenter that their previous performance was below average. Males' scores were lowest when they were given failure instructions by a Negro, but females' scores were lowest when they received success instructions from a white experimenter. These differences in the way these situational variables influence n Ach scores at segregated and biracial schools are probably attributable to differences in students' experiences with white students and teachers at the two types of schools.

TABLE 68

Achievement Motivation in Northern Segregated Schools

	Males		Females	
	Instruction		Instruction	
Race of Experimenter	Above	Below	Above	Below
Negro	5.25	7.17	3.81	5.13
White	6.15	5.79	4.29	4.17

Effect	F-ratio	Effect	R-ratio
Sex x Race x Instruction	.2015	Sex	14.3518***
Sex x Race	0.0000	Race	.2337
Sex x Instruction	.0404	Instruction	1.4483
Race x Instruction	3.9264*	Grand Mean	498.3178

df = (1,175)

TABLE 69

Achievement Motivation in Northern Biracial Schools

	Males		Females	
	Instruction		Instruction	
Race of Experimenter	Above	Below	Above	Below
Negro	7.00	5.25	5.21	5.14
White	7.00	8.36	3.95	6.26

Effect	F-ratio	Effect	F-ratio
Sex x Race x Instruction	.0794	Sex	6.9060***
Sex x Race	1.5648	Race	.8496
Sex x Instruction	1.1965	Instruction	1.2713
Race x Instruction	4.6582*	Grand Mean	347.8918

df = (1,123)

Conclusions

In the south and in the northern segregated schools, there is a tendency for achievement motivation scores to be higher when the instruments are administered by a Negro. There is also a tendency for instructions and race of experimenter to interact differently when students at segregated and biracial schools are compared. These results imply that the amount of previous experience with white students and teachers mediates the effect of these situational variables on need for achievement scores of Negro students. The results of our analysis involving hostility scores also provide support for this contention. The fact that the highest n Ach scores are obtained by a white test administrator in biracial schools and by a Negro test administrator in segregated schools has important implications for testing programs.

Our data, taken as a whole, seem to suggest that testers would benefit from experimentation designed to test the relative susceptibility of their instruments to situational influences. It is probably that such experimentation will show that achievement tests (with a high level of difficulty) will be relatively unaffected by situational influences, but that personality and attitude tests and other tests with low level of difficulty will be more susceptible to such influences.

CHAPTER IX

Concluding Statement

In this chapter an attempt will be made to assess the extent to which the questions raised in Chapter I have been answered by the results of this study. A question by question summary is presented below.

1. The first question raised was: "What effect does socioeconomic status within the Negro community have on socialization practices as these relate to the development of achievement orientation in children?"

Most of the evidence bearing on this question is indirect. There is a significant (but low) positive correlation between verbal ability and socioeconomic status in our sample, and there is a significant (and larger) negative relationship between perception of limited opportunities and verbal ability. This same type of relationship exists for other variables. SES is generally positively related to those personality and attitude variables that are positively related to achievement and is negatively related to variables that are negatively related to achievement. In one direct effort to test the differential socialization hypothesis, we found evidence that early independence training <u>is</u> significantly related to test anxiety and vocabulary score in a subsample of our students but that SES <u>is not</u> significantly related to either variable in this group (north-south differences were significant, however).

For the 245 northern and southern students of both sexes for whom we have data on both father's occupation (mother's report) and age of independence training, we find a low negative correlation ($-.14$, $p < .05$) between the two variables. Thus, while there is a significant relationship between socialization and SES, and a significant relationship between socialization and achievement, for this subsample, the relationship between SES and achievement is nonsignificant. Additional research in this area is definitely needed to clarify the hypothesized SES $\longrightarrow$ Socialization $\longrightarrow$ Achievement relationship.

2. "What aspects of family structure are related to achievement orientation?"

Broken homes are negatively associated with achievement orientation, but the type of broken home is a significant mediating variable. For example, homes broken by divorce or separation and those broken by death of the mother are likely to produce children who are low achievers. But, homes that are broken by death of the father are about as likely as intact homes to produce high achievers. Father absence (including divorce and separation) is negatively related to children's achievement, but to a lesser degree than the family's socioeconomic status. Family intactness <u>is not</u> significantly related to either vocabulary scores or grades for <u>boys</u> in this sample.

