AN INVESTIGATION OF THE RELATIONSHIP OF EDUCATIONALLY HIGH AND LOW ASPIRING HIGH SCHOOL SENIORS TO SELECTED ATTITUDINAL AND ECOLOGICAL VARIABLES

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ABSTRACT

AN INVESTIGATION OF THE RELATIONSHIP OF EDUCATIONALLY HIGH AND LOW ASPIRING HIGH SCHOOL SENIORS TO SELECTED ATTITUDINAL AND ECOLOGICAL VARIABLES

By John W. Cassell, Jr.

It was the purpose of this hypotheses-generating study to contribute to the growing body of research concerning the educationally high and low aspiring high school senior, Selected ecological and attitudinal factors of college and non-college preference seniors and their peer friend, mostunderstanding teacher, and adult friend choices were explored. A random sample of 2,031 high school seniors from 34 public high schools within the United States was employed in the study.

There is indication from existing research that the students' level of educational aspiration is not only dependent upon intelligence, socioeconomic status and parental encouragement but also upon less apparent and yet unidentified sociological and psychological factors. As educational, business and government personnel learn more about those factors that relate to levels of educational aspiration, they will be better able to meet the intellectual, social and personal needs of both college-aspiring and terminal high school students. It has been shown that Fom 65 to 90 per cent of high school seniors indicating a desire to go to college are enrolled a year later. In this study students were dichotomized, therefore, into college preference (high level of educational aspiration) and non-college preference (low level of educational aspiration) on the basis of their college plans. Socioeconomic status of the student and of their choices of best friends was measured by the Duncan, <u>Socio-economic Index for All Occupations</u>. Personality classification of the students and of their choices of mostunderstanding teachers was determined by the Bills, <u>Index of Adjustment</u> and <u>Values</u>. The students' choices of peer and adult friends and mostunderstanding teachers were obtained from a self-reporting, sociometric questionnaire. A booklet containing the instruments was administered to the students by their classroom teachers under the supervision of Michigan State University, College of Education personnel.

The chi-square test of independence $x^2 = \sum \frac{(fo - ft)^2}{ft}$ was employed in the analysis of the data. The null form of the hypothesis (Ho: a=b) was used. If the null hypothesis was rejected by chi-square analysis (p < 05), the alternative form of the hypothesis (H: a b) was tested by inspection of the contingency table for direction and/or source of difference in distribution. One hundred fifty-six null hypotheses were tested in the study. Thirty-six were rejected at the .05 or lesser levels of confidence.

The statistically significant results of the study took the form of hypotheses for further study and research. It was noted that college

preference high school seniors are primarily from the high socio-economic classes whereas non-college preference seniors are from the low classes. College preference senior males chose peer friends from their own grade level, but non-college preference males selected theirs from the 9th, 10th and 11th grades. Senior girls tended to follow the same pattern. College preference students also selected their peer friends from the high socioeconomic classes or, at least, one higher than their own, whereas noncollege preference seniors chose theirs from the low socio-economic classes or a class lower than their own.

It was observed that college preference students selected mostunderstanding teachers with high socio-economic backgrounds. Noncollege preference seniors, however, chose teachers with low socioeconomic backgrounds. College preference students also selected most of their adult friends from within the school whereas non-college preference seniors chose theirs from outside the school. These and other significant differences between educationally high and low aspiring high school seniors were noted in the study. Certain implications for educational, business, government and social psychological research personnel working with adolescents were drawn from the study.

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By John W. Cassell, Jr.

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CHAPTER I

LEVEL OF EDUCATIONAL ASPIRATION: A CURRENT ISSUE

Each year the number of high school graduates who seek higher education has increased. Large numbers of high school students also either drop out of school prior to graduation or fail to continue their education beyond high school. Better and earlier identification of psychological and sociological factors differentiating high and low aspiring adolescents is currently needed by personnel in education, industry and government. Increased knowledge can help personnel in these fields to adapt counseling, education, training and recreational programs more effectively to the personal and social needs of adolescents.

Purpose of the Study

The primary purpose of this study was to contribute to a better understanding of the educationally high and low aspiring student. Specific variables were employed in this task. Sex, socio-economic status and personality classification of college and non-college preference high school seniors were considered. In addition, selected ecological

and attitudinal characteristics of their choices of peer friends, adult friends and most-understanding teachers were explored.

It was also expected that the results of the study would stimulate further research into the sociological and psychological forces that influence adolescents in the formulation of educational and occupational goals. Personnel in education, industry and government who work closely with adolescents need to know as much as possible about those factors in their environment that relate to their attitudes and values.

High school seniors from a random sample of students in selected public high schools throughout the United States were surveyed. It was believed that the information gained from this investigation would produce evidence of significant relationships between level of educational aspiration and certain personal and social factors existing in the individual's environment.

Since the study was hypotheses-generating in nature, statistically significant results took the form of hypotheses for further research and study. Relationships that were not statistically significant took the form of null hypotheses with suggestions for additional investigation. The contributions of the study relative to the growing body of information regarding the college-aspiring and terminal student were presented in conclusion.

Importance of the Study

Modern technology demands an ever-increasing number of welltrained and educated people. Much of the responsibility for better utilization of human resources falls upon the social sciences. Educational administrators and guidance personnel have been alarmed by high attrition rates with attendant loss to society of academically talented students. Along with personnel workers in business, industry and government, educational personnel have also been aware of a need for improved preparation and training of adolescents who enter the labor market following high school graduation.

In recent years an effort has been made to determine the factors which differentiate the educationally high aspiring from the low aspiring student. These studies have been extremely helpful in identifying some of the financial, social and cultural differences that exist between the two groups. A number of devices have been implemented in an effort to encourage and assist the educationally high aspiring student. Among these are: Federal and private scholarships and loans, pressure to reduce racial and religious barriers, community and junior college programs and improved guidance services at the secondary level. In addition, greater attention than before has been given to adult education, industrial and technical training and distributive education programs in order more effectively to meet the needs of those adolescents who are

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unable or unwilling to enter higher education. Efforts to define those factors influencing adolescents' educational goals have not been futile, but neither have they been wholly successful.

Many important, possibly less tangible, differences between educationally high and low aspiring youth remain unidentified. Additional research into psychological and sociological factors that differentiate college and non-college preference students is necessary. Very little is known about the relationship between the characteristics of significant peer and adult friends and the adolescent's educational goals. More information than is presently available is also required concerning differences in personality and other basic attitudes and values.

Several authors have indicated a need for further, more intensive research into these areas. Miller states that "there is enough supporting evidence to suggest that the relations between level of aspiration and reference groups may constitute a fruitful area of exploration in seeking to understand some facets of the psychological habitat."¹ Van Egmond points out that there is little evidence concerning the teacher's influence on students' attitudes: "Considering the central role which teachers occupy in the socialization process, the limited amount of systematic research regarding their impact on the lives of

¹Carroll H. Miller, <u>Foundations of Guidance</u> (New York: Harper and Brothers, 1961), p. 207.

youth is surprising."² Lipset and Bendix note that "the characteristic family experiences in childhood of the upward mobile and his typical personality structure remain still a relatively unexplored area."³

Wise feels that many educators tend to derive their understandings of college students from stereotypes or from subjective impressions gained from student responses in their courses, personal attitudes toward American youth, or recollections of their own undergraduate days. He believes that a broader knowledge of college students is needed for fuller understanding and more effective teaching. He suggests this deeper understanding be gained by exploring their backgrounds:

Their homes, their age, ability, sex, race, religion--all these are significant. Their purposes in college and in life, their attitudes and motivation, are keys to understanding. Observation of their behavior, their mores, their reaction to courses, activities, and general college life helps to clarify the impression.⁴

Miller also maintains that:

. . . with the exception of delinquency and various other kinds of deviant behavior studies, psychological studies of

²Elmer VanEgmond, "Socialization Process and Education," <u>Review</u> of <u>Educational Research</u>, XXI (February, 1961), p. 85.

³Seymour Martin Lipset and Reinhard Bendix, <u>Social Mobility in</u> <u>Industrial Society</u> (Berkley: University of California Press, 1959), p. 250.

⁴W. Max Wise, <u>They Come for the Best of Reasons</u> (Washington, D.C.: American Council on Education, 1958), p. 3.

values on the secondary school level are notably lacking. Unfortunately, there is no counterpart of the Jacob's report; nor is there the range of material out of which could be built a comparable study. Why this should be is a matter for speculation. . . Whatever the reason, the values of the non-delinquent, normal student who continues in high school have not received anything like the amount of attention devoted to his collegiate counterpart. Most of the more recent studies have been devoted to some aspect of social class and values, and among these are some yielding interesting insights.⁵

Havighurst claims that "the earlier simple methods of exploring motivation for college have given way to more sophisticated psychological methods, which have provided a basis for theories of motivation for college."⁶ He believes that there are four major factors which determine whether a student will have the motivation or initiative to do good school work and to go to college. These are: need for achievement, identification with persons who have gone to college, social pressures and intrinsic pleasure in learning. Exploration of these sociological and psychological factors is just beginning and should provide valuable insights into both the well-motivated and poorly-motivated student.

Douvan and Kaye believe, however, that there is:

. . . little systematic information about the decision to go to college. The current renaissance of research on the college student has not concentrated on determinants of college-going, and the older studies either focused on objective determinants like family income and residence or stirred motivational variables into

⁶Robert J. Havighurst, "Who Goes to College and Why," <u>American</u> <u>Association of College Teachers of Education Yearbook</u> (1960), pp. 103-13.

⁵Miller, p. 385.

one pot with these so that it is impossible to say anything very clear about the independent operation of either type of factor.⁷

Hollinshead believes that:

What moves a young person to want or not to want higher education is our greatest unponderable $[\underline{sic}]$. Motivation, or a lack of it, has more to do with college attendance or nonattendance than any other single factor. Yet motivation is bound up with many things. The expression of desire for education or for avoiding it probably more often than not covers some reason hidden far below the surface.⁸

Some of these reasons hidden far below the surface have not yet been discovered. Available research does seem to indicate that the high school student's level of educational aspiration will depend upon many factors, among which are intelligence, socio-economic status, personal incentive and parental influence. Research into subjective factors such as self-concept and characteristics of significant adult and peer friends of college preference and non-college preference students is scant or non-existent.

It seems logical to assume that social contacts outside the home will have a vitally important place in determining the adolescent's educational aspirations. Some students of middle and high class homes do not continue their education beyond high school even though

⁷Elizabeth Douvan and Carol Kaye, "Motivational Factors in College Entrance," ed. Nevitt Sanford, <u>The American College</u> (New York: John Wiley and Sons, Inc., 1962), p. 199.

⁸Byron S. Hollinshead, <u>Who Should Go to College?</u> (New York: Columbia University Press, 1952), p. 42. they do not lack financial resources, parental motivation or high intelligence. On the other hand, students from low socio-economic backgrounds are able to overcome many apparent social, psychological and financial handicaps to go on to college. It may be that these youth tend to choose peer, teacher or adult friends from middle and high socioeconomic levels whereas non-college preference youth from the middle and high classes tend to choose their friends from the low classes. Self-concept may also have a relationship to their educational aspirations. There is little research available to help answer these questions.

Additional knowledge in these areas would be extremely helpful to educational administrators in better understanding students and in tailoring educational programs to meet specific personal and social needs. More systematic information would provide student personnel workers with refined techniques for predicting performance and achievement levels. Business personnel managers and military personnel officers could better select and classify personnel and provide more adequate training and recreational programs.

Undoubtedly, educational personnel need to identify and encourage the intellectually capable and well-motivated student, but they must also give recognition to the less talented, poorly-motivated student who will soon terminate his formal education. It is vitally important to understand how and why both educationally high and low aspiring

students ultimately make their decision to terminate or continue their education beyond high school. It is also necessary to know whether the adolescent's self-concept and the individuals with whom he identifies are helping or handicapping him in the development of his highest potential.

Since there is strong indication from research that parental influence, intelligence, motivation and socio-economic status relate to the student's level of educational aspiration, it seems necessary to take a further step and look at other factors that might also pertain to the individual's educational goals. Numerous implications for school administrators and pupil personnel workers from previous research have apparently gone unheeded. For example, it has been shown that teachers largely reflect middle-class values. Higher education as an avenue of upward social mobility seems to be a predominant value with many of them. "These major differences in values result in serious communication difficulties between middle class and lower class people; these are particularly troubling to the relations between teachers and lower class children. "⁹ Educational administrators could better utilize their teaching staff if they understood the relationship between students and teachers coming from different socio-economic backgrounds.

⁹Boyd R. McCandless, <u>Children and Adolescents: Behavior and</u> <u>Development</u> (New York: Holt, Rinehart and Winston, 1961), p. 484.

The intellectually capable high school senior who plans to continue his education beyond high school probably represents a pattern of values different from that of the equally talented, terminal senior. If the goal of American education is to encourage each student to reach his maximum intellectual capacity, then personnel who work with adolescents must know more about those factors in the person's environment that relate to his value system. Otherwise, the educational resources of the nation cannot be effectively utilized.

Such knowledge could well require a complete re-evaluation of the present educational process. It is possible that homogeneous grouping and other environmental manipulative techniques may need to be restudied. Better training, selection and more strategic placement of teachers may be necessary. Teachers may need to gain a greater appreciation of and respect for the individual, learn more about children's personal lives and family backgrounds, and re-examine their own personal values, with emphasis on better understanding and communication. Guidance and student personnel workers may need to understand better the student's concept of himself and how this affects motivation and learning. They may have to develop different personal and group therapeutic techniques that will help the student raise or lower his educational goals. Business and industrial training programs, hiring practices and job assignment procedures may also need to be revamped.

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It is already known that intelligence, in addition to "many factors such as occupation of the head of the household, family income, educational attainment of parents, sex and color of the student, and place of residence, affect the likelihood of college attendance. "¹⁰ It was the purpose of this study to investigate other ecological and attitudinal variables that may help more clearly to define high and low levels of educational aspiration. As educational, business and government personnel learn more about those factors that relate to educational aspiration, they will be better able to meet the intellectual, social and personal needs of both college-aspiring and terminal high school students.

Delimitation of the Study

This study was limited to twelfth-grade students from a random sample of students in 34 selected public high schools within the territorial United States. Seniors indicating a desire to go to college constituted the high level of aspiration, college preference group, and those not planning to attend college comprised the low level of aspiration, non-college preference group. Students in each group were further categorized according to sex, socio-economic status, personality classification, age and years in the school.

¹⁰Maxine G. Stewart, "Who Goes to College," <u>Occupational Out-</u> <u>look Quarterly</u>, VI:2 (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics, May, 1962), p. 11.

Various ecological and attitudinal characteristics of the student's significant peer, adult and teacher friends were also identified. Peers were classified according to sex, socio-economic status and grade level. Teachers were categorized according to sex, marital status, age, years on the staff, socio-economic background, and personality classification. Significant adults, other than teachers or parents, were classified according to whether they were in or out of the immediate school environment. Those who were out of the school environment were categorized according to socio-economic status.

Definition of Terms

The following definitions were applied consistently throughout the study:

- 1. <u>Achievement motivation</u>--the tendency to work with energy and persistence at something deemed important; ambition manifested in action; the desire to be successful in arriving at some predetermined goal.
- 2. <u>Adult friend</u>--a significant individual, other than a parent or teacher, who is legally and chronologically a mature person whom the student selects as a friend.
- 3. <u>Attitude</u>--"an enduring, learned predisposition to behave in a consistent way toward a given class of objects; a persistent mental and/or neural state of readiness to react to a certain object or class of objects, not as they are but as they are conceived to be. It is by the consistency of response to a class of objects that an attitude is identified."¹¹

¹¹Horace B. and Ava C. English, <u>A Comprehensive Dictionary of</u> <u>Psychological and Psychoanalytical Terms</u> (New York: Longmans, Green and Co., 1958), p. 50.

- 4. <u>College preference</u>--any high school senior sampled who indicated a desire to go to college following his graduation from high school.
- 5. <u>High school</u>--a public educational institution which contains either grades nine or ten through twelve.
- 6. <u>High school senior</u>--a twelfth-grade student in a public secondary educational institution.
- 7. <u>Level of aspiration</u>--a desire for a future state of affairs along a continuum from a low desire to a high desire. In terms of education, it is a desire for a higher future level; in social position, for a future status; in occupation, for a future position.
- 8. <u>Non-college preference</u>-any high school senior sampled who indicated no desire to attend college following his high school graduation.
- 9. <u>"Membership" groups</u>--"the groups to which the individual actually belongs like the family, play groups, gang or school."¹²
- <u>Peer friend</u>--a significant companion or associate of roughly the same age or grade level whom the student selects as a friend.
- 11. <u>"Reference" groups</u>-the groups with which a person identifies and/or compares himself to such an extent that he tends to adopt their standards, attitudes, and behaviors as his own.
- 12. <u>Self-concept</u>--an individual's view of himself; the fullest description of himself of which a person is capable at any given time. The self-concept results from the organism's interaction with its environment and represents the person's perceptions of the totality of these experiences.
- 13. <u>Social role</u>--the attitudes, values or behaviors, that are prescribed and expected of the occupant of a particular position in the social group.

¹²S. S. Sargent and R. C. Williamson, <u>Social Psychology</u> (New York: The Ronald Press Co., 1958), p. 322.

- 14. Social class--an abstract category of persons arranged in levels according to the social rank, position or status they possess. It is a stratum in society composed of individuals and groups of equal standing. Social class may be fixed or identified by family background, education, occupation, financial resources and/or one's political, racial or religious affiliations.
- 15. <u>Social stratification</u>--the arrangement of social classes on continuum from lowest to highest. Any ordering of statuses in terms of varying superiority and inferiority can comprise a social stratification.
- 16. <u>Socio-economic status</u>--"a person's position and special function as seen and accepted by other members of the social group. The assignment of statuses and the definition of their duties and rewards are crystallized in and sanctioned by the culture. Leadership, dominance, wealth, ability, occupation or other means of recognition designated by title, degree, membership or behavior are criteria by which status is assigned or judged."¹³
- 17. <u>Social mobility</u>--the movement within a given culture from one class to another. This refers especially to movement upward from a class of lower to one of higher status and the degree to which a society permits such movement.
- Most-understanding teacher--a significant adult employed by a secondary educational institution as an instructor whom the student selects.
- 19. <u>Value</u>--"a value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences selection between available modes, means, and ends of action."¹⁴ Therefore, values

¹³Henry P. Fairchild (ed.), <u>Dictionary of Sociology and Related</u> <u>Sciences</u> (Patterson, N.J.: Owen, Littlefield, Adams & Co., 1951), p. 263.

¹⁴E. Z. Vogt, "Papers of the Peabody Museum of American Archaeology and Ethnology," <u>Navaho Veterans: A Study of Changing Values</u>, XLI:1 (Cambridge, Mass.: The Museum, Harvard University, 1951), pp. 6-7. may be conscious or unconscious, verbalized or inarticulate, individual or group, conative or cognitive and explicit or implicit. There is also the element of a standard code, or norm, as well as being a logical construct and not "a thing" in external reality.

<u>Overview</u>

An effort to define more clearly high and low levels of educational aspiration among high school seniors by the investigation of selected ecological and attitudinal variables was the main concern of the study. Differences between college and non-college preference adolescents have important implications for personnel in education, business and government.

The study was delimited to high school seniors in 34 public high schools within the United States. Socio-economic status and personality classification of the seniors were selected for study in addition to certain ecological and attitudinal characteristics of their choices of significant peer friends, most-understanding teachers and adult friends.

Level of educational aspiration studies are reviewed in Chapter II. It was observed that many variables relating to level of aspiration have yet to be identified. Researchers working in the behaviorial sciences stress the importance of these factors and encourage further research and study.

The sample, instruments, statistical methods and hypotheses employed in the study are described in Chapter III. The sample included 2,031 male and female high school seniors dichotomized on the basis of college and non-college preference. The validity and reliability of the instruments were shown to be acceptable for the purposes of the study. The chi-square test of independence was used to test for differences between college and non-college preference students. One hundred fifty-six null hypotheses were tested in the study.

The numerical distribution of the sample by sex and the results of the study are presented in Chapter IV. Data relative to the findings were presented in appropriate chi-square tables. Null hypotheses showing statistically significant differences (p < .05) were examined for the source and/or direction of the differences.

Hypotheses for further research and testing are included in Chapter V. Implications from the study for education, business and industry and for further social-psychological research are also presented. Some observations regarding the results of the study conclude the dissertation.

Copies of the student and teacher questionnaires, ratings of occupations according to the <u>Duncan Socio-Economic Index</u>, and a list of the schools used in the study are included in the Appendix.

CHAPTER II

LEVEL OF EDUCATIONAL ASPIRATION: A BACKGROUND OF RESEARCH

It is the purpose of this chapter to review the results of previous research dealing with the variables explored in this study. The validity and reliability of post-high school plans as an indicator of level of educational aspiration is considered. Research studies relative to differences in sex, personality and socio-economic status, and peer and adult relationships between educationally high and low aspiring adolescents are also reviewed. Related research concerning personality development, small group relationships and residential factors is presented in Apendix A.

Post-High School Plans

An individual can aspire to reach numerous goals. He can desire to become a great actor or a major league ball player, or to reach any number of occupational or educational goals. This drive is often defined as achievement motivation, upward mobility or level of aspiration, but basically it refers to the person's desire to reach a future state. This study specifically deals with the levels of aspiration relative to educational goals as determined by the public high school senior's stated

preference for or against a college education. Those who indicate a desire for a college education are representative of a high level of aspiration relative to higher educational values and goals whereas those indicating no desire to continue their education may be regarded as poorly motivated toward higher educational values and goals.

Several general level-of-aspiration studies have used college plans as an indicator. There are numerous references to more tangible barriers to higher education, such as lack of finances, race, creed, sex, and social class, but there are fewer references to obstacles such as devaluating self-concept, poor adult and peer models, low motivation, cultural deprivation and negative educational values. Many authors point out that motivation is clearly a variable factor in the college attendance of boys and girls. A student "depends on his drive for achievement, both conscious and unconscious, on his enjoyment of study and on the social pressures which operate on him through his family, friends, teachers, and community."¹⁵

Lack of interest in schooling or motivation toward continued work in college is perhaps the most pervasive barrier to the full education of all young people of college caliber. Some home environments discourage able students from college work; in some communities or groups the prevailing mores are antieducational. Motivation is one of the salient requisites for

¹⁵Havighurst, pp. 103-13.

1 . . . success in higher education; where motivation is not developed latent ability is too frequently not educated. 16

Achievement motivation is frequently determined by the student's stated educational objectives. These indicate the individual's level of educational aspiration. There is strong indication that a student's aspirations are a relatively reliable predictor of his future educational preference and achievement. Goldberg found that high school students' plans for work, military service, marriage and college are related to subsequent behavior.¹⁷

Berdie noted that approximately 64 per cent of the students he studied actually realized the plans which they had made the year before as high school seniors.¹⁸ Although Roper's study did not actually follow up the students who indicated a desire to go to college, he did find that 72 per cent of the college preference group did receive acceptances from an institution of higher education; a strong indication that they would follow through with their plans.¹⁹

¹⁶"Higher Education in a Decade of Decision," <u>Educational Policies</u> <u>Commission, National Education Association of the U.S. and American</u> <u>Association of School Administrators</u> (Washington, D.C.: 1957), p. 28.

¹⁷Isadore Goldberg, "The Relationship of Personal History to Plans of High School Students" (unpublished Doctoral dissertation, University of Maryland, 1959).

¹⁸R. F. Berdie, <u>After High School What?</u> (Minneapolis: University of Minnesota Press, 1954), pp. 196-97.

¹⁹Elmo Roper, <u>Factors Affecting the Admission of High School Seniors</u> to College (Washington, D.C.: American Council on Education, 1949), p. xxxii.

In 1957 the research staff of the Educational Testing Service conducted a similar study. A follow-up study to see how students carried out their college plans showed that 65 per cent were in attendance at college a year later.²⁰

Cutright questioned 8,500 students in nine northern Illinois high schools in the fall of 1957 as to their college plans. In the spring of 1959 he conducted a follow-up study which showed that two-thirds of the college preference students were actually attending college.²¹

Little conducted a similar survey of Wisconsin youth on a statewide scale in 1956 and 1957. He found that 90 per cent of the students who had indicated a desire for a college education were in attendance at an institution of higher education the next year. Even some graduates who had not planned to attend college did so.²²

Since 64 to 90 per cent of the high school seniors sampled realized their educational aspirations, these studies give support to the belief that stated educational plans are a relatively reliable predictor of subsequent behavior.

²⁰"Background Factors Relating to College Plans and College Enrollment Among Public High School Students" (Princeton, N.J.: Educational Testing Service, April, 1957).

²¹Phillip Cutright, "Student's Decision to Attend College," <u>Journal</u> of Educational Sociology, XXXIII (February, 1960), pp. 292-99.

²²J. Kenneth Little, "Post-High School Plans of Wisconsin Youth," <u>Higher Education</u>, XV (December, 1958), pp. 67-69.
Sex Factors

Sex typing and sex roles play an important part in the personality development of the child. Each culture has certain role prescriptions and expectations relative to sex that influence the values and attitudes of its members. Some studies have endeavored to identify these values as they pertain to the individual's occupational and educational aspirations. Havighurst notes these differences:

Women and men are subject to very different economic and idealogical pressures in our culture. . . The much smaller attendance of women in college is related to the difference between male and female roles in American society. The feminine role is primarily that of wife and mother, and only secondarily that of worker. Consequently, after about age eighteen, women drop out of the educational system much more rapidly than men and enter the working force in much smaller proportions.²³

McCandless maintains that:

Whatever sex differences exist in school achievement anxiety probably vary with the age of the child. It is possible that, in elementary school, boys do not experience the same subjective pressure to achieve that girls do; but, by junior high and secondary school, the prospect of independence and responsibilities intensifies the pressure on boys. During college, it may be predicted that boys will have more achievement motivation and achievement anxiety than girls.²⁴

Some studies dealing with the occupational aspirations of the sexes

have been undertaken and tend to show that during the preadolescent

²³Robert J. Havighurst, <u>American Higher Education in the 1960's</u> (Columbus: Ohio State University Press, 1960), p. 14.

²⁴McCandless, p. 422.

years boys as a group progressively narrow the range of their occupational preferences, while girls seem to have a more limited range of choices through all age and grade levels. For example, Menger found that in her total sample of 19,000, boys chose 199 different occupations and girls only 113.²⁵ Boynton noted the same sex differences in a similar study showing that four occupations accounted for 75 per cent of the girls' choices, but eleven occupations were needed to account for the same percentage of boys' choices.²⁶

Studies by Bedford²⁷ and Woodruff²⁸ also indicate that girls more frequently than boys have reached no occupational choice by late high school years.

Tyler, in a study of interests of first-grade children, observed sex differences in enough single items to make it possible to construct an index of masculinity. She also found sex differences in the organization

²⁵Clara Menger, <u>The Significance of Vocational Choices of School</u> <u>Children and College Students</u> (New York: Private Printing, 1932).

²⁶P. L. Boynton, "The Vocational Preferences of School Children," <u>Pedag, Seminary and Journal of Genet. Psychology</u>, XXXIX (1936), pp. 411-25.

²⁷J. H. Bedford, <u>Youth and the World's Work</u> (Los Angeles: Society for Occupational Research, 1938).

²⁸Katherine Woodruff, "A Study in the Occupational Choices of High School Girls," <u>Vocational Guidance Magazine</u>, V (1927), pp. 156-59. of interests.²³ By the time the children were ten years old a follow-up study indicated that sex differences were still evident, but that more complex differences were involved.³⁰ Tyler's findings show that the development of interests is related to the sex roles being learned and that these roles do not exist in isolation from the beginning of other roles and attitudes. Stivers found that the motivation of able girls for high school and college is a more complex matter than that of boys.³¹

It is well known that girls achieve better in relation to their ability in school than boys do, up to the last year or two of high school. At this point the bright girl begins to face what seems to her to be a choice between being a wife and mother and becoming a career woman. . . Consequently, while more girls graduate from high school than boys, the situation is reversed for college going. More boys enter college than girls.³²

Recent surveys by the U.S. Bureau of the Census, ³³ the Educational

²⁹L. E. Tyler, "The Relationship of Interests to Abilities and Reputation Among First-Grade Children," <u>Educational Psychology Measurements</u>, II (1951), pp. 225-64.

³⁰L. E. Tyler, "The Development of Vocational Interests, Part I, The Organization of Likes and Dislikes in Ten-Year-Old Children," <u>Journal of Genetic Psychology</u>, LXXXVI (1955), pp. 33-44.

³¹E. H. Stivers, "Motivation for College in High School Girls," School Review, LXVII (1959), pp. 320-34.

³²Havighurst, <u>American Higher Education in the 1960's</u>, p. 14.

³³Stewart, p. 13.

Testing Service³⁴ and the American Council on Education³⁵ all indicate that more boys than girls state a desire to continue their education beyond high school. Even at all levels of ability, a higher percentage of boys than girls either plans to go to college or actually enrolls. Boys are more likely to carry out their college plans than are girls. These studies clearly indicate that level of educational aspiration is affected by sex differences.

Personality Factors

Very little research has been conducted to determine the relationship of personality factors to level of educational aspiration. Douvan and Kaye report, however, that "boys who plan to attend college have greater autonomy vis-a-vis their parents and are more self-reliant in issues involving values and personal controls--compared to boys who do not intend to go to college."³⁶ They also noted that with workingclass boys the decision to attend college signaled intense motivation and a high degree of personal integration. No comparable differences were found among girls. College-bound girls were overtly no more independent of parental control or self-reliant than other girls. There was

³⁴"Background Factors Relating to College Plans and College Enrollment Among Public High School Students, " p. v.

³⁵Roper, pp. 17, 143.

³⁶Douvan and Kaye, p. 210.

some indication, however, of latent desires for detachment and independence at possibly a fantasy level among educationally high aspiring girls.

Stiver's research tends to support the fact that college preference boys have a significantly greater need for achievement than boys who plan to terminate their education. He also found that college-bound boys had a higher score on the communality scale of the California Personality Inventory. Students who score high on this scale are considered to be more successfully socialized, more mature and more responsible. The college preference boys also had higher scores on the "achievement-via-independence" scale of the Inventory. Students who score high tend to be seen as mature, forceful, strong, dominant, demanding, foresighted, independent, self-reliant and superior in intellectual ability and judgment. On an eight-item check list developed by Strodtbeck, Stivers discovered that educationally high aspiring boys felt free of the kind of family loyality and responsibility that might inhibit mobility in the occupational system, preferred working for themselves to working in a group enterprise, and believed in postponing immediate pleasures for the sake of long-term goals, such as an education or career. 37

³⁷Eugene Stivers, "Motivation for College in High School Boys," <u>Scholastic Review</u>, LXCI (September, 1958), pp. 341-50.

