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TEACHER CAREER EXPECTATIONS FOR STUDENTS
AS RELATED TO
ELEMENTARY STUDENT CAREER ASPIRATIONS:
AN EXPLORATORY STUDY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Judith Morris, B.A.

* * * *

The Ohio State University

1973

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ACKNOWLEDGEMENTS

Throughout my post-secondary education -- in and out of educational institutions -- the influence of significant others upon my values, interests, and personal growth has been extremely strong. This influence has often been referred to jokingly as "Morris history." When I came to Ohio State, I arbitrarily decided that I would make this an independent venture -- i.e., no significant others. The four years here have brought a tremendous amount of personal growth and a broadening of intellectual, academic and social interests. However, because I had deliberately avoided a mentor, there was something missing in depth of learning and professional commitment.

Writing this dissertation filled that gap, since in the process I found a mentor and a number of significant others. It is because of my interactions with these persons that this study was completed.

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support when needed, and positive criticism without forcing their perspectives or procedures on another. Therefore, the strengths of this study owe everything to these two friends; the weaknesses grow out of my own idiosyncrasies.

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To Timothy Ayers, Emmanuel Memorial Church, and Linda and Jeffrey Norris -- my family in Columbus -- my love and gratitude for their love in action which sustained me throughout.
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Studies in English Education. Don Bateman
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CHAPTER I

THE PROBLEM

INTRODUCTION

Since 1971, the U. S. Office of Education and the National Institute of Education have poured millions of dollars into career education. Prior to that date, state departments of education and local school systems had developed curricula, provided texts, funded projects and in other ways encouraged the development of career education in grades K-12, as well as at the post-secondary level. Teachers all over the country have received in-service education related to implementing career education with their students. And materials for use in the classrooms are being developed through federal projects and by many commercial firms.

The intention of comprehensive career education as operationalized in the Comprehensive Career Education Model (CCEM) being developed at The Center for Vocational and Technical Education in Columbus, Ohio, is to provide expanded career opportunities for all students through the provision of broader occupational information, "hands-on" experience, and increased self-knowledge. CCEM is approaching this effort through the development of curricular and guidance units, the provision of career information, a design for counseling and guidance, and the opportunity for teachers, administrators, counselors, and teacher aides to
explore the career education concept and approaches through inservice preparation for implementation.

THE PROBLEM

Despite its expressed intentions, career education is viewed by some minorities and certain poor persons as a means by which the status quo in career status can be maintained.

"Career Education and its potential threat to the educational options open to America's black and urban poor"\(^1\) was the central issue of the National Urban League's first Education Policy Information Center bulletin. In Atlanta and Los Angeles, minority groups reacted with similar suspicions on the introduction of the Comprehensive Career Education Model (CCEM) to their school systems. Suspicions about the use of career education to channel ethnic and poverty children into non-professional, non-prestige jobs at an early age still persist.

As pointed out by Sally Spitzer in the EPIC issue mentioned earlier "There is...danger of an 'implementation gap'; the same teachers and counselors who have been misdirecting blacks in the past will be responsible for implementing career education."\(^2\)

There is considerable evidence of the close interaction between the values, stereotypes and economic realities of mainstream American society and American public schools. Kozol, Kohl, Coleman, \textit{et al}., Silberman, 

\(^1\)National Urban League Education Division, EPIC, I (Summer, 1972).

\(^2\)Sally Spitzer, "Career Education: A New Name for an Old Game," EPIC, I (Summer, 1972), 2.
Stein and others have documented the inequality of educational opportunity in this country's schools, a mirror image of the economic and "political" inequality in the society as a whole. Helen P. Gouldner and associates at Washington University in St. Louis, Missouri, found after a four year study of K-3 classrooms in seven schools, that an "ideology of failure" permeated classrooms in which black children were being taught... "the teachers in the ghetto schools judged the potential success or failure of their students very early in the kindergarten year. Children selected as 'doing well' and as potential successes were cleaner, wore better clothes, came from families economically 'better off', were more frequently girls..."  

"During the course of this research it became clear that the schools can only be understood as a direct reflection of the social, economic and political realities of American society."  

The economic realities of American society for non-whites is a ten percent unemployment rate, approximately twice the rate for whites; an educational attainment of less than five years for 13.5 percent of the black population as compared to five percent for all races; and high

---


5 Ibid., p. 6.
school plus for only 34.7 percent blacks whereas 56.4 percent of all races have completed high school plus some additional training. Higher education plus additional study has been attained by 11.4 percent of all races, while only four and one-half percent of blacks have completed that much education. The figures for other minorities are even higher, but comparative figures are not available.

There is a high relationship between educational attainment and career choice. Having seen these figures, it is not surprising that the 1972 Manpower Report of the President revealed that only nine percent of the non-white persons employed held professional or technical jobs. Of the employed non-whites, four and one-tenth percent held managerial, official or proprietorship jobs and seven and nine-tenths percent held draftsmen or foreman jobs. A whopping 42 percent were operatives (drivers or deliverymen) and other service workers (household, restaurant, etc.). The remaining 14.4 percent is made up of clerical workers (13.7%) and farmers or farm managers (.7%). Therefore, educational attainment has effected the level of influence and creative contribution through careers by the non-white populations of the United States.

In 1971, 14.5 percent of the females employed were classified as professional/technical as compared with 13.7 percent of employed males. In this regard, it should be pointed out that the majority of these women are employed in female-dominated professions such as teaching,

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nursing, airline stewardesses, etc. In almost all cases, these are professions in which authority rests with a supervisor, who is generally male -- principal, doctor, pilot, etc.

In terms of managerial, administrative, and proprietor positions, only five percent of employed women have positions in this area as compared with 14.6 percent of employed males. Of course, the largest proportion of females (33.9%) are employed in the clerical category. In terms of blue collar participation, 13.3 percent work as operatives and 17.4 percent as other service workers -- domestic and waitress, predominantly. One and three-tenths percent of employed females work as craftsmen or foremen.  

These realities of employment perhaps unconsciously effect our perceptions of career opportunities suitable to persons in different ethnic, economic, and sexual groups.

As we have seen from the Gouldner study, teacher perceptions of student potential were concretized early in the child's first year of formal education and these perceptions related to the economic affluence of the children. Hanson, Gold, and Labovitz found in a study of all 1966 graduates from the San Diego high schools that college entry is affected by the socio-economic contexts of students' neighborhood and school through the intervening influence upon manifest ability, as indicated by I.Q. scores and grade point averages, and upon college aspirations. "The lesson of our data and analysis is that attention

7Ibid., p. 172.
must also turn to discrimination which earlier and pervasively affects academic skills and aspirations.\(^8\)

**NEED FOR THE STUDY**

The basic criticism brought against career education is that it introduces a more direct means of inducting boys and girls, poor kids, and minority group pupils into the status quo of the career world. That teachers unconsciously respond to the values of white middle class America in their subjective evaluations of their pupils is evident in the literature. The literature also suggests that these evaluations are reflected in the nature of the interactions teachers have with students. These interactions in turn affect student self-evaluation and thus academic achievement.

All of these relationships have been under considerable investigation in recent years as they affect the academic achievement of students.

The clear interaction between educational and career attainment makes such considerations of vital importance as a career emphasis moves into the elementary years.

The research on the effect of teacher expectations upon children's academic achievement and attitudes toward school is contradictory. However, given the strong evidence to support the view that teachers can influence the achievement of their students, a careful look should be

---

taken at teacher perception of career choice of the child, and the relationship of both to the economic background, ethnic group, and sex of the child. Since the intent of career education is to broaden the opportunities for all students, some empirical evidence should be brought to bear on this question.

DESIGN OF THE STUDY

STATEMENT OF THE PROBLEM

This study was an exploratory attempt to determine the career expectations a group of elementary teachers participating in the Comprehensive Career Education project hold for their pupils and to describe the relationship between these expectations and the ethnic identification, socioeconomic status, and sex of the pupils. In addition, an attempt was made to examine the effect of these expectations upon the career aspirations of the pupils, thus determining if the teacher was a significant other for the pupils.

Thus, three questions are asked:

1. What career expectations do teachers hold for their pupils and how to these expectations relate to the ethnic identification, socioeconomic status, and sex of the pupils?
2. How do pupil career aspirations relate to teacher career expectations for them?
3. How do these aspirations and expectations relate to teacher/pupil interaction?
LIMITATIONS OF THE STUDY

1. The study was limited to twenty teachers and 120 elementary pupils in their classrooms located in one school district participating in the Comprehensive Career Education project.

2. The data were limited to information obtained via questionnaires from both teachers and pupils.

DEFINITION OF TERMS

Career Education — A focus for learning that systematically attempts to increase the life roles available to individuals and to facilitate rational and valid individual planning, preparation, and reality testing through an articulated effort between school, home, and community.9

Career Expectations — Realistic plans of teacher and student for the students' educational and occupational future.

Career Aspirations — The educational and occupational choices a student thinks he would make if he were "free to choose any" educational or occupational goal. The educational and occupational choices a teacher would like to see students make if they were "free to choose any."

Significant Others — "Those persons who are particularly influential in the formation, support or modification of the self conception (or attitudes) of an individual."10


PROCEDURES FOR COLLECTING THE DATA

The populations of this study were teachers and pupils in grades two through seven in five elementary schools in one school district which participated in the Comprehensive Career Education project. The samples consisted of twenty teachers and 120 pupils chosen at random from the population above, six pupils per teacher.

The data were collected via two questionnaires:

1. A questionnaire on which teachers recorded their educational expectations and occupational expectations and aspirations for students; their assessment of student ability; description of student characteristics and teacher/student interaction for each of six randomly selected students from their classes.

2. A questionnaire on which students provided their occupational expectations and aspirations, self assessment of academic ability, description of personal characteristics, parental education and occupation, and teacher/student interaction pattern.

In-service coordinators for the career education project administered the questionnaires to the students in the absence of the classroom teachers. The teachers completed the questionnaires about the students on their own time and were reimbursed for their participation.

Grade equivalency scores were obtained through the research and development office of the participating school district. The test utilized by the district in its regular testing program is the Iowa Test of Basic Skills.
Family income for the participating students was obtained from the free lunch program records at each of the elementary schools involved in the study.

TREATMENT OF THE DATA

Occupational aspirations were coded in three different ways: the Duncan Socioeconomic Index, the Edwards scale, and the blue collar/white collar dichotomy. Occupational expectations were coded on the Duncan Socioeconomic Index alone. Zero-order correlations were run between these variables and the ethnic identification, sex, and five socioeconomic variables of the students' families. In addition, correlation coefficients were provided between these variables and sums of the student and teacher interaction scales and the sum of the three item teacher assessment of student academic ability and student self-conception of academic ability.