3. "How does family power structure affect socialization for achievement?"

We found little evidence of any relationship between the amount of paternal influence and achievement orientation. Family power structure appears to be irrelevant to socialization for achievement. "How does the employment of the

mother affect achievement orientation?" We found that mothers who are employed in relatively high status occupations have children with higher achievement than either housewives or mothers employed in low status jobs. We assume that this result is a reflection of the relationship between mother's education and children's achievement.

4. "What specific socialization practices are related to achievement orientation?" Does consistent early pressure for achievement lead to high achievement or does moderate early pressure lead to high achievement motivation?" "What are the differential effects when parental demands are severe or lax or moderate?"

We were able to answer only one part of this question. As pointed out earlier, there is a significant positive relationship between early independence training and achievement. The other related questions were not answered.

5. "How effective are parental encouragement (rewarding) of achievement behavior and parental discouragement (punishment) of nonachievement in developing positive achievement motives, values and behavior?"

We have only indirect evidence related to this question. Two scales designed to measure parental support (nurturance) were included in the study. Neither was found to be an important correlate of achievement.

6. "To what extent are there differences in socialization practices between northern and southern families?"

Strong evidence attests to differences in vocabulary score and aspirations when northern and southern students are compared. There is also evidence that northern Negroes are somewhat better off socioeconomically than southern Negroes. Southern Negro students feel more deprived and more alienated than northern Negro students. When the two groups were compared on early independence training, we found that northern mothers expected earlier independence than southern mothers (significant for boys).

7. "Do Negro children perceive the opportunity structure as relatively closed to them?" Do they feel that there is a low probability that they can attain their occupational and educational goals?"

We pointed out in Chapter III that white students at the middle-class school have higher educational expectations than either Negroes or whites at other schools. Since only about 40 percent of the students in our sample say they expect to graduate from college, it seems reasonable to conclude that the majority of our students see the opportunity (educational) structure as closed. This statement applies equally to working-class white students.

8. "Is there a difference in the way southern and northern Negro youngsters perceive the opportunity structure?"

The answer is definitely yes. Northern students have, in addition to higher vocabulary scores, less alienation and lower perception of limited opportunities scores. Northern males also have significantly higher educational aspirations and expectations than southern males. On nearly all measures except vocabulary score, however, students at the most middle-class southern school had more favorable scores than northern students at segregated schools.

9. "How do the pressures of segregation and discrimination affect perception of the opportunity structure?" Do Negro youth in a restrictive community, compared to those in a less restrictive community, view the opportunity structure as relatively closed?"

For the most part, aspiration patterns within each city follow the social class memberships of the school student bodies. As indicated in the previous sections, there is some overlapping of achievement orientation when the two cities are compared. If the northern city is viewed as open (relatively) and the southern city is viewed as closed, the finding that average male aspirations are lower in the southern city supports the hypothesis that restrictions on opportunities depress aspirations.

10. "To what extent do Negro youth internalize negative stereotypes? Do they develop feelings of inferiority relative to whites? Do feelings of inferiority tend to be related to skill areas which Negroes are stereotyped as lacking? Are there north-south differences in self-esteem?"

Our data do not provide direct answers to most of these questions. But the indirect evidence clearly fails to support any notion that low self-esteem is characteristic of Negro students in either the north or south. Even on self-concept of academic ability there are no significant racial or regional differences. This suggests that students use their immediate peer group as referents when answering the kinds of questions included in these scales.

Two measures do provide limited support for the negative self-image hypothesis. The Perception of Limited Opportunities Scale and the Alienation Scale may be conceptualized as measures of self-perception (both are negatively correlated with self-esteem, -.54 and -.35, respectively, for male students). On these measures, Negro students (and low SES students) tend to have lower scores than white students (and high SES students).

11. "To what extent do Negro youngsters fear or resent competition and evaluation by middle-class standards? Does the fear or resentment impair performance in competitive evaluative situations involving middle-class standards? Are there north-south differences in this fear or resentment? Are fear and resentment expressed as anxiety and hostility in competitive situations?