Strang believes that:

Educational plans, like vocational development, depend on the adolescent's self-concept which is a product of the interaction between his environment and all that he is at a given time. The expectations of his parents and the values and goals of his peers are among the most important environmental factors.³⁸

Socio-Economic Factors

Considerably more research has been centered on the relationship

of socio-economic factors to level of educational aspiration. Havig-

hurst notes that:

From 1920 to 1940 the various social classes approximately doubled their proportions who entered college. Since 1940 there has been little increase in college-going among upper and upper-middle class youth, because they had already reached the 80 per cent level in 1940. However, there has been a sharp increase in the proportions of lower-middle and working-class youth entering college.³⁹

Research strongly supports the idea that the parent's position in the prevailing social hierarchy, the social class status of the family, is influential in forming the adolescent's basic attitudes, aspirations, goals and values. Centers points out that an individual's strength of membership feeling in a social class either in itself or as an index to

³⁸Ruth Strang, "The Adolescent Views Himself," <u>A Psychology of</u> <u>Adolescence</u> (New York: McGraw-Hill Book Company, Inc., 1957), p. 428.

³⁹Havighurst, "Who Goes to College and Why," p. 104.

. 111111 some more fundamental determinant is widely involved in his responses to his social world.⁴⁰

Social stratification studies by Warner and Lunt, ⁴¹ Davis and the Gardners, ⁴² the Useems and Tangent, ⁴³ J. West⁴⁴ and the Bureau of Agricultural Economics⁴⁵ clearly indicate the importance of social class influences on the individual. As Warner points out:

Recent scientific studies of social class in the several regions of the United States demonstrate that it is a major determinant of individual decisions and social actions, that every area of American life is directly or indirectly influenced by our class order and that the major decisions of most individuals are partly controlled by it. 46

⁴⁰Richard Centers, "The Intensity Dimension of Class Consciousness and Some Social and Psychological Correlates," <u>Journal of Social</u> <u>Psychology</u>, XLIV (1956), pp. 101-14.

⁴¹W. A. Warner and P. S. Lunt, <u>The Social Life of a Modern Com-</u> <u>munity</u> (New Haven: Yale University Press, 1941).

⁴²A. Davis, B. B. Gardner and M. R. Gardner, <u>Deep South</u> (Chicago: University of Chicago Press, 1941).

⁴³J. Useem, P. Tangent and R. Useem, "Stratification in a Prairie Town," <u>American Sociological Review</u>, VII (1942), pp. 331-42.

⁴⁴J. West, <u>Plainville, USA</u> (New York: Columbia University Press, 1954).

⁴⁵C. C. Taylor (ed.), "Culture of a Contemporary Rural Community," <u>Rural Life Studies</u>, Nos. 1-6 (Washington, D.C.: U.S. Bureau of Agricultural Economics, 1942).

⁴⁶W. L. Warner, M. Meeker and K. Eells, <u>Social Class in America</u> (Chicago: Science Research Associates, 1949), p. 6. Several studies have focused more specifically upon the effects of class on the personalities and behavior of its membership. Studies by Hollingshead, ⁴⁷ Allison Davis, ⁴⁸ Ericson⁴⁹ and Brown⁵⁰ tend to give further support to the belief that socio-economic status limits and defines the social contacts a child will have. Sargent and Williamson state that "it affects mainly the aspects of his personality that develop through social interaction--namely, attitudes, interests, values, and habits. Before a child is born his socio-economic status is pretty clearly defined by the position which his parents hold in society."⁵¹ Hollingshead clearly indicates the effect of socio-economic class upon the individual's perceptions when he points out that:

As the child participates in successive social situations, he learns to act in certain ways, to regard himself as a valued member of the group or as an unwanted person. Unconsciously, he is being molded into a personality that is simultaneously a

⁴⁷A. B. Hollingshead, <u>Elmtown's Youth</u> (New York: John Wiley and Sons, Inc., 1949).

⁴⁸A. Davis, "Child Training and Social Class," Chapter XXXIV in <u>Child Behavior and Development</u>, eds. R. Barker <u>et al</u>. (New York: McGraw-Hill Book Company, 1943).

⁴⁹M. C. Ericson, "Social Status and Child-Rearing Practices," <u>American Journal of Sociology</u>, LII (1946).

⁵⁰F. Brown, "A Comparative Study of the Influence of Race and Locale upon Emotional Stability of Children," <u>Journal of Genet. Psy-</u> <u>chology</u>, XLIX (1936), pp. 325-42.

⁵¹Sargent and Williamson, p. 129.

creature of his experiences and a creator of new situations in which he will act as a molder of conduct.52

Klavsner found in a study of 27 adolescent white boys that "there are modally different self-concepts between members of difference socioeconomic groupings and that members of the same socio-economic grouping tend to have a more homogeneous self-concept."⁵³

Loeb states that each social class develops a pattern of behavior and a system of values which differentiates it from the others due to the prolonged and intimate relationships that are developed during childhood.⁵⁴ Centers, ⁵⁵ Ausubel⁵⁶ and Kohn⁵⁷ observed wide value differences between social classes in some of their studies. A number of other studies have also clarified the relationship of

⁵²Hollingshead. p. 445.

⁵³Samuel S. Klavsner, "Social Class and Self-Concept," <u>The</u> <u>Journal of Social Psychology</u>, XXXVIII (1953), pp. 201-05.

⁵⁴Martin B. Loeb, "Implications of Status Differentiations of Personal and Social," <u>Harvard Educational Review</u>, XXIII:2 (1953), p. 168.

⁵⁵R. Centers, <u>The Psychology of Social Classes</u> (Princeton, N.J.: Princeton University Press, 1959), pp. 151-59.

⁵⁶David R. Ausubel, <u>Varying Problems of Adolescent Development</u> (New York: Grune and Stratton, 1954), pp. 327-28.

⁵⁷Melvin L. Kohn, "Social Class and Parental Values," <u>American</u> <u>Journal of Sociology</u>, LXIII (January, 1959), pp. 589-92. aspiration, values, goals and attitudes to social class status.^{58, 59, 60} Both Douvan⁶¹ and Leshan⁶² noted a difference in intermediate and deferred goal gratification orientation among the various social strata. Later studies by Rosen,⁶³ Schwarzweller⁶⁴ and Brim and Forer⁶⁵ tend to support the fact that adolescents from the higher social classes are more future oriented, individualistic and prone to plan their lives ahead.

58Leonard Reissman, "Levels of Aspiration and Social Class," <u>American Sociological Review</u>, XVIII (June, 1953), pp. 233-42.

⁵⁹W. H. Shoule, A. O. Haller and M. A. Straus, "Social Status and Educational and Occupational Aspirations," <u>American Sociological</u> <u>Review</u>, XXII (February, 1957), pp. 67-73.

60J. Stubbens, "The Relationship Between Level of Vocational Aspiration and Certain Personal Data," <u>Genetic Psychology Mono-</u><u>graphs</u>, XLI (February, 1950), pp. 327-408.

⁶¹Elizabeth Douvan, "The Influence of Social Class Memberships on Reactions to Failure" (unpublished Doctoral dissertation, University of Michigan, 1951).

⁶²L. L. Leshan, "Time Orientation and Social Class," <u>Journal of</u> <u>Abnormal Social Psychology</u>, XLVII (1952), pp. 589-92.

⁶³Bernard C. Rosen, "The Achievement Syndrome: A Psychocultural Dimension of Social Stratification," <u>American Sociological</u> <u>Review</u>, XXI (April, 1956), pp. 203-11.

⁶⁴H. K. Schwarzweller, "Values and Occupational Choice," <u>Social Forces</u>, XXXIX (December, 1960), pp. 126-35.

⁶⁵O. G. Brim and R. A. Forer, "A Note on the Relation of Values and Social Structure to Life Planning," <u>Sociometry</u>, XIX (1956), pp. 54-66. Douvan and others observed significant differences in the general achievement orientation of children coming from different social classes.⁶⁶ In a more recent study with Adelson of the relationship of levels of aspiration, social class and various personal traits, she found that early adolescent urban boys from the lower class were more upwardly mobile than boys from either the middle or upper classes.⁶⁷

Beilin supports these findings by his observations that upward mobile boys from the lowest socio-economic groups showed rejection of their parents' social status and social environment, identification with a different social class and introjection of different social values. A boy from this social background also tended to identify strongly with the upward mobile peer group.⁶⁸

Youmans found that an individual's position in the social structure is most important in formulating occupational aspirations.⁶⁹ Seidman also discovered that the occupational aspirations and expectations of

⁶⁶Elizabeth Douvan, "Social Status and Success Strivings," <u>Journal</u> of <u>Abnormal and Social Psychology</u>, LII (1956), pp. 219-23.

⁶⁷Elizabeth Douvan and J. Adelson, "The Psychodynamics of Social Mobility in Adolescent Boys," <u>Journal of Abnormal and Social Psychology</u>, LVI (1956), pp. 31-44.

⁶⁸Harry Beilin, "The Pattern of Postponability and Its Relation to Social Class Mobility," <u>Journal of Social Psychology</u> (1956), pp. 33-48.

⁶⁹E. Grant Youmans, "Occupational Expectations of Twelfth-Grade Boys," <u>Journal of Experimental Education</u> (1956), pp. 259-71.

adolescents are significantly related to their socio-economic backgrounds but that their expectations are more similar to their father's occupations than are their aspirations.⁷⁰ A later study by Stephenson would support the fact that occupational aspirations are not so greatly differentiated by social class as are occupational expectations.⁷¹ Empey studied the occupational aspirations of senior high school boys from different social classes. He noted significant differences between social classes.⁷²

A study by Hieronymus indicates that the individual, as a result of experiencing his class culture, tends to internalize limits on his aspirations and expectations. He also found that high socio-economic status, favorable attitudes toward education and high socio-economic expectations all continue to assist the student in doing well academically. Consequently, he believes his findings support the hypothesis that socialized anxiety (ambition) is a factor in the selective process

⁷¹R. R. Stephensen, "Mobility, Orientation and Stratification of 1,000 Ninth Graders," <u>American Sociological Review</u>, XXII (1957), pp. 204-12.

⁷²L. T. Empey, "Social Class and Occupational Aspirations: A Comparison of Absolute and Relative Measurement," <u>American Socio-</u> <u>logical Review</u>, XXI (December, 1956), pp. 703-09.

⁷⁰J. M. Seidman, "An Investigation of the Relationship Between Aspirations, Expectations, and Socio-economic Backgrounds of Male High School Juniors and Seniors" (unpublished Doctoral dissertation, New York University, 1953).

of American education.⁷³ Phillips supports these findings by her observations that students with high socio-economic backgrounds tend to have high educational aspirations.⁷⁴

These studies clarify the influence of the person's social-class status upon his basic values, goals and attitudes. As Reissman points out:

Class in short, creates a significant social milieu in which the individual moves and thereby predetermines a wide range of what the individual sees, experiences and does. . . Class makes a difference for the attitudes and behavior the individual exhibits and, furthermore is a feature of the most formative years of personality development.⁷⁵

His educational aspirations and expectations are thus influenced by the various social stratifications and the mores and standards of the culture to which he is exposed.

Peer and Adult Relationship Factors

There is little systematic research available regarding the influence of significant peer and adult friends, other than parents, upon the adolescent's level of educational aspiration. There are a few exceptions

⁷³A. N. Hieronymus, "A Study of Social Class Motivation: Relationship Between Anxiety for Education and Certain Socio-economic and Intellectual Variables," <u>Journal of Educational Psychology</u>, XLII (1951), pp. 193-205.

⁷⁴Florence L. Phillips, "A Socio-economic Study of College Women" (unpublished Doctoral thesis, Indiana University, 1958).

⁷⁵Reissman, pp. 233-49.

to this general state of affairs. For example, Havighurst has demonstrated the force of peer values in determining whether lower-class youths decide to go to college.⁷⁶ Stivers found that "boys who were well motivated for college had had certain experiences with parents, teachers, classmates, and others who as early as elementary school days set college as a standard of achievement for them."⁷⁷ This is in line with McClelland's assertion that motivation for high achievement develops when a child can compete successfully with standards of excellence that people important to him set, often beginning early in life.⁷⁸

Douvan and Kaye state that:

Experienced counselors report with some agreement that choice of college as well as the decision to go is influenced in particular cases by any or all of the following classes of individuals: a. parents, b. teachers, c. counselors, d. unrelated adult acquaintances, e. peers, f. close friends, and g. older siblings and their contemporaries.⁷⁹

⁷⁶R. J. Havighurst and R. R. Rodgers, "The Role of Motivation in Attendance at Post-high School Educational Institutions" in Byron S. Hollinshead, <u>Who Should Go to College</u>? (New York: Columbia University Press, 1952).

⁷⁷Eugene Stivers, "Motivation for College in High School Boys," pp. 341-50.

⁷⁸David C. McClelland <u>et al.</u>, <u>The Achievement Motive</u> (New York: Appleton-Century-Crofts, Inc., 1953), pp. 63-66.

⁷⁹Douvan and Kaye, pp. 199-224.

Little discovered that teachers were credited with stronger influences on post-high school plans by college-going graduates than by those getting jobs or attending other types of schools.⁸⁰ There is some indication from these few findings and observations that peer and adult friends do have an influence upon adolescents' educational values and plans.

Although the studies reviewed in this chapter noted some significant differences among college-aspiring students compared with terminal students, they did not explore in depth. They present valuable objective and descriptive data on both the high and low aspiring student, but they fail to look closely at the deeper, more intrinsic, social-psychological differences between the two groups. For example, they do not investigate differences in concept of self and others or identify characteristics of significant peer and adult friends. These factors could help to define better the psychological and sociological forces at work on the adolescent as he plans for his future. The purpose of this study is to carry these studies one step further into an investigation of some of these less tangible but vitally important factors.

80Little, p. 68.

Summary

Level of educational aspiration can quite reliably be measured by the adolescent's stated post-high school plans concerning higher education. It has been shown in several studies that 65 to 90 per cent of high school seniors indicating a desire to attend college are actually in institutions of higher education the following year. It was on this basis that high and low levels of educational aspiration were determined in this study.

More boys than girls continue their education beyond high school. Sex differences in regard to level of educational aspiration are apparent from many previous studies. Although research is limited, there is also reason to believe that personality factors have an important relationship to adolescents' future educational goals.

Level of educational aspiration is closely related to socio-economic status. Adolescents from the higher socio-economic classes attend college in far greater numbers than youth from the lower classes. Studies support the belief that social class limits and defines the person's educational values and aspirations.

Significant peers and adults, other than parents, appear to have an important relationship to the adolescent's level of educational aspiration; although little systematic research has been conducted in this area at the high school level. Because there is inadequate information

from research regarding social-psychological factors relating to level of educational aspiration, studies dealing with attitudinal variables are especially necessary and valuable to the behavioral sciences.

In the next chapter procedures are defined relative to selection of the schools and students involved in the study and the instruments and statistical methods employed in the measurement of the variables.

CHAPTER III

LEVEL OF EDUCATIONAL ASPIRATION: A NATION-WIDE SAMPLE

This study was made possible through a research project conducted by the College of Education at Michigan State University. The project was sponsored by the United States Office of Education, Department of Health, Education, and Welfare as Project 918, Contract SAE 8687. The director of the project was Dr. Karl T. Hereford with Dr. Floyd G. Parker, Dr. Stanley E. Hecker, and Dr. Donald J. Leu as coinvestigators. The fundamental purpose of the research was to study the relationship between school building design and the social interaction patterns of the student and staff personnel as well as certain attitudes of students and teachers and their evaluation of their physical environment.

Identification of the Sample

Selection of the Schools

The educational institution population in this study was delimited to high schools. All schools had been constructed since 1954. Schools with a minimum of 150 students per grade were selected. The sampling procedure reflected the interest of the sponsored research out of which

the data for this study were obtained. An effort was made to obtain a nation-wide sample and to select schools with interesting design and utilization features which would increase the likelihood of obtaining valid differences in social interaction patterns. Both of these considerations also contributed to the purpose of this study.

Thirty-four high schools were chosen on the basis of the total information gained in the preliminary, selective phase of the study. An effort was made to select schools that were comparable in per pupil expenditure, size of the administrative staff and pupil-teacher ratio, and that were representative of various types of communities. Certain characteristics of the high schools used in the study are presented in Appendix B.

Development of the Sample

Data from the 34 public high schools were collected from approximately 37,000 high school students, 2,100 teachers, and 300 administrative officials including principals, vice-principals, librarians and full-time pupil personnel workers. Completions averaged 96 per cent. A 25 per cent stratified, random sample of 9,000 students was extracted. The sample was stratified by sex, grade level, years in the school, IQ and socio-economic status of the student body.

The sample of 9,000 students contained approximately 2,031 twelfthgrade students who were 16 to 18 or more years of age and had been in the

school from two to four years. These students were selected for use in this study. They were further stratified by sex and level of educational aspiration (college and non-college preference).

To control for any inherent differences and variations in sampling, an additional proportionate, random sample of 696 males and 725 females was extracted from the above 2,031 high school seniors. The sample was proportioned by personality classifications with sex, level of educational aspiration and socio-economic status controlled.

Design of the Sample

Both the twelfth-grade student sample and the smaller proportionate, random sample were stratified by sex and level of educational aspiration. These control variables were employed in a comparative design with selected ecological and attitudinal characteristics of the students themselves and of their peer, teacher and adult personnel choices.

Symbolically the sampling was designed as follows:

- A. Twelfth-grade student sample stratified by sex and level of educational aspiration
- A1. Proportionate, random sample of A
 - B. Socio-economic status of the students
 - C. Personality classification of the students
 - D. Selected ecological characteristics of peer friends

- E. Selected ecological and attitudinal characteristics of most-understanding teachers
- F. Selected ecological characteristics of adult friends

<u>Control</u>	<u>Analysis of</u>		
А	В		
A	С		
A (B)	D, E, F		
A (C)	D, E, F		
A	D, E, F		
A ₁	D, E, F		

Limitations of the Sample

The study included only public high schools with a bias toward those in the Northeast seaboard states. High schools located in suburban-type communities were also over-represented in the sample.

Instrumentation

The instruments used in this study were largely sociometric in nature. The reliability and validity of this type of instrument was difficult to establish. In evaluating a self-reporting sociometric questionnaire administered in test-retest fashion to a large group of high school boys, however, Moreno noted that "the first and second choices appear to have a high degree of validity--92 per cent of the first choices made remaining unchanged and 82 per cent of the second choices remaining unchanged after a period of three months."⁸¹ In a similar validity test with girls, he found that after a period of 90 days they "maintained their original choices of responses to the extent of 95 per cent."⁸²

Since the instruments represent a rather simple self-reporting procedure, it was also assumed that they reflected honest responses. Actual observation might have been preferable, since validity and reliability would have been improved. This was impossible, however, owing to the number and geographical distribution of the sample.

Level of Educational Aspiration

Students were asked whether they planned to go to college. Those checking "yes" comprised the college preference group while those checking "no" comprised the non-college preference group.

A student's stated expectation relative to college attendance following graduation from high school has been shown by Cutright,⁸³ Little⁸⁴ and others to be a relatively reliable indicator of level of educational aspiration and predictor of future behavior. It was noted that

⁸²<u>Ibid.</u>, p. 242.
⁸³Cutright, pp. 292-99.
⁸⁴Little, pp. 67-69.

⁸¹J. L. Moreno, <u>Who Shall Survive</u> (New York: Beacon House, Inc., 1953), p. 639.

from 65 to 95 per cent of the seniors stating they were planning to attend institutions of higher education were actually in a college a year later. It was also shown in a nation-wide survey and follow-up study of high school seniors by <u>Educational Testing Service</u> that:

Most of the family background and other factors which had been found to be related to college plans were found to be related even more closely to actual college attendance. That is, if a factor is related to plans, it can usually be used also to predict which students will carry out their plans.⁸⁵

Socio-Economic Status

The socio-economic status of personnel was determined by the Duncan ratio of the income and education levels of occupations. In validation studies, Duncan found a correlation of .72 between income and education indicators for 45 National Opinion Research Center Occupations and a coefficient of the regression of income on education of .60.

The partial correlation of .61 and .65 of occupational prestige with each predictor (income and education), holding constant the other, was substantial and highly significant. Combining the two predictors in a linear multiple regression equation produced a multiple correlation of .91 and .83, which was appreciably larger than either zero-order correlation. Duncan concludes that:

85"Background Factors Relating to College Plans and College Enrollment Among Public High School Students, " p. v. The case for "validity" of the socio-economic index rests primarily on the evidence just presented together with the earlier arguments for the suitability of education and income as indicators of "socio-economic status," quite apart from their correlation with occupational prestige.⁸⁶

Four occupational classifications were made in the study, the occupation of:

- 1. The student's father
- 2. The peer friend's father
- 3. The most-understanding teacher's father
- 4. The adult friend's occupation

Individuals were asked in the questionnaire to indicate the occupation of their father and if deceased, to indicate what it had been. The father's occupation was classified according to the scores on the Duncan <u>Socio-Economic Index for All Occupations</u>. Socio-economic status was divided into three classes: high, middle, and low. The three classes were arbitrarily determined by drawing the boundaries one-half standard deviation above and below the mean of 46. Occupational scores from 0 to 31 comprised the low socio-economic classes; 32 to 56 included the middle classes; and 57 and above represented the high classes. Occupational scores are presented in Appendix C.

Occupation has been shown to be a valid indicator of socioeconomic status in America. Newcomb states that:

⁸⁶Otis D. Duncan, <u>A Socio-Economic Index for All Occupations</u>, Population and Research Training Center (Chicago: University of Chicago, 1960), p. 19.

The significant fact, particularly as disclosed by Warner's studies, is that people fall into about the same categories whether we classify them by wealth, education, and income, by sense of belonging or by actual association. Since these different indicators all point in the same direction, the groups to which they point must be of some importance in the lives of their members.⁸⁷

Hollingshead believes that "status of the white male in America depends primarily on occupation."⁸⁸

Personality Classification

Degree of self and peer acceptance of college and non-college preference high school seniors and of their most-understanding teacher choices was determined by Bills' <u>Index of Adjustment and Values</u>. This instrument, an objective, multiple-choice type questionnaire, was designed to reflect the cumulative effects of inter-personal relations and to assess the current status of the perceptions of self and other significant peers. Bills believes that "although suffering the imperfections of all paper and pencil measuring devices and especially those to which self-rating devices are prone, the <u>IAV</u> has demonstrated its usefulness for the purposes implied above."⁸⁹

⁸⁷T. M. Newcomb, <u>Social Psychology</u> (New York: Dryden Press, 1950), p. 562.

⁸⁸August B. Hollingshead, "Class Differences and Family Stability," <u>The Annals of the American Academy of Social Sciences</u>, CCLXXII:ii (November, 1950), p. 39.

⁸⁹Robert E. Bills, <u>Index of Adjustment and Values Manual</u>: <u>Adult and High School Senior Form</u> (Auburn, Alabama: Department of Psychology, Alabama Polytechnic Institute, 1951), p. 5. He also claims that "continued research has shown that the 1951 form of the <u>IAV</u> is a reliable and valid instrument expecially useful for obtaining measures of acceptance of self, beliefs about other people's acceptance of themselves and discrepancies between self and ideal self concepts."⁹⁰

Bills and his associates found corrected split-half reliability coefficients of .91 and .88 for a group of 231 students. Test-retest reliability coefficients of .83 and .87 were obtained for a group of 175 students over a six-week period.⁹¹ Concurrent validity studies on the <u>IAV</u> were conducted using the <u>Phillips Attitudes Toward Self</u> and Others Questionnaire, <u>The California Test of Personality</u> and the <u>Washburn S-A Inventory</u>. Acceptance of self validity coefficients of .24, .23 and -.04 were obtained. Bills points out that "although the coefficients are small, statistically significant relationships appeared between the acceptance of self measure of the <u>IAV</u> and both the Phillips self score and the total scores on the California."⁹² In further validation studies it was found that "the Rorschah, thus,

⁹⁰Robert E. Bills, <u>Index of Adjustment and Values Manual: Ele-</u> <u>mentary, Junior High School and High School Form</u> (Auburn, Alabama: Department of Psychology, Alabama Polytechnic Institute, 1959), p. 5.

⁹¹Robert E. Bills <u>et al</u>., "An Index of Adjustment and Values," Journal of Consulting Psychology, XV (1951), pp. 257-61.

⁹²Bills, <u>Adult and High School Senior Form</u>, p. 64.

at least partially validates the acceptance of self scores as a measure of adjustment. The Rorschachs also partially validate the mean acceptance of self score as an important dividing point."⁹³ Bills concludes that "the data which have been collected indicate that the <u>Index</u> is valid."⁹⁴ Phillips, in discussing instruments for measuring attitudes toward self and others, asserts:

It is apparent from these results that the self-others attitudes as measured in terms of an objective, multiple-choice questionnaire show substantial relationships far above that expected by chance. The results show also that the observations of clinicians in regard to self-others attitudes hold for normal or non-clinical populations; these attitudes are not therefore, a function of clinical status, maladjustment, or the like.⁹⁵

The <u>IAV</u> contains 49 trait words selected from Allport and Odbert's list of 17,953 trait words. The 124 initial words chosen were representative of those occurring most frequently in client-centered definitions. The 124 words were then used with a sample of college students in test-retest fashion covering a period of three weeks. "Those words showing greater variation from test to retest than was shown by the average subject on the average word were excluded. The remaining 49 words became the basis of the Adult Form of the Index."⁹⁶

93<u>Ibid</u>., p. 260.

94<u>Ibid.</u>, p. 261.

95E. L. Phillips, "Attitudes Toward Self and Others, A Brief Question-Report," <u>Journal of Consulting Psychology</u>, XV (1951), pp. 79-81.

⁹⁶Bills, <u>Adult and High School Senior Form</u>, pp. 5-6.

<u>IAV</u> scores are expressed in the following typological arrangement using plus and minus attitudes toward self and significant others.

<u>Classification</u> <u>Interpretation</u>

++	High valuing of self; high valuing of others
+-	High valuing of self; low valuing of others
-+	Low valuing of self; high valuing of others
	Low valuing of self; low valuing of others

Column two of the "self" and "other" sections of the <u>IAV</u> are totaled separately in the scoring process. Individuals totaling 170 points or more on either of the sections are considered to be plus in concept of self or others, while those scoring less than 170 points are judged to be minus in concept of self or others. For example, a person scoring 182 on column two of the "self" section and 130 on the "others" section is considered high valuing (+) of self and low valuing (-) of others. The <u>Index of Adjustment and Values</u> is contained in portions of the Student and Teacher booklets attached as Appendix D and E, respectively.

\mathbf{Sex}

There is considerable indication from research that more boys than girls go to college. Since sex differences appear to play an im-Portant role in college plans and attendance, boys and girls were differentiated throughout the study. Sex was determined by the indication of "male" or "female" on the student and teacher questionnaires.

Peer Friends

Since the school frequently functions as the social center for many adolescents, it was expected that peer friendships would often be formed within the educational milieu. The student's peer friends were measured by a self-reporting instrument in which he was asked to list the name of his best friend of his own age group. As previously noted, the validity and reliability of self-reporting, sociometric instruments has been shown by Moreno to be relatively acceptable.

Data were collected in such a way that the sociometric choices of students could be matched directly with the peer friend chosen. Sex, socio-economic status and grade level of the student's peer friends were explored in the study.

Most-Understanding Teachers

Students usually have strong likes and dislikes for various members of the instructional staff. The teacher they most admire is frequently the one who they feel knows and understands them the best. In selfreporting fashion, students were asked to indicate which teacher in their school they felt knew them the best. Since the data made it possible to match the sociometric choices of students directly with their most-understanding teachers, information regarding certain significant characteristics of the teacher chosen was readily available. Sex, marital status, years on the staff, age, personality classification and childhood socio-economic status of the most-understanding teachers of college and non-college preference students were explored.

Adult Friends

Significant adults, other than parents, in the adolescent's life can be found both inside and outside of the school environment. As a result, students were asked to name the adult they liked best, exclusive of parents or relatives. The name was of no particular interest except as it served to focus the student's attention on a specific person. They were then asked where they became acquainted with this person, whether in or out of school. In order that socio-economic status might be determined, they were also to indicate what the person did for a living. Whether the student's adult friend was in or out of the immediate school environment was explored as a variable. In addition, the socio-economic status of the out-adult was investigated, since the in-adults were mostly teachers, administrators, counselors or service personnel whose social status was relatively fixed.

Administration of the Instruments

All of the instruments were administered to students and teachers in booklet form. The portions of the booklet containing the instruments are attached as Appendix D and E.

Classroom teachers administered the tests and questionnaires under the supervision of a Michigan State University faculty member

while simultaneously completing the teacher's form of the booklet themselves. This was done in the classrooms between the opening of school in the morning and noon, and during the months of November and December of 1960. The booklets were then returned to the College of Education, Michigan State University, for coding and processing.

Analysis of the Data

The inventory booklets for the students in the 25 per cent stratified, random sample, and the most-understanding teachers they named were coded, tabulated, and key punched for <u>International Business</u> <u>Machine</u> analysis.

A chi-square statistic $x^2 = \sum \frac{(fo - ft)^2}{ft}$ was used to test the significance of the differences between the college and non-college preference groups with respect to the previously mentioned variables. This test was used throughout the study, with exact probability tests being used for cells containing fewer than five cases.

The chi-square test of independence was used upon the following assumptions: 97

- 1. Data must be classified into categories.
- There must be a valid or logical basis for categorizing data into observed frequencies and for setting up expected frequencies.

⁹⁷Robert H. Koenker, <u>Simplified Statistics for Students in Educa-</u> <u>tion and Psychology</u> (Bloomington, Illinois: McKnight and McKnight Publishing Co., 1961), p. 122. 3. The same person must not be used in more than one group in the comparison of two or more groups.

These assumptions were met in the study since the data were classified into valid and logical categories and classifications of:

	<u>Categories</u>	<u>Classifications</u>
1. 2. 3. 4.	Sex Level of Educational Aspiration Socio-economic status Personality classification	Male : Female College preference : Non- college preference High : Middle : Low ++ : +- : -+ :
5.	Age levels	16-18 or more (students) and 20-29 : 30-39 : 40-49 : and 50 or more (teachers)
6.	Grade levels	9th : 10th : 11th : 12th
7.	Years on the staff	0-2 : 3-9 : and 10 or more
8.	Marital status	Married : Single
9.	Place of employment	In-school : Out-school

No individual was used more than once in the analysis of each group.