PLAN OF THE STUDY

Since the problem under investigation in this study is the career expectations of a group of elementary teachers for their pupils and the relationship of these expectations to the sex, ethnic identification, and socioeconomic status of the pupils as well as the career aspirations of the pupils, the first step in this study was an investigation of the theoretical bases for career development and occupational choice and interpersonal influence. Next, empirical studies relating to career projections and interpersonal influence were examined, particularly in
relation to males and females, blacks, whites, and Mexican-Americans, and students from non-middle class origins. In Chapter III, a description of the questionnaires utilized and the procedures for data collection are described. In Chapter IV, the data are presented and analyzed according to the ten hypotheses presented in Chapter III, then the data are summarized. In Chapter V, a summary of the major findings, implications and discussion of the conclusions, limitations of the study and recommendations for future research are presented.
CHAPTER II

THEORETICAL FRAME OF REFERENCE
AND
REVIEW OF THE LITERATURE

INTRODUCTION

In this chapter, the theoretical background for the hypotheses of this study will be described as well as the empirical studies supporting or critiquing these theories. Out of this body of literature, hypotheses will be developed for subsequent testing in the analysis chapter.

THEORETICAL APPROACHES TO CAREER DEVELOPMENT AND OCCUPATIONAL CHOICE

Historically, the theory of Ginzberg, Ginsberg, Axelrad and Herma was one of the first career development formulations to have a strong impact on analyses of the process of occupational choice (career development). According to these authors, there are four factors which critically influence an individual's occupational choice: reality factors, the educational process, individual-emotional factors, and the individual's value structure. To Ginzberg, et al., career development is an irreversible process through definite developmental periods which requires the individual to work out a compromise between his values and capabilities. Of the three periods defined in this formulation -- fantasy, tentative, and realistic -- the fantasy period is of particular

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interest to the present study. In this schema, the fantasy stage is described as basically nonvocational since children's interests are seen as fairly arbitrary and unrealistic. As stated by Ginzberg

...the fantasy element grows out of the inability of children to introduce the relation between means and ends into their thinking about the future -- that is, to engage in rational considerations, without which they cannot establish or realize appropriate goals in the future.2

The authors identify this period as covering from birth to eleven years of age, although they do admit that "the delineations between these stages of development are rather tenuous"3 and that individuals will move from one stage to the next at different rates based on physical and emotional maturity. According to Osipow,4 the Ginzberg view of the fantasy stage as nonvocational is being questioned by adherents of career education.

Because of its contiguity with the fantasy stage, the tentative period as described by Ginzberg needs to be examined closely. During this period, usually associated with adolescence, the young person first focuses on recognizing and developing his interests. Out of this experience grows an awareness of his capabilities followed by an examination of his values. The final stage of the tentative period is a

2Ibid., p. 186.
3Ibid., p. 59.
4Samuel Osipow, "Implications for Career Education of Research and Theory on Career Development " (paper presented at the National Conference on Career Education for Deans of Colleges of Education, Columbus, Ohio, April 25, 1973) p. 2.
synthesis of interests, capabilities, and values and an examination of these factors in light of the knowledge of "forces in the external world" which he has acquired during this period. A greater realism about the impact of external forces upon one's attempt to reach certain career goals is apparently one of the distinctive differences between the tentative and fantasy stages as presented by Ginzberg et al.

Much research corroborates this developmental pattern for this stage of chronological maturity. However, there is evidence that interests and values play a large role in occupational interests as early as the fourth grade. In O'Hara's research, capabilities seemed to have no influence on occupational interests even up to grade six.

In Osipow's 1972 summary concerning the Ginzberg group theory

A fair amount of evidence has been generated since to indicate that there is some validity to the notion of vocational choice as a systematic developmental process, although the particular stages and timing do not necessarily conform to the ones described by Ginzberg and his group. The contribution of the Ginzberg group was in its emphasis on the developmental nature of the process.

Another important career development theorist is Ann Roe who postulated that one should be able to predict the kinds of occupations an indi-

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5 Ginzberg, et al., Occupational Choice, p. 72.
7 Osipow, "Implications for Career Education of Research and Theory on Career Development," p. 5.
individual might enter by examining his early childhood experiences and their effects on his personality development. However, most of the research testing Roe's theory has not provided support for her formulations.

Osipow has suggested ways in which Roe's theory might be redefined to improve its validity.

It is widely accepted that certain childhood experiences, in combination with heredity factors, influence 'cognitive style', which in turn, may prove to have a rather significant influence on learning 'different kinds of skills.' These skills in turn could lead an individual to obtain different qualitative kinds of academic experiences producing important idiosyncratic feedback. Over a long temporal sequence, such feedback could exert a significant influence on a person's occupational entry. Obviously, however, it can be seen that these links (childhood parental experiences, cognitive styles, differential performance and feedback, etc.) are still uncertain and need to be identified and then substantiated.9

The differential effect of childhood experiences -- parental, societal, educational -- upon the career development of children is still very open to question. One of the purposes of this study is to further pursue this question, focusing on the relationship between teachers and students.

Donald Super10 brought another focus to the theory of career choice. According to Super, over a number of years an individual attempts to implement his self-concept through his work and that to the degree that the person expresses his self-concept through his work, to that degree will he be satisfied and effective vocationally.

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Considering the importance of early experiences and early schooling upon the development of the self-concept, it is unfortunate that Super begins his description of the developmental stages with age fourteen -- crystallization -- and carries them through specification (18-21), implementation (21-25), stabilization (25-35) and consolidation (35+). Osipow comments on this unfortunate oversight by stating:

...we are coming to learn [that the pre-adolescent period] is of considerable significance in laying the groundwork for the possession of the attitudes and skills necessary for the successful completion of these vocational development tasks later.\footnote{Osipow, "Implications for Career Education of Research and Theory on Career Development," p. 7.}

If we look closely at several of Super's ten propositions, one can discern aspects which have particular relevance to the career development of young children and minority groups.

In proposition six, Super states

The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socio-economic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.

Proposition seven is also relevant:

Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests, and partly by aiding in reality testing and in the development of the self-concept.

Proposition eight lays out the compromise process:

The process of vocational development is essentially that of developing and implementing a self-concept; it is a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations
of the extent to which the results of role playing meet with the approval of superiors and fellows.\(^{12}\)

Those factors mentioned by Super in the above quoted propositions which seem most relevant to the concerns of this study are socioeconomic level, opportunity, facilitation of abilities and interests maturation, and feedback concerning role playing in which the pupil may engage. The first is a factor which may influence the interaction of teacher and student. The others suggest the ways in which teachers affect student growth in career development, whether intentionally or accidentally, positively or negatively.

John Hollands' theory postulates that psychological and sociological factors combine to develop six models of personality types which are matched with six appropriate work environments. As described by Osipow, the six types are

- **Realistic** — aggressive, physically oriented, masculine person who prefers concrete rather than the abstract.
- **Investigative** — thinker more than an actor who avoids close interpersonal contact.
- **Social** — satisfies self through supportive vocations -- teaching, therapy, etc. Seeks close, interpersonal relations.
- **Conventional** — great concern for order, rules, regulations and self-control.
- **Enterprising** — uses verbal skills to manipulate and dominate others.
- **Artistic** — seeks self-expression through artistic means.\(^{13}\)


\(^{13}\)Osipow, "Implications for Career Education of Research and Theory on Career Development," pp. 8-9.
A major limitation in the usefulness of Hollands' theory, especially in focusing on the career development of elementary age children, is that he provides no adequate explanation of how a person becomes the type that he is.

Tiedeman defines vocational development as "the process of fashioning a vocational identity through differentiation and integration of personality as one confronts the problem of work in living." In his 1968 book on career development theory, Osipow presents a social systems or situational approach to career development. As summarized in 1972, this approach has as its primary concern factors important to career development that lie outside the individual...a concern for those events which importantly shape the individual's vocational life which stem from factors over which he has no direct control, such as social class membership, sex, race, sometimes finances, the state of the economy, where he happens to live, etc...

It is possible to defend the viewpoint that individuals follow the course of least resistance in their career development and that opportunities in combination with particular personality characteristics do indeed have an important interactive contribution to make concerning career development. People tend to follow that course which is most available to them, which suggests that a sensitive educational programmer would do his best to make as many desirable courses of action easily available to individuals as he can.15

Apparently Osipow sees career development as an essentially sociological process. Some of those external factors which are most influential in the career development process are identified as "culture" economy, geography, sex, social class membership, age, and race." These


factors appear to affect career growth via their influence on values, opportunities, abilities, and the "expectancies [the individual] generates about his place in the world of work." The influence on abilities is an all-important one in Osipow's presentation.

In point of fact, people are more likely to end up doing what they are capable of doing than they are to end up doing what they like to do if there is some inconsistency between the two. In a way, interests serve as a predictive "ceiling," abilities a predictive "floor." There is some evidence to indicate that preferences, in fact, are influenced by success instead of the reverse.

Sociological deficiencies in the theories of Ginzberg and Super have been noted by Slocum. In his view, Ginzberg fails to mention the impact of significant reference-group values on the choice process. In addition, important considerations of role theory are excluded and a detailed description of the decision-making process outlined by Ginzberg and his associates never materializes. Slocum's criticism of Super's theoretical deficiencies include 1) not analyzing the decision-making process, 2) lack of in-depth consideration of the important effect of career opportunities upon career choice, and 3) no consideration of the importance of reference group values except that parental socio-economic status affects the occupational pattern.

16 Ibid., 11.
17 Ibid., 14.
Slocum's own conceptualization of occupational choice describes four kinds of intermeshing influences: 1) personal variables; 2) impersonal social and cultural factors; 3) perceived interpersonal relationships and 4) values of reference groups. The relevance of interpersonal relationships in affecting certain occupational plans is viewed with considerable importance by Slocum. This impact by parents, relatives, teachers and friends upon the occupational plans of youth can be either positive or negative in nature. The covert influences of reference group values are seen as important in determining occupational decisions. According to Picou, Slocum's "emphasis on the importance of anticipatory socialization and reference group values as relevant sociological factors in the occupational choice decision are important contributions to this area."

Peter Blau, in 1956, stated clearly another aspect of the social effect which modifies desires or interests more directly -- the actions of "selectors" who are in Blau's words "all persons whose actions affect the candidates' chances of obtaining a position at any stage of the selection process." "The choices of the selectors are influenced by the candidate's personal attributes and external factors such as employ-

19 Ibid., pp. 144-147.


ment policies and economic conditions." In summary, Blau's scheme of occupational choice incorporates the economic, psychological and sociological aspects of the process.

Haller, Burchinal and Taves indicate five factors as primarily influential in the career choice process.

1. The individual's interests in the future, occupational aspiration levels, and particular occupational choices.

2. Changes in occupational supply and demand.

3. The immediate situation of youth -- quality of schools, financial resources, expectations of others, and the dominant culture which influences self-conceptions and actual job opportunities.

4. Other life decisions including education, marriage, and preferred place of residence.

5. Personality -- I.Q., conceptions of ability, occupational self-conceptions, and conceptions of behavior appropriate to sex.

These authors consider the level of a person's occupational aspiration to be definitely related to his future job entry. However, the accuracy of one's level of aspiration in predicting occupational achievement varies in terms of the social status of one's family. This will be described in more detail below.