The answers to these questions and to Questions 12 and 13 were sought through experimentation. However, the questions posed in this series could not be answered in one experiment. The results reported in Chapter VIII are primarily concerned with the effects of the immediate situation on students' vocabulary, n Ach, and hostility scores. The relation of background factors to students' susceptibility to situational influences was also investigated. Race of experimenter and success or failure feedback were the situational factors investigated, while sex and region (north-south) were included as background factors in an analysis of variance design. Only sex was significantly related to n Ach scores, but northern students expressed more hostility than southern students. We had expected southern students to repress hostility more with a white experimenter than with a Negro experimenter under stressful conditions (failure instructions). The results were in the opposite direction to that predicted. Southern males had the lowest hostility scores, however, while northern males had the highest scores. There is a tendency in segregated schools, both north and south, for achievement motivation scores to be higher when the tests are

administered by a Negro. The optimal condition for n Ach scores at biracial schools occurred when a white experimenter told students their previous performance was below average. The opposite pattern was optimal for students at northern segregated schools and for southern boys. These results indicate that more carefully designed experiments are needed to explore the relationship of situational factors to motivation. It seems implied from our results that the more stable the personality characteristic, the less likely it is that it will be influenced by situational factors. It is probable that, under average testing conditions, group achievement test scores will not be greatly affected by the race of the tester when urban Negro high school students are subjects. Our data do indicate that some tests and some personality assessment instruments can be affected by situational factors and that students' prior interracial experiences mediate these situational effects.

Implications

In this survey we have identified instruments that predict grades, vocabulary scores, and aspirations in such diverse samples as northern whites, northern Negroes, and southern Negroes attending schools of widely differing quality. It may be inferred from some of the results that many of the measurable personality differences found between Negro and white students or northern and southern Negro students are attributable to differences in verbal ability. Additional analysis of the data will explore this question in greater detail. It could be hypothesized that "Negro and white students of equal measured ability do not differ significantly in measured personality characteristics."

Our data indicate that race, region, socioeconomic status, and family structure are not direct determinants of academic achievement. They serve, rather, as mediating settings in which personality, motivation, and aspirations develop. This does not deny the fact that ecological factors are strongly associated with verbal ability and aspirations. What we are suggesting is that there is an identifiable cluster of personality-attitude variables that are associated with high achievement independently of these ecological factors. High achieving students tend to have high self-concept of ability, a strong sense of control over the environment, and high aspirations. They tend to be lower than average in alienation, conformity, and perception of limited opportunities. Low achieving students tend to be high on those characteristics on which high achievers have low scores, and low on the characteristics on which high achievers have high scores. This pattern is present within each race, region, social status, sex, and family structure group. Mean differences between ecological groups are indicative of the fact that within each ecological group, different proportions of students are likely to develop the "achieving personality" characteristics.

The three personality measures deemed most promising for further research are the Self-Concept of Ability Scale, the Conformity Scale, and the Personal Control Scale. Ecological factors are related to each of these variables in a predictable fashion. It is probable, however, that the association between these variables and ecological factors is based on a common association of both sets of variables with measured ability (vocabulary test scores). One indication of this is the finding that when personality and attitude variables as well as vocabulary scores are controlled through partial correlation, the association between socioeconomic status and grades in school becomes negative in those groups of Negro students in which the zero order coefficients were nonsignificant and approaches zero for the group in which the zero order correlation between grades and socioeconomic status was positive and significant.

The high school itself may be viewed as an ecological unit as we have pointed out in other sections of this report. Thus, when we compare mean scores of students attending different schools on the personality characteristics associated with achievement, we would expect the personality means to covary with the average socioeconomic status of the high school. Our results indicate that these expectations are supported by the data. Schools whose students have the highest verbal ability scores usually have students with higher than average educational and occupational aspirations, socioeconomic status, self-concept of ability, achievement values, and middle-class job preferences. Schools with low mean verbal ability scores tend to have rather high scores on alienation, conformity, perception of limited opportunities, and lower-class values.

What are the implications of these results for educational intervention? Two general approaches are indicated. One approach would focus on helping individual low achievers improve their performance and raise their aspirations. An example of this approach is a project conducted by Brookover, et al. (1965), in which they demonstrated that individual students' school grades can be improved (at least temporarily) by changing parents' perceptions of students' academic ability. One weakness of this approach is that self-concept of ability and parental expectations are usually based on local norms (i.e., the school the student attends). If the achievement norms of the school are low compared to national norms, raising a student's grades may still leave him far behind students attending schools with higher achievement norms. Efforts to raise the test scores of individual students or groups of students have not been very fruitful either. We are left, then, with the conclusion that somehow performance standards of groups with a history of low achievement must be raised, but no good suggestions as to how to go about raising these standards.