In the process of IBM summarization of each of the variables, some cases were lost because of incomplete or invalid information. Cases were also lost by the extraction of the proportionate, random sample. Consequently, numerical totals of student, peer, teacher and adult variables of the proportionate, random sample were arranged in chi-square contingency tables by sex and level of educational aspiration. The chi-square test of homogenity was used to determine if significant differences had occurred as a result of the sampling procedure. Probability of a significant difference among males was p < .20 and was p < .98 among females. Both the male and female samples were considered to be sufficiently homogenous for the purposes of the study. Data relative to this analysis are presented in Tables 1 and 2.

The null form of the hypothesis (Ho: a=b) was employed. The alternative form of the hypothesis (H: a b) was accepted or rejected depending upon the test of the null form. The following null hypotheses were tested in this study:

- A. Socio-economic status of high school male and female seniors
 - Ho₁: There are no differences among ++, +-, -+, and -personality classification college and non-college preference students by socio-economic status
 - Ho₂: There are no differences between college and noncollege preference students by socio-economic status
- B. Personality classification of male and female high school seniors
 - Ho₁: There are no differences among high, middle and low socio-economic status college preference students by personality classification
 - Ho₂: There are no differences between college and noncollege preference students by personality classification
- C. Ecological characteristics of peer friends of male and female high school seniors
 - Ho₁: There are no differences among high, middle and low socio-economic status college preference students and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level

	Total Sample	Peers	Teachers	Adults	Out- adults	Total
	Dampie		1000.01010	Figures	daarto	1000
College	(536.48)	(391.57)	(393.11)	(511.05)	(269.78)	
Preference	534	401	399	516	252	2102
Non-college Preference	(159.52) 162	(116.43) 107	(116.89) 111	(151.95) 147	(80.22) 98	625
Total	696	508	510	663	350	2727
$x^2 = 6.74765$ d.f. = 4 p <.20						

TABLE 1. -- Proportionate, random sample of males

TABLE 2.--Proportionate, random sample of females

	Total Sample	Peers	Teachers	Adults	Out– adults	Total
College Preference	(474.35) 474	(368.35) 372	(363.12) 358	(463.88) 469	(177.31) 174	1847
Non-college Preference	(250.66) 251	(194.65) 191	(191.88) 197	(245.12) 240	(93.69) 97	976
Total	725	563	555	709	271	2823
$x^2 = 0.64628$ d.f. = 4 p<.98						

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- Ho₂: There are no differences among high, middle and low socio-economic status non-college preference students and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level
- Ho3: There are no differences among ++, +-, -+, and -personality classification college preference students and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level
- Ho4: There are no differences among ++, +-, -+, and -personality classification non-college preference students and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level
- Ho₅: There are no differences between college and noncollege preference students and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level
- Ho₆: There are no differences between college and noncollege preference students from a proportionate, random sample and their choice of peer friends by:
 - a. sex
 - b. socio-economic status
 - c. grade level
 - d. higher, same or lower socio-economic status

- D. Attitudinal and ecological characteristics of most-understanding teachers of male and female high school seniors
 - Ho₁: There are no differences among high, middle and low socio-economic status college preference students and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
- d. age
- e. socio-economic background
- f. personality classification
- Ho₂: There are no differences among high, middle and low socio-economic status non-college preference students and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
 - d. age
 - e. socio-economic background
 - f. personality classification
- Ho₃: There are no differences among ++, +-, -+, and -personality classification college preference students and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
 - d. age
 - e. socio-economic background
 - f. personality classification
- Ho₄: There are no differences among ++, +-, -+, and -personality classification non-college preference stu
 - dents and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
 - d. age
 - e. socio-economic background
 - f. personality classification
- Ho₅: There are no differences between college and non-college preference students and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
 - d. age
 - e. socio-economic background
 - f. personality classification

- Ho₆: There are no differences between college and noncollege preference students from a proportionate, random sample and their choice of most-understanding teachers by:
 - a. sex
 - b. marital status
 - c. years on the staff
 - d. age
 - e. socio-economic background
 - f. personality classification
 - g. higher, same or lower socio-economic status
- E. Ecological characteristics of adult friends of male and female high school seniors
 - Ho₁: There are no differences among high, middle and low socio-economic status college preference students and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults
 - Ho2: There are no differences among high, middle and low socio-economic status non-college preference students and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults
 - Ho₃: There are no differences among ++, +-, -+, and -personality classification college preference students and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults
 - Ho4: There are no differences among ++, +-, -+, and -personality classification non-college preference students and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults
 - Ho5: There are no differences between college and noncollege preference students and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults

- Ho₆: There are no differences between college and noncollege preference students from a proportionate, random sample and their choice of adult friends by:
 - a. place of employment
 - b. socio-economic status of out-adults
 - c. higher, same or lower socio-economic status

It was determined that the null hypothesis would be accepted if p > .05.

Eight null hypotheses were tested in the analysis of the socioeconomic status of high school seniors. The null hypotheses were accepted in 4 categories and rejected at the .05 or lesser levels of confidence in the other 4.

Ten null hypotheses were tested in an examination of the personality classification of the sample. Three of these were accepted while 7 were rejected at the .05 or lesser levels of confidence.

Thirty-eight null hypotheses were tested in a study of the ecological characteristics of the senior's peer friend choices. Twenty-six of these were accepted while 12 were rejected at the .05 or lesser levels of confidence.

Seventy-four null hypotheses were tested in an analysis of the attitudinal and ecological characteristics of the most-understanding teacher choices of the sample. The null hypotheses were accepted in 70 categories and rejected at the .05 or lesser levels of confidence in 4.

Twenty-six null hypotheses were tested in an examination of the ecological characteristics of adult friend choices of high school seniors. Seventeen of these were accepted while 9 were rejected at the .05 or lesser levels of confidence.

A total of 156 null hypotheses were tested in the study.

Summary

The high school senior sample used in this study was extracted from a 25 per cent stratified, random sample taken from Project 918, a larger national study conducted at Michigan State University. Thirtyfour high schools representing a nation-wide sample were chosen for study. The sampling procedure was designed so that significant relationships between selected variables could be ascertained.

The Bills, McLean Index of Adjustment and Values, the Duncan Socio-Economic Index for All Occupations, and sociometric, selfreporting type instruments were employed in the study. The chi-square test of independence was used in the analysis of the data. One hundred fifty-six null hypotheses were tested in the study. It was determined that the null hypothesis would be accepted if p>.05.

Results of the study are presented in Chapter IV. Conclusions were based upon an acceptance or rejection of the null hypotheses. The criterion for rejection of the null hypothesis was p < .05. If the null hypothesis (Ho: a=b) was rejected by chi-square analysis, the alternative hypothesis (H: a b) was tested by inspection of the chisquare table for direction and/or source of difference in distribution. Hypotheses for further research and analysis were also formulated from the results of the study. Data relative to the variables tested are presented in appropriate tables.

CHAPTER IV

LEVEL OF EDUCATIONAL ASPIRATION: A RELATIONSHIP TO SELECTED VARIABLES

Two thousand thirty-one high school seniors were investigated in this study relative to selected variables. One hundred fifty-six null hypotheses (Ho: a=b) were tested. One hundred twenty were accepted while 36 were rejected at the .05 or lesser levels of confidence. Those that were rejected (H: a b) were tested by inspection of the chisquare table for direction and/or source of difference in distribution.

Numerical Distribution of the Sample

Numerical data regarding personal ecological and attitudinal characteristics of the sample are shown in Appendix F, Table 1:1. Since the sample was stratified by level of educational aspiration, it was interesting to note that students who planned to go to college comprised 1,434 or 71.7 per cent, while those who did not plan to go to college comprised the remaining 597 or 28.3 per cent of the student population. Of the total male population, 761 boys indicated that they planned to go to college, whereas 233 voiced no plans to seek higher education. Six hundred seventy-three of the girls indicated positive

plans for college attendance and 364 signified that they did not plan to continue their education. Boys were in an average ratio of 77.2 per cent college preference and 22.8 per cent non-college preference whereas girls averaged 66.1 per cent college preference and 33.9 per cent non-college preference. This sex difference in college preference and attendance is in accord with the latest United States Bureau of the Census statistics. In discussing census statistics, Stewart states that "more boys than girls indicated their intention to enroll in college, despite the predominance of girls among the high school seniors of 1959-60."⁹⁸

The numerical distribution for high school senior males and females of the proportionate, random sample is shown in Appendix F, Table 1:2. Six hundred thirteen cases were lost in the process. The majority of these were from the high socio-economic classes, since a large number of the respondents in this class were college preference students.

Numerical data concerning the senior's choices of significant peer, teacher and adult friends are presented in Appendix F, Tables 2:1 and 2:2. In the process of IBM summarization of each of the significant friend groups, some cases were rejected because of incomplete or

⁹⁸Stewart, p. 13.

invalid information. The total number of cases examined, relative to each variable, is shown in the appropriate chi-square table.

Socio-Economic Status of Male High School Seniors

Four null hypotheses were tested in an analysis of the socioeconomic status of male high school seniors. Two were accepted and two rejected at the .05 or lesser levels of confidence. Data relative to these variables are presented in Appendix F, Tables 3:1 through 4.

There were significant differences among ++, +-, -+, and -college and non-college preference males from the high socioeconomic classes. More of the high socio-economic status college preference males were +- than expected whereas more non-college preference males were ++ and -- than anticipated. This trend did not continue for middle and low socio-economic status senior boys. Even though there were no statistically significant differences among these groups, there was a tendency for college preference males to be predominantly ++ and non-college preference males to be -+.

Personality characteristics significantly differentiate college and non-college preference males from the high socio-economic classes. The extreme self-confidence of these educationally high aspiring boys may well reflect complete acceptance of the educational values and security in the advantages of their social position. The personality extremes of their educationally low aspiring peers may be indicative either of parents who are accepting by reason of their higher educational level in the case of ++ boys, or of parents who are very class conscious and ambitious in the case of -- boys. There also seems to be some indication that the personality characteristics of college and non-college preference boys differ somewhat among socio-economic classes.

Significant differences were observed between college and noncollege preference males by socio-economic status. College preference senior boys came predominantly from the high socio-economic classes whereas their non-college preference peers came from the low classes.

Cultural, financial and educational advantages that vary with the adolescent boy's position in the social class hierarchy appear to have a significant relationship to his level of educational aspiration. For boys, the extremes of socio-economic status also appear to be highly indicative of their post-high school plans.

Socio-Economic Status of Female High School Seniors

Four null hypotheses were tested in an examination of the socioeconomic status of female high school seniors. Two of the hypotheses were accepted but two were rejected at the .05 or lesser levels of confidence. Data concerning the variables are presented in Appendix F, Tables 5:1 through 6. There were significant differences among ++, +-, -+, and -- college and non-college preference females from the low socio-economic classes. Low class college preference females were +- whereas their non-college preference peers were primarily ++ with some being -+. Even though there were no significant differences among high and middle socio-economic status college and non-college preference senior girls, there was a tendency for college preference girls to be ++ whereas non-college preference girls were -+.

Significant differences in personality patterns between college and non-college preference girls from the low socio-economic classes could well reflect cultural deprivation and lack of parental motivation. Since sex and socio-economic status also relate to college attendance, the low class college preference girl may have to be especially aggressive and confident of her own abilities if she is to continue her education. Educationally low aspiring girls from this class, however, either appear to be satisified with their present status or to lack confidence in themselves. Personality characteristics differentiating levels of educational aspiration seem to vary less for girls than boys among socio-economic classes.

Significant differences were noted between college and non-college preference females by socio-economic status. College preference senior girls were decidedly from the high socio-economic classes

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Socio-economic status also significantly differentiates educationally high and low aspiring girls. Less cultural and parental pressures on girls to attend college, however, may account for the fact that non-college preference girls are from the middle as well as the low socio-economic classes.

Personality Classification of Male High School Seniors

Five null hypotheses were tested in an analysis of the personality classification of male high school seniors. One was accepted while four were rejected at the .05 or lesser levels of confidence. Data concerning the results of this analysis are presented in Appendix F, Tables 7:1 through 8.

Significant differences were observed among high, middle and low socio-economic status, ++, +-, and -+ college and non-college preference males. More college preference ++ males than expected were from the high socio-economic classes, with some from the middle classes, whereas non-college preference ++ boys were largely from the low classes. College preference senior boys within the +- and -+ personality classifications were chiefly from the high socio-economic classes, their non-college preference peers being primarily from the low classes, with some from the middle classes. Even though the trend for -- boys

was similar to the ++ boys, the differences were not statistically significant.

The socio-economic differentiation between educationally high and low aspiring boys is not as extreme when viewed by personality classifications. Socio-economic status, however, continues to have a significant relationship to the male senior's level of educational aspiration, regardless of his personality classification.

There were also significant differences between college and noncollege preference males by personality classification. The majority of college preference senior boys were ++ with some being +-. Noncollege preference males were both -+ and -- to a greater degree than expected.

Educationally high aspiring boys appear to have a great deal of confidence in themselves. Academic success, cultural and educational advantages and parental encouragement all may directly relate to the self-confidence of the college-bound boy. The devaluating self-concept evidenced by educationally low aspiring boys, however, could well be an important factor in their plans not to seek higher education.

Personality Classification of Female High School Seniors

Five null hypotheses were tested in a study of the personality classification of female high school seniors. Whereas two of these

were accepted, three were rejected at the .05 or lesser levels of confidence. Data relative to the results of this analysis are shown in Appendix F, Tables 9:1 through 10.

Significant differences were noted among high, middle and low socio-economic status, ++, +-, and -+ college and non-college preference senior girls. College preference females within the ++ and -+ personality classifications were mainly from the high socio-economic classes whereas their non-college preference peers were primarily from the low classes with some from the middle classes. College preference +- girls were also chiefly from the high classes, but their noncollege preference peers were largely from the middle and low classes. The trend for -- females was similar but with a larger concentration of the college preference girls coming from the high socio-economic classes and the non-college preference girls coming from the middle classes. However, these differences were not statistically significant.

In the case of girls, personality classifications again seem to have little effect upon the relationship of socio-economic status to level of educational aspiration. Regardless of a female senior's personality characteristics, she will probably plan to attend college if she is from a high socio-economic class and plan to terminate her education if she is from a low or middle class.

There were no significant differences between college and noncollege preference females by personality classification. There was

a tendency for college preference girls, however, to be principally +whereas non-college preference girls were -+.

Personality characteristics do not seem to have as strong a relationship to level of educational aspiration for girls as for boys. Although college preference girls also tend to be overly self-confident and non-college preference girls tend to be devaluating of self, girls do not appear to depend as heavily as boys upon these personality characteristics in formulating their post-high school plans.

Ecological Characteristics of Peer Friends of Male High School Seniors

Nineteen null hypotheses were tested in an analysis of the ecological characteristics of peer friends of male high school seniors. Ten of these were accepted; nine were rejected at the .05 or lesser levels of confidence. In Appendix F, Tables 11:1 through 16:4, data are presented regarding the variables tested.

There were significant differences among high, middle and low college preference males and their choice of peer friends by socioeconomic status. Senior boys from each of the three socio-economic classes chose the majority of their peer friends from their own class. There was some indication that high and low class college preference boys were considerably more conscious of choosing peer friends from within their own socio-economic class, since middle class boys' choices reflected more even distribution between classes. Even though the differences were not statistically significant, there was a tendency for high and middle class senior boys to select their peer friends from their own grade whereas low class boys chose theirs from the 9th, 10th or 11th grades.

No significant differences were noted among high, middle and low socio-economic status non-college preference males and their choice of peer friends by sex, socio-economic status or grade level. A trend was noted, however, in the direction of middle class boys' choosing more male peer friends and low class boys selecting more female ones.

There were no significant differences among ++, +-, -+, and -college preference males and their choice of peer friends by sex, socio-economic status or grade level; however, ++ college preference boys tended to pick more female peer friends, whereas -+ and -- boys chose more male peers than expected. College preference ++ boys were inclined to select considerably more of their peer friends from the high socio-economic classes whereas -+ boys tended to choose theirs from the middle classes. It was also noted that +- boys chose considerably more of their peer friends from the 12th grade whereas -+ and -- boys selected theirs from the lower grades.

No significant differences or trends were observed among ++, +-, -+, and -- personality classification non-college preference males and their choice of peer friends by sex, socio-economic status or grade level.

Significant differences were noted between college and noncollege preference males and their choice of peer friends by sex, socio-economic status and grade level. College preference senior boys selected predominantly more male, high socio-economic class and 12th grade peer friends whereas non-college preference boys primarily chose female, low and middle socio-economic class and 9th, 10th and 11th grade peer friends. The direction of all of these trends was readily discernible.

Statistically significant differences were noted between a proportionate, random sample of college and non-college preference males and their choice of peer friends by sex, socio-economic status, grade level and higher, same or lower socio-economic status. College preference senior boys continued to pick male, high socio-economic class and 12th grade peer friends whereas non-college preference boys mainly chose female, low or middle class, and 9th, 10th and 11th grade peer friends. There were also significant differences between college and non-college preference senior boys and their choice of peer friends by higher, same or lower socio-economic status. The direction of these differences was clearly toward college preference males' choosing most of their peer friends from a higher socio-economic class and non-college preference males' selecting theirs from a lower class than their own.

Ecological characteristics of male seniors' peer friends have a significant relationship to their level of educational aspiration. Boys,

for example, choose peer friends who most likely reflect their own educational values as evidenced by their social mobility patterns and their selection of peers by socio-economic status and grade level. Since educationally high aspiring boys are planning to attend college, they select male peer friends in preference to attachments with girls that might lead to marriage. The non-college preference boy's interest in marriage, however, is probably reflected in his choice of female peer friends.

Ecological Characteristics of Peer Friends of Female High School Seniors

Nineteen null hypotheses were tested in a study of the ecological characteristics of peer friends of female high school seniors. Fifteen of these were accepted and four were rejected at the .05 or lesser levels of confidence. Data relative to these findings are found in Appendix F, Tables 18:1 through 22:4.

There were significant differences among high, middle and low college preference females and their choice of peer friends by socioeconomic status. High, middle and low class girls all chose the majority of their peer friends from their own socio-economic classes, respectively. However, middle class girls did choose a few of their peer friends from the low classes whereas low class girls chose some of theirs from the middle classes. While it was not statistically significant, it was observed that middle class senior girls tended to select considerably more of their peer friends from their own grade level, whereas high and low class girls chose theirs from the three lower grades.

No significant differences were noted among high, middle and low non-college preference females and their choice of peer friends by sex, socio-economic status or grade level. There was a trend, however, in the direction of senior girls' choosing peer friends from their own socio-economic class. High and middle class girls also tended to choose their peer friends from the three lower grades whereas low class senior girls chose theirs from their own grade.

There were no significant differences among ++, +-, -+, and -college preference females and their choice of peer friends by sex, socio-economic status or grade level. There was a tendency for ++ girls, however, to select peer friends from the three lower grades whereas +- girls chose theirs from the 12th grade.

Similarly, no significant differences were observed among ++, +-, -+, and -- non-college preference senior girls and their choice of peer friends by sex, socio-economic status or grade level. A trend toward +- girls' choosing middle class peer friends and -+ girls' selecting high class peer friends was noted.

There were significant differences between college and noncollege preference females and their choice of peer friends by socioeconomic status. College preference senior girls selected most of their peer friends from the high socio-economic classes whereas

non-college preference girls chose theirs principally from the low classes, with some choosing from the middle classes. A trend toward college preference girls' choosing more male, and non-college preference girls more female peer friends, was noted.

There were significant differences between college and noncollege preference females from a proportionate, random sample and their choice of peer friends by socio-economic status and higher, same or lower socio-economic status. College preference girls chose their peer friends from the high socio-economic classes whereas non-college preference girls selected theirs chiefly from the low, and some from the middle classes. Significant differences were also noted between college and non-college preference females in their choice of peer friends from higher, same or lower socio-economic classes than their own. College preference girls chose considerably more of their peer friends from a higher socio-economic class than their own. Non-college preference senior girls selected their peer friends primarily from socio-economic classes lower than their own. Even though the differences were not statistically significant, there was a tendency for college preference senior girls to select more peer friends than expected from their own grade whereas non-college preference girls selected more from the three lower grades.

Ecological characteristics of peer friends also have a significant relationship to female high school seniors' level of educational

aspiration. Girls appear to choose peer friends whose educational values are similar to their own as evidenced by their social mobility patterns and their selection of peers by socio-economic class. They do not seem to be as rigid as boys, however, in their choice of peer friends by sex or grade level. This may reflect greater emotional and sexual maturity on the part of girls and less tendency to see a rigid dichotomy between higher education and marriage.

Ecological and Attitudinal Characteristics of Most-Understanding Teachers of Male High School Seniors

Thirty-seven null hypotheses were tested in an analysis of ecological and attitudinal characteristics of most-understanding teachers of male high school seniors. Thirty-six of the null hypotheses were accepted and one was rejected at the .01 level of confidence. Data regarding the variables are presented in Appendix F, Tables 23:1 through 28:7.

There were no significant differences among high, middle and low socio-economic status college preference boys and their choices of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification. However, it was noted that high socio-economic status college preference boys were prone to select more single teachers than expected whereas middle class boys chose more married teachers. High and low class boys also tended to choose more teachers who had been employed 3-9 years whereas middle class boys chose more teachers than expected with 0-2 and 10+ years experience.

No significant differences or trends were observable among high, middle and low socio-economic status non-college preference boys and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification.

No significant differences were found among ++, +-, -+, and -personality classification college preference males and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification. There was a tendency for ++ boys to select more male teachers and for +- and -+ boys to choose more female teachers than expected. Boys who were ++ also were inclined to select more teachers who had been on the school staff 0-2 years whereas the other boys chose teachers who had been employed longer. It was noted that ++ boys tended principally to choose teachers in the 30-39 age group, with some choosing those in the 20-29 group; +- boys were inclined primarily to choose those in the 50+ age group, with some choosing those in the 30-39 group; -+ boys tended to select teachers in the 40-49 age group; and -- boys were prone to select from both the 20-29 and 40-49 age groups. College preference ++ males also tended to select +- teachers and -+ boys chose ++ teachers to a greater degree than expected.

There were no significant differences or major trends among ++, +-, -+, and -- personality classification non-college preference boys and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification.

No significant differences were noted between college and noncollege preference males and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socioeconomic background or personality classification; however, several trends were observable. College preference boys were prone to choose more single teachers whereas non-college preference boys chose more married teachers than expected. College preference males also tended to pick more teachers who had been on the staff from 0-2 or 10+ years whereas their non-college preference peers selected teachers who had been employed from 3-9 years. It was further noted that college preference boys were inclined primarily to select teachers in the 40-49 and some in the 30-39 age group whereas non-college preference boys largely selected those in the 20-29 age group. College preference boys also tended to choose more +- teachers whereas non-college preference boys primarily chose more ++ and some -+ teachers than expected.

There were significant differences between college and non-college preference males from a proportionate, random sample and their choice

of most-understanding teachers by socio-economic background. College preference boys chose more teachers from high socio-economic backgrounds whereas non-college preference boys selected more from both middle and low class backgrounds. Even though there were no other significant differences, there were several observable trends. College preference boys tended to choose teachers who had been employed from 0-2 years with some choosing teachers in the 10+ years group whereas non-college preference boys chose teachers who had been on the staff from 3-9 years. College preference boys also were inclined to select more teachers in the 40-49 age group whereas noncollege preference boys selected more in the 20-29 age group than expected.

Teachers' socio-economic backgrounds appear to have a significant relationship to male seniors' level of educational aspiration. Boys may select most-understanding teachers whose socio-economic background is more in accordance with their own educational values. Teachers from high socio-economic backgrounds, however, apparently relate better to educationally high aspiring boys whereas teachers from low or middle class backgrounds seem to have greater understanding of educationally low aspiring boys.

<u>Ecological and Attitudinal Characteristics of Most</u>-Understanding Teachers of Female High School Seniors

Thirty-seven null hypotheses were tested in a study of ecological and attitudinal characteristics of most-understanding teachers of female high school seniors. Thirty-four of the null hypotheses were accepted and three were rejected at the .05 or lesser levels of confidence. Data concerning the variables are presented in Appendix F, Tables 29:1 through 34:7.

There were significant differences among high, middle and low socio-economic status college preference girls and their choice of most-understanding teachers by age. High socio-economic status college preference girls principally chose teachers in the 40-49, and some in the 30-39, age bracket; middle class girls selected those in the 30-39 age group; and low class girls primarily chose teachers in the 20-29, and some in the 50+ age group. Although no significant differences were noted among the other variables, several trends were observed. High socio-economic class college preference females were inclined to select more male teachers whereas low class girls chose more female teachers than expected. High class college preference girls also selected more teachers with high socio-economic backgrounds whereas middle and low class girls chose more with low class backgrounds. It was further noted that high class girls were inclined to pick mainly +- teachers; middle class girls picked ++ teachers and low class girls picked both +- and -+ teachers.

No significant differences were observed among high, middle and low socio-economic status non-college preference females and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification. There was a tendency for high class non-college preference girls to select teachers who had been employed either 0-2 or 3-9 years; for middle class girls to select those employed 3-9 years; and for low class girls to select teachers who had been on the staff 0-2 years.

There were significant differences among ++, +-, -+, and -personality classification college preference senior girls and their choice of most-understanding teachers by marital status. It was noted that ++, -+, and -- college preference girls chose more married teachers whereas +- girls selected more single teachers than expected. There were no other significant differences among the variables tested, but a tendency was observed for ++ and -+ girls to choose ++ teachers; for +- girls to choose +- teachers; and for -girls to choose -+ teachers.

No significant differences were found among ++, +-, -+, and -personality classification non-college preference females and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socio-economic background or personality classification. There was, however, a tendency for ++ non-college

preference girls to choose more male teachers and for girls within the other personality classifications to choose more female teachers than expected. It was also noted that ++ girls were inclined to select teachers with low socio-economic backgrounds; +- girls chiefly selected those with high class backgrounds; and -+ girls primarily chose those with middle class backgrounds.

No significant differences were noted between college and noncollege preference senior girls and their choice of most-understanding teachers by sex, marital status, years on the staff, age, socioeconomic background or personality classification. College preference girls were inclined to select more male and more married teachers whereas non-college preference girls selected more female and more single teachers than expected. College preference girls also tended to choose teachers who had been employed from 3-9 years whereas their non-college preference peers chose those who had been on the staff 10+ years. There was also a tendency for college preference girls to pick teachers who were in the 30-39, and some in the 40-49, age ranges whereas non-college preference girls mainly picked those in the 50+, and some in the 20-29, age groups.

There were significant differences between college and noncollege preference females from a proportionate, random sample and their choice of most-understanding teachers by socio-economic background. College preference girls predominantly chose teachers

from high socio-economic backgrounds whereas non-college preference girls chose those from low, and some from middle, class backgrounds. Though the other variables were not statistically significant, it was found that college preference senior girls were prone to pick married teachers whereas non-college preference girls picked single teachers. College preference girls also tended to select teachers within the 40-49, and some within the 30-39, age ranges whereas their noncollege preference peers largely selected those within the 50+, and some within the 20-29, age brackets.

The socio-economic backgrounds of teachers also have a significant relationship to female high school seniors' post-high school plans. College preference girls seem to relate better to teachers from high socio-economic backgrounds whereas non-college preference girls feel more comfortable with teachers from low or middle class backgrounds. It could well be that a teacher's socio-economic background so strongly influences his own values that he can only relate effectively to adolescents with educational values similar to his own. Teachers from high socio-economic backgrounds apparently place so much emphasis on college attendance that they can best relate to, and thus attract, the educationally high aspiring student. Teachers from low and middle class backgrounds, however, seem to be more accepting of the educationally low aspiring student.

Ecological Characteristics of Adult Friends of Male High School Seniors

Thirteen null hypotheses were tested in an analysis of the ecological characteristics of adult friends of male high school seniors. Nine of the null hypotheses were accepted and four were rejected at the .05 or lesser levels of confidence. Data relative to these variables are presented in Appendix F, Tables 35:1 through 40:3.

No significant differences were found among high, middle and low socio-economic status college preference males and their choice of adult friends by place of employment or socio-economic status of outadults. High socio-economic status college preference boys, however, were inclined to choose high class out-adults, and low status boys mainly chose low, and some middle, class out-adults.

There were no significant differences or trends among high, middle and low socio-economic status non-college preference senior boys and their choice of adult friends by place of employment or socio-economic status of out-adults.

Significant differences were observed among ++, +-, -+, and -personality classification college preference males and their choice of adult friends by place of employment. It was found that ++, -+, and -- college preference boys chose adult friends largely from outside the school whereas +- boys chose those from within the school. Even though it was not statistically significant, there was a tendency for ++ college preference boys to select middle class out-adults; for -+ boys to choose low class out-adults; and for +- and -- boys to select high class out-adult friends.

There were no significant differences or trends among ++, +-, -+, and -- personality classification non-college preference males and their choice of adult friends by place of employment or socio-economic status of out-adults.

Significant differences were found between college and non-college preference students and their choice of adult friends by place of employment and socio-economic status of out-adults. College preference boys selected more of their adult friends within the school whereas noncollege preference boys selected more of theirs outside. College preference boys chose principally high socio-economic status out-adults whereas non-college preference boys chose their out-adults from the low classes.

There were significant differences between college and noncollege preference senior boys from a proportionate, random sample and their choice of adult friends by place of employment. College preference boys picked their adult friends from within the school whereas non-college preference boys picked theirs from outside the school. Even though the differences were not statistically significant, college preference boys were inclined to choose their out-adult

friends from the high socio-economic classes whereas non-college preference boys chose theirs from the low classes.

Whether adult friends are employed by the school or elsewhere and the socio-economic status of those employed elsewhere have a significant relationship to male seniors' level of educational aspiration. College preference boys apparently find similar educational values and greater acceptance among teachers, guidance personnel and administrators. Educationally low aspiring boys, however, seem to find the friendship and understanding they need among low socio-economic adults outside the school. It would appear that educational personnel are failing to communicate successfully with non-college preference boys.

Ecological Characteristics of Adult Friends of Female High School Seniors

Thirteen null hypotheses were tested in an investigation of the ecological characteristics of adult friends of female high school seniors. Whereas eight of these were accepted, five were rejected at the .05 or lesser levels of confidence. Data concerning the results of the investigation are given in Appendix F, Tables 41:1 through 46:3.