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CAREER DEVELOPMENT OF WOMEN

As stated by Vetter in 1970, "Although considerable research activity has been focused on vocational and career development in the past twenty years, it has concentrated almost exclusively on male subjects."

Increased work participation of women within the last decade and the special factors which affect the nature and level of that participation has encouraged a newer focus on the part of career development researchers. Particularly, Psathas and Zytowski have focused on the factors influencing the development of a theory of occupational choice for women.

Kievit suggested the use of the conceptual scheme presented by Blau, et al. as a means of organizing systematic longitudinal research relevant to the career development of women. According to Kievit, Blau, et al., ask two crucial questions concerning occupational entry: "What developments in the lives of potential workers and in the history of the socioeconomic organization determine workers' characteristics?"


27 Mary Bach Kievit, Review and Synthesis of Research on Women in the World of Work, ERIC Clearinghouse on Vocational and Technical Education (Columbus, Ohio: Ohio State University, March, 1972).
and "What are the processes of choice and selection through which these affect occupational entry?" Asking these questions at crucial turning points in the lives of individuals makes it possible to trace this development and to show how earlier decisions, by narrowing the range of future possibilities, influence the final choice of occupation.

Kievet points out that this statement shows particularly the relevance of this conceptual scheme for research into the career development of women. In a summary statement about Blau, Psathas and Zytowski, Kievit stated

Psathas has in part filled in portions of Blau, et al.'s conceptual scheme as it relates to women. Zytowski's formulation has emphasized some of the more psychological factors, as would the inclusion of Super's emphasis on self-concept, Tiedeman's focus on fashioning a vocational identity, and Holland's concern with interaction between personality type and vocational environment.

Psathas' work examined certain factors which operate differently for women and men in their career development: marriage intention and fulfillment; "family finances; social class; education and occupation of parents; values; social mobility and mate selection." Psathas focused attention on the complexity and dynamics of career development for women, presenting an analysis of occupational settings as an important consideration in understanding occupational choice.

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28 Ibid.
31 Ibid.
32 Ibid.
Zytowski begins his presentation of postulates on which to test out a theory of career development for women with the assertion that "women have a fundamental and irreconcilable difference from men, manifested in the ability to conceive, bear, and nurse offspring... woman's role has been traditionally organized around the nurturance of children and the support of the efforts of the family's breadwinner." He ends with the "hope that altered social expectations and technological innovation will ultimately result in the obsolescence of this entire scheme." In between he presents nine postulates:

I. The model life role for women is... that of the homemaker.

II. The nature of the woman's role is not static; it will ultimately bear no distinction from that of men.

III. The life role of women is orderly and developmental and may be divided into sequences according to the preeminent task in each.

IV. Vocational and homemaker participation are largely mutually exclusive.

V. Three aspects of vocational participation are sufficient to distinguish patterns of vocational participation: age or ages of entry; span of participation; and degree of participation.

VI. The degree of vocational participation represented by a given occupation is defined as the proportion of men to the total workers employed in the performance of that job.

VII. Women's vocational patterns may be distinguished in terms of three levels, derived from the combination of entry age(s), span, and degree of participation, forming an ordinal scale.

33 Zytowski, "Toward a Theory of Career Development for Women," p. 661
34 Ibid., p. 664.
VIII. Women's preference for a pattern of vocational participation is an internal event, and is accounted for by motivational factors.

IX. The pattern of vocational participation is determined jointly by preference (representing motivation) and by external, situational and environmental, and internal, such as ability, factors.

Some of the sources Zytowski utilized in formulating these postulates were Ginzberg, et al., Matthews and Tiedeman, Risch and Beymer, and Super.

In Vetter's discussion on Zytowski, she summarizes Wolfson's study of postulates seven and nine, which defined five career patterns and studied the relationships between the patterns and twenty-nine motivational external, and internal factors.

Variables related to education and marriage were the most powerful predictors of vocational patterns. The number of years spent in college and the percentage of graduates increased progressively from the "Never Worked" group to the "Unusual" group, with the implication that career commitment is closely correlated with the amount of education obtained. Marital status was a highly discriminating factor. Husband's income, number of children, age of youngest child, and satisfaction with marriage also discriminated among vocational pattern groups.


Vetter also refutes postulate four on the "basis of evidence from the Women's Bureau in so far as 40 percent of women who are married and living with their husbands are employed."  

Kievit summarizes well.

These conceptualizations have value for efforts to move toward a career development theory for women. Blau, et al. have provided a framework which gives due regard to opportunity factors, which in the case of women has been and in all likelihood will continue to be an important constraining factor. In addition, the emphasis on choice as compromise seems particularly relevant for women, and may well provide one explanation for the distribution of women in the current occupational structure. Further, the stress on choice as a series of interrelated decisions seems particularly valid for women, as does reassessment of the processes at crucial turning points in workers' lives....

CAREER DEVELOPMENT OF "SPECIAL" POPULATIONS

In the present study, "special" populations refers to non-white ethnic groups and persons of non-middle class socioeconomic status.

In the theories previously reviewed, a few illusions are made to these special populations and their career development patterns. Osipow, in his discussion of the effect of social systems upon career decisions, indicates that the social systems approach to viewing career development theory is most relevant to those persons defined as "culturally disadvantaged." In his discussion, he focused on the need to help these persons develop appropriate vocational behaviors and to


38Kievit, Review and Synthesis of Research on Women in the World of Work, pp. 56-57.
change their conception to work from job to task, occupation or career. "For many lower class individuals, their own behaviors operate to trap them in their current setting." In discussing possible approaches, he suggests that the major emphasis should be on assisting these persons in altering their manner of communication, primarily with selectors.

Although the previous theorists often mention that socioeconomic status or social class and sometimes race affect career development patterns, only Haller, Burchinal, and Taves discuss the effect of social status in any detail, when discussing the accuracy with which one's level of aspiration predicts occupational achievement.

In the lower and lower middle classes, the youth who has high aspirations usually is flexible about the particular job he wants to enter. Such a youth usually knows little about higher occupations except the style of life characteristic of people in such occupations...he wants a style of life which he can't have if he takes a job like his father has. For these, level of aspiration predicts fairly well the level of the occupation they may eventually enter, but one cannot predict from their aspirations the exact occupation they will enter. The upper middle class or upper class youth is different. He knows the style of life and the nature of many upper level occupations.... His attention, then is more often not on the style of life he wants, but on the particular occupation he knows he will enjoy....

Although not particularly specified to relate to ethnic groups or persons from economically disadvantaged settings, the compromise process described by Super in his proposition eight seems particularly relevant to the process pursued by these groups.


40Haller, et al., Rural Youth, p. 6.
The process of vocational development...is a compromise process in which the self concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.  

The "superiors and fellows" might be considered "selectors" in Blau's terms. The teacher serves an evaluative, superior, selecting function in relation to the student and early interactions between teacher and student may possibly "narrow the range of future possibilities (and) influence the final choice of occupation."  

This brings this review to the second major theoretical foundation for this study, interpersonal influence.

THEORETICAL APPROACHES TO INTERPERSONAL INFLUENCE  

Haller and Woelfel, in their report on the Wisconsin Significant Other Battery, provided a succinct discussion of the interrelationships between socioeconomic status (SES), ability, and performance in the achievement process.

Apparently, SES, ability and performance influence educational and occupational aspects of the person's self conception, which in turn is manifested in his educational and occupational aspirations and which subsequently exercise some influence over educational and occupational attainments. But the picture is more complicated than this

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simple model suggests. First of all, the process by which SES, ability and performance variables influence the self conception is still open....Grade Point Average can be seen to provide a ranking of students, and in the social comparison process students can estimate their appropriateness relative to their peers for higher education and occupational positions.\textsuperscript{44}

When one looks at the achievement process as described above, the major questions remain: how do SES, ability, and performance influence the academic and occupational self-conception of an individual and how does that self-conception affect the occupational aspirations of the pupil?

Certain sociologists\textsuperscript{45} have suggested that the expectations of parents for a pupil's future would mediate between SES and educational aspirations. In Sewell and Shah's research the correlations between SES and educational aspirations were substantially reduced when parental expectations and intelligence were controlled. Sewell, Haller and Portes\textsuperscript{46} developed a model incorporating all of these variables. In their model, the term "significant others' influence" is used for interpersonal influence, which is exercised in two different ways:

- by people who serve as points of comparison for ego -- those against whom ego assesses his own abilities, performances, etc.\textsuperscript{47}
- by those who hold expectations for ego -- those who have hopes, plans, estimates of ego's ability, etc. and communicate these to ego.

\textsuperscript{44}Ibid.

These interpersonal variables, viewed as intermediaries between social structure and personality variables appear to be among the most fruitful of areas for future theory and research on the educational and occupational attainment process.\[^47\]

Falling under the second type of person who might exert influence as a significant other would be teachers, since they have "estimates of ego's ability, etc. and communicate these to ego." The in-class research conducted by Rosenthal and Jacobson\[^48\] and Gouldner, \textit{et al.}\[^49\] suggest a strong mediation by teacher influence between student ability and academic achievement. Therefore it is necessary to gain some understanding of the theory and research in the area of interpersonal influence in order to understand and investigate this relationship.

In the literature of interpersonal influence, the terms "reference group" and "significant other" are often used interchangeably, since the basic difference (as traced by Haller and Woelfel) seems to be in a plural connotation for reference group and a singular connotation for significant other. Since the focus of this study is the effect of teachers' expectations upon the self conceptions and expectations of their pupils, the primary term used in this text will be "significant other." In the following review of the literature, the two terms are used interchangeably.

\[^47\] Ibid.


Summarizing the literature on reference groups in relation to educational and occupational attainment, Haller and Woelfel state:

Reference groups are always seen as groups which exercise influence over some personal characteristics (e.g., attitude, self-conception) of the individual.... Reference groups may stand as points of comparison, for example, because the individual belongs to them, aspires to belong to them, differentiates himself from them, interacts frequently with them, holds strong positive or negative feelings toward them, etc. An individual may accede to the expectations of those groups whose members hold expectations for him because he likes them, because he sees membership as contingent upon accession, because the group holds power over him...50

The major source of interest in the influence of others upon the development of personality came from the symbolic interactionists. Cooley's "Looking Glass Self" strongly suggests the influence of others upon the individual's self conception.

In Mind, Self and Society, George Herbert Mead emphasizes the influence of interaction with others upon the development of one's concept of one's self. Mead refers to both the attitudes of individuals and the attitudes of the social group as a whole to which the individual belongs as elements which are organized into a conception of self. He speaks of two stages of development of a self conception.

At the first of these stages, the individual's self is constituted simply by an organization of the particular attitudes of other individuals toward himself and toward one another in the specific social acts in which he participates with them. But at the second stage in the full

50Haller and Woelfel, The Wisconsin Significant Other Battery, pp. 11-12.
development of the individual's self, the self is constituted not only by an organization of these particular individual attitudes, but also by an organization of the social attitudes of the generalized other or the social group as a whole to which he belongs.\textsuperscript{51}

Thus, Mead placed a very strong emphasis on the influence of the "generalized other" upon the individual rather than the influence of other individuals. Henry Stack Sullivan is attributed the coinage of the term "significant other," reflecting a difference between his generation and that of Mead. In the present

...the community is fractured. The generalized other has broken down into clusters of significant others.\textsuperscript{52}

The "significant others" specified by Sullivan are those persons who exert major influence on the social self of the individual. The self of the individual rests on the 'reflected appraisals of others.' Stryker describes the necessity for this movement away from the "generalized other" by the variability of the values of the individuals with whom one interacts in this complex, fragmented world.