We found, as did Coleman, et al. (1966), that individual social class explains more variation in verbal ability than school characteristics. But, even with social class controlled, students attending biracial schools and students attending a predominently middle-class biracial school have higher verbal ability scores than students attending a predominantly working-class biracial school. We have not, however, ruled out the possibility (and it is a very strong possibility) that selection factors account for much of the school effect. Still, it would appear that the best suggestion we could offer Negro parents who have high educational aspirations for their children would be to send them to biracial schools with predominantly middle-class students.

The alternative to the individual upgrading approach is the collective effort to improve the life-style of the whole community. In order to raise the achievement levels of populations that have a history of poor performance, it will be necessary to work at changing their expectancies. This means that the standards of performance considered adequate in a population (e.g., southern Negroes) will need to be raised toward the national average. The standards of teachers, parents and students will all have to be changed. This will require a national assessment program with systematic feedback to parents, teachers, and students informing them of where they stand and what it means in nationwide competition for jobs and college placements. In other words, the emphasis must be on the relevance of academic achievement for future success.

This last statement may seem to be begging the question, but we must accept the fact that no effort to change standards will have any effect unless it is accompanied by meaningful opportunities for individuals to use their educational attainments for occupational and economic advancement. The competence syndrome

mentioned at several points in this report assumes that there is a direct relationship between accomplishments and rewards. We may state this in hypothesis form as follows: "There is a negative correlation between average level of competence in a population and the amount of discrimination encountered by members of that population." An alternative way of stating this proposition is that "Competence is high in populations where efforts to achieve are closely associated with rewards for high achievement."

We conclude, then, by stating that what seems to be needed is an effort to raise achievement standards. This can be accomplished by providing parents, teachers, and students with guidelines defining what is meant by adequate performance. This effort must, however, be accompanied by the elimination of discriminatory practices which make it difficult for persons in low achievement populations to perceive the expected relationship between academic achievement and occupational and economic success.

For the immediate future, efforts to increase the amount of school integration would seem to offer the greatest hope for improving test performance of large numbers of Negro students. It is not likely, however, that these gains in test scores will be accompanied by higher grades. There is a suggestion in our data that Negro students attending a highly competitive biracial school have lower grades than Negro students of comparable ability attending less competitive schools. There is also a tendency for anxiety to be high among Negro students at the most competitive school. Thus, Negro students may find that they will have to pay a high price for better education.

APPENDIX A

Scales Used From the Phase I Questionnaire

Self-Concept of Ability

49. How do you rate yourself in school ability compared with your close friends? I am the best; I am above average; I am average; I am below average; I am the poorest.

50. How do you rate yourself in school ability compared with those in your class at school? I am the best; I am above average; I am average; I am below average; I am the poorest.

51. Where do you think you would rank in your class in high school? Among the best; above average; average; below average; among the poorest.

52. Do you think you have the ability to complete college? Yes, definitely; yes, probably; not sure either way; probably not; no.

53. Where do you think you would rank in your class in college? Among the best; above average; average; below average; among the poorest.

54. 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? Very likely; somewhat likely; not sure either way; unlikely; most unlikely.

55. Forget for a moment how others grade your school work. In your own opinion, how good do you think your work is? My work is excellent; my work is good; my work is average; my work is below average; my work is much below average.

56. What kind of grades do you think you are capable of getting? Mostly A's; mostly B's; mostly C's; mostly D's; mostly E's.

Test Anxiety Questionnaire

Questions 57-72 of the TAQ use the following alternatives: Always; often; sometimes; seldom; never.