There were significant differences among high, middle and low socio-economic status college preference females and their choice of adult friends by socio-economic status of out-adults. High, middle and low socio-economic status college preference girls decidedly chose their out-adult friends from their own classes, respectively. While it was not statistically significant, it was noted that high status college preference girls tended to choose adult friends from outside the school whereas middle and low status girls chose adults from inside the school.

No significant differences or trends were noted among high, middle and low socio-economic status non-college preference females and their choice of adult friends by place of employment or socioeconomic status of out-adults.

There were also no significant differences or trends among ++, +-, -+, and -- personality classification college preference girls and their choice of adult friends by place of employment or socio-economic status of out-adults.

No significant differences were found among ++, +-, -+, and -personality classification non-college preference females and their choice of adult friends by place of employment or socio-economic status of out-adults. However, ++, -+, and -- non-college preference girls were inclined to select adult friends inside the school whereas +- girls selected theirs outside the school.

Significant differences were found between college and noncollege preference females and their choice of adult friends by place of employment and socio-economic status of out-adults. College preference girls chose predominantly more in-adult friends whereas non-college preference girls chose more out-adults than expected. College preference senior girls also selected more of their out-adult friends from the high socio-economic classes whereas non-college preference girls chose theirs primarily from the low, and some from the middle, classes.

There were significant differences between college and noncollege preference senior girls from a proportionate, random sample and their choice of adult friends by place of employment and socioeconomic status of out-adults. College preference girls chose more in-adult friends whereas their non-college preference peers selected more out-adults than expected. College preference girls selected their out-adult friends from the high socio-economic classes whereas non-college preference girls chose theirs chiefly from the low, and some from the middle, classes. Even though the differences were not statistically significant, it was noted that college preference girls tended to choose their out-adult friends from their own socioeconomic class although some chose out-adults from a higher class than their own. Non-college preference girls were inclined to select their out-adult friends from a class lower than their own.

The ecological characteristics of adult friends also have a significant relationship to senior girls' post-high school plans. College preference girls select their adult friends from among educational personnel whereas non-college preference girls find their adult friends among low

socio-economic adults outside the school. This could well reflect the fact that educational personnel are not effectively meeting the personal and social needs of educationally low aspiring girls. Teachers, guidance personnel and administrators apparently are concentrating attention on college-bound boys and girls to the exclusion of those who plan to terminate their education. As a result, non-college preference students do not seem to regard educational personnel as adult friends.

Summary

It was the purpose of this chapter to present the results of the study. In order to identify the sample population clearly, a numerical distribution by sex was presented. The study involved 2,031 high school senior males and females from 34 selected high schools within the territorial United States. Girls comprised 1,037 and boys, 994 of the total student population. It was also noted that 1,437 of the students stated that they planned to go to college and 597 indicated that they did not desire further higher education. Information concerning the statistically significant results of the study is summarized in Tables 3, 4 and 5. A (1) signifies the primary direction of the differences and a (2) denotes any secondary difference.

It was found in an investigation of the socio-economic status of the student population by level of educational aspiration that the following factors were statistically significant:

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	High	Middle	Low	
	++ ++	++ ++	++ ++ ++	High Mid. Low
College Pre- ference Males	1			1
Non-college Pre- ference Males	1 1			1
Colloge Pre- ference Females			I	1
Non-college Pre- ference Females			1 2	2 1

TABLE 3.--Significant socio-economic and personality characteristics of the sample, continued

	i ÷	-	+			+		I	
	High Mic	d. Low	High Mid	. Low	High]	Mid.	Low	High Mid. Low	++ ++ ++
College P.s- ference Males	1 2		1		1				1 2
Non-college Pre- ference Males		I	8	1		7	Г		1 1
College Fre- ference Females	1	÷	1						
Non-college Pre- ference Females	5	Ч	7	1		7	1		

TABLE 4.--Significant ecological and attitudinal characteristics of the friend choices of the sample by socio-economic status and personality classification

	Peers			Teach	lers				Adults		
		Marital		Åg	Ð						
		Status	20-	30-	40-	50 or					
	High Mid. Low	M	29	39	49	mcre	Ę	Out	High	Mid.	Low
College Freierence											
Males											
High	1										
Middle	1										
Low	l										
++								1			
-+											
+								-			
-								-1			
1								-1			
College Preterence											
remates											
High	1			-	1						
Middle	1 2			Г		2				Ч	
Low	2 1		н			2					1
‡		1									
+		-									
+		, ,									
-		4 .									
1		-									

					Peers					Teachers		Adults	
	Sex				9th-llth	12th	Higher	Same	Lower				
	MF	High l	Mid.	Low	Grades (Grade	Class	Class (Class	High Mid. Lov	v In Out	High Mid	.Low
Males		-											
College													
Preference	-	п				н					1	-1	
Non-college													
Preterence	Ч		2	Ч	1								1
Prop. Random													
Sample													
College											<u> </u>		
Preference							I			1	ч		
Non-college													
Preference	Π		7	н	1			2		2 1	Г		
Females													
College													
Preference		н									1	1	
Non-college													
Preference		_	2	Ч									I
Prop. Random													
Sample													
College											<u></u>		
Preference		-1					1	2		I		1	
Non-college													
Preference			7						-1	2 1			-1

TABLE 5.--Significant ecological and attitudinal characteristics of the friend choices of the sample
- High socio-economic status college preference males were more +- than expected whereas non-college preference boys were both ++ and -- to a greater degree than expected.
- 2. College preference males came predominantly from the high socio-economic classes and non-college preference males from the low classes.
- 3. Low socio-economic status college preference females were +- whereas their non-college preference peers were primarily ++ with some being -+.
- 4. College preference females came principally from the high socio-economic classes and non-college preference females from the middle and low classes.

In an exploration of the personality classification of the two groups,

it was observed that:

- College preference ++ males were chiefly from the high, with some from the middle, classes, and non-college preference ++ males were from the low classes. College preference +- and -+ males were largely from the high, and non-college preference +- and -+ males were from the low, with some from the middle, classes.
- College preference males were predominantly ++, with some being +- whereas their non-college preference peers were both -+ and --.
- 3. College preference ++ and -+ females were mainly from the high socio-economic classes and non-college preference ++ and -+ females were primarily from the low, with some from the middle, classes. College preference +- girls were also usually from the high classes, but their non-college preference peers were largely from the middle and low classes.

Significant ecological characteristics of the peer friends of college

and non-college preference males and females were discovered in the

study:

- High, middle and low class college preference males selected their peer friends chiefly from their own socioeconomic class.
- 2. College preference males chose the majority of their peer friends from the male group whereas non-college preference males selected theirs from the female group.
- 3. College preference males selected more of their peer friends from the high socio-economic classes whereas non-college preference males selected theirs from the low, with some from the middle, classes.
- 4. College preference senior males chose their peer friends mainly from their own grade whereas non-college preference seniors chose theirs from the 9th, 10th and 11th grades.
- 5. The significant factors noted in 2, 3 and 4 were supported by an identical investigation using a proportionate, random sample.
- 6. College preference males selected peer friends who were higher in socio-economic status than themselves and noncollege preference males chose those who were from a lower, and some from their own, socio-economic status.
- High class college preference females selected their peer friends from their own socio-economic class whereas middle and low class females chose theirs from both of the other classes.
- 8. College preference girls selected peer friends from the high socio-economic classes whereas non-college preference girls primarily selected them from the low, and some from the middle, classes.
- 9. The significant factors noted in 8 above were supported by an identical investigation using a proportionate, random sample.
- College preference females chose peer friends from their same, or a higher, socio-economic class whereas noncollege preference females selected those from a lower class than their own.

In an investigation of selected attitudinal and ecological characteristics of most-understanding teachers some statistically significant factors were noted:

- 1. College preference males from a proportionate, random sample chose most-understanding teachers with high socio-economic backgrounds whereas non-college preference males chose teachers from low, and some from middle, class backgrounds.
- High class college preference females selected mostunderstanding teachers from the 30-39 and 40-49 age groups; middle class females, those in the 30-39, and some in the 50+, age brackets; and low class females, teacher friends from the 20-29, and some from the 50+, age groups.
- College preference ++, -+, and -- females predominantly selected married teachers whereas +- females chose single teachers.
- 4. College preference senior girls from a proportionate, random sample selected most-understanding teachers with high socio-economic class backgrounds whereas non-college preference girls chose those with low, and some with middle, class backgrounds.

Some statistically significant factors were also revealed in a study

of the ecological characteristics of adult friends. For example:

- College preference ++, -+, and -- males chose chiefly out-adult friends, but +- males selected in-adults.
- College preference males selected in-adult friends, whereas non-college preference males chose outadults.
- 3. College preference senior boys chose out-adult friends from the high socio-economic classes, but non-college preference boys selected those from the lower classes.

- 4. The significant factor noted in 2 above was supported by an identical investigation using a proportionate, random sample.
- 5. College preference females from the three socio-economic classes chose out-adult friends from their own classes, respectively.
- College preference senior girls selected in-adult friends, whereas non-college preference girls chose out-adult friends.
- 7. College preference girls picked their adult friends from the high socio-economic classes, but non-college preference girls picked theirs from the low, and some from the middle, classes.
- 8. The factors noted in 6 and 7 above were supported in an identical investigation using a proportionate, random sample.

Statistical data concerning the results of the study were presented

in appropriate tables in Appendix F.

In the next chapter hypotheses are presented for further exploration and testing. Certain implications, drawn from the study, will also be suggested for personnel in education, business and government and for further social psychological research. Observations regarding the purpose and value of the study and future trends relative to similar studies, conclude the dissertation.

CHAPTER V

LEVEL OF EDUCATIONAL ASPIRATION: A CHALLENGE

Projected college enrollment figures indicate that an increasingly larger number of high school students will seek higher education in the years to come. Educational administrators and student personnel workers at both the secondary and collegiate levels need to understand the college aspiring student better. Labor and management executives and personnel workers should also know more about the attitudes and values of the high school terminal student. Level-of-aspiration studies can provide valuable information to these individuals, as well as fruitful areas for further research by behavioral scientists.

Hypotheses Requiring Further Study

Some of the findings of this study warrant further research and analysis. Since the study was hypotheses-generating in nature, conclusions were drawn from the statistically significant outcomes. The following hypotheses are suggested for further study:

- Ho₁: High class college preference senior males are high valuing of self and low valuing of others.
- Ho₂: High class non-college preference males are either ++ or --.

- Ho3: Low class college preference senior females are high valuing of self and low valuing of others.
- Ho₄: Low class non-college preference females are either ++ or -+.
- Ho₅: College preference males are high valuing of self, either ++ or +-.
- Ho6: Non-college preference males are low valuing of self; either -+ or --.
- Ho7: College preference high school seniors come from the high socio-economic classes.
- Hog: Non-college preference high school seniors come from the low socio-economic classes.
- Hog: College preference senior males choose male peer friends.
- Ho₁₀: Non-college preference senior males choose female peer friends.
- Ho₁₁: College preference high school seniors select peer friends from the high socio-economic classes.
- Ho₁₂: Non-college preference high school seniors select peer friends from the low socio-economic classes.
- Ho₁₃: College preference high school males choose 12th grade peer friends.
- Ho₁₄: Non-college preference high school males choose peer friends from the 9th, 10th, and 11th grades.
- Ho₁₅: College preference high school seniors select peer friends from a higher socio-economic class than their own.
- Ho16: Non-college preference high school seniors select peer friends from a lower socio-economic class than their own.

- Ho₁₇: College preference high school seniors choose mostunderstanding teachers with high socio-economic backgrounds.
- Ho₁₈: Non-college preference high school seniors choose most-understanding teachers with low socio-economic backgrounds.
- Holg: College preference high school seniors select adult friends from within the school.
- Ho₂₀: Non-college preference high school seniors select adult friends from outside the school.
- Ho₂₁: College preference high school seniors choose out-adult friends from the high socio-economic classes.
- Ho₂₂: Non-college preference high school seniors choose outadult friends from the low socio-economic classes.

Among the null hypotheses that were accepted, some contained trends

that were sufficiently significant to warrant further investigation. Con-

sequently, it is suggested that the following null hypotheses receive

additional study:

- Ho₁: There are no differences between college and non-college preference girls by personality classification.
- Ho₂: There are no differences between college and non-college preference girls and their choice of peer friends by grade level.

Implications for Education

The results of the study contain certain implications that might prove of value to educational personnel. To get a clearer picture of the college preference senior as opposed to his non-college preference peer, the two levels of educational aspiration are presented separately.

College Preference Students

It was found that college preference high school seniors pri-

marily:

- 1. Are from the high socio-economic classes
- 2. Select peer friends from the high socio-economic classes
- 3. Select peer friends from a higher socio-economic class than their own
- 4. Choose most-understanding teachers with high socioeconomic backgrounds
- 5. Pick adult friends from within the school
- 6. Choose out-adult friends from the high socio-economic classes

It was also observed that college preference males chiefly:

- 1. Are high valuing of self, either ++ or +-
- 2. Choose male peer friends
- 3. Select peer friends from their own grade level

Furthermore, it was found that college preference females from the low socio-economic classes are principally high valuing of self and low valuing of others.

These findings present a composite picture of the educationally high aspiring student as being relatively self-confident, socially and economically privileged, and well accepted by peers, teachers and adults with values and attitudes similar to his own. There are several important implications from these observations for educational personnel. Educational administrators need to give more attention to the socioeconomic status of the student body. Schools located in suburban areas that serve students from high socio-economic classes will need to provide educational programs that prepare students for college. This does not mean that high school terminal curriculums are not necessary, for some students in these schools will not be intellectually capable of a four year college program.

Administrators in schools serving predominantly low socio-economic communities will have to be even more conscious of the educationally high aspiring student. These students may need special encouragement and assistance if they are to be adequately prepared for college. Equally important to meet the needs of the college aspiring student, is the selection and assignment of good teachers. Ginzberg believes that:

The more parents are handicapped in guiding their offspring because of their own deprived backgrounds, the more important is the role of the school in helping to develop and direct young people. The school should be able to guide these youngsters with or without the formal testing programs which are used to identify high potential. More important than testing instruments or other guidance techniques is the contribution the school can make by providing able teachers. A good teacher serves as a model of excellence and can thereby capture the imagination of the young.⁹⁹

⁹⁹Eli Ginzberg, <u>Human Resources: The Wealth of a Nation</u> (New York: Simon and Schuster, 1958), p. 83.

It was observed that college preference students choose adult friends from within the school and select most-understanding teachers with high socio-economic backgrounds. There is an indication that students are able to identify and select teachers with values similar to their own. It may be necessary to take a closer look at the teacher's system of values, especially in reference to educational goals. Possibly, closer screening and selection and more strategic placement of teachers within a school system would be expedient and wise. In-service training programs to help teachers more fully recognize their relationship to the level of educational aspiration of their students might also be advisable.

Guidance personnel might note that college preference students are upwardly mobile in regard to their choice of peer friends. These students chose peer friends from their own grade level and from socioeconomic classes higher than their own. Females and especially males tend to be high valuing of themselves. The educationally high aspiring student appears to be very status conscious, confident of his abilities and highly upwardly mobile. It is especially interesting to note the personality pattern of the college aspiring low socio-economic girl who is high valuing of self and low valuing of others. These upwardly mobile girls may be extremely ambitious, possibly to the point of being neurotically agressive in their efforts

to achieve education and social status. Many of these girls may need intensive counseling help with such apparently strong success strivings.

Guidance personnel may also face difficult problems with the educationally high aspiring senior who is not intellectually capable of a four year college program or who is determined to attend a prestige college when he should settle for less. Conant notes: "The main problem in wealthy suburban schools is to guide the parent whose college ambitions outrun his child's abilities toward a realistic picture of the kind of college his child is suited for."¹⁰⁰

One cannot escape drawing from the study the impression that the college preference student finds the school, the educational program, and the staff well geared to his personal and social needs. This supports the contention that the American high school exemplifies and perpetuates high socio-economic values. The socioeconomic cleavage between educationally high and low aspiring seniors was quite evident throughout the study.

College and university administrators and student personnel workers may also find in the results of the study some implications for higher education. College students will apparently tend to be upwardly mobile in the choice of their peer friends. Residence hall,

¹⁰⁰James B. Conant, <u>Slums and Suburbs</u> (New York: McGraw-Hill Book Co., Inc., 1961), p. 144.

fraternity and sorority personnel may find this information of value in the administration of college or university housing. Academic failure may present serious problems to students who tend to be high valuing of self. These experiences can have traumatic effects upon these students, requiring intensive counseling assistance. Since the majority of college students are from the high socioeconomic classes, those coming from the low socio-economic classes will probably require additional support from counselors and instructors in adjusting to a different socio-economic status with new role expectations.

Non-College Preference Students

Certain factors pertaining to non-college preference students were revealed in the study. It was found that educationally low aspiring high school seniors largely:

- 1. Are from the low socio-economic classes.
- 2. Select peer friends from the low socio-economic classes
- 3. Select peer friends from a lower socio-economic class than their own
- 4. Choose most-understanding teachers with low socioeconomic backgrounds
- 5. Pick adult friends from outside the school
- 6. Choose out-adults from the low socio-economic classes

Non-college preference males were low valuing of themselves, -+ and --, and principally selected female peer friends from the 9th, 10th and 11th grades. Females tended to follow the same personality classification pattern and to select peer friends from the three lower grades.

It would appear that the non-college preference student tends to be low valuing of himself, selects his friends from the low socioeconomic classes, and must look outside the school environment for significant adults with whom he can identify.

Rarely do educational personnel need to be encouraged to give more attention to the educationally high aspiring student. Instead, they have frequently been criticized for their lack of concern for the educationally low aspiring student. Hodgkinson even suggests that:

As more and more students prepare for college, we may expect that even less concern will be exhibited for motivating the non-college group, many of whom are now graduating from high schools with reading skills equivalent to those of normal fourth and fifth grade students. . . The investment of time, money, and talent in motivating the college preparatory students may be far greater than that invested in the student with no clearly defined goals.¹⁰¹

The findings of this study would also support the belief that educationally high aspiring students, who are chiefly from the low socioeconomic classes, will need more attention from school personnel than

¹⁰¹Harold L. Hodgkinson, <u>Education in Social and Cultural Per</u>-<u>spectives</u> (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1962), pp. 164-65.

they are presently receiving. It was noted that these students chose most-understanding teachers with low socio-economic backgrounds. It is very possible that they receive more help and encouragement from these teachers who, although upwardly mobile themselves, may have a deeper understanding of the problems these youngsters face. Non-college preference students must also turn outside the school for their adult friends. Apparently they are not able to establish rapport with most educational personnel who hold predominantly middle or upper class values. They must instead find their adult friends among persons in the community from the low socio-economic classes. It is doubtful that they find much encouragement toward high educational aspirations from these individuals.

Educational administrators must assume much of the responsibility for solving these problems. They may find that teachers with low socioeconomic class backgrounds are far more effective as teachers and counselors in slum and low socio-economic area schools. Revised curriculums that are better adapted to the communities and socioeconomic classes which the school serves and that will more adequately prepare high school terminal students for a highly competitive labor market may be necessary. More funds may need to be channeled into educational programs for these students. Conant notes: "The contrast in the money spent per pupil in wealthy suburban schools and in slum schools of the large cities challenges the concept of equality of

opportunity in American public education. More money is needed in slum schools."¹⁰² Much of this money may need to be spent in adult education, technical training and industrial education programs that can better serve students who following high school frequently marry and immediately seek employment.

Educational personnel have tended to permit extra-curricular activities to evolve instead of assuming responsibility for the goals and implementation of the programs. Consequently, a selective process has occurred in which these activities become dominated by college aspiring students whereas those who need the social confidence and exposure to new values and social customs provided by these activities do not participate. Again Hodgkinson notes that:

College preparatory students dominate extra-curricular activities; participation in these activities is one of the necessary prerequisites for social mobility. The non-college students, however, see the same activities as meaningless and frivolous, because the activities are not seen as ways of gaining social status both in the present and in the future.¹⁰³

It was observed in this study that educationally low aspiring seniors select their peer friends from the low socio-economic classes, from grades lower than their own, from socio-economic classes lower than their own and tend to be low valuing of themselves. Even though

¹⁰²Conant, p. 146.

103_{Hodgkinson}, p. 82.

it might be expected that non-college preference seniors, who are themselves principally from the low classes, would tend to choose peers from the same classes, it is quite evident that these students are still not finding satisfaction within their contemporary peer culture. Otherwise they would not select peer friends from lower socioeconomic classes than their own nor would they need to turn to students in lower grades to find their friends.

The extra-curricular program could serve as an opening wedge for the student who finds the activities of the classroom (such as memorizing a list of Presidents) totally unrelated to his life. By allowing the student to develop a loyalty and involvement in an extra-curricular activity, the chances of his becoming involved in the classroom activities of the school are increased.¹⁰⁴

Educational personnel should not perpetuate class structures themselves nor should they permit the dominant college aspiring group to do so through extra-curricular programs. Studying, playing and working together can help to reduce prejudice and misunderstanding between groups.

It was noted that male non-college preference seniors chose female peer friends. Since these boys are planning to terminate their education at the high school level, they are more interested in marriage than college aspiring boys. Early marriages, however, not only can prevent many students from reaching their academic potential but

104<u>Ibid</u>., p. 84.

also can cause serious personal and social problems for the community. Administrative personnel may need to take a new look at present social regulations.

Guidance personnel are presented with a real challenge in regard to the intellectually bright but educationally low aspiring student. These students, who are primarily from the low socio-economic classes, will require special counseling if they are to be encouraged to achieve their potential. Stewart states:

Teachers and counselors by early identification and encouragement of bright young people who are not planning to attend college, can help prevent the great loss to the individual and to the Nation <u>[sic]</u> when such students terminate their formal education upon graduating from high school. Counselors, therefore, will need to direct their attention increasingly to able children who are less likely to be motivated to attend college because of their socio-economic background.¹⁰⁵

Guidance personnel may have to assume more responsibility for aiding non-college preference students who are often ill prepared for the problems they will face in an extremely competitive labor market. Conant recognized this problem and even went so far as to suggest that "the schools should be given the responsibility for educational and vocational guidance of youth after they leave school until age 21."¹⁰⁶ These students may marry early, as noted in the non-college

105Stewart, p. 14.

106Conant, p. 146.

aspiring boy's preference for female peer friends, but may also desire to get additional part-time technical and vocational training while they are employed.

It was noted in the study that non-college preference students tend to be low valuing of themselves and find their adult friends outside the school. Guidance personnel may have to contact these students on a strictly developmental basis since many will not voluntarily seek help with personal, social and scholastic problems.

Implications for Business and Government

Business, industry and government personnel administrators are frequently the first to come into contact with the educationally low aspiring student after his graduation from high school. Some of these youth go into military service either by enlistment or selective service, although the greater proportion seek jobs in business and industry. The results of the study may have important implications for personnel in these fields.

The majority of those entering military service or seeking employment will be from the low socio-economic classes. Since many of them marry young, their economic and social needs will be basic. Technical training or other educational programs that provide on-thejob advancement will probably not be of interest to them until they are older. Food, clothing, housing, an automobile and certain luxury items will take most of their time and money. Those who go into military service may show more interest in advanced training as specialists and technicians, since they will probably be single and more concerned with gaining prestige among their peers.

Because they tend to be low valuing of themselves, they will probably be relatively easy to train and manage. As they come to a full realization of the competitive nature of labor and industry, however, they will seek for ways to advance themselves up the economic and social ladder. According to Ginzberg:

While the vitality of our educational effort is grounded in the quality of our public schools, colleges, and universities, an increasingly important part is being played by the armed services, business and adult education, which provide opportunities for millions of our citizens to develop their skills and talents. Many young people who learn little in school just start to study seriously when they enter the armed services and recognize for the first time the relation between education and rewards. Others who may have been supercilious about learning while they were in high school are eager to participate in industrial training when they realize that their advancement depends on their adding to their skills. Others attend night school or enroll in correspondence courses.¹⁰⁷

With the average work week about 40 hours and being lowered, with the two-day week-end firmly established, and with three and four week paid vacations increasingly in effect for workers with ten years' service, the constructive use of leisure time is no longer a problem just for the white-collar worker and professional. It has become a

¹⁰⁷Ginzberg, p. 145.

challenge to the entire population. Consequently, government and industry, along with education, will have to provide more selfimprovement and meaningful recreation programs for these youth.

Many high school terminal students because of low socioeconomic status, lack of educational drive, or ethnic factors may meet discriminatory practices in labor and industry that will cause serious personal and social problems for them. Personnel administrators can better meet these problems if they have a clear definition of the non-college preference student. Conant recognizes the difficulties that these youth face and suggests: "Employment opportunities in the large cities must be promptly opened on a nondiscriminatory basis. Because of the attitude of management and labor this can be done only through the use of federal funds."¹⁰⁸

Many educationally high aspiring students who complete college and graduate programs will also seek employment in government, business or industry. Their self-confidence, upwardly mobile attitudes, and high socio-economic values probably will fit them for the higher status they will occupy by virtue of their education and training. Possibly they are well suited for the titles of "organization men" and "status seekers."

¹⁰⁸Conant, p. 146.

Implications for Further Social Psychological Research

Public and private educational systems provide lucrative fields for social psychological research into adolescent behavior. In their efforts to salvage intellectually capable but educationally low aspiring students, educational personnel are anxious to find how adolescents are motivated. McClelland, Havighurst and other behaviorial and social scientists are currently giving much attention to this problem.

The results of this study offer some challenges for further research. It was noted that educationally low aspiring students tend to be low valuing of self whereas educationally high aspiring students are inclined to be high valuing of self. Additional study using projective techniques might show significant patterns in personality differences between college and non-college preference adolescents. The distinction between levels of educational aspiration relative to socioeconomic status requires further research in which intelligence, academic performance, ethnic differences and/or place of residence are controlled. Follow-up studies to check further the predictive reliability of college plans and to determine differences in college attrition rates between socio-economic classes could make valuable contributions.

It was found that college preference students mainly choose adult friends from within the school and most-understanding teachers

with high socio-economic backgrounds whereas non-college preference students select adult friends from outside the school and mostunderstanding teachers with low socio-economic backgrounds. Further research into the role that teachers and other adults play in encouraging adolescents toward high or low levels of educational aspiration would be meaningful.

Relatively little is known about the impact of the peer culture upon value development. The findings of this study would indicate that the choice of peer friends is significantly related to the students' educational values. Further investigation is needed of social mobility patterns among adolescents and other factors in the peer culture that influence educational goals.

Exploration of the relationship of religious, personality, counseling, mass media and other variables to the formulation of educational values could have valuable implications for educational personnel and others working with adolescents. Even though a knowledge of the factors that influence students to have a high need for academic achievement is important, it may be more important to know the specific subject area in which the adolescent feels this motivation. It may also be of value to know whether the college preference adolescent is highly motivated to get into college, get out of college with a degree that will get him a good job, or go to college to learn something. Research is providing personnel in education, sociology and psychology with a clearer definition of the educationally high and educationally low aspiring adolescent. Further research and theory, however, is needed in better understanding psychological and sociological factors that influence and motivate the individual. Wisely put into practice, this knowledge can provide more meaningful educational programs that could alleviate personal and social problems presently facing many adolescents.

Concluding Observations

It was the purpose of this study to explore certain variables that might show significant differences between high and low levels of educational aspiration. College and non-college preference seniors from 34 selected high schools within the United States were employed in this study.

Some statistically significant relationships were discovered; however, such studies probably raise more questions than they answer. Hypotheses for further investigation resulting from the study do present some challenges to those with an interest in motivational research. Some of the findings also contain information that can be helpful to personnel working with adolescents.

Results of the study relative to the socio-economic status of college and non-college preference seniors tend to support previous research. Personality differences between the two groups indicate that educationally high aspiring seniors tend to be high valuing of themselves, either ++ or +-, while educationally low aspiring students are low valuing of themselves either -+ or --. Further research into the causal relationships of these differences seems warranted.

Some notable differences were found in the peer, teacher and adult choices of college and non-college preference students. The tendency toward upward mobility of college preference seniors, as evidenced by choice of peer friends from their own grade level and from a higher socio-economic status than their own is significant. Educational personnel might also view with some concern the fact that educationally low aspiring seniors chiefly find in teachers with low socio-economic backgrounds and adults outside the school the understanding and friendship they need.

High attrition rates, juvenile delinquency, discriminatory practices and poor mental health all give indication of a need for better understanding of psychological and sociological factors that influence people's values, attitudes and goals. Level-of-aspiration studies can provide valuable information that will help leaders in education, business and government meet these serious problems. Survival in today's world will depend largely upon the best and fullest utilization of all human resources. The knowledge gained in this study may make a small contribution in meeting this challenge.

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APPENDIX A

SUPPLEMENTARY RESEARCH

The results of previous research studies that deal with the specific variables investigated in this study were reviewed in Chapter II. Supporting theory and research, although not directly related, is important to a concise understanding of those factors that influence adolescents in formulating educational values and goals. Consequently, personality development in terms of perceptual theory is reviewed along with research into the relationship of small groups and place of residence to level of educational aspiration.

Personality Development

Level of educational aspiration refers to the individual's desire to achieve a future educational state. Being a value or attitude, it is a personal orientation to action with respect to a social object. A value, as defined by the Howard project for the <u>Comparative Study of</u> <u>Values in Five Cultures</u>, "is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences selection between available modes, means and ends of action."¹

The conceiving of any particular object as desirable may result from physiological or psychological need, but need is not the only source of values. Values also stem from:

. . . the kind of relationship which the individual experiences with other persons, particularly with significant persons such as parents, siblings, peers, and teachers. Values may result from the process of enculturation by which the individual learns to accept certain behaviors as desirable. Such values have little relation to the special needs of a particular individual, in the sense that they did not grow out of his own needs. They existed prior to the individual as the right and proper modes of behavior---right because the culture has so defined them.²

Social psychologists have long recognized that people differ in regard to drive and motivation. Some individuals show extremely strong needs to reach certain educational, social, or occupational goals, while others seem content with minimal standards of achievement. This difference in the achievement motivation of individuals is frequently referred to as "level of aspiration."

The high school student's stated expectation relative to college attendance, his level of educational aspiration, represents a value

¹E. Z. Vogt, "Papers of the Peabody Museum of American Archaeology and Ethnology," <u>Navaho Veterans: A Study of Changing Values</u>, XLI:1 (Cambridge, Mass.: The Museum, Harvard University, 1951), pp. 6-7.

²Carroll H. Miller, <u>Foundations of Guidance</u> (New York: Harper and Brothers, 1961), p. 208. that he places on higher education. His statement of intentions is based on both expectancy and his self-concept. His personal educational goals represent values, attitudes, standards and beliefs that have become a part of his basic personality structure.