...therefore, in order for action to proceed, the individual must give greater weight or priority to the perspectives of certain others.... To speak, then of significant others is to say that given others occupy high rank on an 'importance continuum' for a given individual.\textsuperscript{53}

\textsuperscript{51}George Herbert Mead, Mind, Self and Society, ed. by Charles W. Morris (Chigago: University of Chicago Press, 1934) p. 155.


In the literature, there is little agreement on who significant others are for individuals (i.e., parents, siblings, teachers, etc.) and how they influence the development of the self-concept.

Significant others are sometimes said to be influential because they reward and punish; because the individual values them highly; because they hold expectations for the individual, or simply because he interacts with them frequently in a differential association sense.54

**SELF-FULFILLING PROPHECY**

The theory of the self-fulfilling prophecy is a special case of interpersonal influence which gains its support from behavioral science research and the research on the placebo phenomenon in the field of medicine. Most of the resources reviewed below are covered in depth by Rosenthal and Jacobson.55

Rice, Harvey, Wyatt and Campbell, Hanson and Marks, Schwab, and Hyman all report evidence of interviewers whose pre-interview


biases affected either the responses of the interviewees or the nature of the responses reported by the interviewers.56

In the area of experimental research in the behavioral sciences, there is not a great deal of research into the effect of the experimenter's expectations. In those which have been noted, the investigators were supplied with differential information which was then unintentionally conveyed by the investigators to the subjects. This information ranged from the correct responses to an expectation concerning how frequently or how correctly the subject would respond to various items.57


After reviewing the previous literature available on the self-fulfilling nature of research investigators' expectations or knowledge, Rosenthal and Jacobson caution that "to show that a prophecy is accurate does not necessarily show that the prophecy led to its own accuracy. The prophecy that the sun will rise is not the effective agent in bringing on the dawn. When a prophecy is based on the prior observation of the event prophesied, the prophecy is, in a sense, 'contaminated by reality.' This is why in the Pygmalion experiment described in their book, Rosenthal and Jacobson designed an experiment in which "only the prophecy is varied experimentally, uncontaminated by the past observation of the events prophesied."59

Thus the experiment at Oak School varied only the deceptive data that twenty percent of the Oak School children had been identified in a test the previous spring as intellectual "bloomers" or "spurters" for the coming academic year. For the eighteen classrooms participating in the experiment, the experimental children had been chosen completely at random using a table of random numbers. The control and experimental children in all classrooms were given the same I.Q. test again after one semester, at the end of the school year, and then two school years after the initiation of the experiment. The results were that the experimental students, who did not differ from the control students except that they had been pointed out to the teachers as intellectual "bloomers"

58 Rosenthal and Jacobson, *Pygmalion in the Classroom*, p. 25.
for the year, gained significantly more in I.Q. points than the control students after one academic year. That advantage continued into the following school year, although to a lesser degree. The expectancy advantage (the difference in I.Q. points gained between experimental and control students) was especially dramatic for the younger children (first and second grade) at the end of the first year. However, this advantage was wiped out during the second year for the younger children and the upper elementary children showed an increased expectancy advantage at the end of the second year, even though they had moved on to another teacher who was unaware of the experiment. Rosenthal and Jacobson speculate that

The younger children who seemed easier to influence may have required more continued contact with their influencer in order to maintain their behavior change. The older children, who were harder to influence initially, may have been better able to maintain their behavior change autonomously once it had occurred. 60

The work of Rosenthal and Jacobson and Rosenthal and others has provided a conceptual framework from which the issue of the "self-fulfilling prophecy" can be empirically investigated within the school setting. Empirical studies of this nature are reviewed below.

**EMPIRICAL STUDIES: CAREER PROJECTIONS**

Career projections include both educational and occupational aspirations and expectations of youth. These two aspects of career

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60 Ibid, p. 176.
decision-making have been found to be so closely interrelated that they must both be considered in examining career development possibilities for young children.

Since the major focus of the present study is upon the effect of teacher expectations upon the career aspirations and expectations of elementary school children from different ethnic groups, levels of economic advantage, and of both sexes, we will briefly review research which studies the career choice process for young people in these three categories.

CAREER PROJECTIONS: NON-WHITE YOUTH

Educational Aspirations and Expectations

In a study of the educational plans of Mexican-American and Anglo high school students, TenHouten, et al. tested a model which assessed the impact of family SES, ethnic identification, ethnic composition of high school attended, measured I.Q., and parental and peer aspirations as perceived by the subjects upon those educational plans. These variables accounted for no more than half of the variance.

In their concluding paragraph, these authors raised value issues related to

...an implicit value judgement involved in defining college plans and academic achievement as desirable outcomes for minority students. The rewards for such attainment are often not forthcoming, due to economic discrimination. At the same time, there are costs involved in educational achievement. These costs could include alienation from, and rejection of, the Mexican-American culture. The data for this study show that the Mexican-American students with
college plans are more independent from their parents and have lower self-esteem than Mexican-Americans with no college plans. Given these doubtful economic rewards and high costs, it may be rational for Mexican-American youth to decide the price of admission to Anglo-dominated middle-class America is too high.\textsuperscript{61}

It is definitely essential to document the effect of academic achievement upon minority students in this country and to question an unbalanced valuing of prestige, white-collar over blue collar, intellectual achievement over physical, expressive, or inter-personal achievement. The question in this present study is, how much do the reactions (expectations) of teachers for their pupils relate to the ethnic identification, sex, or socioeconomic status of their pupils, thus limiting the choice of these students in terms of school achievement and selection of alternatives based on their own individual interests and individual perceptions of their abilities? We want the students to have choices, real ones. The theory of the "self-fulfilling prophecy" indicates that prior teacher expectations may limit these choices.

Adkins, Payne and Ballif studied the motivation to achieve and the response sets of pre-school children from ten ethnic-cultural groups. Using their own instrument, "Gump-gookies," the ten groups were compared on total score, a self-evaluation scale and a purposive

behavior scale. The "percentage of variance accounted for by ethnic-cultural membership was large enough to be of practical significance...."

The three middle class samples — Mormons, Catholics, and Jews — had higher mean total scores; in the lower class sample, the Negro-Urban, White-Rural and Puerto Rican sample had substantially higher mean scores than the remaining groups — Mexican-Americans, West Coast Orientals, American Indians, and Hawaiians. On the self-evaluation scale, the three middle class samples had the highest mean ability to evaluate their own performance and confidence that the evaluation was high. The Negro-Urban and White Rural sample had the highest mean scores for the lower class sample.... the difference separating the Negro-Urban sample from the four white samples was negligible. On the purposive behavior scale, the highest average scores were obtained by the Jewish boys and girls and the White-Rural and West Coast Oriental males. On this scale, the Mexican-American and Negro Urban children of both sexes and the West Coast Oriental girls had the lowest scores.62

The realistic and high self-evaluation exhibited by the urban black pre-school children in the above study is in part contradictory to the results reported by most researchers. For example, Beeman N. Phillips studied the school-related aspirations of fourth grade children from middle-class white, upper-class white, Mexican-American and black schools with an interview questionnaire containing thirty items. The results indicated that the black children had the highest aspirations

for school achievement, both social and academic. In discussing these results, the author interprets these aspirations of black children as

...buffers against the harshness of school reality, while expectations are likely to be grounded in such realities and to reflect things as they really are... [thus] white children have higher school expectations than non-white children, which may lead to stronger achievement related motives and more achievement-oriented behaviors.

...The discrepancy between aspirations and actuality lead to anxiety and stress. Therefore, Negro, Mexican-American, white upper lower class, and white middle class (children) would ... (manifest intensity of) anxiety in that order, which studies indicate.

It should be pointed out that Phillips studied only aspirations in this research. Comments made about expectations are apparently based on former research.

Picou, Curry, Olivero, and Cosby analyzed a model of the educational decision-making process for rural and urban black and white high school youth in Louisiana communities. Their analysis indicated that


for rural white youth, academic performance was the most important predictor of educational plans, followed by father's education. For urban white youth, significant other influence then academic performance had the largest impact on educational plans. For black respondents, "academic performance manifested the largest direct effects on educational plans.... For the rural black respondents, the independent effects of family's income on academic performance and educational plans were somewhat larger than the corresponding effects of this variable in the other models." Other variables in this model will be discussed later. However, concerning the black/white differences, the authors state that "Recent evidence suggests that more than one 'developmental mode' may be appropriate for understanding the occupational choice process of black and white adolescents." The importance of academic performance in affecting the educational plans of black youth only iterates the need to examine closely the relationship between ethnic identification and teacher expectations and thus academic performance.  

Hindelang looked at the educational and occupational aspirations among working class Blacks, Mexican-Americans and white elementary

65 Ibid., p. 48.

school children in grades 4, 5, and 6. He found through interviews that, by ethnic group,

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desired to finish college, if had choice
perceived parents wanted them to finish college
perceived teachers wanted them to finish college
wanted at least a white collar job
aspired to a college education but not to a job requiring it
felt the teacher was prejudiced against their race

From this study, Hindelang concluded

the possibility that the discrepancy between educational and occupational aspirations among Negro pupils may be due to the anticipation of discrimination is strengthened by the 20% response on racism.67

Among these students, there was a high perceived parental aspiration for them to finish college, especially for black students, with a major gap between parental and teacher aspirations. The unbalanced value upon higher education is also evident, with 92 percent of the black students, 85 percent of the white students, and a low of 71 percent of the Mexican-American students aspiring to a college degree. Findings like these indicate that children are very much in tune with the values and prestige structure of our society.

Occupational Aspirations and Expectations

The level of occupational aspiration is one aspect of the occupational choice process. According to Haller and Miller, the concept

68 Ibid.
designates a person's movement toward an objective. As Haller and Miller define it, a person's level of occupational aspiration is the area (a point or limited range of points) of the occupational prestige hierarchy which an individual views as a goal. A person's range is controlled by what he views as realistically probable versus idealistically desirable for him, and the goals he has set for the near future versus the distant future.\textsuperscript{69}

As described in detail by Picou,\textsuperscript{70} Kuvlesky and Bealer have also identified aspiration and expectation as parts of occupational goal choice. When aspirations and expectations vary independently of one another, what Kuvlesky terms "anticipatory goal deflection" emerges. It is thought that the occurrence of anticipatory goal deflection may have "some bearing on felt deprivation, psychological and social satisfactions, self-image, and perhaps directly or indirectly on social interaction."\textsuperscript{71}

Most research in this area\textsuperscript{72} indicates that black youth aspire to high status occupations.\textsuperscript{73} Paul F. Lawrence did one of the first

\textsuperscript{69}Archibald Haller and Irwin W. Miller, \textit{The Occupational Aspiration Scale: Theory, Structure, and Correlates.} Agricultural Experiment Station, Technical Bulletin 288 (East Lansing, Michigan: Michigan State University, 1963).