57. While taking an important examination, I perspire a great deal.

58. I get to feel very panicky when I have to take a surprise exam.

59. During tests, I find myself thinking about what it would mean to fail.

60. After important tests, I am so tense that my stomach gets upset.

61. While taking an important exam, I find myself thinking of how much smarter the other students are than I am.

62. I freeze up on things like intelligence tests and final exams.

63. If I were to take an intelligence test, I would worry a great deal before taking it.

64. During final exams, I find myself thinking of things that have nothing to do with the actual course material.

65. During a final exam, I get so nervous that I forget facts that I really know.

66. If I knew I was going to take an intelligence test, I would feel confident and relaxed beforehand.

67. I get depressed after taking a test.

68. I have an uneasy, upset feeling before taking a final exam.

69. When taking a test, my emotional feelings interfere with my performance.

70. Getting a good grade on one test seems to increase my confidence on the second.

71. After taking a test, I feel I could have done better than I actually did.

72. I feel my heart beating very fast during important tests.

Awareness of Limited Opportunities

Questions 73-86 of the ALO use the following alternatives: Strongly agree; agree somewhat; disagree somewhat; strongly disagree.

73. I probably won't be able to do the kind of work that I want to do because I won't have enough education.

74. A person like me has a pretty good chance of going to college.

75. Most people are better off than I am.

76. I'll never have as much opportunity to succeed as kids from other neighborhoods.

77. I am as well off as most people.

78. The world is usually good to people like me.

79. Unless my family can afford to move out of our neighborhood, I won't get ahead very fast.

80. I won't be able to finish high school because my family will want me to get a job.

81. There is a good chance that a lot of my friends will have a lot of money.

82. My family can't give me the opportunities that most kids have.

83. I'll never have enough money to go to college.

84. There isn't much chance that a person from my neighborhood will ever get ahead.

85. If a person like me works hard, he can get ahead.

86. To be successful, I may have to turn a dirty deal here and there to get what I want.

Self-Esteem Index

Questions 87-96 of the self-esteem index use the following alternatives: Strongly agree; agree somewhat; disagree somewhat; strongly disagree.

87. I feel that I'm a person of worth, at least on an equal plane with others.

88. I feel that I have a number of good qualities.

89. All in all, I am inclined to feel that I am a failure.

90. I am able to do things as well as most other people.

91. I feel I do not have much to be proud of.

92. I take a positive attitude toward myself.

93. On the whole, I am satisfied with myself.

94. I wish I could have more respect for myself.

95. I certainly feel useless at times.

96. At times, I think I am no good at all.

Alienation Index

Questions 97-99 and 101-104 of the alienation index use the following alternatives: Strongly agree; agree somewhat; disagree somewhat; strongly disagree.

97. When a man in born, the success he's going to have is already in the cards, so he might as well accept it and not fight it.

98. Nowdays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself.

99. Planning only makes a person unhappy since your plans hardly even work out anyhow.

101. People who get all A's in school usually aren't well liked.

102. Having friends who have more money than you do usually leads to unhappiness.

103. If you get a really good job, you will probably meet people who don't like you.

104. Most people who do well in school are unhappy later on in life.

Criticism of Education

Questions 105-110 of the criticism of education scale use the following alternatives: Strongly agree; agree; undecided or uncertain; disagree; strongly disagree.

105. A high school student should take the school courses which his parents decide would be best for him.

106. Most teachers are not rigid and narrow minded.

107. Most teachers don't understand the needs and interests of their students.

108. Most teachers show equal fairness and impartiality toward all.

109. It is almost always possible for the average student to do all his assigned homework.

110. The main reason students cheat is because of the ridiculous assignments most teachers make.

Conformity Index

Questions 111-113 of the conformity index use the following alternatives: Strongly agree; agree; undecided; disagree; strongly disagree.

111. It is more important to be loyal and conform to your own group than to try to cooperate with other groups.

112. To be successful, a group's members must act and think alike.

113. When almost everyone agrees on something, there is little reason to oppose it.

Rotter Internal-External

Items 121, 125, 126, 133, 135 form the personal control I-E. Items 118, 119, 122, 123, 127, 129-131, 134, 136-138 form the third person I-E.

114. Many of the unhappy things in people's lives are partly due to bad luck.
People's misfortunes result from the mistakes they make.

115. One of the major reasons why we have wars is because people don't take enough interest in politics.
There will always be wars, no matter how hard people try to prevent them.

116. In the long run, people get the respect they deserve in this world.
Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

117. The idea that teachers are unfair to students is nonsense.
Most students don't realize the extent to which their grades are influenced by accidental happenings.

118. Without the right breaks, one cannot be an effective leader.
Capable people who fail to become leaders have not taken advantage of their opportunities.

119. No matter how hard you try, some people just don't like you.
People who can't get others to like them don't understand how to get along with others.