Barker and Wright point out that the individual develops in a "psychological habitat." They define this as "the psychological context of behavior which lies at the intersection of the behaving person and the milieu. The habitat is a dynamic system within which the person and the environment are interconnected."³ This concept affords a means of conceptualizing the behavioral context of the individual and of reconstructing his experiences in his habitat without slipping into the solipsism of complete subjectivity. Thus, it is possible to identify the person, the milieu and certain standing behaviors within the psychological habitat.

The dynamic interaction of the organism, the environment and standing behavior patterns, or cultural learnings, results in the development of a concept of self. Rogers, Lewin, Combs and Snygg, and other "field theorists," in describing the self-concept, assert that "the self develops out of the organism's interaction with the environment." They also state that the:

³R. G. Barker and H. F. Wright, <u>Midwest and Its Children</u> (Evanston, Illinois: Row, Peterson, 1956), p. 11.

- a. Self may introject the values of other people and perceive them in a distorted fashion.
- b. Self strives for consistency.
- c. Organism behaves in ways that are consistent with the self.
- d. Experiences that are not consistent with the self-structure are perceived as threats.
- e. Self may change as a result of maturation and learning.⁴

The self-concept, being a product of the dynamic interaction of the person with his own special world, thus represents the totality of his life experiences at any given time.

Snygg and Combs claim that "the self is composed of perceptions concerning the individual and this organization of perceptions in turn has vital and important effects upon the behavior of the individual."⁵

Miller also points out that:

While the child is developing a concept of himself as he actually is, he is also developing a concept of an ideal self; as he wishes he may become. Freud referred to this as the ego-ideal and believed it first developed from the child's identification with a parental figure. In non-Freudian terms the ideal self is more apt to be regarded as an integrated set of values and aspirations.⁶

Consequently, it is relatively easy to understand the influence that the milieu, with its significant peers and adults, membership

⁴Calvin S. Hall and Gardner Lindzey (eds.), <u>Theories of Person-</u> <u>ality</u> (New York: John Wiley and Sons, Inc., 1957), p. 478.

⁵<u>Ibid</u>., p. 470 ⁶Miller, p. 233. and reference groups, socio-economic classes, culturally defined sex roles and other environmental factors, has upon the self-concept, the ideal-self, and, in turn, the behavior of individuals.

Berdie believes that "the family influence upon the development of an individual's value orientation is undoubtedly of prime importance."⁷ Ausubel and others studied the effects of parental attitudes on children's self-concepts. Their findings support the hypothesis that the child's self-concept develops according to the pattern of parents' rewards and punishments.⁸

Sherif and Cantril define the child's ego, or self, as a cluster of attitudes and values derived from identification with his membership and reference groups. Membership groups are those to which he actually belongs, such as the family, play groups, gang or school, while reference groups are those to which he psychologically relates himself and by which he judges himself, which may or may not be the same as the membership groups.⁹

Motivated by the desire to belong and to gain prestige among his peers, a child learns or "introjects" the group's norms or standards. A

⁷Ralph F. Berdie, "Why Don't They Go to College?," <u>Personnel</u> <u>and Guidance Journal</u>, XXXI (March, 1953), pp. 352-56.

⁸D. P. Ausubel <u>et al</u>., "Perceived Parent Attitudes as Determinants of Children's Ego Structure," <u>Child Development</u>, XXV (1954), pp. 173-83.

⁹Muzafer Sherif and Hadley Cantril, <u>The Psychology of Ego-</u> <u>Involvement</u> (New York: John Wiley and Sons, Inc., 1947), p. 4. great deal of shifting of reference groups occurs in the normal process of growing up as the child's psychological habitat expands. The norms of these groups, in large part, determine the structure of his selfconcept and the nature of ego-involvements which, in turn, affect his personality and his relationship to other persons and groups.

Hymen found that the standards people set for themselves are determined largely by reference groups to which they related themselves.¹⁰ There are numerous studies supporting the hypothesis that membership groups also exert strong influences upon the perception, values, attitudes, and judgments of individuals.¹¹, 12, 13

Any individual in the course of his life experiences develops a pattern of values which, to some extent at least, is unique to him. No other person has had quite the same concatenation of relations with parents, siblings, relatives, peers, teachers, neighbors, townsfolk, and others, or has had quite the same vicarious experiences through newspapers, magazines, books, sports, radio programs, television programs, religious services, and the like. The pattern of values which the individual learns is therefore idiosyncratic to some considerable extent. On the other hand,

¹⁰Herbert H. Hymen, "The Psychology of Status," <u>Archives of</u> <u>Psychology</u>, CCLXIX (June, 1942), p. 49.

11Solomon E. Asch, "Studies of Independence and Conformity: A Minority of One Against a Unanimous Majority," <u>Psychological Mono-</u> <u>graph</u>, LXX:9 (1956), p. 416.

¹²Muzafer Sherif, "Study of Some Social Factors in Perception," <u>Archives of Psychology</u>, XXVII (July, 1935), pp. 50-60.

¹³Fred L. Strodtbeck and Paul A. Hare, "Bibliography of Small Group Research," <u>Sociometry</u>, XVII (1954), pp. 107-93. any individual shares many experiences with other by reason of participation in common culture and common groups, and he will accordingly share many values with others.¹⁴

Sherif and Sherif, in discussing the differential effects of group interaction on members, also believe that man's socialization is revealed mainly in his attitudes formed in relation to the values and norms of his group or groups.¹⁵ His conception of the scope of his world, his standards of living, or his aspirations toward wealth, women, and status are well regulated. His goals are set by the prevailing hierarchy of social organization and norms of his group.

Theory and research indicate that the child's environment molds and shapes his personality. His values are largely introjected from the significant peer and adult models with whom he identifies. It is from these experiences that he forms his concept of himself, of others and of the ideal self that he would like to become. Thus, his personality structure, containing his system of values, largely determines the goals toward which he will strive. Kagan adequately sums up this process by his statement that:

The core of the child's value system, the foundation of his ideal model--is derived from his identification with adult figures. In general there are two major sets of forces that are responsible for the establishment of those behaviors, attitudes, motives, and self labels the individual gradually acquires during development.

¹⁵Muzafer and Carolyn W. Sherif, <u>An Outline of Social Psychology</u> (New York: Harper and Brothers, 1956), pp. 160-62.

¹⁴Miller, p. 208.

The first set involves the direct reward and punishment of specific habits by a social object. . . The second set of forces involves the child's identification with real and fancied role models.¹⁶

Small Group Relationships

The term "level of aspiration" (Anspruchsniveau) was first used by Dembo to explain the individual's tendency to set for himself certain goals-to-be-realized.¹⁷ A series of experiments, starting with the work of Hoppe, Frank and others, showed that:

Setting aspiration levels or goals for oneself and for others with whom one stands in definite relationship (as friends, loved ones, competitors, enemies) implies judgement of future attainment. In shaping such judgements, it has been found that past levels of performance in the task in question, the general state of one's selfesteem, one's sensitivity in respect to his own successes and failures, the place of the task in one's scheme of personal values, the positive or negative interpersonal relationship with other people involved, the level of achievement and goals of one's group all may come into the picture.¹⁸

Schutz studied 135 boys who were above the national average in

intelligence, socio-economic status and educational aspirations. He

¹⁸Sherif and Sherif, pp. 160-62.

¹⁶Jerome Kagan, "The Choice of Models: A Developmental Analysis of Conflict and Continuity in Human Behavior" (Reprint of a speech given at the American Personnel and Guidance Association Convention, Chicago, Illinois, April, 1962), p. 8.

¹⁷Kurt Lewin, Tamara Dembo, Leon Festinger and Pauline Snedden Sears, "The Level of Aspiration Theory," Pt. I of <u>Personality and the Behavior Disorders</u>, ed. J. McV. Hunt (New York: The Ronald Press Company, 1944), pp. 333-78.

concluded that "one's level of occupational aspiration is in part a function of his evaluation of and satisfaction with his perceived self."¹⁹

Sherif and Cantril in summarizing several studies of level of aspiration concluded that "unless and until there is some ego-involvement no level of aspiration is set and the individual has no concern about his own status."²⁰ Ego, or self-involvement, results from the social interaction of the child with his various membership and reference groups containing significant peer and adult models.

General level-of-aspiration studies indicate that a child's desire to succeed is decidedly influenced by the demands of parents. For example, Little and Cohen noticed that children's aspiration patterns tended to follow those of their mothers.²¹ They felt this perhaps indicated that the child's level of aspiration was molded after what he thought his mother expected of him. Lewin also found that "a level of

²⁰Sherif and Cantril, p. 4.

²¹Sue W. Little and L. D. Cohen, "Goal-Setting Behavior of Asthmatic Children and of Their Mother's for Them," <u>Journal of Per-</u><u>sonality</u>, XIX (1951), pp. 376-89.

¹⁹R. A. Schutz, "The Relationship of Self-Satisfaction to Stated Vocational Preferences" (unpublished Doctoral thesis, University of Minnesota, 1959), <u>Dissertation Abstracts</u>, XX, p. 2148.

aspiration decidedly above (or below) a child's real ability may be produced by the demands of adults and by the performance of comrades."²²

Helper studied the development of both the self-concept and the ideal self as a problem in learning. He found that children's ideal-self concepts were as similar to ideal-child concepts held by randomly selected parents, as to ideal-child concepts held by their own parents and that self-concept modeling for boys was positively correlated with parental reward for similarity to the father.²³

Early studies by Hurlock and Jansing²⁴ and Peters²⁵ indicated that the individual's occupational choices are strongly influenced by parents and other significant persons in the individual's life. In more recent studies Dynes and his associates noted that the experiences children have in the family have a positive relationship to their occupational aspirations.²⁶ Hill believes that:

²²Lewin, Kurt, <u>A Dynamic Theory of Personality</u>, Selected Papers (New York: McGraw-Hill Book Company, Inc., 1935).

²³M. M. Helper, "Learning Theory and the Self Concept," <u>Journal</u> of <u>Abnormal and Social Psychology</u>, LI (1955), pp. 184-94.

²⁴E. B. Hurlock and C. Jansing, "The Vocational Attitudes of Boys and Girls of High School Age," <u>Pedag, Seminary and Journal of Genet</u>. <u>Psychology</u>, XLIV (1934), pp. 175-91.

²⁵E. F. Peters, "Factors Which Contribute to Youth's Vocational Choice," <u>Journal of Applied Psychology</u>, XXV (1941), pp. 428-30.

²⁶R. R. Dynes, A. C. Clarke and S. Dinitz, "Levels of Occupational Aspiration: Some Aspects of Family Experiences as a Variable," <u>American Sociological Review</u>, XXI (April, 1956), pp. 212-15. The most potent determinants of college proneness are in the cultural and educational traditions, ambitions and hopes of the family. A history of college attendance in the family, friends in college or going, identification of college education as a means of improving one's lot--all are strong determiners of proneness.²⁷

The attitudes of parents relative to educational and occupational choices has also been shown to be influential in the later educational and occupational aspirations of their children.²⁸ Kahl discovered that with lower-middle class boys some subtle irritation of the parents due to a dissatisfaction with their own lot is the critical family feature that distinguishes educationally high aspiring boys from low aspiring boys.²⁹ These parents apparently translate their personal dissatisfaction into a mobility quest as they communicate it to their sons. Another study conducted with children of approximately the same mental ability and achievement showed that plans to attend college are determined by parental factors.³⁰

²⁷G. E. Hill, "College Proneness, A Guidance Problem," <u>Personnel and Guidance Journal</u>, XXXIII (1954), pp. 70-73.

²⁸D. J. Bordau, "Educational Aspirations and Parental Stress on College," <u>Social Forces</u>, XXXVIII (May, 1960), pp. 262-69.

²⁹J. A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," <u>Harvard Educational Review</u>, XXXIII (Summer, 1953), pp. 186-203.

³⁰D. R. Young, "Parental Influence Upon the Decisions of Scholastically Talented Youth Concerning Higher Education" (unpublished Doctor's thesis, University of Wisconsin, 1959). Jonietz found that the differences between achieving and underachieving college freshmen were partly attributable to differences in family background, even very largely of differences in values and in self-perception.³¹

Cunningham notes that "identification, the psychological merging of one's self with another or group, seems to carry with it the acceptance of the goals of the person or group."³² These studies would indicate that the beliefs and attitudes held by the individual's membership and reference groups have a relationship to his own values and, subsequently, to his level of educational and occupational aspiration.

Residential Relationships

Sociologists have long recognized that an individual's cultural environment has a tremendous influence upon his personality development. Cooley and others have made various distinctions between the

³¹Alice K. Jonietz, A Study of Achieving and Non-Achieving Students of Superior Ability (Urbana, Illinois: Student Counseling Service, University of Illinois, 1959).

³²Ruth Cunningham <u>et al.</u>, <u>Understanding Group Behavior of</u> <u>Boys and Girls</u> (New York: Teachers College, Columbia University, 1951), p. 74.

structures of primary and secondary groups, but one of the most interesting has been the distinction made between the urbanized, rationalistic society and the folk community.³³ Tonnies was the first to identify the values, mores and role expectations of the Gemeinshaft, or folk community, as opposed to the Gesellschaft, or urbanized, rationalistic society where the person may pursue individual ends.³⁴ The American sociologist, Becker, further investigated these concepts distinguishing the two cultures as sacred and secular. He defines a sacred society as one that is reluctant to accept and initiate social change, while a secular society is one that exhibits readiness for change.³⁵ Sargent and Williamson point out that "in the casual, fleeting contacts of modern urban culture, man has come to depend increasingly on secondary groups for his norms, his motivation, and the satisfaction of his affiliative needs."³⁶ Could it not be that the closer association with primary groups so prevalent in rural life affects the educational values of the child?

³³Charles H. Cooley, <u>Social Organization</u> (Glencoe, Illinois: The Free Press, 1956), pp. 23-31.

³⁴F. Tonnies, <u>Gemeinschaft and Gesellschaft as Fundamental</u> <u>Concepts of Sociology</u>, ed. C. P. Loomis (New York: American Book Co., 1940).

³⁵Howard Becker, <u>Through Values to Social Interpretation</u> (Durham, North Carolina: Duke University Press, 1950).

³⁶S. S. Sargent and R. C. Williamson, <u>Social Psychology</u> (New York: The Ronald Press Co., 1958), p. 319.

A child growing up in rural America could well have experiences by reason of his geographical residence that would cause his system of values to be vastly different from that of a child living in a highly urbanized area of the country. Level-of-aspiration research lends some support to the hypothesis that ecological factors play a part in the development of educational values and goals. For example, Slocum surveyed two thousand high school seniors relative to their post-graduation plans. He found that 36 per cent planned to attend college, that these tended to be from the high socio-economic levels and that they were from urban rather than rural areas.³⁷ Both Roper's³⁸ national survey and follow-up studies, such as Berdie's, ³⁹ tend to support Slocum's findings on the relationship of residence to educational aspirations. An initial study by Counts⁴⁰ and a later follow-up study included in the National Survey of Education showed that urban children attend high school in higher proportions than do rural children, 58 per cent

³⁹R. F. Berdie, <u>After High School What</u>? (Minneapolis: University of Minnesota Press, 1954).

⁴⁰G. S. Counts, <u>The Selective Character of American Education</u> (Chicago: Department of Education, University of Chicago, 1922).

³⁷W. L. Slocum, "Educational Planning by High School Seniors," Journal of Educational Research (1958), pp. 583-90.

³⁸Elmo Roper, <u>Factors Affecting the Admission of High School</u> <u>Seniors to College</u> (Washington, D.C.: American Council on Education, 1949).

as against 39 per cent, an indication of different values toward education by rural and urban populations. Centers also noted rural-urban related differences in values associated with occupations.⁴¹ Haller and Soule,⁴² Haller,⁴³ and Grigg and Middleton⁴⁴ noted that students reared in rural areas have lower educational and occupational goals than do students reared in urban centers. Even though Youmans considered educational aspirations and plans to attend college as separate dimensions, he also found many of the same urban-rural relationships to exist.⁴⁵

There is also an indication from research that rural groups in general, and particularly farm groups, tend to place a lower value on

⁴¹Richard Centers, "The Intensity Dimension of Class Consciousness and Some Social and Psychological Correlates," <u>Journal of Social</u> <u>Psychology</u>, XLIV (1956), pp. 151-59.

⁴²A. O. Haller and W. H. Soule, "Farm Residence and Levels of Educational and Occupational Aspirations," <u>American Journal of Sociol-ogy</u>, LXII (January, 1959), pp. 404-11.

⁴³Archie O. Haller, "Planning to Farm: A Social Psychological Interpretation," <u>Social Forces</u>, XXXVII (March, 1959), pp. 263-368.

⁴⁴C. M. Grigg and R. Middleton, "Community Orientation and Occupational Aspirations of Ninth-Grade Students," <u>Social Forces</u>, XXXVIII (May, 1960), pp. 303-08.

⁴⁵E. G. Youmans, "The Educational Attainments and Future Plans of Kentucky Rural Youth," <u>Kentucky Agricultural Experiment Station</u> <u>Bulletin No. 664</u> (Lexington: University of Kentucky, 1959). higher education than do urban groups.⁴⁶ Mulligan surveyed the student body at Indiana University and found that white-collar groups were over represented, whereas the farming, unskilled and semi-skilled groups were under represented. He believes that failure to attend college is largely due to cultural factors in the case of farm and lower-class groups and to economic factors in the middle and upper-class groups.⁴⁷

In a survey conducted by the National Opinion Research Center, it was found that 54 per cent of the total sample expressed a need for a college education as compared to 47 per cent of the farm sample.⁴⁸ A similar nation-wide survey of the high school seniors of the class of 1959-1960 was conducted by the U.S. Department of Agriculture. It showed that only about a third of the seniors from farm homes reported college plans, whereas about half the seniors from urban and rural nonfarm environments indicated their intentions of attending college the following year.⁴⁹

⁴⁶E. M. Rogers, <u>Social Change and Rural Society</u> (New York: Appleton-Century-Crofts, Inc., 1960), p. 50.

⁴⁷R. A. Mulligan, "Socio-Economic Background and College Enrollment," <u>American Sociological Review</u> (April, 1951), pp. 188-96.

⁴⁸National Opinion Research Center, "Jobs and Occupations: A Popular Evaluation," in <u>Class, Status, and Power</u>, ed. Bendix <u>et al</u>. (Glencoe, Illinois: Free Press, 1953), pp. 411-26.

⁴⁹Maxine G. Stewart, "Who Goes to College," <u>Occupational Out-</u> <u>look Quarterly</u>, VI:2 (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics, May, 1962), p. 11.

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CHARACTERISTICS OF THE SCHOOLS

School	Year	Expenditure	Grades	Type of	Per Cent	Number	Per Cent	Full	Part
Code	Building Occupied	Per Pupil	Taught in	Community	Graduates Attending	of High Schools	Male Teachers	Time Non-	Time Non-
			District		College	in District		teaching	teach ing
1	58	484	K-14	Resid. Indust.	50	ę	62	18	0
2	59	350	K-12	"Bed" Suburb.	35	7	75	4	с
ε	58	450	9-12	"Bed" Suburb.	58	5	60	12	1.6
4	50	350	K-12	"Bed" Suburb.	35	7	60	თ	7
പ	57	400-499	9-12	Non-farm Rural	28-34	l	63	С	0
9	58	300-349	1-12	Urban Center	68	1	54	12	l

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School Code	Year Building Occupied	Expenditure Per Pupil	Grades Taught in District	Type of Community	Per Cent Graduates Attending College	Number of High Schools in District	Per Ceut Male Teachers	Full Time Non- teaching	Part Time Non- teaching
2	56	2 00	K-12	"Bed" Lit. Indust.	65	Ч	56	~	0
8	56	735	9-12	"Bed" Suburb.	55	1	65	9	6
б	55	Under 250	K-12	Urban Country Metro.	78	11	35	თ	1
10	58	250-299	10-12	Suburb. Resid.	25	11	33	ŝ	4.5
11	54	284	7-12	City	60-65	ß	53	4	0
12	59	284	7-12	Rural	65	ß	53	4	0
13	58	342	K-12	Agric. Indust. Town	36	-	70	2	7
14	57	270	1-12	Small City	42	1	65	5	7

art Time Von- eaching	0	4	Ч	4	4	12	17	0
Full F Time 7 Non- h teaching t	σ	m	თ	3	Ŋ	9	10	12
Per Cent Male Teachers	3 G	64	64	63	71	53	67	75
Number of High Schools in District		-	Г	4	5	4	-	2
Per Cent Graduates Attending College	50	45	72	35	24-49	73	60	63
Type of Community	Agric. Indust. Town	"Bed" Suburb.	Commerc. "Bed"	Resid.	Indust. Town	Metro. Resid.	"Bed" Suburb.	Suburb. Indust.
Grades Type of Taught Community in District	l-12 Agric. Indust. Town	K-12 "Bed" Suburb.	K-12 Commerc. "Bed"	1-12 Resid.	K-12 Indust. Town	K-12 Metro. Resid.	9–12 "Bed" Suburb.	9-12 Suburb. Indust.
Expenditure Grades Type of Per Pupil Taught Community in District	236 1-12 Agric. Indust. Town	397 K-12 "Bed" Suburb.	350-399 K-12 Commerc. "Bed"	300-349 I-12 Resid.	350-399 K-12 Indust. Town	350-399 K-12 Metro. Resid.	541 9-12 "Bed" Suburb.	570 9-12 Suburb. Indust.
Year Expenditure Grades Type of Building Per Pupil Taught Community Occupied in District	55 236 1-12 Agric. Indust. Town	57 397 K-12 "Bed" Suburb.	55 350-399 K-12 Commerc. "Bed"	58 300-349 1-12 Resid.	57 350-399 K-12 Indust. Town	56 350-399 K-12 Metro. Resid.	55 541 9-12 "Bed" Suburb.	59 570 9-12 Suburb. Indust.

ırt me ən- aching	4	с	9	9	7	0	1	0
Pa Ti N te								
Full Time Non- teaching	4	ю	Q	4	4	0	ъ	12
Per Cent Male Teachers	72	33	69	66	35	58	67	50
Number of High Schools in District	7	ω	Γ	2	5	7	Г	1
Per Cent Graduates Attending College	43	75	18.6	50	50	55	75	40
f Inity		•	•				1)	
Type o Commu	Rural Urban	"Bed" Suburb	Rural Urban Indust	Rural Urban	Rural Urban Milit.	"Bed" Suburb	Village "Bed"	"Bed" Suburb
Grades Type o Taught Commu in District	K-12 Rural Urban	1-12 "Bed" Suburb	K-12 Rural Urban Indust	K-12 Rural Urban	l-12 Rural Urban Milit.	K-12 "Bed" Suburb	K-12 Village "Bed"	K-12 "Bed" Suburb
Expenditure Grades Type o Per Pupil Taught Commu in District	425 K-12 Rural Urban	250 1-12 "Bed" Suburb	350-399 K-12 Rural Urban Indust	325 K-12 Rural Urban	240 1-12 Rural Urban Milit.	420 K-12 "Bed" Suburb	820 K-12 Village "Bed"	325 K-12 "Bed" Suburb
Year Expenditure Grades Type o Building Per Pupil Taught Commu Occupied in District	57 425 K-12 Rural Urban	59 250 1–12 "Bed" Suburb	56 350-399 K-12 Rural Urban Indust	58 325 K-12 Rural Urban	58 240 1-12 Rural Urban Milit.	56 420 K-12 "Bed" Suburb	56 820 K-12 Village "Bed"	57 325 K-12 "Bed" Suburb

hool	Year Building Occupied	Expenditure Per Pupil 289	Grades Taught in District	Type of Community "Bed"	Per Cent Graduates Attending College	Number of High Schools in District	Per Cent Male Teachers 60	Full Time Non- teaching	Part Time Non- teaching 2
	28	617.30	10-12	Suburb. Urban Center	20	. 0	46	23	
	58	515	K-12	"Bed" Suburb.	38	Ч	55	13	4
	57	360	K-12	College Rural Village	54	1	60	7	-1

APPENDIX C

DUNCAN, OCCUPATIONAL SCALE

Socio-economic index

Professional, Technical, and Kindred Workers

Accountants and auditors	78
Actors and actresses	60
Airplane pilots and navigators	79
Architects	90
Artists and art teachers	67
Athletes	52
Authors	76
Chemists	79
Chiropractors	75
Clergymen	52
College presidents, professors, and instructors (n.e.c.)	84
Dancers and dancing teachers	45
Dentists	96
Designers	73
Dietitians and nutritionists	39
Draftsmen	67
Editors and reporters	82
Engineers, technical	85
Aeronautical	87
Chemical	90
Civil	84
Electrical	84
Industrial	86
Mechanical	82
Metallurgical and metallurgists	82
Mining	85
Not elsewhere classified	87
Entertainers (n.e.c.)	31
Farm and home management advisors	83
Foresters and conservationists	48

	Socio-economic
	index
Funeral directors and embalmers	59
Lawyers and judges	93
Librarians	60
Musicians and music teachers	52
Natural scientists (n.e.c.)	80
Nurses, professional	46
Nurses, student professional	51
Optometrists	79
Osteopaths	96
Personnel and labor relations workers	84
Pharmacists	82
Photographers	50
Physicians and surgeons	92
Radio operators	69
Recreation and group workers	67
Religious workers	56
Social and welfare workers, except group	64
Social scientists	81
Sports instructors and officials	64
Surveyors	48
Teachers (n.e.c.)	72
Technicians, medical and dental	48
Technicians, testing	53
Technicians (n.e.c.)	62
Therapists and healers (n.e.c.)	58
Veterinarians	78
Professional, technical, and kindred workers (n.e.c.)	65
Farmers and Farm Managers	
Farmers (owners and tenants)	14
Farm managers	36
rann managers	50
Managers, Officials, and Proprietors, except Farm	
Durrens and department basis	70
Duyers and department nedds, store	/ 4
buyers and snippers, larm products	33
Conductors, railroad	58
Greatt men	/4
Floormen and floor managers, store	50
Inspectors, public administration	63
Federal public administration and postal service	72

	Socio-economic
	ind ex
State public administration	E 4
	54
Local public doministration	20
Managers and superintendents, building	32
Officers, pilots, pursers, and engineers, ship	54
Officials and administrators (n.e.c.) public administratio	n 66
Federal public administration and postal service	84
State public administration	66
Local public administration	54
Officials, lodge, society, union, etc.	58
Postmasters	60
Purchasing agents and buyers (n.e.c.)	77
Managers, officials, and proprietors (n.e.c.) - salaried	68
Construction	60
Manufacturing	79
Transportation	71
Telecommunications, and utilities and sanitary services	s 76
Wholesale trade	70
Retail trade	56
Food and dairy products stores, and milk retailing	50
General merchandise and five and ten cent stores	68
Apparel and accessories stores	69
Furniture, home furnishings, and equipment stores	68
Motor vehicles and accessories retailing	65
Gasoline service stations	31
Eating and drinking places	39
Hardware, farm implement, and building material retail	64
Other retail trade	59
Banking and other finance	85
Insurance and real estate	84
Business services	80
Automobile repair services and garages	47
Miscellaneous repair services	53
Personal services	50
All other industries (incl. not reported)	62
Managers officials and proprietors $(n \in c_{-})$ - self empl	$\frac{02}{48}$
Construction	51
Manufacturing	61
	43
Tologommunications, and utilities and canitary corrigo	- 44
Wholegale trade	5 44
Potoil trado	23
Retail lide	40
Concerned merchanding and first and milk retailing	33
General merchanalse and live and ten cent stores	4/

	Socio-economic
	index
Apparel and accessories stores	65
Furniture, home furnishings, and equipment stores	59
Motor vehicles and accessories retailing	70
Gasoline service stations	33
Eating and drinking places	37
Hardware, farm implement, and building material retail	l 61
Other retail trade	49
Banking and other finance	85
Insurance and real estate	76
Business services	67
Automobile repair services and garages	36
Miscellaneous repair services	34
Personal services	41
All other industries (incl. not reported)	49

Clerical and Kindred Workers

Agents (n.e.c.)	68
Attendants and assistants, library	44
Attendants, physician's and dentist's office	38
Baggagemen, transportation	25
Bank tellers	52
Bookkeepers	51
Cashiers	44
Collectors, bill and account	39
Dispatchers and starters, vehicle	40
Express messengers and railway mail clerks	67
Mail carriers	53
Messengers and office boys	28
Office machine operators	45
Shipping and receiving clerks	22
Stenographers, typists, and secretaries	61
Telegraph messengers	22
Telegraph operators	47
Telephone operators	45
Ticket, station, and express agents	60
Clerical and kindred workers (n.e.c.)	44

Sales Workers

Advertising agents and salesmen	66
Auctioneers	40

	Socio-economic
	index
D	0.5
Demonstrators	35
Hucksters and peddlers	8
Insurance agents and brokers	66
Newsboys	27
Real estate agents and brokers	62
Stock and bond salesmen	73
Salesmen and sales clerks (n.e.c.)	47
Manufacturing	65
Wholesale trade	61
Retail trade	39
Other industries (incl. not reported)	50

Craftsmen, Foremen, and Kindred Workers

Bakers	22
Blacksmiths	16
Boilermakers	33
Bookbinders	39
Brickmasons, stonemasons, and tile setters	27
Cabinetmakers	23
Carpenters	19
Cement and concrete finishers	19
Compositors and typesetters	52
Cranemen, derrickmen, and hoistmen	21
Decorators and window dressers	40
Electricians	44
Electrotypers and stereotypers	55
Engravers, except photoengravers	• 47
Excavating, grading, and road machinery operators	24
Foremen (n.e.c.)	49
Construction	40
Manufacturing	53
Metal industries	54
Machinery, including electrical	60
Transportation equipment	66
Other durable goods	41
Textiles, textile products, and apparel	39
Other nondurable goods (incl. not specified mfg.)	53
Railroads and railway express service	36
Transportation, except railroad	45
Telecommunications, and utilities and sanitary services	56
Other industries (incl. not reported)	44

.