\textsuperscript{70}Picou, "Occupational Projections of Selected Louisiana Negro Youth," pp. 42-47.


\textsuperscript{72}Picou, "Occupational Projections of Selected Louisiana Negro Youth," pp. 42-47.

\textsuperscript{73}Phyllis Herson, "Personal and Sociological Variables Associated with the Occupational Choices of Negro Youth; Some Implications for Guidance," \textit{The Journal of Negro Education}, 19 (Winter, 1950), pp. 47-56.
studies of the occupational projections of black youth in 1950. Of his sample of tenth grade black students in thirteen urban high schools in California, over thirty-nine percent aspired to professional and semi-professional occupations. Twenty-five and five-tenths percent sought careers either as musicians or music teachers. Nineteen percent chose occupations in the clerical and sales fields, while only nine percent chose "craftsmen and kindred work." From the report of the study, it is unclear whether aspirations or expectations were measured.\textsuperscript{74}

In Richard M. Stephenson's study of ninth graders in New Jersey, the high aspirations were tempered by expectations which reflected their socio-economic status. Fifty-nine percent of the blacks in this study desired future professional and managerial occupations. However, only thirteen percent actually expected employment at those two levels.\textsuperscript{75}

Antonovsky and Lerner's study conducted in an industrialized upstate New York city, reiterated this phenomenon when they found that the black youth they studied held higher occupational aspirations than the white youth.\textsuperscript{76}

Noel P. Gist and William S. Bennett, Jr., found no difference between the high occupational aspirations of black males and females and

\textsuperscript{74}Paul F. Lawrence, "Vocational Aspirations of Negro Youth of California," The Journal of Negro Education, 19 (Winter, 1950), pp. 47-56.

\textsuperscript{75}Richard M. Stephenson, "Mobility Orientations and Stratification of 1,000 Ninth Graders," American Sociological Review, 22 (April, 1957) pp. 204-212.

their actual plans. Fifty-nine percent of the males and sixty-seven percent of the females aspired to jobs in the upper third level of the occupational scale, equivalent to professional and managerial jobs.  

In 1962, Jetsy Sprey also discovered significantly higher aspirations and expectations among black females than among black males in her sample of adolescents in the urban North. A southern background appeared to depress the occupational ambitions of the black males. In contrast, a study of three low income counties in Northern Florida in 1965 indicated little difference between males and females in their occupational aspirations. Sixty-one and sixty-five percent respectively aspired to professional jobs.

Kuvlesky and Upham compared black and white male aspirations in three rural low-income East Texas counties and found that black males had lower levels of occupational aspirations. However, the majority of the respondents of both races had relatively high occupational goals.

Picou, in 1969, undertook a study of the occupational projections of rural and urban black youth in Louisiana. Reflecting the findings of previous studies, the vast majority of the high school seniors in his

sample aspired to high status occupations. No significant differences appeared between the rural and urban samples nor between the males and females as far as level of aspirations were concerned. Some sex role identification did show up with more females than males desiring "clerical and sales" occupation than males.

Picou's analysis of occupational expectations for this sample revealed no significant differences between the rural and urban groups. In general, the occupational expectations were high, with fifty-one percent of all male respondents planning to enter jobs within the four highest occupational categories of the seven level modified Edwards scale (i.e. professional, glamour, managerial-proprietor, and clerical/sales). The female expectations were very similar between residence groups, with most females planning to enter professional or clerical positions. By collapsing categories, Picou was able to eliminate significant differences between male and female occupational levels which apparently resulted from occupational sex orientations. It was suggested that these traditional orientations may explain the frequent report of higher female expectations than male.

Utilizing Kavlesky's concept of anticipatory goal deflection, Picou revealed that "slightly more than one-third of the respondents anticipated occupations that differed from those they desired." 81 The deflection usually occurred in the downward direction.

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Regarding those persons significantly influencing occupational choices, Picou's sample identified parents and teachers as most helpful. An interesting difference in residence and sex emerged in this analysis. More rural students than urban found teachers helpful in occupational decisions and more males than females in both residential areas. 82

CAREER PROJECTIONS AND SOCIO-ECONOMIC STATUS

Sewell and Hauser in a recent description of their causal model for status attainment, report a simple analysis of the effect of socio-economic status (SES) upon educational attainment for a sample of 1957 high school seniors in the state of Wisconsin. For this sample, students from a high socio-economic level had two and five tenths as much chance of continuing their post secondary studies as low SES students. The ratio for entering college was four to one, high SES/low SES; for graduating from college, six to one, high SES/low SES; for attending graduate or professional school, the high SES students held a nine to one advantage over the low SES students.

When the investigators controlled for academic ability, the advantage persisted: in the top quartile of ability, the low SES student had half as much change of attending or graduating from college as the high SES student. At the low ability level, the high SES student had a four to one advantage over the low SES student of attending college and a nine to one advantage of graduating. These advantages held equally for both sexes.

82 Ibid.
Once their causal model is used, fifty-four percent of the variance in higher educational attainment is explained. Yet a student's chances for higher education continue to be influenced by his socio-economic origins. Sewell and Hauser, however, indicate that the influence of academic ability can only in a minor way be attributed to SES considerations, but rests quite solidly on its direct and pertinent influence on academic performance and its direct and indirect effects on significant others and on educational and occupational aspirations. In this connection it should also be stressed that SES has no effect on academic ability.83

In the Picou, et al. model discussed above, small positive effects were observed for the influence of social status on significant other influence, while significant other influence and academic achievement orientation exerted positive effects on academic performance for black youth in their Louisiana sample.84

CAREER PROJECTIONS FOR WOMEN

There are a number of empirical studies on career patterns of women which provide the rationale for looking at the attitudes of teachers toward girls' career futures. Briefly, the labor situation is such that females will need to move into career areas traditionally viewed as off limits to women. The traditional role orientations succored in our society do not encourage role expansion. The new con-


sciousness among women of their relatively powerless and submissive roles in this society is pushing more women into the career world. Tremendous conflicts are arising, both internally and externally.

In addition, the increase in female heads of household makes equal earning power a social necessity. As described by Vetter, "Of the 32 million women in the labor force in March, 1971, nearly half were working because of pressing economic need. They were either single, widowed, divorced, or separated or had husbands whose incomes were less than $3,000 a year. Another 5.4 million had husbands with incomes between $3,000 and $7,000." According to the Women's Bureau, 1972, "Ninety percent of women will be employed at some time in their lives. The median wage paid to women is less than 60 percent of that paid to men and the differential is increasing."

**Education**

It is evident from a number of studies that girls have a more favorable public school experience than boys. There is conflicting evidence as to the actual achievement in various subjects among boys and girls, however, "there is general agreement that boys do receive

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lower grades and thus a lower rank in class standing. Differential treatment by teachers, later maturation of boys, sex role socialization, are all factors which have been described as influential in the academic differentiation between males and females during the pre-adolescent and adolescent years.

Backman reported in 1972 a study identifying patterns of mental abilities and analyzing them for the ethnic group, socio-economic status, and sex of the students. In discussing the results of her study based on a sample of high school students, Ms. Backman contrasts them with the results of a similar study conducted by Lesser, et al. at the first grade level.

The results of the present study revealed that for a given ethnic group, male and female tended to exhibit patterns of mental abilities characteristic of their sex (i.e., vocabulary and math scores higher for males and English scores for females). In contrast, Lesser, et al. reported that 'no marked pattern differences emerged when boys and girls were compared.' Thus differences between the sexes apparently become more marked with age. In addition, it appears that sex may play a greater role in the development of patterns of mental abilities than either ethnicity or SES. Although previous research had reported characteristic patterns of mental abilities for adolescent males and females, it was unexpected that sex would account for such a large proportion of the total variance (69%) as compared to ethnicity (13%), and SES (2%). These scores measure


88Gouldner, Education of the Black Child, p. 123.

89Peltier, "Sex Differences in the School," p. 82.

90Ibid., 183.
to a large extent school related experiences and differences between the sexes on these factors may be related to different curricula followed by males and females.\textsuperscript{91}

That would suggest that a major difference on these scores resulted from high school training. However, a choice of courses to pursue must grow out of differences in interests between boys and girls in academic subjects.

John C. Flanagan commented on the dearth of female interest and participation in science and mathematic courses. In Flanagan, et al.'s Project Talent report, \textit{The American High School Student}, almost all the variables for which the reliability coefficient was markedly lower for one sex than for the other involved subject matter in which there were marked sex differences in amount of interest.\textsuperscript{92} Backman suggested that these differences in interest on the part of boys and girls may grow out of differential reinforcement by parents and teachers to exhibit sex role orientations traditionally accepted in our society.\textsuperscript{93}

We must look at early childhood and the early schooling of boys and girls to understand how, when, where, these differences develop.


\textsuperscript{93}Backman, "Patterns of Mental Abilities," p. 11.
Eleanor Maccoby in "Sex Differences in Intellectual Functioning" comments that evidence suggests that substantial differences do exist. From early childhood on, males appear to be superior to females in spatial and analytic ability. Differences in verbal ability are less substantive but females demonstrate superiority. Evidence also indicates substantial sex differences in the relationship between intellectual performance and other personality characteristics of individuals. For example, impulsiveness seems to be a negative factor in the intellectual development in boys, but less negative in girls. Aggressiveness seems to inhibit intellectual development in boys more than in girls. Evidence on the relationship between anxiety and intellectual development in boys and girls is inconclusive, as is evidence concerning the relationship between level of aspiration and achievement motivation on intellectual development in both sexes.  

Adkins, Payne, and Ballif studied the motivation factor and response set scores for pre-school children from ten different ethnic-cultural groups. In analyzing the results for boys and girls, they reported the only real difference was that "girls at this age, regardless of ethnic-cultural membership, enjoy school slightly more than do boys."  

Academic abilities and interests have consistently been related to a woman's interest in the pursuit of a career. L. E. Tyler in 1964 conducted a longitudinal study of the interests, abilities, and personal and social characteristics of boys and girls at different developmental levels....female subjects with career interests

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were differentiated from those without the interests by their having masculine oriented activities and interests... the career-oriented girls exhibited greater abilities and achievements at all developmental levels than did the non-career-oriented girls.96

Astin has studied the relationships between academic achievement of Project TALENT girls and their career patterns.

High scholastic aptitude in high school, especially mathematical, and plans to pursue higher education and aspirations to an advanced degree usually (led) to the choice of fields that require greater career commitment—the natural and social sciences, the professions, teaching. Girls with less aptitude and fewer academic interests usually planned office work or to be a housewife. If they get married, they become housewives. If they remain single, they do office work.