120. Heredity plays the major role in determining one's personality.
It is one's experiences in life which determine what they're like.

121. I have often found that what is going to happen will happen.
Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

122. In the case of the well-prepared student, there is rarely if ever such a thing as an unfair test.
Many times exam questions tend to be so unrelated to course work that studying is really useless.

123. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
Getting a good job depends mainly on being in the right place at the right time.

124. The average citizen can have an influence in government decisions.
This world is run by the few people in power and there is not much the little guy can do about it.

125. When I make plans, I am almost certain that I can make them work.
It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

126. In my case, getting what I want has little or nothing to do with luck.
Many times we might just as well decide what to do by flipping a coin.

127. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
Who gets to be boss depends on who has the skill and ability; luck has little or nothing to do with it.

128. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
By taking an active part in political and social affairs, the people can control world events.

129. Most people don't realize the extent to which their lives are controlled by accidental happenings.
There really is no such thing as "luck."

130. It is hard to know whether or not a person really likes you.
How many friends you have depends upon how nice a person you are.

131. Without the right breaks, one cannot be an effective leader.
Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

132. Sometimes I can't understand how teachers arrive at the grades they give.
There is a direct connection between how hard I study and the grades I get.

133. Many times I feel that I have little influence over the things that happen to me.
It is impossible for me to believe that chance or luck play an important role in my life.

134. People are lonely because they don't try to be friendly.
There's not much use in trying too hard to please people; if they like you, they like you.

135. What happens to me is my own doing.
Sometimes I feel that I don't have enough control over the direction my life is taking.

136. Knowing the right people is important in deciding whether a person will get ahead.
People will get ahead in life if they have the goods and do a good job; knowing the right people has nothing to do with it.

137. Leadership positions tend to go to capable people who deserve being chosen.
It's hard to know why some people get leadership positions and others don't; ability doesn't seem to be the important factor.

138. People who don't do well in life often work hard, but the breaks just don't come their way.
Some people just don't use the breaks that come their way. If they don't do well, it's their own fault.

Intellectual Achievement Responsibility

139. When you do well on a test at school, is it more likely to be
Because you studied for it, or
Because the test was especially easy

140. When you have trouble understanding something in school, is it usually
Because the teacher didn't explain it clearly, or
Because you didn't listen carefully

141. When you read a story and can't remember much of it, is it usually
Because the story wasn't well written, or
Because you weren't interested in the story

142. If people think you're bright or clever, is it
Because they happen to like you, or
Because you usually act that way

143. Suppose you became a famous teacher, scientist or doctor. Do you think this would happen
Because other people helped you when you needed it, or
Because you worked very hard

144. Suppose you did better than usual in a subject at school. Would it probably happen
Because you tried harder, or
Because someone helped you

145. When you find it hard to work arithmetic or math problems at school, is it
Because you didn't study well enough before you tried them, or
Because the teacher gave problems that were too hard

146. When you find it easy to work arithmetic or math problems at school, is it usually
Because the teacher gave you especially easy problems, or
Because you studied your book well before you tried them

147. If a teacher didn't pass you to the next grade, would it probably be
Because she "had it in for you," or
Because your school work wasn't good enough

148. Suppose you don't do as well as usual in a subject at school. Would this probably happen
Because you weren't as careful as usual, or
Because somebody bothered you and kept you from working

Test of Insight

149. People usually ask to do difficult things because
They want to make themselves important by doing so
They hope to be popular members of the group
They want to test their ability to do well at something difficult

150. Some people always like a good argument because
They think this will make them popular with others
They are interested in many problems and want to clarify their ideas
They hope to get praised for showing how smart they are

151. People who think a lot about how they have done on examinations usually
Have a strong need to do well and always want to improve
Feel that they have not done well enough and worry about it
Want to make a good impression

152. Some people are always trying something new because
They are full of good ideas and enjoy doing and investigating many things
They want to impress people by showing that they are willing to take a chance
This will bring them into contact with a lot of interesting people

153. People who are never slow to express an opinion usually
Feel at home with people and like to participate in discussions
Want to improve their knowledge through give and take
Want recognition and hope to impress people this way

154. People who like to organize groups and committees usually
Want to make up for a lack of ability in other areas
Are natural leaders who like to accomplish important things
Want to feel important