	Socio-economic
	index
Forgemen and hammermen	23
Furriers	39
Glaziers	26
Heat treaters, annealers, and temperers	22
Inspectors, scalers, and graders, log and lumber	23
Inspectors (n.e.c.)	41
Construction	46
Railroads and railway express service	41
Transport, exc. rr., communication, & other public util	. 45
Other industries (incl. not reported)	38
Jewelers, watchmakers, goldsmiths, and silversmiths	36
Job setters, metal	28
Linemen and servicemen, telegraph, telephone and power	49
Locomotive engineers	58
Locomotive firemen	45
Loom fixers	10
Machinists	33
Mechanics and repairmen	25
Airplane	48
Automobile	19
Office machine	36
Radio and television	36
Railroad and car shop	23
Not elsewhere classified	27
Millers, grain, flour, feed, etc.	19
Millwrights	31
Molders, metal	12
Motion picture projectionists	43
Opticians, and lens grinders and polishers	39
Painters, construction and maintenance	16
Paperhangers	10
Pattern and model makers, except paper	44
Photoengravers and lithographers	64
Piano and organ tuners and repairmen	38
Plasterers	25
Plumbers and pipe fitters	34
Pressmen and plate printers, printing	49
Rollers and roll hands, metal	22
Roofers and slaters	15
Shoemakers and repairers, except factory	12
Stationary engineers	47
Stonecutters and stone carvers	25

	Socio-economic index
Structural metal workers	34
Tailors and tailoresses	23
Tinsmiths, coppersmiths, and sheet metal workers	33
Toolmakers, and die makers and setters	50
Upholsterers	22
Craftsmen and kindred workers (n.e.c.)	32
Members of the armed forces	18
Operatives and Kindred Workers	
Apprentices	35
Auto mechanics	25
Bricklayers and masons	32
Carpenters	31
Electricians	37
Machinists and toolmakers	41
Mechanics, except auto	34
Plumbers and pipe fitters	33
Building trades (n.e.c.)	29
Metalworking trades (n.e.c.)	33
Printing trades	40
Other specified trades	31
Trade not specified	39
Asbestos and insulation workers	32
Attendants, auto service and parking	19
Blasters and powdermen	11
Boatmen, canalmen, and lock keepers	24
Brakemen, railroad	42
Bus drivers	24
Chainmen, rodmen, and asmen, surveying	25
Conductors, bus and street railway	30
Deliverymen and routemen	32
Dressmakers and seamstresses, except factory	23
Dyers	12
Filers, grinders, and polishers, metal	22
Fruit, nut, & vegetable graders & packers, exc. factory	10
Furnacemen, smeltermen, and pourers	18
Heaters, metal	29
Laundry and dry cleaning operatives	15
Meat cutters, except slaughter and packing house	29
Milliners	46
Mine operatives and laborers (n.e.c.)	10

	Socio-economic
	index
Cool mining	0
Coal mining	20
Mining and guarring except fuel	30
Matermon mine factory logging compacts	12
Motormon, street, subway, and elevated railway.	24
Oilers and groaders, subway, and elevated failway	15
Pointers and greasers, except auto	10
Photographic process workers	10
Power station operators	42
Power station operators	50
	10
Sawyers	5
Spinners, textile	5
Stationary ilremen	1/
Switchmen, railroad	44
Taxicab drivers and chauffeurs	10
Truck and tractor drivers	15
Weavers, textile	6
Welders and flame-cutters	24
Operatives and kindred workers (n.e.c.)	18
Manufacturing	17
Durable goods	_
Sawmills, planing mills, and misc. wood products	7
Sawmills, planing mills, and mill work	7
Miscellaneous wood products	9
Furniture and fixtures	9
Stone, clay, and glass products	17
Glass and glass products	23
Cement, and concrete, gypsum, and plaster produc	ts 10
Structural clay products	10
Pottery and related products	21
Misc. nonmetallic mineral and stone products	15
Metal industries	16
Primary metal industries	15
Blast furnaces, steel works, and rolling mills	17
Other primary iron and steel industries	12
Primary nonferrous industries	15
Fabricated metal industries (incl. not spec. metal)	16
Fabricated steel products	16
Fabricated nonferrous metal products	15
Not specified metal industries	14
Machinery, except electrical	22
Agricultural machinery and tractors	21

	<u>Socio-economic</u>
	<u>index</u>
Office and store machines and devices	31
Miscellaneous machinery	22
Electrical machinery equipment and supplies	26
Transportation equipment	23
Motor vehicles and motor vehicle equipment	21
Aircraft and parts	34
Ship and boat building and repairing	16
Railroad and miscellaneous transportation equipment	23
Professional and photographic equipment, and watches	29
Professional equipment and supplies	23
Photographic equipment and supplies	40
Watches, clocks, and clockwork-operated devices	28
Miscellaneous manufacturing industries	16
Food and kindred products	16
Meat products	16
Dairy products	22
Canning and preserving fruits, vegetables, and sea foods	s 9
Grain-mill products	14
Bakery products	15
Confectionery and related products	12
Beverage industries	19
Miscellaneous food preparations and kindred products	11
Not specified food industries	19
Tobacco manufactures	2
Textile mill products	6
Knitting mills	21
Dyeing and finishing textiles, except knit goods	8
Carpets, rugs, and other floor coverings	14
Yarn, thread, and fabric mills	2
Miscellaneous textile mill products	10
Apparel and other fabricated textile products	21
Apparel and accessories	22
Miscellaneous fabricated textile products	17
Paper and allied products	19
Pulp, paper, and paperboard mills	19
Paperboard containers and boxes	17
Miscellaneous paper and pulp products	19
Printing, publishing and allied industries	31
Chemicals and allied products	20
Synthetic fibers	9
Drugs and medicines	26
Paints, varnishes, and related products	15

	Socio-economic
	index
Miscellaneous chemicals and allied products	23
Petroleum and coal products	51
Petroleum refining	56
Miscellaneous petroleum and coal products	14
Rubber products	22
Leather and leather products	16
Leather: tanned, curried, and finished	10
Footwear, except rubber	9
Leather products, except footwear	14
Not specified manufacturing industries	16
Nonmanufacturing industries (incl. not reported)	18
Construction	18
Railroads and railway express service	15
Transportation, except railroad	23
Telecommunications, and utilities and sanitary services	21
Wholesale and retail trade	17
Business and repair services	19
Personal services	11
Public administration	17
All other industries (incl. not reported)	20
Private Household Workers	

Housekeepers, private household	19
Living in	10
Living out	21
Laundresses, private household	12
Living in	
Living out	12
Private household workers (n.e.c.)	7
Living in	12
Living out	6

Service Workers, except Private Household

.

Attendants, hospital and other institution	13
Attendants, professional and personal service (n.e.c.)	26
Attendants, recreation and amusement	19
Barbers, beauticians, and manicurists	17
Bartenders	19
Boarding and lodging housekeepers	30
Bootblacks	8

	<u>Socio-economic</u>
	index
Charwomen and cleaners	10
Cooks, except private household	15
Counter and fountain workers	17
Elevator operators	10
Firemen, fire protection	37
Guards, watchmen, and doorkeepers	18
Housekeepers and stewards, except private household	31
Janitors and sextons	9
Marshals and constables	21
Midwives	37
Policemen and detectives	39
Government	40
Private	36
Porters	4
Practical nurses	22
Sheriffs and bailiffs	34
Ushers, recreation and amusement	25
Waiters and waitresses	16
Watchmen (crossing) and bridge tenders	17
Service workers, except private household (n.e.c.)	11

Farm Laborers and Foremen

Farm foremen	20
Farm laborers, wage workers	6
Farm laborers, unpaid family workers	17
Farm service laborers, self-employed	22
Fishermen and oystermen	10
Garage laborers, and car washers and greasers	8
Gardeners, except farm, and groundskeepers	11
Longshoremen and stevedores	11
Lumbermen, raftsmen, and wood choppers	4
Teamsters	8

Laborers (n.e.c.)

Manufacturing	8
Durable goods	
Sawmills, planing mills, and misc. wood products	3
Sawmills, planing mills, and mill work	3
Miscellaneous wood products	2
Furniture and fixtures	5
Stone, clay, and glass products	7

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Cement, and concrete, gypsum, and plaster products5Structural clay products5Pottery and related products7Misc. nonmetallic mineral and stone products5Metal industries7Primary metal industries7Blast furnaces, steel works, and rolling mills9Other primary iron and steel industries4Primary nonferrous industries6Fabricated metal industries (incl. not spec. metal)7Fabricated nonferrous metal products10Not specified metal industries9Machinery, except electrical11Agricultural machinery and tractors14Office and store machines and devices17Miscellaneous machinery10Electrical machinery, equipment, and supplies14Transportation equipment11Motor vehicles and motor vehicle equipment8Professional and photographic equipment, and watches11Professional and photographic equipment, and watches11Professional equipment and supplies16Watches, clocks, and clockwork-operated devicesMiscellaneous manufacturing industries12Nodurable goods9Pode and kindred products8Dairy products6Bakery products10Confectionery and related products10Confectionery and related products10Boarding and preserving fruits, vegetables, and sea foods6Grain-mill products6Bakery products10 <th>Glass and glass products</th> <th>14</th>	Glass and glass products	14
Structural clay products5Pottery and related products7Misc. nonmetallic mineral and stone products5Metal industries7Primary metal industries7Blast furnaces, steel works, and rolling mills9Other primary iron and steel industries4Primary nonferrous industries6Fabricated metal industries (Incl. not spec. metal)7Fabricated steel products7Fabricated nonferrous metal products10Not specified metal industries9Machinery, except electrical11Agricultural machinery and tractors14Office and store machines and devices17Miscellaneous machinery10Electrical machinery, equipment, and supplies14Transportation equipment13Aircraft and parts15Ship and boat building and repairing2Railroad and miscellaneous transportation equipment8Professional equipment and supplies10Photographic equipment and supplies10Photographic equipment and supplies16Watches, clocks, and clockwork-operated devicesMiscellaneous manufacturing industries13Canning and preserving fruits, vegetables, and sea foods6Grain-mill products6Bakery products10Confectionery and related products5Not specified food industries14Tobacco manufactures16Matching mills4	Cement, and concrete, gypsum, and plaster products	5
Pottery and related products7Misc. nonmetallic mineral and stone products5Metal industries7Primary metal industries7Blast furnaces, steel works, and rolling mills9Other primary iron and steel industries4Primary nonferrous industries6Fabricated metal industries (incl. not spec. metal)7Fabricated steel products7Fabricated nonferrous metal products9Machinery, except electrical11Agricultural machinery and tractors14Office and store machines and devices17Miscellaneous machinery10Electrical machinery, equipment, and supplies14Transportation equipment11Motor vehicles and motor vehicle equipment8Professional and photographic equipment, and watches10Professional and photographic equipment, and watches11Professional equipment and supplies16Watches, clocks, and clockwork-operated devicesMiscellaneous manufacturing industries12Nondurable goods6Food and kindred products8Dairy products13Canning and preserving fruits, vegetables, and sea foods6Bakery products10Beverage industries10Confectionery and related products5Not specified food industries10Confectionery and related products6Bakery products10Beverage industries14Tobacco manufact	Structural clay products	5
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Beverage industries16Miscellaneous food preparations and kindred products5Not specified food industries14Tobacco manufactures0Textile mill products3Knitting mills4	Confectionery and related products	10
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Not specified food industries14Tobacco manufactures0Textile mill products3Knitting mills4	Miscellaneous food preparations and kindred products	5
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Knitting mills 4	Textile mill products	3
	Knitting mills	4
	Socio-economic	
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	index	
Dyeing and finishing textiles, except knit goods	9	
Carpets, rugs, and other floor coverings	14	
Yarn, thread, and fabric mills	1	
Miscellaneous textile mill products	6	
Apparel and other fabricated textile products	9	
Apparel and accessories	11	
Miscellaneous fabricated textile products	6	
Paper and allied products	7	
Pulp, paper, and paperboard mills	6	
Paperboard containers and boxes	10	
Miscellaneous paper and pulp products	8	
Printing, publishing, and allied industries	23	
Chemicals and allied products	8	
Synthetic fibers	4	
Drugs and medicines	22	
Paints, varnishes, and related products	8	
Miscellaneous chemicals and allied products	8	
Petroleum and coal products	22	
Petroleum refining	26	
Miscellaneous petroleum and coal products	3	
Rubber products	12	
Leather and leather products	6	
Leather: tanned, curried, and finished	2	
Footwear, except rubber	10	
Leather products, except footwear	12	
Not specified manufacturing industries	8	
Nonmanufacturing industries (incl. not reported)	7	
Construction	7	
Railroads and railway express service	3	
Transportation, except railroad	9	
Telecommunications, and utilities and sanitary services	6	
Wholesale and retail trade	12	
Business and repair services	9	
Personal services	5	
Public administration	7	
All other industries (incl. not reported)	6	
Occupation not reported	19	

Student Booklet

APPENDIX D

U. S. Office Project 918

College of Education

Michigan State University

... About Project 918

Your school has been chosen as one of 30 representative new high schools in the United States. Each of these schools will be studied by a research team from Michigan State University. Funds for the project are provided by the Congress of the United States through the U. S. Office of Education.

The purpose of Project 918 is to see if there are any real differences in the way teachers and students work and study together in different kinds of high school buildings.

If such differences can be found, it will point the way to the design of ^{better} high school buildings, and consequently better high school teaching and ^{learning}.

In the next two-hour period, would you please help in this important study by carefully and honestly completing each of the following questionnaires and inventories. Each questionnaire is self-explanatory. You should proceed from one to the other without waiting for additional directions. All information will be kept in strictest confidence. Your responses will be seen only by a research team at Michigan State University.

Thank you for your cooperation.

K. T. Hereford Project Coordinator Michigan State University

1.	. Name	Middlo
		MIGGIE
2.	. Number of years in this school (count present year as one) (check) 14	. 2 3
3.	. Age Grade (check) 9 10 11 12 (Check one) Male	Female
4.	. Number of brothers sisters	
5.	. What is your father's occupation (if deceased, what was it)?	
	a. Does he get paid by salary? Yes No	
	b. If yes, who does he work for?	
	c. Does he own a business? Yes No	
	d. Does he have any people under him? Yes No	
	e. If yes, about how many?	
•	Do you plan to go to college? (check) Yes No	
•	Do your parents hope you will go to college? (check) Yes No	
•	Of the following subjects, which do you find <u>easiest</u> ? (check one) English <u>Mathematics</u> History Science Art	
•	Of the following subjects, which do you find <u>hardest</u> ? (check one) English Mathematics History Science Art	
•	Do you have a hobby? Yes No If yes, what is it?	
	If you have more than one, give the one in which you are most interested.	
	Name the teacher whom you feel knows you best. (Please Print)	

SOCIAL SCALE

A.	Lis	st the names of your two best friends that are of your own age group. (Plea	ase Print)
	1.	Where did you get to know this friend? (cheo Last name First name	ck one)
	Cla Sch	asses together Live in my neighborhood Church nool club or activities Out-of-school club Other (name)	
	2.	Where did you get to know this friend? (chee Last name First name	k one)
	Cla Sch	asses together Live in my neighborhood Church nool club or activities Out-of-school Other (name)	
B.	Inf	ormation concerning the class in which you are presently located.	
	1.	How many students are there in the class you are taking this hour?	
	2.	How many of these students do you generally think of as a good friend?	number
	3.	Of the remaining students, how many would you be willing to have as a good friend?	number
			number
C.	Lis	t the names of two adults you like best. Not parents or relatives. (Please	e Print)
	1.	Where did you get to know this person? (cher Last name First name	ck one)
		In-school activities Out-of-school activities	
	Wha	t does this person do for a living?	
	2.	Where did you get to know this person? (che Last name First name	eck one)
		In-school activities Out-of-school activities	
	Wha	t does this person do for a living?	
D.	Lis Che	t the names of the two outstanding student leaders in your school. (Please ck the grade in which each student leader is enrolled.	e Print)
	1.	Last nameFirst nameSex M F9 10 11 12(Circle one)Grade (Circ	le one)

E. How frequently do you get to talk with each of the following persons about your school work or personal problems? (check one response for each person)

Sex M F (Circle one) 9 10 11 12

Grade (Circle one)

2.

Last name

First name

PERSONAL CHARACTERISTICS CHECK-LIST

Teachers and students have many different personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

<u>In Column I</u>, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

In Column II, indicate for each of the 49 words how you feel about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling.

In the example, the person responding has said in effect: In Column I: I am an <u>academic</u> kind of person <u>a good deal of</u>

the time (4); and in

Column II: I like myself in this respect. (4)

Please proceed to complete Columns I and II for each trait word

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TRAITS:			<u>Column</u> I			<u>Column II</u>
		How much of the time am I this kind of person?		How do I feel about being this kind of person?		
RESPONSES :			1. 2. 3. 4. 5.	Seldom Occasionally About half the time Good deal of the time Most of the time	1. 2. 3. 4. 5.	Very much dislike Dislike Neither like nor dislike Like Very much like
EXAMPLE:		academic				
	1.	acceptable				
	2.	accurate				
	3.	alert				
	4.	ambitious				
	5.	annoying				
	6.	busy				
	7.	calm				
	8.	charming				
	9.	clever				
	10.	competent				
	11.	confident				
	12.	considerate				
	13.	cruel				
	14.	democratic				
	15.	dep endable				
	16.	economical				
	17.	efficient				
	18.	fearful				
	19.	friendly				
	20.	fashionable				
	21.	helpful				

23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	 <u>میتان: سن م</u>
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	
36.	sarcastic	 <u></u>
37.	sincere	
38.	stable	 <u></u>
39.	studious	 <u></u>
40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	 <u> </u>
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	
49.	fault-finding	

CHARACTERISTICS OF OTHERS CHECK-LIST

Since a high school is made of people who work and study together, our understanding of your school would be more complete if we could have your beliefs about the kinds of people in your school.

Please think about the persons whom you feel are your friends. Although your friends may be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two column check-list that you completed for yourself.

TRAITS:		<u>Column I</u> How much of the time do your "friends in general" believe themselves to be this kind of person?	<u>Column II</u> How do your "friends in general" feel about themselves in this respect.
		 Seldom Occasionally About half the time Good deal of the time Most of the time 	 Very much dislike Dislike Neither like nor dislike Like Very much like
1.	acceptable		
2.	accurate		
3.	alert		
4.	ambitious		
5.	annoying		
6.	busy		
7.	calm		
8.	charming		
9.	clever		
10.	competent		
11.	confident		
12.	considerate		
13.	cruel		
14.	democratic		
15.	dependable		
16.	economical		
17.	efficient		
18.	fearful		
19.	friendly		

20.	fashionable	
21.	helpful	
22.	intellectual	
23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	 ·
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	
36.	sarcastic	
37.	sincere	
38.	stable	
39.	studious	
40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	
49.	fault-finding	

APPENDIX E

U. S. Office Project 918

College of Education

Michigan State University

... About Project 918

Your school has been chosen as one of 30 representative new high schools in the United States. Each of these schools will be studied by a research team from Michigan State University. Funds for the project are provided by the Congress of the United States through the U. S. Office of Education.

The purpose of Project 918 is to see if there are any real differences in the way teachers and students work and study together in different kinds of high school buildings.

If such differences can be found, it will point the way to the design of better high school buildings, and consequently better high school teaching and learning.

In the next two-hour period, would you please help in this important study by carefully and honestly completing each of the following questionnaires and inventories. Each questionnaire is self-explanatory. You should proceed from one to the other without waiting for additional directions. All information will be kept in strictest confidence. Your responses will be seen only by a research team at Michigan State University.

Thank you for your cooperation.

K. T. Hereford Project Coordinator Michigan State University

GENERAL INFORMATION

Na	ame (Please Print)			
		Last		First
1.	. How many years of teac	hing experiences hav	ve you had? (c)	heck one)
	less than 1 1	2 3 4 5-	9 <u>10-15</u>	_ 16-20 21 or more
2.	What is your age? (ch	eck one) 20-24	25-29 30-34	4 35-39 40-44
	45 -49 50-59 6 0	or more		
3.	A. What is your sex?	Male Female	B. Are you r	married? Yes No
4.	How many years have you	u been employed on t	his high school	l staff?
	less then 1 1 1	2 3 4 5	 6-9 10-	-15 16-20 21 or more
5.	What is the highest ac	ademic degree that y	ou hold?	
	Bachelors Masters	Doctorate Ot	hers (specify)	
6.	If you teach: List the	ose subjects and gra	de levels that	you are now teaching.
	Subj	ect		Grade Level
7.	What is your father's o	occupation? (If dec	eased, what was	s it? Please be precise.)
		-		•
8.	If you are married: W	hat is your spouse's	occupation?	
9.	Which of the following	tasks involved in t	eaching do you	find most difficult? (check or
	1. preparing less	son plans	4.	working on faculty committees
	2. evaluating stu 3. introducing ne	ident performance w teaching techniqu	es 6.	being accepted by student body relating yourself to the staff
10.	Which of the following	tasks do you find t	o be easiest?	(check one)
	1. preparing less	son plans	4.	working on faculty committees
	2. evaluating stu 3. introducing me	ident performance	5.	being accepted by student body relating yourself to the staff
11.	In what state were you	born?		
12	What is your bast satis	ate of the total mu	mber of differe	ant students which you now
	have encolled in all of		aber or dirrete	the sequences which you now

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PERSONAL CHARACTERISTICS CHECK-LIST

Teachers and students have many different personal traits. It would help us develop a better understanding of your school, if you would describe yourself as you believe you really are. Please remember that all of your responses are kept in strictest confidence. On the next two pages are 49 words which are commonly used to describe people. Try to describe yourself as accurately as possible by completing the two columns of words.

In Column I, please write by each word how much of the time you believe that you are this kind of person. Choose the one response (1 through 5) which best describes your belief about yourself. When you have completed all 49 words in Column I, then go to Column II.

<u>In Column II</u>, indicate for each of the 49 words <u>how you feel</u> about yourself in terms of each trait. Choose the one response (1 through 5) which best describes your feeling.

In the example, the person responding has said in effect:

In Column I: I am an academic kind of person a good deal of

the time (4); and in

Column II: I like myself in this respect. (4)

Please proceed to complete

Columns I and II for each trait word

174

			175	
TRAITS:			<u>Column</u> I	<u>Column II</u>
			How much of the time am I this kind of person?	How do I feel about being this kind of person?
RESPONSES :			 Seldom Occasionally About half the time Good deal of the time Most of the time 	 Very much dislike Dislike Neither like nor dislike Like Very much like
EXAMPLE:		academic	4	4
	1.	acceptable		
	2.	accurate		
	3.	alert		
	4.	ambitious		
	5.	annoying		
	6.	busy		
	7.	calm		
	8.	charming		
	9.	clever		
	10.	competent		
	11.	confident		
	12.	considerate		
	13.	cruel		
	14.	democratic		
	15.	dependable		
	16.	economical		
	17.	efficient		
	18.	fearful		
	19.	friendly		
	20.	fashionable		
	21.	helpful		

23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	 •
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	 <u></u>
36.	sarcastic	
37.	sincere	
38.	stable	
39.	studious	
, 40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	 <u></u>
49.	fault-finding	

CHARACTERISTICS OF OTHERS CHECK-LIST

Since a high school is made of people who work and study together, our understanding of your school would be more complete if we could have your beliefs about the kinds of people in your school.

Please think about the persons whom you feel are your friends. Although your friends may be somewhat different in many ways, try to think of the "average person" among your friends; or think of "your friends in general." Then try to put yourself in the place of this "average friend" and fill out the same two column check-list that you completed for yourself.

TRAITS:		<u>Column I</u> How much of the time do your "friends in general" believe themselves to be this kind of person?	Column II How do your "friends in general" feel about themselves in this respect.
	v	 Seldom Occasionally About half the time Good deal of the time Most of the time 	 Very much dislike Dislike Neither like nor dislike Like Very much like
1.	a cceptable		
2.	accurate		
3.	alert		
4.	ambitious		
5.	annoying		
6.	busy		
7.	calm		
8.	charming		
9.	clever		
10.	competent		
11.	confident		
12.	considerate		
13.	cruel		
14.	democratic		
15.	dependable		
16.	economical		
17.	efficient		
18.	fearful		
19.	friendly		

20.	fashionable	
21.	helpful	
22.	intellectual	
23.	kind	
24.	logical	
25.	meddlesome	
26.	merry	
27.	mature	
28.	nervous	
29.	normal	
30.	optimistic	
31.	poised	
32.	purposeful	
33.	reasonable	
34.	reckless	
35.	responsible	
36.	sarcastic	
37.	sincere	
38.	stable	
39.	studious	
40.	successful	
41.	stubborn	
42.	tactful	
43.	teachable	
44.	useful	
45.	worthy	
46.	broad-minded	
47.	businesslike	
48.	competitive	
49.	fault-finding	

APPENDIX F

TABLES

	Level Asp	of Educ. Diration	Socio	o-econ Status	omic	C	Perso Classi	onality ficatio	/ / /
	C.P.	N.C.P.	High	Middle	e Low	++	+-	-+	
Males	761	233	336	384	274 ·	357	435	151	51
Females	673	364	363	366	308	480	376	149	32
Total	1434	597	699	750	582	837	811	300	83

TABLE 1:1.--Numerical distribution of the sample

TABLE 1:2.--Numerical distribution of the proportionate, random sample

	Level Asr	of Educ. Diration	Socio	-econ Status	omic	с	Perso lassif	onality icatio	, n
	C.P.	N.C.P.	High I	Middle	e Low	++	+-	-+	
Males Females	534 474	162 251	130 166	348 326	218 233	253 327	294 278	109 100	40 20
Total	1008	413	296	. 674	451	580	572	209	60

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Ceach	rs on		3-9	392	377	769	
nding ¹	Хеа		0-2	136	171	307	
dersta	rital	sus	S	150	226	376	
st-Unc	Mar	Stat	M	471	437	908	
Mo:	ех		F	213	400	613	
	Š		M	408	263	671	
	Level		12	539	661	1200	
	Grade	9,10	11	182	 138	320	
nds	on.		Low	199	1 53	392	
r Friei	io-Ec	tatus	Mid.	261	314	575	
Pee	Soc	S	High	261	292	553	
	X		ы	107	730	837	
	š		Σ	614	69	683	
				Males	Females	Total	

TABLE 2:1.--Continued

		Mo	ost-U	ndersta	Inding	Teac	ners, (Contir	ned				Adult	Frien	ds	
		Ag	e		Soci	o-Eco	n.	Per	sonali	ty		Pla	ce of	Soc	io-Ec	on.
	20-	30-	40-	50 or	St	atus		Cla	ssific	ation	_	Empl	oym.	S	tatus	
	29	39	49	more	High	Mid.	Low	‡	+	+	1	In	Out	High	Mid.	Low
Males	120	252	151	98	220	186	215	323	262	29	~	300	499	163	220	115
Females	136	211	175	141	258	192	213	362	249	45	2	297	375	143	157	75
Total	256	463	326	239	478	378	428	685	511	74	14	597	874	306	377	190

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	Staff	10 or	more	75	92	167
chers	rs on		9-9 9-	319	317	636
ng Tea	Yea		0-2	116	146	262
standi	ital	us	S	121	197	318
- Under	Mar	Stat	Σ	386	351	737
Most-	X	ſ		180	352	532
	Š		Σ	332	206	538
	Level	, ,	12	368	475	843
	Grade	9,10	11	140	88	228
nds	on.	ŀ	ΓΟM	140	139	279
r Frie	io-Ec	tatus	MId.	193	230	423
Pee	Soc		HIGN	174	194	368
	×	Ę	-	78	515	593
	Se		Ξ	430	48	478
				Males	Females	Total

TABLE 2:2.--Continued

ends	Socio-Econ.	Status	gh Mid. Low	15 150 85		01 115 55		16 265 140
Adult Frie	lace of 8	nploym.	Out Hi	6 457 1	 	9 490 1		5 947 2
	d'	En	In	20)	21	-	42
	ity	ation	+	28 5)) 	39 5		67 10
ued	ilenos.	assific	' +	210) [196		406
ontin	Per	CIe	‡	256		307		563
ers, C	n. C		Low	140	•	139		279
Teach	io-Eco	tatus	Mid.	193)) 	230		423
idina'	Soc	S	High	174	1 1	194		268
lerstar		50 or	more	77		116		193
st-Unc	e	40-	49	117	 	131		248
Mos	Ag	30-	39	213) 	200		413
		20-	29	104))]	110		214
				Males		Females		Total

	++	+-	-+		Total
College Preference	(122.14) 119	(133.90) 140	(33.48) 34	(14.48) 11	304
Non-college Preference	(12.86) 16	(14.10) 8	(3.52) 3	(1.52) 5	32
Total	135	148	37	16	336
$x^2 = 12.65288$ d.f.	,=3 p	< .05			

TABLE 3:1.--Personality classification of high socio-economic status males

TABLE 3:2.--Personality classification of middle socio-economic status males

	++	+-	-+		Total
College Preference	(98.93) 106	(125.36) 126	(49.84) 45	(15.86) 13	290
Non-college Preference	(32.07) 25	(40.64) 40	(16.16) 21	(5.14) 8	94
Total	131	166	66	21	384
$x^2 = 6.10389$ d.f.	= 3 p >	.05		<u></u>	

	++	+-	-+		Total
College Preference	(55.46) 58	(73.75) 74	(29.26) 28	(8.53) 7	167
Non-college Preference	(35.54) 33	(47.25) 47	(18.74) 20	(5.47) 7	107
Total	91	121	48	14	274
$x^2 = 1.14135$ d.f.	= 3 p>	.05			

TABLE 3:3.--Personality classification of low socio-economic status males

 TABLE 4.--Socio-economic status of males

	High	Middle	Low	Total
College Preference	(257.24) 304	(293.99) 290	(209.77) 167	761
Non-college Preference	(78.76) 32	(90.01) 94	(64.23) 107	233
Total	336	384	274	994
$x^2 = 73.69277$ d.f.	= 2 p<	.01		

	++	+-	-+		Total
College Preference	(143.31) 146 (26.69)	(108.74) 108 (20.26)	(46.36) 44 (8.64)	(7.59) 8 (1.41)	306
Non-college Preference	24	21	11	1	57
Total	170	129	55	.9	363
$x^2 = 1.25975$ d.f. = 3 $p > .05$					

TABLE 5:1.--Personality classification of high socio-economic status females

TABLE 5:2.--Personality classification of middle socio-economic status females

	++	+-	+		Total
College Preference	(105.92) 112	(69.25) 68	(29.10) 26	(8.73) 7	213
Non-college Preference	(76.08) 70	(49.75) 51	(20.90) 24	(6.27) 8	153
Total	182	119	50	15	366
$x^2 = 2.49903$ d.f. = 3 p > .05					

	++	+	-+		Total
College Preference	(64.00) 56 (64.00)	(64.00) 74 (64.00)	(22.00) 18 (22.00)	(4.00) 6 (4.00)	154
Non-college Preference	72	54	26	2	154
Total	128	128	44	8	308
$x^2 = 8.57954$ d.f. = 3 p \lt .05					

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TABLE 5:3.--Personality classification of low socio-economic status females