Astin reported that one-half of the females in the study changed their career plans in the five years after high school graduation. Those changes in plans usually resulted from a clearer assessment of abilities, with more able women intellectually pursuing professional careers and those less able academically following office work or housewife paths. However, the greatest defections were out of the sciences and professions into those occupations considered more "feminine."97

Although the numbers of women receiving bachelor's degrees has increased in this century considerably, the information for making


statistical comparisons with men are not easily available, therefore the relationship is unclear. Kenneth Wilson presents comparative data on the attainment of doctoral degrees: the woman's share has declined from 18.4 percent in 1944 to 10.8 percent in 1964-65. "The importance of this decline is magnified by the fact that sixty percent of the doctoral degrees earned during 1920-1962 were earned between 1950 and 1962."99

Charles E. Werts studied male and female students entering 248 four year colleges and universities in the fall of 1961, their grade point averages from high school and their father's occupations. Fifty percent more boys than girls attended college, but "very able" girls are as likely to attend college, no matter what their socioeconomic background. Girls with fathers in occupations that require advanced academic degrees attend college nearly as often as boys of the same socioeconomic background. Among children of men with occupations that require little education, boys attending college outnumber girls two to one. Girls with relatively low grades in all classes are much less likely than boys to attend college, but low grades appear to discourage girls from low socioeconomic background more than girls from high socioeconomic background.100


100 Ibid.
Career Plans

As indicated earlier concerning sex role orientations, these behaviors and attitudes are patterned in childhood and early schooling experiences. Clark assessed the effect of sex and SES on occupational preference and perception with a sample of children in grades three to six. He reported that lower class girls preferred white collar or professional occupations more than middle class girls. The majority of all girls wanted to be nurses or teachers. Middle class boys were apparently more aware of the status level of a job mentioned than middle class or lower class girls. Clark commented that the choices made by these students "are probably best understood as indicating the children's present conception of the desirable in the adult world of work and are hardly predictive of their ultimate occupational objectives or attainments." \(^{102}\)

O'Hara tested Ginzberg's fantasy, tentative, and realistic stages at the fourth, fifth, and sixth grade levels in a suburban-industrial community of Greater Boston. "At all three grade levels, four occupations accounted for about two-thirds of all choices made by the girls. The choices were teacher, nurse, secretary, and mother. It would seem that these choices are not only feasible but appropriate for girls." \(^{103}\)


\(^{102}\) *Ibid.*

\(^{103}\) O'Hara, "The Roots of Careers," p. 279.
O'Hara's last comment was intended to indicate that Ginzberg's indication that girls don't think about the realistic aspects of whether they will be able to pursue their careers when they choose was false. It certainly does indicate on the part of girls a clear understanding of the values of our society for women and an early pressure to choose "nurturant" and "semi-professional" or clerical work.

That occupational sex stereotyping occurs early in the socialization of children is further indicated by Schlossberg and Goodman who found that kindergarten and sixth grade children limited female participation in male jobs, but did not feel that men could not do typically female jobs. Mayer concurred from her study of boys and girls in grades three, seven, and eleven.

Kuvlesky and Lever studied the career expectations, aspirations, and anticipated goal deflection for urban and rural black girls in East Texas. Most of the girls in both groups aspired to high status, white-collar careers and did not aspire to or expect to be housewives, skilled, or operative workers. The rural girls more than the urban girls anticipated goal deflection. Lever and Kuvlesky studied the


career aspirations and expectations of black and white high school sophomores in rural areas of five southern states and compared these to SES and sex. Across all categories, aspirations and expectations for upper level occupations were discovered.107

Barbara Cook determined that "marital status is the most significant determination of the expectations senior college women have about careers and homemaking. Characteristics of career-oriented women were unmarried, religiously non-conforming, usually had working mothers, and more committed to utilizing their academic competencies.108

Ella Lyon studied the responses of college graduates who were married. These women indicated that they were interested in careers in the arts and glamour fields but would put their families above their career choices.109

Matthews and Tiedeman studied the attitudes toward career and marriage of girls and young women and discovered that they differ during developmental stages. A pseudo-career drive seems to appear in some women during early adolescence. Major themes that affect a woman's life-style during early maturation are (1) male reactions to her


intelligence, (2) dominance of men in work and woman's place in the home, (3) conflict between career and family roles, (4) timing of marriage, and (5) acceptance of the feminine role.\textsuperscript{110}

Metzger, et al. found honors women in college more career-committed than non-honors women. Honors women planned to continue work after marriage and parenthood, to earn advanced degrees, and to raise themselves to higher occupational levels.\textsuperscript{111} These findings enhance Astin's studies that showed a strong relationship between ability, achievement, and career aspirations.

There are a number of studies which attempt to pinpoint psychological, developmental, or other characteristics which explain the career orientation of women. To date, only education and marriage appear to show definite relationships, with high ability women and more educated women appearing in the labor market. However, according to a report from the Women's Bureau of the Department of Labor on Expanding Opportunities for Girls, "low career expectations help explain why women earn considerably less than men even though their educational attainment is quite similar to men's."\textsuperscript{112}


\textsuperscript{112}U. S. Department of Labor, Wage and Labor Standards Administration, Women's Bureau, Expanding Opportunities for Girls: Their Special Counseling Needs, 1970.
Although fifty percent of the women in the United States between the ages of 18 and 65 are working and sometime in their lives, ninety percent of the women will work, little consideration is given by women, educators, and counselors to the career roles for women. Expansion of career parameters for women must be considered since "the sheer pressure of numbers now and in the next few years...will force some young women into new fields. There may not be enough of the old familiar jobs at satisfactory salaries to go around." 

EMPIRICAL STUDIES: INTERPERSONAL INFLUENCE

The interpersonal influence of teachers upon the self-perception, motivation, and achievement of their pupils academically (and thus occupationally) has been described in three different kinds of literature. The sociological literature examining status attainment in which the teacher is questioned as a "significant other;" the literature testing out the "self-fulfilling prophecy" concept; and the educational literature examining teacher effect upon student achievement.

TEACHER AS A SIGNIFICANT OTHER

In Sewell and Hauser, teacher effect on status attainment is operationalized as the encouragement given to the subject concerning post high school education as perceived by the subject. Parental and peer effects are measured in the same way. The evidence from this

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study indicates that parental encouragement and friend's educational plans depend heavily on the son's SES origin, while teacher's encouragement is more heavily dependent on the student's academic ability and performance. Teachers are not perceived to engage in direct socioeconomic discrimination, as parents and peers apparently do, but rather depend mainly on judgments of the students' academic ability as it is validated by school performance.114

The influence of parents and peers on educational and occupational aspirations and on educational attainment is about equal and is about twice that of teachers, according to the Sewell/Hauser model. Holding constant other factors in the model (SES, academic ability, school performance, parental encouragement, friends' plans), they found that strong teachers' encouragement is worth an additional quarter year of higher education, whereas parental encouragement and ...friends who plan on college are worth six-tenths and three-quarters of an additional year of higher education each respectively.

Sewell and Hauser felt that from this data analysis one could conclude that

teachers' expectations do not account for much of the effect of SES background on higher educational attainment....far from reflecting overt or covert discrimination, on the whole teachers' expectations appear to be based on ability and performance and as such, make a fundamental though modest contribution to the equalization of educational opportunities. 115


115 Ibid.
In analyzing their own model of educational decision-making for rural and urban black and white high school youth in Louisiana communities, Picou, Curry, OlIVERY, and COSBY suggested that the small significant other influence upon black youth in their sample might result from the fact that less encouragement is given to black youth by teachers for the formation of their educational plans. 116

Ellis and Lane reported from their study of lower class youth already enrolled in a high prestige West Coast university that eighty-five percent of their sample "mentioned a high school teacher as having played an important part in helping them decide upon college and thirty-three percent nominated a high school teacher as the person chiefly influencing that decision."117

Although the teacher's influence is not the same as that of the guidance counselor in the school, teacher and counselor attitudes and evaluations of students have been shown to be quite similar. Studies of counselor advice to students about their educational futures has shown that

the counselor tends to advise college enrollment for those students who are likely to pursue higher education anyway by virtue of their family status, intelligence, parental concern for education, and their own educational goals prior to counseling in the sophomore year.118


It should be pointed out that all of these studies have examined the significance of teacher influence on the secondary level. But from the above quote and other research, it is obvious that students develop much of their self-perception about their academic abilities prior to secondary school. The concept of the "self-fulfilling prophecy" poses the problem that what the teacher sees is what the teacher gets.

SELF-FULFILLING PROPHECY

In an attempt to interpret the results of their study, *Pygmalion in the Classroom*, Rosenthal and Jacobson briefly review research which might reveal how teachers act differently toward students they expect to grow intellectually.

In the Wartenberg-Ekren experiment, subjects who were considered brighter by the examiners were treated "in a more friendly, likeable, interested, expressive, and encouraging manner." However, that treatment did not result in an increase in I.Q. Other research has indicated experimenter effect, as described earlier. A number of these showed the self-fulfilling prophecy effect to be related to "warmer behavior on the part of the examiner."

On the basis of research on the effect of experimenters' expectations on the learning ability of animals, Rosenthal and Jacobson report


120 Rosenthal, et. al., *Pygmalion in the Classroom*, p. 160.
that those experimenters expecting the animals to be brighter observe their subjects more closely. Rosenthal and Jacobson suggest that this might also occur in the classroom between teacher and student, thus providing more rapid reinforcement by the teacher of correct or attempted responses.

In an attempt to investigate the self-fulfilling prophecy concept at the secondary level, Kestor and Letchworth gave teachers data indicating that certain average ability students in the seventh grade were intellectually superior to their peers. An academic achievement test was given as a pre-post measurement and observations of teacher-student interactions were made. Although no effect upon the students' achievement was made in the nine weeks of the study, the student-teacher interaction was affected by the teachers' expectations. Experimental students received almost twice as many positive/accepting/supportive interactions as the control students. In their discussion, Kestor and Letchworth suggested that the "expectancy phenomenon works best in younger children who are not as well developed in their concepts of self and in their reputations among the teachers."121 The observed difference in student-teacher interaction between experimental and control subjects lends support to the speculations of Rosenthal and Jacobson concerning the means by which the self-fulfilling prophecy operates.


An extensive observational study in the urban school of a major American city predominantly attended by black children pinpoints even more precisely the way in which teacher attitude and behavior bring about certain types of student behavior and achievement. This study, reported in *The Natural History of the Education of the Black Child in the City*, by Helen P. Gouldner, et al., observed interactions between teacher and students in urban and suburban classrooms, K-2. Observations were then made of selected children in the homes. These observations were supplemented with data from interviews with school personnel and school records.

From these observations, the investigators report that often within two weeks after the children began their school careers they were judged as potential successes or failures.