155. Many people feel upset if anyone criticizes or blames them because
They are sure that when they do something they do it right
They have worked hard in order to avoid this kind of failure
They want to be well liked and have many friends

156. Some people don't care much about what other people think of them because
They believe in the long run people will respect and admire their independence
They are determined to achieve the goals they have set for themselves
They are afraid to get too close to other people since they might take advantage of them

157. Many students recite a lot in class because
They think they are important and expect to get a lot of attention
They think that they will learn more that way and want to improve their knowledge
They want people to like them and think this will make them popular

158. The type of student who doesn't put a book down until he knows almost every detail usually does this because
Otherwise he feels insecure and thinks he wouldn't pass his examination
His keen interest in his subjects usually makes him absorb everything he reads
He doesn't have many friends to talk with

159. Some people try to remember the names of everyone they meet because
They get a lot of satisfaction from doing something well
They are proud of their memories and know that people will be impressed by this skill
They are considerate and know that people like to be remembered and are sensitive about their names

160. The student who always works much harder than others usually does so because
Mastering a problem, achieving something difficult, is a thing he enjoys very much
He hopes this good attitude will win many friends
He wants to stand out among others and to prove that his work is superior

Parental Support Scale

34. Does your father ever give you praise, encouragement or approval for what you do? Very often; often; sometimes; rarely; never.

35. Does your mother ever give you praise, encouragement or approval for what you do? Very often; often; sometimes; rarely; never.

36. Do you feel that you can depend on your mother for support and encouragement when you really need it? No, never; rarely; sometimes; most of the time; always.

37. Do you feel that you can depend on your father for support and encouragement when you really need it? No, never; rarely; sometimes; most of the time; always.

Educational Aspiration

21. If you were free to go as far as you wanted to in school, how far would you like to go?
    I'd like to quit right now
    I'd like to go to high school for a while longer
    I'd like to graduate from high school
    I'd like to go to business school or some other technical school
    I'd like to go to college for a while
    I'd like to graduate from college
    I'd like to do graduate work beyond college

Educational Expectation

22. 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 really will go?
    I think I really will quit school as soon as I can
    I think I really will go to high school for a while longer
    I think I really will graduate from high school
    I think I really will go to business school or technical school
    I think I really will go to college for a while
    I think I really will graduate from college
    I think I really will do graduate work beyond college

Occupational Aspiration and Expectation

23. Which of these occupations is most like the one you think you will have when you grow up (girls should check the job that is most like the one they think their future husband will have). Night watchman; auto mechanic; carpenter; mail carrier; bus driver; bookkeeper; drugstore owner; high school teacher; doctor.

23a. If you were free to choose any job you wanted, what job would you most like to have when you grow up (you may include jobs that are not on the list above)?

23b. What do you think you actually will do?

Achievement Attitude Scale

24. If you had an opportunity for a good job which did not require finishing school, do you think you would quit school to take the job?
    Probably would take the job
    Might take the job
    Probably would <u>not</u> take the job
    Definitely would <u>not</u> take the job

25. How confident are you that your own ideas and opinions about what you should do and believe are right and best for you?
    Not at all confident
    Not very confident
    I'm a little confident
    I'm quite confident
    I'm completely confident

43. In the years ahead, do you hope to achieve a higher social position than your parents?
   Much higher social position
   Slightly higher social position
   About the same social position
   Lower social position

45. Think of experiences in your life in which you were striving to do well and accomplish something but you never reached your goals. How often would you say this has happened to you?
   Never
   Only a few times
   Several times
   Fairly often
   Very often

46. Sometimes people try difficult things but don't always succeed. What do you usually do when this happens to you?
   Don't try difficult things any more
   Raise my goals considerably
   Raise my goals slightly
   Lower my goals slightly
   Lower my goals considerably

48. How important are your grades in high school for success in the kind of work you expect to be doing when you are 30 years old?
   Most important
   Very important
   Fairly important
   A little important
   Not important

APPENDIX B

Scales Used From the Phase II Questionnaire

Strodtbeck Achievement Scale

Questions 79-91 of the achievement scale use the following alternatives: Strongly agree; agree; undecided or uncertain; disagree; strongly disagree.