TABLE 6.--Socio-economic status of females

	High	Middle	Low	Total
College Preference	(235.58) 306	(237.53) 213	(199.88) 154	673
Non-college Preference	(127.42) 57	(128.47) 153	(108.11) 154	364
Total	363	366	308	1037
$x^2 = 97.20575$ d.f. = 2 p<.01				

	High	Middle	Low	Total
College Preference	(101.34) 119	(98.34) 106	(83.32) 58	283
Non-college Preference	(33.66) 16	(32.66) 25	(27.68) 53	94
Total	135	131	111	377
$x^2 = 45.59184$ d.f. = 2 p <.01				

TABLE 7:1.--Socio-economic status of ++ males

TABLE 7:2.--Socio-economic status of +- males

	High	Middle	Low	Total
College Preference	(115.68) 140	(129.75) 126	(94.57) 74	340
Non-college Preference	(32.32) 8	(36.25) 40	(26.43) 47	95
Total	148	166	121	435
$x^2 = 44.39286$ d.f. = 2 p <.01				

	High	Middle	Low	Total	
College Preference	(26.22) 34	(46.77) 45	(34.01) 28	107	
Non-college Preference	(10.78) 3	(19.23) 21	(13.99) 20	44	
Total	37	66	48	151	
$x^2 = 11.79713$ d.f. = 2 p<.01					

TABLE 7:3.--Socio-economic status of -+ males

TABLE 7:4.--Socio-economic status of -- males

	High	Middle	Low	Total	
College Preference	(9.73) 11	(12.77) 13	(8.51) 7	31	
Non-college Preference	(6.28) 5	(8.24) 8	(5.49) 7	20	
Total	16	21	14	51	
$x^2 = 1.10102$ d.f. = 2 p>.05					

	++	+-	-+	-	Total
College Preference	(273.32) 283 (83.68)	(333.03) 340 (101.97)	(115.60) 107 (35.40)	(39.05) 31 (11.95)	761
Non-college Preference	74	95	44	20	233
Total	357	435	151	51	994
$x^2 = 11.89621$ d.f. = 3 p <.01					

TABLE 8.--Personality classification of males

TABLE 9:1.--Socio-economic status of ++ females

	High	Middle	Low	Total	
College Preference	(111.21) 146	(119.06) 112	(83.73) 56	314	
Non-college Preference	(58.79) 24	(62.94) 70	(44.27) 72	166	
Total	170	182	128	480	
$x^{2} = 59.23488 d.f. = 2 p < .01$					

	High	Middle	Low	Total	
College Preference	(85.77) 108	(79.12) 68	(85.11) 74	250	
Non-college Preference	(43.23) 21	(39.88) 51	(42.89) 54	126	
Total	129	119	128	376	
$x^2 = 26.18450$ d.f. = 2 p<.01					

TABLE 9:2.--Socio-economic status of +- females

TABLE 9:3.--Socio-economic status of -+ females

	High	Middle	Low	Total	
College Preference	(32.48) 44 (22.52)	(29.53) 26 (20.47)	(25.99) 18 (18.01)	88	
Non-college Preference	11	24	26	61	
Total	55	50	44	149	
$x^2 = 17.01064$ d.f. = 2 p<.01					

	High	Middle	Low	Total
College Preference	(5.91) 8	(9.84) 7	(5.25) 6	21
Non-college Preference	(3.09) 1	(5.16) 8	(2.75) 2	11
Total	9	15	8	32
$x^2 = 4.84717$ d.f. = 2 p $>.05$				

TABLE 9:4.--Socio-economic status of -- females

TABLE 10.--Personality classification of females

	++	+	-+		Total
College Preference	(311.51) 314 (168.49)	(244.02) 250 (131.98)	(96.70) 88 (52.30)	(20.77) 21 (11.23)	673
Non-college Preference	166	126	61	11	364
Total	480	376	149	32	1037
$x^2 = 2.91138$ d.f. = 3 p>.05					

	Males	Females	Total		
High	(198.99) 200	(29.00) 28	228		
Middle	(192.01) 190	(27.99) 30	220		
Low	(102.99) 104	(15.01) 14	118		
Total	494	72	566		
$x^2 = 0.29284$ d.f. = 2 p>.05					

TABLE 11:1.--Peer friends of socio-economically classified college preference males by sex

TABLE 11:2.--Peer friends of socio-economically classified college preference males by socio-economic status

	High	Middle	Low	Total
High	(93.05) 108	(79.36) 76	(55.59) 44	228
Middle	(89.79) 89	(76.57) 80	(53.64) 51	220
Low	(48.16) 34	(41.07) 41	(28.77) 43	118
Total	231	197	138	556
$x^2 = 16.45289$ d.f. = 4 p<.01				

	9, 10, 11	12	Total		
High	(51.56) 47	(176.44) 181	228		
Middle	(49.75) 47	(170.25) 173	220		
Low	(26.69) 34	(91.31) 84	118		
Total	128	438	566		
$x^2 = 3.30486$ d.f. = 2 p > .05					

TABLE 11:3.--Peer friends of socio-economically classified college preference males by grade level

TABLE 12:1.--Peer friends of socio-economically classified non-college preference males by sex

	Males	Females	Total	
High	(17.81) 17	(5.19) 6	23	
Middle	(45.68) 51	(13.32) 8	59	
Low	(56.52) 52	(16.48) 21	73	
Total	120	35	155	
$x^2 = 4.50878$ d.f. = 2 p > .05				

	High	Middle	Low	Total
High	(4.45) 2	(9.50) 12	(9.05) 9	23
Middle	(11.42) 12	(24.36) 27	(23.22) 29	59
Low	(14.13) 16	(30.14) 25	(28.73) 32	73
Total	30	64	61	155
$x^2 = 4.26532$ d.f. = 4 p > .05				

TABLE 12:2.--Peer friends of socio-economically classified non-college preference males by socio-economic status

TABLE 12:3.--Peer friends of socio-economically classified non-college preference males by grade level

	9, 10, 11	12	Total	
High	(8.01) 7	(14.99) 16	23	
Middle	(20.55) 19	(38.45) 40	59	
Low	(25.43) 28	(47.57) 45	73	
Total	54	101	155	
$x^2 = 0.77334$ d.f. = 2 p > .05				

	Male	Female	Total		
++	(177.18) 172	(25.82) 31	203		
+-	(227.80) 229	(33.20) 32	261		
-+	(68.95) 71	(10.05) 8	79		
	(20.07) 22	(2.93) 1	23		
Total	494	72	566		
$x^2 = 3.17630$ d.f. = 3 p >.05					

TABLE 13:1.--Peer friends of personality classified college preference males by sex

 TABLE 13:2.--Peer friends of personality classified college preference

 males by socio-economic status

	High	Middle	Low	Total
++	(82.85) 92	(70.66) 61	(49 . 4 9) 50	203
+-	(106.52) 106	(90.84) 94	(63.64) 61	261
-+	(32.24) 27	(27.50) 34	(19.26) 1 [.] 8	79
	(9.39) 6	(8.00) 8	(5.61) 9	23
Total	231	197	138	566
$x^2 = 8.30116$ d.f. = 6 p>.05				

	9, 10, 11	12	Total		
++	(45.91) 47	(157.09) 156	203		
+-	(59.02) 53	(201.98) 208	261		
-+	(17.87) 21	(61.13) 58	79		
	(5.20) 7	(17.80) 16	23		
Total	128	438	566		
$x^2 = 2.34046$ d.f. = 3 p>.05					

TABLE 13:3.--Peer friends of personality classified college preference males by grade level

TABLE 14:1.--Peer friends of personality classified non-college preference males by sex

	Male	Female	Total
++	(41.81) 42	(12.19) 12	54
+-	(48.77) 49	(14.23) 14	63
-+	(20.13) 20	(5.87) 6	26
·	(9.29) 9	(2.71)	12
Total	120	35	155
$x^2 = 0.05239$ d.f. =	3 p>.05	5	•

	High	Middle	Low	Total
++	(10.45) 14	(22.30) 22	(21.25) 18	54
+-	(12.19) 10	(26.01) 27	(24.79) 26	63
-+	(5.03) 5	(10.74) 9	(10.23) 12	26
	(2.32) 1	(4.95) 6	(4.72) 5	12
Total	30	64	61	155
$x^2 = 3.79590$ d.f. = 6 p > .05				

TABLE 14:2.--Peer friends of personality classified non-college preference males by socio-economic status

TABLE 14:3.--Peer friends of personality classified noncollege preference males by grade level

	9, 10, 11	12	Total	
++	(18.81) 18	(35.19) 36	54	
+-	(21.95) 21	(41.05) 42	63	
-+	(9.06) 13	(16.94) 13	26	
	(4.18) 2	(7.82) 10	12	
Total	54	101	155	
$x^2 = 4.49106$ d.f. = 3 p > .05				

	Male	Female	Total	
College Preference	(482.00) 494	(84.00) 72	566	
Non-college Preference	(132.00) 120	(23.00) 35	155	
Total	614	107	721	
$x^2 = 9.36479$ d.f. = 1 $p < .01$				

TABLE 15:1. -- Peer friends of males by sex

TABLE 15:2.--Peer friends of males by socio-economic status

	High	Middle	Low	Total
College Preference	(204.89) 231	(204.89) 197	(156.22) 138	566
Non-college Preference	(56.11) 30	(56.11) 64	(42.78) 61	155
Total	261	261	199	721
$x^2 = 26.77540$ d.f. = 2 p < .01				

	9, 10, 11	12	Total	
College Preference	(142.87) 128	(423.13) 438	566	
Non-college Preference	(39.13) 54	(115.87) 101	155	
Total	182	539	721	
$x^2 = 9.62937$ d.f. = 1 p<.01				

TABLE 15:3.--Peer friends of males by grade level

TABLE 16:1.--Peer friends of a proportionate, random sample of males by sex

	Male	Female	Total	
College Preference	(339.43) 346	(61.57) 55	401	
Non-college Preference	(90.57) 84	(16.43) 23	107	
Total	430	78	508	
$x^2 = 3.93202$ d.f. = 1 p<.05				
	High	Middle	Low	Total
-----------------------------------	-----------------	-----------------	-----------------	-------
College Preference	(137.28) 157	(152.27) 143	(110.45) 100	400
Non-college Preference	(36.72) 17	(40.73) 50	(29.55) 40	107
Total	174	193	140	507
$x^2 = 20.78146$ d.f. = 2 p < .01				

TABLE 16:2.--Peer friends of a proportionate, random sample of males by socio-economic status

TABLE 16:3.--Peer friends of a proportionate, random sample of males by grade level

	9, 10, 11	12	Total	
College Preference	(110.51) 102	(290.49) 299	401	
Non-college Preference	(29.49) 38	(77.51) 69	107	
Total	140	368	508	
$x^2 = 4.29470$ d.f. = 1 p<.05				

	Higher	Same	Lower	Total
College Preference	(149.90) 162	(153.06) 152	(97.04) 86	400
Non-college Preference	(40.10) 28	(40.94) 42	(25.96) 37	107
Total	190	194	123	507
$x^2 = 10.61357$ d.f. = 2 p <.01				

TABLE 16:4.--Peer friends of a proportionate, random sample of males by higher, same and lower socio-economic status

TABLE 17:1.--Peer friends of socio-economically classified college preference females by sex

	Male	Female	Total
High	(24.12) 29	(219.88) 215	244
Middle	(16.21) 14	(147.79) 150	164
Low	(11.67) 9	(106.33) 109	118
Total	52	474	526
$x^2 = 2.10788$ d.f. = 2 p>.05			

	High	Middle	Low	Total
High	(107.16) 131	(90.46) 77	(46.39) 36	244
Middle	(72.02) 60	(60.80) 72	(31.18) 32	164
Low	(51.82) 40	(43.75) 46	(22.43) 32	118
Total	231	195	100	526
$x^2 = 20.57463$ d.f. = 4 p<.01				

TABLE 17:2.--Peer friends of socio-economically classified college preference females by socio-economic status

TABLE 17:3.--Peer friends of socio-economically classified college preference females by grade level

	9, 10, 11	12	Total
High	(41.29) 46	(202.71) 198	244
Middle	(27.75) 19	(136.25) 145	164
Low	(19.97) 24	(98.03) 94	118
Total	89	437	526
$x^2 = 4.94655$ d.f. = 2 p > .05			

	Male	Female	Total	
High	(2.55) 3	(38.45) 38	41	
Middle	(7.60) 10	(114.40) 112	122	
Low	(6.85) 4	(103.15) 106	110	
Total	17	256	273	
$x^2 = 2.15740$ d.f. = 2 p > .05				

 TABLE 18:1.--Peer friends of socio-economically classified

 non-college preference females by sex

 TABLE 18:2.--Peer friends of socio-economically classified non-college

 preference females by socio-economic status

	High	Middle	Low	Total
High	(9.16) 14	(17.87) 17	(13.97) 10	41
Middle	(27.26) 27	(53.18) 54	(41.56) 41	122
Low	(24.58) 20	(47.95) 48	(37.47) 42	110
Total	61	119	93	273
$x^2 = 5.15166$ d.f. = 4 p >.05				

	9, 10, 11	12	Total	
High	(7.36) 11	(33.64) 30	41	
Middle	(21.90) 25	(100.10) 97	122	
Low	(19.74) 13	(90.26) 97	110	
Total	49	224	273	
$x^2 = 5.53346$ d.f. = 2 p $>.05$				

 TABLE 18:3.--Peer friends of socio-economically classified

 non-college preference females by grade level

TABLE 19:1.--Peer friends of personality classified college preference females by sex

	Male	Female	Total	
++	(23.92) 21	(218.08) 221	242	
+-	(19.77) 20	(180.23) 180	200	
-+	(6.72) 10	(61.28) 58	68	
	(1.58) 1	(14.42) 15	16	
Total	52	474	526	
$x^2 = 2.41124$ d.f. = 3 p>.05				

	High	Middle	Low	Total
++	(106.28) 106	(89.71) 88	(46.01) 48	242
+-	(87.83) 84	(74.14) 77	(38.02) 39	200
-+	(29.86) 31	(25.21) 26	(12.93) 11	68
	(7.03) 10	(5.93) 4	(3.04) 2	16
Total	231	195	100	526
$x^2 = 3.02700$ d.f. = 6 p > .05				

TABLE 19:2.--Peer friends of personality classified college preference females by socio-economic status

TABLE 19:3.--Peer friends of personality classified college preference females by grade level

	9, 10, 11	12	Total	
++	(40.95) 47	(201.05) 195	242	
+-	(33.84) 29	(166.16) 171	200	
-+	(11.51) 11	(56.49) 57	68	
	(2.71) 2	(13.29) 14	16	
Total	89	437	526	
$x^2 = 2.16023$ d.f. = 3 p>.05				

	Male	Female	Total
++	(7.97) 9	(120.03) 119	128
+-	(5.60) 4	(84.40) 86	90
-+	(2.99) 4	(45.01) 44	48
	(4.36) 0	(6.56) 7	7
Total	17	256	273
$x^2 = 1.46275$ d.f. = 3	p > .05		

 TABLE 20:1.--Peer friends of personality classified noncollege preference females by sex

TABLE 20:2.--Peer friends of personality classified non-college preference females by socio-economic status

	High	Middle	Low	Total
	(28.60) 30	(55.79) 56	(43.60) 42	128
+-	(20.11) 15	(39.23) 45	(30.66) 30	90
-+	(10.73) 16	(20.92) 14	(16.35) 18	48
	(1.56) 0	(3.05) 4	(2.39) 3	7
Total	61	119	93	273
$x^2 = 9.35480$ d.f. = 6 p>.05				

	9, 10, 11	12	Total
++	(22.97) 23	(105.03) 105	128
+-	(16.15) 17	(73.85) 73	90
-+	(8.62) 7	(39.38) 41	48
	(1.26) 2	(5.74) 5	7
Total	49	224	273
$x^2 = 0.95563$ d.f. =	3 p > .05		••••••

TABLE 20:3.--Peer friends of personality classified noncollege preference females by grade level

TABLE 21:1.--Peer friends of females by sex

	Male	Female	Total
College Preference	(45.42) 52	(480.58) 474	526
Non-college Preference	(23.58) 17	(249.42) 256	273
Total	69	730	799
$x^2 = 3.05305$ d.f. = 1	p > .05	5	

	High	Middle	Low	Total
College Preference	(192.23) 231	(206.71) 195	(127.06) 100	526
Non-college Preference	(99.77) 61	(107.29) 119	(65.94) 93	273
Total	292	314	193	799
$x^2 = 41.69420$ d.f. = 2 p<.01				

TABLE 21:2.--Peer friends of females by socio-economic status

TABLE 21:3.--Peer friends of females by grade level

	9, 10, 11	12	Total
College Preference	(90.85) 89 (47.15)	(435.15) 437 (225.85)	526
Non-college Preference	49	224	273
Total	138	661	799
$x^2 = 0.13326$ d.f. =	1 p >. 05		

	Male	Female	Total	
College Preference	(31.72) 33	(340.28) 339	372	
Non-college Preference	(16.28) 15	(17 4.72) 176	191	
Total	48	515	563	
$x^2 = 0.16646$ d.f. = 1 p>.05				

TABLE 22:1.--Peer friends of a proportionate, random sample of females by sex

TABLE 22:2.--Peer friends of a proportionate, random sample of females by socio-economic status

	High	Middle	Low	Total
College Preference	(128.18) 152	(151.97) 146	(91.84) 74	372
Non-college Preference	(65.82) 42	(78.03) 84	(47.16) 65	191
Total	194	230	139	563
$x^2 = 23.95221$ d.f. = 2 p<.01				

	9, 10, 11	12	Total
College Preference	(58.15) 51	(313.85) 321	372
Non-college Preference	(29.85) 37	(161.15) 154	191
Total	88	475	563
$x^2 = 3.07189$ d.f. =	1 p >.05		

TABLE 22:3.--Peer friends of a proportionate, random sample of females by grade level

TABLE 22:4.--Peer friends of a proportionate, random sample of females by higher, same and lower socio-economic status

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	Higher	Same	Lower	Total
College Preference	(134.79) 148	(153.29) 156	(83.92) 68	372
Non-college Preference	(69.21) 56	(78.71) 76	(43.09) 59	191
Total	204	232	127	563
$x^2 = 12.84169$ d.f. = 2 p <.01				

-	Male	Female	Total	
High	(111.31) 109	(59.69) 62	171	
Middle	(128.89) 132	(69.11) 66	198	
Low	(63.79) 63	(34.21) 35	98	
Total	304	163	467	
$x^2 = 0.38033$ d.f. = 2 p>.05				

TABLE 23:1.--Most-understanding teachers of socioeconomically classified college preference males by sex

TABLE 23:2.--Most-understanding teachers of socioeconomically classified college preference males by marital status

	Married Single		Total	
High	(127.79) 121	(43.21) 50	171	
Middle	(147.97) 154	(50.03) 44	198	
Low	(73.24) 74	(24.76) 24	98	
Total	349	. 118	467	
$x^2 = 2.43146$ d.f. = 2 p>.05				

	0-2	3-9	10 or more	Total		
High	(39.55) 36	(103.62) 109	(27.83) 26	171		
Middle	(45.79) 53	(119.99) 110	(32.22) 35	198		
Low	(22.66) 19	(59.39) 64	(15.95) 15	98		
Total	108	283	76	467		
$x^2 = 3.93072$ d.f. = 4 p>.05						

TABLE 23:3.--Most-understanding teachers of socio-economically classified college preference males by years on the staff

TABLE 23:4.--Most-understanding teachers of socio-economically

 classified college preference males by age

	20-29	30-39	40-49	50 or more	Total
High	(29.66) 29	(70.67) 75	(43.94) 43	(26.73) 24	171
Middle	(34.34) 36	(81.83) 75	(50.88) 54	(30.95) 33	198
Low	(17.00) 16	(40.50) 43	(25.18) 23	(15.32) 16	98
Total	81	193	120	73	467
$x^2 = 1.98836$	d.f. = 6	p > .05			

	High	Middle	Low	Total	
High	(61.88) 62	(52.00) 56	(57.12) 53	171	
Middle	(71.65) 70	(60.21) 62	(66.14) 66	198	
Low	(35.46) 37	(29.80) 24	(32.74) 37	98	
Total	169	142	156	467	
$x^2 = 2.44660$ d.f. = 4 p>.05					

TABLE 23:5.--Most-understanding teachers of socio-economically classified college preference males by socio-economic background

TABLE 23:6.--Most-understanding teachers of socio-economically classified college preference males by personality classification

	++	+-	-+		Total
High	(86.78) 91	(75.06) 70	(6.96) 8	(2.20) 2	171
Middle	(100.48) 100	(86.92) 91	(8.06) 5	(2.54) 2	198
Low	(49.73) 46	(43.02) 44	(3.99) 6	(1.26) 2	98
Total	237	205	19	6	467
$x^2 = 3.93945$	d.f. = 6	p > .05			

	Male	Female	Total
High	(16.21) 17	(7.79) 7	24
Middle	(37.82) 39	(18.18) 17	56
Low	(49.97) 48	(24.03) 26	74
Total	104	50	154
$x^2 = 0.47116$ d.f. =	2 p > .05		

TABLE 24:1.--Most-understanding teachers of socioeconomically classified non-college preference males by sex

TABLE 24:2.--Most-understanding teachers of socioeconomically classified non-college preference males by marital status

	Married	Single	Total		
High	(19.01) 23	(4.99) 1	24		
Middle	(44.36) 42	(11.64) 14	56		
Low	(58.62) 57	(15.38) 17	74		
Total	122	32	154		
$x^2 = 4.84727$ d.f. = 2 p>.05					

	0.2	2 0	10 or	Total		
	0-2	3-9	more	Iotal		
High	(4.36) 2	(16.99) 20	(2.65) 2	24		
Middle	(10.18) 12	(39.64) 40	(6.18) 4	56		
Low	(13.46) 14	(52.38) 49	(8.17) 11	74		
Total	28	109	17	154		
$x^2 = 4.27779$ d.f. = 4 p>.05						

TABLE 24:3.--Most-understanding teachers of socio-economically classified non-college preference males by years on the staff

 TABLE 24:4.--Most-understanding teachers of socio-economically

 classified non-college preference males by age

	20-29	30-39	40-49	50 or	Total
	(6.08)	(9.19)	(4.83)	(3.90)	
High	1	12	3	Z	24
	(14.18)	(21.46)	(11.27)	(9.09)	
Middle	14	20	14	8	56
	(18.74)	(28.35)	(14.90)	(12.01)	
Low	18	27	14	15	74
Total	39	59	31	25	154
$x^2 = 4.40324$	d.f = 6	p > .05			

	High	Middle	Low	Total	
High	(7.95) 5	(6.86) 9	(9.20) 10	24	
$\mathbf M$ iddle	(18.55) 16	(16.00) 19	(21.45) 21	56	
Low	(24.50) 30	(21.14) 16	(28.35) 28	74	
Total	51	44	59	154	
$x^2 = 5.24301$ d.f. = 4 p>.05					

TABLE 24:5.--Most-understanding teachers of socio-economically classified non-college preference males by socio-economic background

TABLE 24:6.--Most-understanding teachers of socio-economically **classified** non-college preference males by personality classification

	++	+-	-+		Total
High	(13.40) 10	(8.88) 13	(1.56) 1	(0.16) 0	24
Middle	(31.27) 31	(20.73) 21	(3.64) 4	(0.36) 0	56
Low	(41.33) 45	(27.39) 23	(4.81) 5	(0.48) 1	74
Total	86	57	10	1	154
$x^2 = 5.12699$	d.f. = 6	p > .05		-	

	Male	Female	Total		
++	(113.27) 122	(60.73) 52	174		
+-	(131.49) 126	(70.51) 76	202		
-+	(44.92) 42	(24.08) 27	69		
	(14.32) 14	(7.68) 8	22		
Total	304	163	467		
$x^2 = 3.14881$ d.f. = 3 p>.05					

TABLE 25:1.--Most-understanding teachers of personality classified college preference males by sex

TABLE 25:2.--Most-understanding teachers of personality classified college preference males by marital status

	Married	Single	Toțal			
++	(130.03) 128	(43.97) 46	174			
+-	(150.96) 155	(51.04) 47	202			
-+	(51.57) 50	(17.43) 19	69			
	(16.44) 16	(5.56) 6	22			
Total	349	118	467			
$x^2 = 0.78909$ d.f. = 3 p >.05						

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			10 or	
	0-2	3-9	more	Total
	(40.24)	(105.44)	(28.32)	
++	47	103	24	174
	(16 72)	(122 41)	(22 97)	
1	(40.72)	(122.41)		202
+-	43	120	33	202
	(15,96)	(41.81)	(11.23)	
-+	12	44	13	69
	(5.09)	(13.33)	(3.58)	
	6	10	6	22
				1.07
Total	108	283	76	467
$x^2 = 6.25969$ d.f	.=6 p	▶.05		
x 0.20000 uii	• • • •			

TABLE 25:3.--Most-understanding teachers of personality classified college preference males by years on the staff

TABLE 25:4.--Most-understanding teachers of personality classified college preference males by age

				50 or	
	20-29	30-39	40-49	more	Total
++	(30.18) 32	(71.91) 78	(44.71) 40	(27.20) 24	174
+	(35.04) 33	(83.48) 85	(51.91) 49	(31.58) 35	202
-+	(11.97) 12	(28.52) 22	(17.73) 24	(10.79) 11	69
	(3.82) 4	(9.09) 8	(5.65) 7	(3.44) 3	22
Total	81	193	120	73	467
$x^2 = 6.38807$	d.f. = 9	p > .05			

	High	Middle	Low	Total	
++	(62.97) 67	(52.91) 52	(58.12) 55	174	
+~	(73.10) 67	(61.42) 65	(67.48) 70	202	
-+	(24.97) 30	(20.98) 19	(23.05) 20	69	
	(7.96) 5	(6.69) 6	(7.35) 11	22	
Total	169	142	156	467	
$x^2 = 5.84094$ d.f. = 6 p>.05					

TABLE 25:5.--Most-understanding teachers of personality classified college preference males by socio-economic background

TABLE 25:6.--Most-understanding teachers of personality classified college preference males by personality classification

	++	+-	-+	-	Total
++	(88.30) 79	(76.38) 85	(7.08) 7	(2.24) 3	174
+-	(102.51) 103	(88.67) 89	(8.22) 8	(2.60) 2	202
-+	(35.02) 42	(30.29) 24	(2.81) 2	(0.89) 1	69
	(11.16) 13	(9.66) 7	(0.90) 2	(0.28) 0	22
Total	237	205	19	6	467
$x^2 = 7.95368$	d.f. = 9	p > .05		· · · · ·	

	Male	Female	Total		
++	(34.44) 39	(16.56) 12	51		
+-	(42.55) 40	(20.45) 23	63		
-+	(16.21) 17	(7.79) 7 ₂#	24		
	(10.80) 8	(5.19) 8	16		
Total	104	50	154		
$x^2 = 4.70613$ d.f. =	$x^2 = 4.70613$ d.f. = 3 p>.05				

TABLE 26:1.--Most-understanding teachers of personality classified non-college preference males by sex

TABLE 26:2.--Most-understanding teachers of personality classified non-college preference males by marital status

	Married	Single	Total
++	(40.40) 41	(10.60) 10	51
+-	(49.91) 48	(13.09) 15	63
-+	(19.01) 19	(4.99) 5	24
	(12.68) 14	(3.32) 2	16
Total	122	32	154
$x^2 = 1.05689$ d.f. =	3 p > .05		

	0-2	3_9	10 or	Total	
	<u> </u>			icidi	
++	(9.27) 10	(36.10) 35	(5.63) 6	51	
+-	(11.45) 13	(44.59) 43	(6.95) 7	63	
-+	(4.36) 4	(16.99) 18	(2.65) 2	24	
	(2.91) 1	(11.32) 13	(1.77) 2	16	
Total	28	109	17	154	
$x^2 = 2.17419$ d.:	$x^2 = 2.17419$ d.f. = 6 p >.05				

TABLE 26:3.--Most-understanding teachers of personality classified non-college preference males by years on the staff

 TABLE 26:4.--Most-understanding teachers of personality classified

 non-college preference males by age

	00.00	00.00	40.40	50 or	
	20-29	30-39	40-49	more	Total
++	(12.92) 15	(19.54) 18	(10.27) 7	(8.28) 11	51
+-	(15.95) 16	(24,14) 24	(12.68) 15	(10.23) 8	63
-+	(6.08) 5	(9.19) 11	(4.83) 5	(3.90) 3	24
	(4.05) 3	(6.13) 6	(3.22) 4	(2.60) 3	16
Total	39	59	31	25	154
$x^2 = 4.57988$	d.f. = 9	p > .05			

	High	Middle	Low	Total	
++	(16.89) 19	(14.57) 14	(19.54) 18	51	
+-	(20.86) 22	(18.00) 20	(24.14) 21	63	
-+	(7.95) 6	(6.86) 4	(9.19; 14	. 24	
	(5.30) 4	(4.57) 6	(6.13) 6	16	
Total	51	44	59	154	
$x^2 = 6.05745$ d.f. = 6 p>.05					

TABLE 26:5.--Most-understanding teachers of personality classified non-college preference males by socio-economic background

TABLE 26:6.--Most-understanding teachers of personality classified non-college preference males by personality classification

	++	+-	-+		Total
++	(28.48) 25	(18.88) 23	(3.31) 3	(0.33) 0	51
+-	(35.18) 41	(23.32) 18	(4.09) 4	(0.41) 0	63
-+	(13.40) 14	(8.88) 8	(1.56) 1	(0.16) 1	24
	(8.94) 6	(5.92) 8	(1.04) 2	(0.10) 0	16
Total	86	57	10	1	154
$x^2 = 11.68065$	d.f. = 9	p >. 05			

	Male	Female	Total
College Preference	(306.82) 304	(160.18) 163	467
Non-college Preference	(101.18) 104	(52.82) 50	154
Total	408	213	621
$x^2 = 0.30469$ d.f. =	1 p > .05		

TABLE 27:1.--Most-understanding teachers of males by sex

TABLE	27:2Most-understanding teachers	of	males	by
	marital status			

	Married	Single	Total		
College Preference	(354.20) 349	(112.80) 118	467		
Non-college Preference	122	(37.20) 32	154		
Total	471	150	621		
$x^2 = 1.27443$ d.f. = 1 p>.05					

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	0-2	3-9	10 or more	Total		
College Preference	(102,27) 108	(294.79) 283	(69.94) 76	467		
Non-college Preference	(33.73) 28	109	17	154		
Total	136	392	93	621		
$x^2 = 5.31349$ d.f. = 2 p > .05						