Children selected as doing well and as potential successes ("high" group) were cleaner, wore better clothes, came from families economically better off, were more frequently girls, and showed, according to the teachers, the ability and the willingness to follow directions and greater verbal skills than those selected as doing poorly ("low" group). The teacher selections were not made on the basis of formal testing. The teacher interacted not only much more frequently with students in "high" than in the "low" groups but differentially -- giving more supportive behavior to the "high" groups and more control behavior to the "low."123

Ray C. Rist provides extensive documentation of this in his case study on one kindergarten room in the sample. In this particular study on one kindergarten room in the sample. In this particular

classroom, the teacher arranged the classroom after eight days around three tables. Through observation and demographic data, the investigator determined distinctly different traits in the children at the three different tables. The children at the first table were neater, cleaner, better dressed, usually had fewer siblings, had both parents at home with the father employed, and could speak both Black English and Standard American English when appropriate. These children were taught to almost directly throughout the year, being asked questions more frequently, given positive verbal, non-verbal, and physical communicative signs, and allowed special privileges and opportunities. The children at the second table were poorer, less neat, less facile with SAE and received less positive regard and interaction. The children at Table Three usually came from larger families, most of their families were on ADC, their hair was usually "nappy," and they spoke Black English almost exclusively. The teacher's interactions with these children were infrequent from the beginning of the year and as the year progressed, became almost non-existent except, in a few cases, reprimands for "unruly" behavior. Most of the children at the last table withdrew or entertained one another quietly.\footnote{Ray C. Rist, "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education," \textit{Harvard Educational Review}, 40 (August, 1970), p. 429.}

From interviews with the teachers involved in the study, Gouldner, et al. were able to identify three categories of traits which the teachers cited as indications of the potential success of a student.
1. Those indicating that the child, according to the teacher, is "teachable" or can learn, such as verbal skills and following directions;

2. Those indicating that the child can adapt to bureaucratic school norms, such as being quiet, disciplined, neat, and orderly; and

3. Those indicating that the child might achieve middle class goals, particularly those related to upward mobility, such as being from economically "better" homes, being submissive and polite, and being able to defer gratifications.125

In the middle class suburban schools which were observed in contrast to these ghetto schools, the teachers assumed that all the children would make it.

Thus far, we have identified through the research of Kestor and Letchworth that teachers interact differentially with students whom they believe to be "brighter". In the Gouldner study, their conclusions indicate that frequency and quality of interactions between teacher and student relate primarily to the socioeconomic status of the child as identified through appearance, language, family background, etc. In addition, Gouldner has pointed out that these same characteristics are presented by the teachers as being their determiners of whether a child will be a success or failure in school. Pardi, in a study which supported the Gouldner effort, observed eight students for five hours each in the classroom. Four of the students had been identified by

their teachers as "high achievers" and four had been identified by their teachers as "low achievers." His results indicate further that

1. Teachers do interact with high achievers and low achievers in qualitatively different ways.

2. The essential difference in interaction is in the frequency of positive vs. negative interactions -- high achievers engage in more "positive" interactions, low achievers engage in more "negative" interactions.

3. Self esteem is associated with classification as a high achiever or low achiever -- high self esteem is associated with classification as a high achiever, low self esteem is associated with classification as a low achiever.  

Pardi's sample included a first, fourth, fifth, and sixth grade classroom.

In summary, the situation in the ghetto classrooms observed by Gouldner, et al:

...given, in part, the general expectation that some children will succeed and that others will fail, the teachers early label the children as potential successes and potential failures. These labels tend to persist as the children are placed in "high" and "low" groups. The teachers tend to interact both more frequently and favorably with those "doing well" than those "doing poorly," and pass on information about the children to teachers of subsequent classes....In almost all the classrooms observed, the teachers tended to make the lessons revolve around a very few students, concentrating largely on students who could give the correct answers....Once put in a low group the child tends to stay there partially because of low participation in class activity and partially because his "reputation" precedes him as he moves from class to class. For the most self-doubt and low self-esteem make them fearful to put forth the increasingly difficult effort to catch up.

\[126 \text{Ibid.} \]

\[127 \text{Ibid.} \]
The Gouldner study presents a vivid description of selective interaction which leads to the fulfilling of teacher expectations for children, the self-fulfilling prophecy.

TEACHER EFFECT ON STUDENT ACHIEVEMENT

More traditional research has been conducted under the interest in studying teacher effect upon student achievement. In 1965, Lavin provided an extensive review of the literature in that area.

The most obvious aspect of achievement is teachers' subjectively assigned grades. In Lavin's view, student grades "should be viewed as a function of the interaction between student and teacher. In short, it is one index of this social relationship." To substantiate the subjectivity of teacher grades, Lavin states "...ability usually is more highly correlated with scores on achievement tests than with teacher grades." 128

Those studies at the elementary level cited by Lavin will be briefly summarized below.

A link between teacher attitude toward the child and the effect of that attitude upon the child is provided by Davidson and Lang. Utilizing a checklist of trait names, Davidson and Lang determined that children's self perceptions were similar to their perceptions of how their teacher felt about them. If a child felt that the teacher viewed

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129 Ibid.
him favorably, the teacher rated his school achievement favorably. This relationship between student perception of teacher’s view of him and the teacher’s rating of the child’s achievement held true even when social class background was controlled. However, perceived teacher favorability was directly related to the social class of the child even when achievement was controlled. Sex differences also appeared. Girls perceived teachers as being more favorable than boys. Girls rated slightly higher in academic performance as well. However, there was no measure of I.Q., so that it may have been that the girls were actually higher in ability as well as performance.\textsuperscript{130}

Gustafson and Owens found for their sample of elementary children in grades three and six that (1) differences between the ethnic categories (Mexican-American and non Mexican-American) in self-esteem and academic performance were inconsistent at grade three, but favored the non Mexican-Americans at both grade levels between how they saw themselves and how they thought their teacher saw them than was found for non Mexican-Americans.\textsuperscript{131}

Lavin describes Malpass’ research as indicating that the student influences the teacher’s attitude which in turn influences the teacher assigned grades. "Favorable attitudes toward teachers and toward

\textsuperscript{130}Helen H. Davidson and Gerhard Lang, "Children's Perceptions of Their Teachers' Feelings Toward Them Related to Self-Perception, School Achievement and Behavior," \textit{Journal of Experimental Education}, 29, 1960, pp. 107-118.

\textsuperscript{131}Richard A. Gustafson and Thomas Owens, "Children's Perceptions of Themselves and Their Teacher's Feelings Toward Them Related to Actual Teacher Perceptions and School Achievement," (paper presented at the 51st Annual Meeting of the Western Psychological Association, San Francisco, California, April 22, 1971).
achievement result in better relationships between the teacher and the
student as seen in grades but not necessarily in achievement test
scores. 132

Anderson and White found that teacher's and pupil's attitudes
toward each other might influence performance in classroom ESP
experiments. In 1948, Gordon and Durea found that when examiners
behaved more warmly toward their eighth grade subjects, the I.Q. scores
obtained were over six points higher than when they behaved more coolly.
In 1964, Crow found that even college age subjects performed better on
coding tasks when they were treated warmly. Even military subjects
detected signals better when the experimenter was warmer. But the
significance of differential treatment is still most evident at the
younger ages. Sacks reported in 1952 that "more warmly treated nursery
school children showed a net profit of nearly ten I.Q. points relative
to more indifferently treated children." 133

Rosenfeld and Zander found that teacher behavior may affect stu-
dent aspiration level and congruence of aspirations with the student's
perceived capacity. When the teacher influence was perceived as
rewarding and legitimate, then aspirations and capacity were congruent.


133 L. V. Gordon and M. A. Durea, "The Effect of Discouragement
on the Revised Stanford Binet Scale," Journal of Genetic Psychology,
73, 1948, pp. 201-207; Linda Crow, "Public Attitudes and Expectations
as a Disturbing Variable in Experimentation and Therapy," (unpublished
paper, Harvard University, 1964); J. R. Ward, B. Kowal and R. A. Baker,
"The Role of Experimenter Attitude and Contingent Reinforcement in a
Unit, Fort Knox, Kentucky, 1963).
When teacher influence was perceived as coercive and indiscriminate, there was incongruity between aspirations and capacity.\textsuperscript{134}

At the classroom level, vocabulary and math achievement of fifth grade students has been found to be significantly greater for students of teachers high on the warmth scale.\textsuperscript{135} Stringer added some verification to this by showing that differences in academic progress are due in part to teacher behavior.\textsuperscript{136}

A study of the relationship between teachers' ratings of their pupils on twenty-four personality and school performance characteristics indicates that the child with the higher I.Q. is not only perceived to learn more quickly, pay attention more, retain more material, over-achieve and be more ambitious than the low I.Q. child, "even on traits which bear little correspondence to academic performance and intellectual functioning, teachers discriminate between children of different intelligence levels. The bright child tends to be seen ... as less dependent and daydreamy and more aggressive...sensitive, mature, sociable, popular, and active." The authors question whether these

\begin{quotation}
\textsuperscript{134}Howard M. Rosenfeld and Alvin Zander, "The Influence of Teachers on Aspirations of Students," Journal of Educational Psychology, 52, 1961, pp. 1-11.


\end{quotation}
assessments of the children actually reflect behavioral differences or if they are distortions of reality. They tend to "believe that a major source of the variance in these ratings is accounted for by teacher bias in perception as a consequence of overly positive evaluations of bright children perhaps based on knowledge of scores from the I.Q. tests and achievement testing routinely utilized by the school." 137

Again, it may be that teacher perceptions of the children were strongly influenced not by the children themselves, but by an expectation held for them by the teacher.

Based on studies conducted by Bruce Zelkovitz and Mark Schoepfle in 1969, Gouldner, et al. stated that disruptive behavior in the classroom could be defined as almost any act

getting out of the seat, walking around, opening drawers, leaning across the table, rattling papers, calling out to get the teacher's attention, talking with other children or turning the head or body toward another person or object and touching another child. Further, those children defined by the teacher as disruptive did not appear to engage in behavior significantly different from those not defined as disruptive.138

The importance of teacher perceptions of students' abilities is indicated by the conclusion made by Krippner in 1961 after studying test scores and vocational variables perceived by the subjects.


"...the ability to get grades appeared to have a greater amount of influence upon vocational preference than had I.Q. test scores."\(^{139}\)

In a very carefully designed and executed experiment, David Hughes memorized three science lessons which "carefully limited extraneous teacher behavior and experimentally manipulated pupil responding and teacher reacting variables....Regular positive teacher reactions to pupil responses facilitated pupil achievement significantly more than minimal teacher reactions."\(^{140}\)

Douglas S. Finlayson of the University of Liverpool places the relationship of teacher influence and parental aspirations for the educational achievement of their children in a perspective contrary to most of the causal models described earlier. Finlayson states "the problem of parental aspirations and their children's school achievement could profitably be considered from the point of view of feedback of information from the educational system to the parent as well as from the more conventional social viewpoint (i.e. parental aspirations derive from SES)." Finlayson cites studies which indicate that school placement, i.e. in certain schools or in certain tracks


within schools, effect expectations which make children "of different social classes in the same school...more similar than...children of the same social classes in different schools." Barker Lunn found that "the early classification of pupils which streaming (tracking) implies seems to be seen by parents as an indication of what the educational future of their children is likely to be."