79. The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit.

80. Even when teenagers get married, their main loyalty still belongs to their mothers and fathers.

81. When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job opportunity.

82. Nothing in life is worth the sacrifice of moving away from your parents.

83. These days a person doesn't really know whom he can count on.

84. Sometimes I think people ought not to bring children into the world, the way things look for the future.

85. It's silly for a teenager to put money into a car when the money could be used to get started in a business or for an education.

86. All I want out of life in the way of a career is a secure, not to difficult job.

87. Even though parents often seem too strict, when a person gets older he will realize it was beneficial.

88. If my parents told me to stop seeing a friend of my own sex, I'd stop seeing that friend.

89. Parents seem to believe that you can't take the opinion of a teenager seriously.

90. Parents would be greatly upset if their son ended up doing factory work.

91. Education and learning are more important in determining a person's happiness than money and what it will buy.

Holtzman Scale

Questions 102-126 of the Holtzman scale use the following alternatives: Strongly agree; agree; undecided or uncertain; disagree; strongly disagree.

102. Members of my family understand every time I want to go out with others instead of with them.

103. Too much affection will make a child "soft."

104. Strict discipline develops a fine strong character.

105. Children who always obey grow up to be the best adults.

106. If children are to grow up and get somewhere in life, their parents must continuously keep after them.

107. My parents treat me as if I don't know right from wrong.

108. I can't carry on a conversation in a group.

109. I would like to get married as soon as possible.

110. Family problems are always talked over with me.

111. I work hard but never get anything done.

112. My parents always have time to help me.

113. I get mad and do things I shouldn't when I can't get my way.

114. I can never figure out what grownups want me to do.

115. I have trouble making friends easily.

116. I always feel I know what clothes make me look my best.

117. My parents are strict about my going out at night.

118. I'm afraid people will laugh at me because I'm not sure I know how to act.

119. It's important for me not to do anything that would shame others in my family.

120. I feel that I have often been punished when I didn't deserve it.

121. My parents always say their way is the best way when I try to tell them things I learn in school.

122. I never feel I have to do things I don't believe in just to be popular.

123. My parents rarely object to the kind of boys and girls I go around with.

124. I am always afraid in a crowd.

125. My parents like to have me bring friends home.

126. I often feel uncomfortable when around others my age.

Lower-Class Values Scale

Questions 127-139 of the lower-class values scale use the following alternatives: Strongly agree; agree; undecided; disagree; strongly disagree.

127. People should only keep promises when it is to their benefit.

128. Having good manners is the way to get ahead in life.

129. The law is always on the side of the ordinary guy.

130. Only good students go out for after-school activities.

131. It's mostly luck if one succeeds or fails.

132. Don't let anybody your size get away with anything.

133. Only squares take part in school clubs and school programs.

134. Money is meant to be spent.

135. It makes no difference whether you work or go on relief just so you get along.

136. Most police are honest.

137. I should work hard only if I am paid enough for it.

138. The only thing I ought to be responsible for is myself.

139. It doesn't make much difference what a person tries to do; some folks are just lucky, others are not.

Preferred Job Characteristics

Questions 188-202 of the PJC use the following alternatives: Very important; pretty important; a little important; not important.

188. A job where there is no one to boss you around.

189. A job that is steady, no chance of being laid off.

190. A job where you can learn new things, learn new skills.

191. A job where you don't have to work too hard.

192. A clean job where you don't get dirty.

193. A job with good chances for getting ahead.

194. A job that leaves you a lot of free time to do what you want to do.

195. A job where you like your boss.

196. A job where you don't have to take a lot of responsibility.

197. A job where the pay is good.

198. A job that your friends think a lot of - has class.

199. A job that uses your skills and abilities - lets you do the things you can do best.

200. A job that has nice friendly people to work with.

201. A job that doesn't make you learn a lot of new things.

202. A job where you really enjoy the work.

Personal Control Scale

77. Every time I try to get ahead, something or somebody stops me. Strongly agree; agree; undecided or uncertain; disagree; strongly disagree.

78. If a person is not successful in life, it is his own fault. Strongly agree; agree; undecided or uncertain; disagree; strongly disagree.

131. It's mostly luck if one succeeds or fails. Strongly agree; agree; undecided; disagree; strongly disagree.

139. It doesn't make much difference what a person tries to do; some folks are just lucky, others are not. Strongly agree; agree; undecided; disagree; strongly disagree.

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