TABLE 27:3.--Most-understanding teachers of males by years on the staff

TABLE 27:4.--Most-understanding teachers of males by age

	00.00	20.20	40 40	50 or	T = 4 = 1
	20-29	30-39	40-49	more	Total
C ollege Preference	(90.24) 81	(189.51) 193	(113.55) 120	(73.70) 73	467
Non-college Preference	(29.76) 39	(62.49) 59	(37.45) 31	(24.30) 25	154
Total	120	252	151	98	621
$x^2 = 5.57822$	d.f. = 3	p > .05		•	

	High	Middle	Low	Total		
College Preference	(165.44) 169 (54.56)	(139.87) 142 (46.13)	(161.68) 156 (53.32)	467		
Non-college Preference	51	44	59	154		
Total	220	186	215	621		
$x^2 = 1.24427$ d.f. = 2 p>.05						

TABLE 27:5.--Most-understanding teachers of males by socio-economic background

TABLE 27:6.--Most-understanding teachers of males by personality classification

	++	+-	-+		Total
College Preference	(242.90) 237	(197,03) 205	(21.81) 19	(5.26) 6	467
Non-college Preference	(80.10) 86	(64.97) 57	(7.19) 10	(1 74) 1	154
Total	323	262	29	7	621
$x^2 = 3.75702$	d.f. = 3	p > .05	L		

	Male	Female	Tctāl
College Preference	(260.02) 257	(140.98) 144	401
Non-college Preference	(71.98) 75	(39÷02) 36	111
Total	332	180	512
$x^2 = 0.46019$ d.f. =	l p >. 05		·

TABLE 28:1.--Most-understanding teachers of a proportionate, random sample of males by sex

TABLE 28:2.--Most-understanding teachers of a proportionate, random sample of males by marital status

	Married	Single	Tctal
College Preference	(302.25) 301	(94.75) 96	397
Non-college Preference	(83.75) 85	(26.25) 25	110
Total	386	121	507
$x^2 = 0.09982$ d.f. =	1 p>.05		

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	0-2	3-9	10 or more	Total		
College Preference	(90.75) 95	(249.57) 242	(58.68) 62	399		
Non-college Preference	(25.25) 21	(69,43) 77	(16.32) 13	111		
Total	116	319	75	510		
$x^2 = 2.83256$ d.f. = 2 p > 05						

TABLE 28:3.--Most-understanding teachers of a proportionate, random sample of males by years on the staff

TABLE 28:4 -- Most-understanding teachers of a proportionate, random sample of males by age

	20-29	30-39	40-49	50 or more	Total
College Preference	(81,41) 74	(166,73) 167	(91.59) 98	(60,27) 61	400
Non-ccllege Preference	(22.59) 30	(46.27) 46	(25.42) 19	(16,73) 16	111
Total	104	213	117	77	511
$x^2 = 5,20779$	d.f. = 3	p > 。05			

	Hıgh	Mıddle	Low	Total		
College Preference	(137.28) 157 (36.72)	(152.27) 143 (40.73)	(110.45) 100 (29.55)	400		
Non-college Preference	17	50	40	107		
Total	174	193	140	507		
$x^2 = 20.78146$ d.f. = 2 p<.01						

TABLE 28:5.--Nost-understanding teachers of a proportionate, random sample of males by socio-economic background

TABLE 28.6. --Most-understanding teachers of a proportionate, random sample of males by personality classification

	++	+	-+		Total
College Preference	(200,08) 196	(164.13) 168	(21.89) 21	(3.91) 5	390
Non-college Preference	(55.92) 60	(45,87) 42	(6.12) 7	(1,09) 0	109
Iotal	256	210	28	5	499
$x^2 = 2.35440$	d.f. = 3	p ≻ . 05			

	Higher	Same	Lower	Total		
College Preference	(128.37) 129	(123,73) 125	(95 . 89) 94	348		
Non-college Preference	(37.63) 37	(36.27) 35	(28.11) 30	102		
Tctal	166	160	<u>124</u>	450		
$x^2 = 0.23544$ d.f. = 2 p > .05						

TABLE 28:7.--Most-understanding teachers of a proportionate, random sample of males by higher, same and lower socio-economic status

TABLE 29:1.--Most-understanding teachers of socioeconomically classified college preference females by sex

	Mal e	Female	Total
High	(77.10) 83	(108.90) 103	186
Middle	(55.96) 56	(79.04) 79	135
Low	(43.94) 38	(62.06) 68	106
Total	177	250	427
$x^2 = 2.14271$ d.f. =	= 2 p > .05	5	

	Married	Single	Total
High	(126.32) 129	(59.68) 57	186
Middle	(91.69) 92	(43.31) 43	135
Low	(71.99) 69	(34.01) 37	106
Total	290	137	427
$x^2 = 0.56748$ d.f. =	2 p > .05		

TABLE 29.2.--Most-understanding teachers of socioeconomically classified college preference females by marital status

TABLE 29:3.--Most-understanding teachers of socio-economically classified college preference females by years on the staff

			10 or	
	0-2	3-9	more	Total
High	(47.92) 47	(108.90) 111	(29.19) 28	186
Middle	(34.78) 33	(79.04) 83	(21.18) 19	135
Low	(27.31) 30	(62.06) 56	(16.63) 20	106
' Total	110	250	67	427
$x^2 = 2.15014$	d.f. = 4 p>	•.05	<u> </u>	.

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	20-29	30-39	40-49	50 or more	Total
High	(35.28) 30	(63.16) 68	(51,84) 57	(35.72) 31	186
Middle	(25.61) 21	(45.84) 52	(37.62) 35	(25.92) 27	135
Lew	(20.11) 30	(36.00) 25	(29.54) 27	(20.36) 24	106
Total	81	145	119	82	427
$x^2 = 13.27758$	d.f. = 6	p < .05)		

TABLE 29:4.--Most-understanding teachers of socio-economically classified college preference females by age

TABLE 29:5.--Most-understanding teachers of socio-economically classified college preference females by socio-economic background

	High	Middle	Low	Total
High	(71.00) 78	(54.89) 56	(60.11) 52	186
Middle	(51.53) 46	(39,84) 41	(43.63) 48	135
Low	(40.46) 39	(31.28) 29	(34.26) 38	106
Total	163	126	138	427
$x^2 = 3.49882$ d.f	.=4 p>	•.05		

	++	+-	-+		Total
High	(101.06) 95	(69.26) 76	(13.07) 11	(2.61) 4	186
Middle	(73.35) 84	(50.27) 41	(9.48) 9	(1.90) 1	135
Low	(57.59) 53	(39.47) 42	(7.45) 10	(1.49) 1	106
Total	232	159	30	6	427
$x^2 = 7.35565$	d.f. = 6	p>.05			

TABLE 29:6.--Most-understanding teachers of socio-economically classified college preference females by personality classification

TABLE 30:1.--Most-understanding teachers of socioeconomically classified non-college preference females by sex

	Male	Female	Total
High	(11.66) 14	(20.34) 18	32
Middle	(36.81) 38	(64.19) 63	101
Low	(37.53) 34	(65.47) 69	103
Total	86	150	236
$x^2 = 1.32167$ d.f. =	2 p≻.0	5	

	Married	Single	Total
High	(19.93) 19	(12.07) 13	32
Middle	(62.91) 61	(38.09) 40	101
Low	(64.16) 67	(38.84) 36	103
Total	147	89	236
$x^2 = 0.60216$ d.f. =	2 p > .0)5	

TABLE 30:2.--Most-understanding teachers of socioeconomically classified non-college preference females by marital status

TABLE 30:3.--Most-understanding teachers of socio-economically classified non-college preference females by years on the staff

			10 or	
	0-2	3-9	more	Total
High	(8.27) 9	(17.22) 18	(6.51) 5	32
Middle	(26.11) 21	(54.35) 59	(20.54) 21	101
Low	(26.62) 31	(55.43) 50	(20.95) 22	103
Total	61	127	48	236
$x^2 = 3.16343$ d.f.	,=4 p;	> .05		

				50 or	
	20-29	30-39	40-49	more	Total
	(7.46)	(8.95)	(7.59)	(8.00)	
^H igh	5	11	10	6	32
	(23.54)	(28.25)	(23.97)	(25.25)	
Middle	24	27	19	31	101
		(00.01)			
In	(24.00)	(28.81)	(24.44)	(25.75)	
row	26	28	27	22	103
Total	55	66	56	59	236
10181	55	00	50	55	200
$x^2 = 5.94384$	d.f. = 6	p>.05			

 TABLE 30:4.--Most-understanding teachers of socio-economically classified non-college preference females by age

 TABLE 30:5.--Most-understanding teachers of socio-economically

 classified non-college preference females by socio-economic

 background

	High	Middle	Low	Total
High	(12.88) 13	(8. 9 5) 7	(10.17) 12	32
Middle	(40.66) 41	(28.25) 30	(32.10) 30	101
Low	(41.46) 41	(28.81) 29	(32.73) 33	103
Total	95	66	75	236
$x^2 = 1.00245$ d.f	f. = 6 p>	▶.05		

TABLE 30:6Most-understanding teachers of socio-economically
classified non-college preference females by personality classifica-
tion

	++	+-	-+		Total
High	(17.63) 17	(12.20) 13	(2.03) 1	(1.36) 1	32
Middle	(55.64) 55	(38.52) 40	(6.42) 6	(0.43) 0	101
Low	(56.74) 58	(39.28) 37	(6.55) 8	(0.44) 0	103
Total	130	90	15	1	236
$x^2 = 0.89586$	d.f. = 6	p >.05			

TABLE 31:1.--Most-understanding teachers of personality classified college preference females by sex

	Male	Female	Total			
++	(83.32) 88	(117.68) 113	201			
+-	(66.74) 63	(94.26) 98	161			
-+	(21.56) 22	(30.44) 30	52			
	(5.39) 4	(7.61) 9	13			
Total	177	250	427			
$x^2 = 1.43462$ d.f. = 3 p>.05						
	Married	Single	Total			
--------------------------------	-----------------	---------------	-------	--	--	--
++	(136.51) 139	(64.49) 62	201			
+-	(109.34) 98	(51.66) 63	161			
-+	(35.32) 43	(16.68) 9	52			
	(8.83) 10	(4.17) 3	13			
Total	290	137	427			
$x^2 = 9.49625$ d.f. = 3 p<.05						

TABLE 31:2.--Most-understanding teachers of personality classified college preference females by marital status

TABLE 31:3.--Most-understanding teachers of personality classified college preference females by years on the staff

			10 or			
	0-2	3-9	more	Total		
	(51.78)	(117.68)	(31.54)			
++	54	116	31	201		
	(41.48)	(94.26)	(25.26)			
+	45	90	26	161		
	(13.40)	(30.44)	(8.16)			
-+	9.	35	8	52		
	(3.35)	(7.61)	(2.04)			
	2	9	2	13		
Total	110	250	67	427		
2 - 2 57000						
$x^2 = 3.57096$ d.f	.=6 p>	•.05				

				50 or	
	20-29	30-39	40-49	more	Total
++	(38.13) 39	(68.26) 65	(56.02) 58	(38.60) 39	201
+-	(30.54) 29	(54.67) 60	(44.87) 40	(30.92) 32	161
-+	(9.86) 8	(17.66) 18	(14.49) 17	(9.99) 9	52
	(2.47) 5	(4.41) 2	(3.62) 4	(2.50) 2	13
Total	81	145	119	82	427
$x^2 = 6.34187$	d.f. = 9	p >. 05			

TABLE 31:4.--Most-understanding teachers of personality classified college preference females by age

TABLE 31:5.--Most-understanding teachers of personality classified college preference females by socio-economic background

	High	Middle	Low	Total	
++	(76.73) 75	(59.31) 60	(64.96) 66	201	
+-	(61.46) 63	(47.51) 45	(52.03) 53	161	
-+	(19.85) 19	(15.34) 17	(16.81) 16	52	
	(4.96) 6	(3.84) 4	(4.20) 3	13	
Total	163	126	138	427	
$x^2 = 1.07555$ d.f. = 6 p > .05					

	++	+-	-+		Total
++	(109.21) 116	(74.85) 71	(14.12) 12	(2.82) 2	201
+-	(87.48) 80	(59. 95) 68	(11.31) 10	(2.26) 3	161
-+	(28.25) 31	(19.36) 15	(3.65) 5	(0.73) 1	52
	(7.06) 5	(4.84) 5	(0.91) 3	(0.18) 0	13
Total	232	159	30	6	427
$x^2 = 10.74666$	d.f. = 9	p >. 05			

TABLE 31:6.--Most-understanding teachers of personality classified college preference females by personality classification

TABLE 32:1.--Most-understanding teachers of personality classified non-college preference females by sex

	Male	Female	Total	
++	(38.63) 46	(67.37) 60	106	
+-	(30.61) 29	(53.39) 55	84	
-+	(14.94) 10	(26.06) 31	41	
	(1.82) 1	(3.18) 4	5	
Total	86	150	236	
$x^2 = 5.49631$ d.f. = 3 p>.05				

	Married	Single	Total		
++	(66.03) 67	(39.97) 39	106		
+	(52.32) 56	(31.68) 28	84		
-+	(25.54) 22	(15.46) 19	41		
	(3.11) 2	(1.89) 3	5		
Total	147	89	236		
$x^2 = 3.07339$ d.f. = 3 p > .05					

TABLE 32:2.--Most-understanding teachers of personality classified non-college preference females by marital status

 TABLE 32:3.--Most-understanding teachers of personality classified

 non-college preference females by years on the staff

			10 or		
	0-2	3-9	more	Total	
++	(27.40) 21	(57.04) 60	(21.56) 25	106	
+	(21.71) 27	(45.20) 42	(17.08) 15	84	
-+	(10.60) 13	(22.06) 21	(8.34) 7	41	
	(1.29) 0	(2.69) 4	(1.02) 1	5	
Total	61	127	48	236	
$x^2 = 6.71413$ d.f. = 6 p > .05					

	20-29	30-39	40-49	50 or more	Total
++	(24.70) 23	(29.64) 33	(25.15) 27	(26.50) 23	106
+-	(19.58) 23	(23.49) 20	(19.93) 14	(21.00) 27	84
-+	(9.56) 8	(11.47) 12	(9.73) 12	(10.25) 9	41
	(1.17) 1	(1.40) 1	(1.19) 3	(1.25) 0	5
Total	55	66	56	59	236
$x^2 = 10.78386$	d.f. = 9	p >. 05	· · · · ·		

TABLE 32:4.--Most-understanding teachers of personality classified non-college preference females by age

TABLE 32:5.--Most-understanding teachers of personality classified non-college preference females by socio-economic background

	High	Middle	Low	Total	
++	(42.67) 41	(29.64) 24	(33.69) 41	106	
+-	(33.81) 40	(23.49) 25	(26.69) 19	84	
-+	(16.50) 11	(11.47) 16	(13.03) 14	41	
	(2.01) 3	(1.40) 1	(1.59) 1	5	
Total	95	66	75	236	
$x^2 = 10.69609$ d.f. = 6 p>.05					

	++	+-	_ +		Total
++	(58.39) 61	(40.42) 39	(6.74) 5	(0.45) 1	106
+-	(46.27) 46	(32.03) 31	(5.34) 7	(0.36) 0	84
-+	(22.59) 21	(15.64) 17	(2.61) 3	(0.17) 0	41
	(2.75) 2	(1.91) 3	(0.32) 0	(0.02) 0	5
Total	130	90	15	1	236
$x^2 = 3.81368$	d.f. = 9	p > .05			

TABLE 32:6.--Most-understanding teachers of personality classified non-college preference females by personality classification

TABLE 33:1.--Most-understanding teachers of females by sex

	Male	Female	Total
College Preference	(169.38) 177	(257.62) 250	427
Non-college Preference	(93.62) 86	(142.38) 150	236
Total	263	400	663
x2 = 1.59620 d.f. =	1 p>.05		

	Married	Single	Total		
College Preference	(281.45) 290 (155.55)	(145.55) 137 (80.45)	427		
Non-conege rieference	147	09	230		
Total	437	226	663		
$x^2 = 2.14060$ d.f. = 1 p > .05					

TABLE 33:2.--Most-understanding teachers of females by marital status

TABLE 33:3.--Most-understanding teachers of females by years on the staff

	0-2	3-9	10 or	Total		
		<u> </u>	more	10:01		
College Preference	(110.13) 110	(242.80) 250	(74.07) 67	427		
Non-college Preference	(60.87) 61	(134.20) 127	(40.94) 48	236		
Total	171	377	115	663		
$x^2 = 2.48250$ d.f. = 2 p > .05						

	0.0.00		40.40	50 or	m
	20-29	30-39	40-49	more	Total
College Preference	(87.59) 81	(135.89) 145	(112.71) 119	(90.81) 82	427
Non-college Preference	(48.41) 55	(75.11) 66	(62.29) 56	(50.19) 59	236
Total	136	211	175	141	663
$x^2 = 6.49587$	d.f. = 3	p > .05			

TABLE 33:4.--Most-understanding teachers of females by age

TABLE 33:5.--Most-understanding teachers of females by socioeconomic background

	High	Middle	Low	Total		
College Preference	(166.16) 163	(123.66) 126	(137.18) 138	427		
Non-college Preference	(91.84) 95	(68.34) 66	(75.82) 75	236		
Total	258	192	213	663		
$x^2 = 0.30696$ d.f. = 2 p >.05						

	++	+-	-+		Total
College Preference	(233.14) 232	(160.37) 159	(28.98) 30	(4. 51) 6	427
Non-college Preference	(128.86) 130	(88.63) 90	(16.02) 15	(2.49) 1	236
Total	362	249	45	7	663
$x^2 = 1.53322$	d.f. = 3	p >. 05			

TABLE 33:6.--Most-understanding teachers of females by personality classification

TABLE 34:1.--Most-understanding teachers of a proportionate, random sample of females by sex

	Male	Female	Total
College Preference	(132.90) 136	(227.10) 224	360
Non-college Preference	(73.10) 70	(124.90) 128	198
Total	206	352	558
$x^2 = 0.32302$ d.f.	= 1 p >.05		1

	Married	Single	Total
College Preference	(224.82) 233	(126.18) 118	351
Non-college Preference	(126.18) 118	(70.82) 79	197
Total	351	197	548
$x^2 = 2.30302$ d.f. =	= 1 p >. 05		

TABLE 34:2.--Most-understanding teachers of a proportionate, random sample of females by marital status

TABLE 34:3.--Most-understanding teachers of a proportionate, random sample of females by years on the staff

	0-2	3-9	10 or more	Total		
College Preference	(94.18) 93 (51.82)	(204.48) · 208	(59.34) 57	358		
Non-college Preference	(51.82)	109	(32.00) 35	197		
Total	146	317	92	555		
$x^2 = 0.47226$ d.f. = 2 p > .05						

	20-29	30-39	40-49	50 or more	Total
College Preference	(70.70) 69	(128.55) 131	(84.20) 89	(74.56) 69	358
Non-college Preference	(39.30) 41	(71.45) 69	(46.80) 42	(41.44) 47	199
Total	110	200	131	116	557
$x^2 = 2.17161$	d.f. = 3	p >. 05			

TABLE 34:4.--Most-understanding teachers of a proportionate, random sample of females by age

TABLE 34:5.--Most-understanding teachers of a proportionate, random sample of females by socio-economic background

	High	Middle	Low	Total		
College Preference	(128.19) 152	(151.97) 146	(91.84) 74	372		
Non-college Preference	(65.82) 42	(78.03) 84	(47.16) 65	191		
Total	194	230	139	563		
$x^2 = 23.93815$ d.f. = 2 p <.01						

	++	+-	-+		Total
College Preference	(199.24) 198	(127.20) 129	(25.31) 24	(3.25) 4	355
Non-college Preference	(107.76) 109	(68.80) 67	(13.69) 15	(1.76) 1	192
Total	307	196	39	5	547
$x^2 = 0.77893$	d.f. = 3	p >. 05			

TABLE 34:6.--Most-understanding teachers of a proportionate, random sample of females by personality classification

TABLE 34:7.--Most-understanding teachers of a proportionate, random sample of females by higher, same and lower socio-economic status

	Higher	Same	Lower	Total		
College Preference	(124.03) 121	(107.80) 108	(81.17) 84	313		
Non-college Preference	(66.97) 70	(58.20) 58	(43.83) 41	169		
Total	191	166	125	482		
$x^2 = 0.49353$ d.f. = 2 p > .05						

	In-school	Out-school	Total	
High	(108.78) 110	(147.22) 146	256	
Middle	(101.98) 104	(138.02) 13 6	240	
Low	`(55.24) 52	(74.76) 78	130	
Total	266	360	626	
$x^2 = 0.42380$ d.f. = 2 p > .05				

TABLE 35:1.--Adult friends of socio-economically classified college preference males by place of employment

TABLE 35:2.--Out-adult friends of socio-economically classified college preference males by socio-economic status

	High	Middle	Low	Total
High	(52.32) 59	(64.48) 65	(29.20) 22	146
Middle	(48.73) 49	(60.07) 57	(27.20) 30	136
Low	(27.95) 21	(34.45) 37	(15.60) 20	78
Total	129	159	72	360
$x^2 = 6.23695$ d.f. = 4 p>.05				

	In-school	Out-school	Total	
High	(4.32) 6	(17.68) 16	22	
Middle	(12.58) 10	(51.42) 54	64	
Low	(17.10) 18	(69.90) 69	87	
Total	34	139	173	
$x^2 = 1.53047$ d.f. = 2 p > .05				

TABLE 36:1.--Adult friends of socio-economically classified non-college preference males by place of employment

TABLE 36:2.--Out-adult friends of socio-economically classified noncollege preference males by socio-economic status

	High	Middle	Low	Total
High	(4.03) 7	(7.02) 3	(4.95) 6	16
Middle	(13.60) 12	(23.70) 25	(16.71) 17	54
Low	(17.37) 16	(30.28) 33	(21.35) 20	69
Total	35	61	43	139
$x^2 = 5.40587$ d.f. = 4 p > .05				

	In-school	Out-school	Total	
++	(98.16) 94	(132.84) 137	231	
+-	(119.40) 134	(161.60) 147	281	
-+	(36.54) 27	(49.46) 59	86	
	(11.90) 11	(16.10) 17	28	
Total	266	360	626	
$x^2 = 7.86006$ d.f. = 3 p <.05				

TABLE 37:1.--Adult friends of personality classified college preference males by place of employment

TABLE 37:2.--Out-adult friends of personality classified college preference males by socio-economic status

	High	Middle	Low	Total
++	(49.09) 46	(60.51) 67	(27.40) 24	137
+-	(52.68) 56	(64.92) 61	(29.40) 30	147
-+	(21.14) 18	(26.06) 25	(11.80) 16	59
	(6.09) 9	(7.51) 6	(3.40) 2	17
Total	129	159	7 2	360
$x^2 = 6.04560$ d.f. = 6 p>.05				

	In-school	Out-school	Total	
++	(11.01) 13	(44.99) 43	56	
+	(13.95) 12	(57.05) 59	71	
-+	(6.68) 8	(27.32) 26	34	
	(2.36) 1	(9.64) 11	12	
Total	34	139	173	
$x^2 = 2.08711$ d.f. = 3 p > .05				

TABLE 38:1.--Adult friends of personality classified noncollege preference males by place of employment

TABLE 38:2.--Out-adult friends of personality classified non-college preference males by socio-economic status

	High	Middle	Low	Total
++	(10.83) 12	(18.87) 17	(13.30) 14	43
+	(14.86) 14	(25.89) 29	(18.25) 16	59
-+	(6.55) 7	(11.41) 11	(8.04) 8	26
	(2.77) 2	(4.83) 4	(3.40) 5	11
Total	35	61	43	139
$x^2 = 2.20471$ d.f. = 6 p > .05				

	In-school	Out-school	Total	
College Preference	(235.04) 266	(390.96) 360	626	
Non-college Preference	(64.96) 34	(108.04) 139	173	
Total	300	499	799	
$x^2 = 30.15730$ d.f. = 1 p<.01				

TABLE 39:1.--Adult friends of males by place of employment

TABLE 39:2.--Out-adult friends of males by socio-economic status

	High	Middle	Low	Total
College Preference	(118.32) 129	(158.72) 159	(82.97) 72	360
Non-college Preference	(45.68) 35	(61.28) 61	(32.03) 43	139
Total	164	220	115	499
$x^2 = 8.67029$ d.f. = 2 p <.05				

	In-school	Out-school	Total
College Preference	(160.33) 187	(355.67) 329	516
Non-college Preference	(45,67) 19	(101.33) 128	147
Total	206	457	663
$x^2 = 29.03030$ d.f.	= 1 p < .()1	

TABLE 40:1.--Adult friends of a proportionate, random sample of males by place of employment

TABLE 40:2.--Out-adult friends of a proportionate, random sample of males by socio-economic status

	High	Middle	Low	Total
College Preference	(82.80) 88	(108.00) 109	(61.20) 55	252
Non-college Preference	(32,20) 27	(42.00) 41	(23.80) 30	98
Total	115	150	85	350
$x^2 = 3.44259$ d.f. = 2 p>.05				

	Higher	Same	Lower	Total
College Preference	(105.22) 108	(96.57) 94	(56.21) 56	258
Non-college Preference	(40.78) 38	(37.43) 40	(21.79) 22	100
Total	146	134	78	358
$x^2 = 0.51060$ d.f. = 2 p >.05				

TABLE 40:3.--Out-adult friends of a proportionate, random sample of males by higher, same and lower socio-economic status

TABLE 41:1.--Adult friends of socio-economically classified college preference females by place of employment

	In-school	Out-school	Total	
High	(99.32) 91	(103.68) 112	203	
Middle	(72.90) 75	(76.10) 74	149	
Low	(55.78) 62	(58.22) 52	114	
Total	228	238	466	
$x^2 = 2.84115$ d.f. = 2 p > .05				

	High	Middle	Low	Total
High	(52.24) 60	(45.18) 44	(14.59) 8	112
Middle	(34.51) 31	(29.85) 34	(9.64) 9	74
Low	(24.25) 20	(20.97) 18	(6.77) 14	52
Total	111	96	31	238
$x^2 = 14.02325$ d.f. = 4 p<.05				

TABLE 41:2.--Out-adult friends of socio-economically classified college preference females by socio-economic status

TABLE 42:1.--Adult friends of socio-economically classified non-college preference females by place of employment

	In-school	Out-school	Total	
High	(9.04) 10	(17.96) 17	27	
Middle	(30.48) 30	(60.52) 61	91	
Low	(29.48) 29	(58.52) 59	88	
Total	69	137	206	
$x^2 = 0.17634$ d.f. = 2 p > .05				

	High	Middle	Low	Total
Hıgh	(3.97) 4	(7.57) 10	(5.46) 3	17
Middle	(14.25) 14	(27.16) 25	(19.59) 22	61
Low	(13.78) 14	(26.27) 26	(18.95) 19	5 9
Total	32	61	44	137
$x^2 = 2.36765$ d.f. = 4 p>.05				

TABLE 42:2.--Out-adult friends of socio-economically classified noncollege preference females by socio-economic status

TABLE 43:1.--Adult friends of personality classified college preference females by place of employment

	In-school	Out-school	Total	
++	(110.09) 112	(114.91) 113	225	
+	(84.64) 87	(88.36) 86	173	
-+	(27.40) 25	(28.60) 31	56	
	(5.87) 4	(6.13) 8	12	
Total	228	238	466	
$x^2 = 1.77147$ d.f. = 3 p > .05				

		1		1
	High	Middle	Low	Total
++	(52.70) 49	(45.58) 48	(14.72) 16	113
+-	(40.11) 42	(34.69) 33	(11.20) 11	86
-+	(14.46) 15	(12.50) 13	(4.04) 3	31
	(3.73) 5	(3.23) 2	(1.04) 1	8
Total	111	96	31	238
$x^2 = 1.88471$ d.f. = 6 p>.05				

TABLE 43:2.--Cut-adult friends of personality classified college preference females by socio-economic status

TABLE 44:1.--Adult friends of personality classified noncollege preference females by place of employment

	In-school Out-school		Total	
++	(32.49) 38	(64.51) 59	97	
+-	(25.46) 18	(50.54) 58	76	
-+	(8.71) 9	(17.29) 17	26	
	(2.34) 4	(4.66) 3	7	
Total	69	137	206	
$x^2 = 6.47547$ d.f. = 3 p>.05				

	High	Middle	Low	Total
++	(13.78) 13	(26.27) 28	(18.95) 18	59
+	(13.55) 13	(25.82) 26	(18.63) 19	58
-+	(3.97) 6	(7.57) 6	(5.46) 5	17
	(0.70) 0	(1.34) 1	(0.96) 2	3
Total	32	61	44	137
$x^2 = 3.55189$ d.f. = 6 p>.05				

TABLE 44:2.--Out-adult friends of personality classified non-college preference females by socio-economic status

TABLE 45:1.--Adult friends of females by place of employment

	In-school	Out-school	Total
College Preference	(205.96) 228 (91.04)	(260.04) 238 (114.96)	466
Non-college Preference	(91.04) 69	137	206
Total	297	375	672
$x^2 = 13.78771$ d.f.	= 1 p <. ()1	

	High	Mıddle	Low	Total
College Preference	(90.76) 111	(99.64) 96	(47.60) 31	238
Non-college Preference	(52.24) 32	(57.36) 61	(2 7.40) 44	137
Total	143	157	75	375
$x^2 = 28.56542$ d.f. = 2 p<.01				

TABLE 45:2.--Out-adult friends of females by socio-economic status

TABLE 46:1.--Adult friends of a proportionate, random sample of females by place of employment

	In-school	Out-school	Total
College Preference	(144.87) 168	(324.13) 301	469
Non-college Preference	(74.13) 51	(165.87) 189	240
Total	219	490	709
$x^2 = 15.78589$ d.f.	= 1 p < .()1	

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	High	Middle	Low	Total		
College Preference	(64.85) 76	(73.84) 71	(35.31) 27	174		
Non-college Preference	(36.15) 25	(41.16) 44	(19.69) 28	97		
Total	101	115	55	271		
$x^2 = 11.12418$ d.f. = 2 p <.01						

TABLE 46:2.--Out-adult friends of a proportionate, random sample of females by socio-economic status

TABLE 46:3.--Out-adult friends of a proportionate, random sample of females by higher, same and lower socio-economic status

	Higher	Same	Lower	Total	
College Preference	(70.61) 72	(63.67) 70	(39.72) 32	174	
Non-college Preference	(41.39) 40	(37.33) 31	(23.28) 31	102	
Total	112	101	63	276	
$x^2 = 5.83724$ d.f. = 2 p > .05					

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