The widely acclaimed Plowden Study of the primary and junior schools in England completed in 1967 examined the relationship of parental aspirations and children's achievement in infant school, early in junior school and near the end of junior school. Although the study was of different groups of children at each stage, the results showed a consistent trend for the relationship to strengthen with the length of time at school. The report itself recognizes that the success or failure of children in school may increase or weaken parental aspirations. It is also difficult to account for the increase in the size of relationship between parental aspirations and school achievement over time if aspirations are thought to be a cause of achievement.

Finlayson also briefly alludes to the kinds of influence communication within the school setting has upon the child's perception of his abilities. "The least formal of these (ways to communicate information


about individual pupils) are the comments teachers and other pupils
make to a child about his progress and its effect on later vocational
prospects. 144

Gouldner, et al., and Rist provide agonizingly clear examples of
these kinds of communications. 145

Finlayson recommends that further studies should examine the
effect of feedback from the educational system to the parents upon the
parents' aspirations for the student and thus the student's achievement.
The effect of such research upon the causal models of educational
decision-making and status attainment which indicate a direct relation­
ship between parental aspirations and student achievement is yet to be
seen. This question does at least keep the aspirational issue open
and leave some room for continuing study of the effect of teacher per­
ceptions and behavior upon parental and student aspirations and attain­
ment educationally and occupationally. 146

A final brief look will be taken at studies which suggest the
importance of the educational experience of children at the elementary
level upon their future educational and career achievements. There is

144 Ibid.
145 Gouldner, et al., Natural History of the Education of the
Black Child; Rist, "Student Social Class and Teacher Expectations."
146 Finlayson, "Parental Aspirations,"
not much in this area, probably primarily because of the theoretical conclusions described earlier in which career aspirations of elementary aged children were described as "fantasy."

Bruce Fretz administered child development questionnaires to second level students in pre-education, law, medicine, engineering, and business courses. The data fell into several data systems -- school history and adjustment, family background and infancy, dissension and discipline, moral development, early trauma, and interpersonal development. The school history and adjustment data system makes the most accurate predictions about career choice, averaging fifty percent accurate classification over the five groups. Family background was next, with forty-six and six-tenths percent. The other data in descending order of predictive efficiency were interpersonal development, dissension and discipline, early trauma, and then moral development.\textsuperscript{147}

Creason and Schilson examined the occupational preferences of 121 sixth grade children and classified them according to Roe's six level system, level one representing the highest prestigious category and level six representing the lowest. The father's occupations were similarly classified and the children's I.Q. scores were related to both variables. The authors found that

The children with the higher I.Q.s had more fathers with occupations classified at levels 2 and 3. These children chose occupations in the first two levels. The middle

I.Q. group chose occupations in all six categories. The lower I.Q. group selected a number of level 1 and 2 jobs. The largest number of children chose level 2 occupations (professional) with twelve choosing level 1. Seventy-four of the 121 children chose occupations higher than their fathers.\(^\text{148}\)

Certainly these findings indicate that children are not being totally realistic in their career preferences. The possibility of children with lower I.Q.s obtaining positions which require extensive educational attainment is very unlikely. However, these were preferences, not expectations. These preferences do demonstrate the awareness that children have of the "preferred" or prestigious careers in our society. As described earlier from O'Hara's study, the children very early absorb the values of the culture.

In terms of educational attainment, Benjamin Bloom demonstrated the importance of the primary and elementary years in the achievement pattern of children. He concluded that by age 9, grade three, at least fifty percent of the general achievement pattern at age 13 (grade twelve) has been developed, whereas seventy-five percent of the pattern has been developed by age 13 (grade seven).\(^\text{149}\)

David Elkind discussed the importance of the elementary years of education in his article looking at the "Conceptions of Intelligence."

...children all over the world and across wide ranges of cultural and socioeconomic conditions appear to attain concrete operations at about the age of 6 or 7. The attain-

\(^\text{148}\) Frank Creason and Donald L. Schilson, "Occupational Concerns of Sixth Grade Children," Vocational Guidance Quarterly, 18 (March, 1970), 224.

ment and use of formal operations in adolescence, in contrast, appear to be much more subject to socioculturally determined factors such as sex roles and symbolic proficiency. Apparently, therefore, environmental variation during the elementary school period is more significant for later intellectual attainments of the Piagetian variety. In short, there is not much justification for making the preschool the scapegoat for our failures in elementary education. Like it or not, the years from six to twelve are still the crucial ones with respect to later academic achievement. 150

SUMMARY AND OBJECTIVES OF THE STUDY

This chapter has provided a theoretical frame of reference and a review of empirical studies relating to the issue of career development, which includes in this study both educational and occupational development. Except for Anne Roe, whose theoretical formulations have not found empirical support, these theorists do not examine career development in the preadolescent years. Osipow has both critiqued Ginzberg, Super, Holland, etc. for this oversight and suggested ways in which Roe's theoretical framework might be altered to provide a viable scheme for research into career development during these years.

An additional limitation of these theories was identified by Slocum and Blau, et al., who introduced the sociological perspective, analyzing the interaction between the individual and social forces which impinge on the career choice process. Blau, et al. suggested that we must begin to study the effect of personal and economic factors upon

the characteristics of individuals and upon the processes of choice
and selection which effect occupational entry. They suggested that
these questions must be asked at crucial turning points throughout
the lives of individuals in order to obtain a clear understanding of
their effect upon the total process. As pointed out by Kievit, this
framework is particularly adaptable for research into career decision-
making for women. Certainly, it may also be apropos for studying the
effects upon minority populations and persons from lower socioeconomic
status.

The theoretical basis for interpersonal influence is in the work
of the symbolic interactionists. Mead and Sullivan particularly
focused on the intensive effect of the generalized or significant other
in the development of an individual's self-conception, values, and
attitudes. The rationale for considering the teacher as a significant
other in the present study stems from the conception of ways in which
significant others influence ego. The exercise of interpersonal
influence as described by Haller, et al. which fits the teacher role
is through the holding of expectations for ego -- "hopes, plans, esti-
mates of ego's ability....and communicate these to ego."

However, when the concept of interpersonal influence has been
utilized in empirical research concerning occupational and educational
choice, the teacher has been found to have little effect upon student
decisions in these areas.

In contrast, the literature which examines teacher effect upon
academic achievement, both traditionally (Lavin) and in recent investi-
gations of the "self-fulfilling prophecy" phenomenon (Rosenthal and Jacobson) have revealed a significant relationship between teacher attitude and behavior and student academic achievement. Therefore, there is apparently a need for additional research into this area.

One problem may stem from the fact that career choice research has focused primarily on the adolescent years, as has the theory. Yet, the development of the self-concept, the development of knowledge about the world of work, the development of identification with sex roles, and the development of one's academic abilities all have their foundation and patterning primarily in the pre-adolescent years (Elkind, Mead, Bloom). It is possible that the lack of teacher effect found in studies at the secondary level is due to drop-out rates or to a cumulative negative effect upon achievement motivation which occurs in the elementary school years but which is unmeasurable at the later stages of career development.

Gouldner, Rosenthal and Jacobson, Finlayson, Elkind, Osipow, Blau, have provided preliminary evidence leading to a rationale for investigating further the career development process in the elementary years. The Gouldner study and the Pygmalion theory particularly have led us to consider the role of the teacher as a significant other or referrent for the student as the student develops her/his career self-perception.

This chapter has also looked at career development theory and research which specifically deals with women, minority persons, and persons classified as lower SES. Theoretically, Psathas and Zytowski
have addressed themselves to conceptualizing the career development process in relation to women. In both, the effect of marriage and family are pinpointed as factors uniquely related to career choice by women. Empirical studies reviewed provided a picture of the educational experience of women in comparison to men and some suggestions about the effect of that schooling upon the development of mental abilities and educational and occupational aspirations and expectations. A prevalent finding in research at both the elementary and secondary level, is that women often aspire to the career of teacher, nurse, or other position typically identified as "female" (Clark, O'Hara, Astin). The studies of characteristics of career women compared with those of traditional "homemakers" have been contradictory in their results. Thus, the research in the area of career development for women leaves a number of gaps, including career choice, characteristics of career women, acceptance of sex role stereotypes which identify certain occupations as appropriate for women, etc.

In terms of career development research for non-white youth, a consistent finding seems to be that occupational projections (aspirations and expectations) are generally higher for non-white youth than the current status quo representation of minority workers in the occupational levels chosen would indicate as realistic. So, quite often, investigators have labelled these projections as unrealistic. Kuvlesky has tapped this concept in the term "anticipatory goal deflection." However, even expectations are generally higher than
researchers believe the subjects will be able to attain. A similar finding seems to occur in relation to non-white students' educational aspirations as well. (Phillips, Hindeland) Often, educational aspirations may be even higher than occupational aspirations.

The causal models for educational and occupational attainment indicate that different variables affect the educational and career plans of black and white youth. (Picou and Cosby) Although the relationships are not clear, it appears that academic performance may have the strongest effect upon educational plans of black youth.

The consistency of effect of socioeconomic status upon career plans of adolescent youth indicates that special attention must be paid to the different aspects of this variable and their effects upon student career choices (Sewell and Hauser; Picou, et al.; Sewell).

This brief recapitulation of the literature review provided in the current chapter sets the stage for presentation of the objectives of this study.

The major objective of this study is an investigation of the relationship of teacher expectations to student characteristics (sex, SES, and race) and to student career aspirations. This aspect of the study is related to previous research as noted above in which the effect of significant others is investigated.

Another major objective is to study the career aspirations and expectations of elementary school children. There is a dearth of literature in this area, yet considerable evidence that these years are
extremely important in the development of conceptual, intellectual, attitudinal, and behavioral patterns which will strongly influence career development.

A third objective is to investigate the relationship between teacher and student aspirations and expectations and between these aspirations and expectations and the teacher/student interaction pattern. From the perspective of the early symbolic interactionists, the interaction process is crucial for the emergence of meanings and definitions individuals may assign to others' behavior.

A fourth objective is the clarification of the limitations of these earlier studies.

A more specific listing of objectives can be found in Chapter III where the hypotheses for this study are developed.
CHAPTER III

METHODOLOGY OF THE STUDY

INTRODUCTION

In the previous chapter, a review of the literature revealed certain deficiencies in the previous research in the area of career development.

1. Dearth of information about the career development process at the elementary level.
2. Lack of direct assessment of teacher influence upon student career aspirations.
3. Lack of information on teacher/pupil interaction relating to teacher influence upon career choices.
4. Lack of information about teacher career expectations for students as they relate to student characteristics and student aspirations.

The intention of this study was to gather information which might help to answer some questions which arise from the research deficiencies identified above; specifically, to assess the career expectations held by one group of teachers for their pupils and to analyze these expectations in relation to the characteristics of the students, the career aspirations of these students, and the interaction patterns as reported by students and teachers.
In this chapter, the objectives of the study and hypotheses will be presented as well as the procedures by which the objectives will be attained, including population and sample, instrumentation, and data collection.

OBJECTIVES OF THE STUDY

The limitations of previous research lead to the development of the following objectives:

1. Describe the career aspirations and expectations of a selected group of elementary school students.
2. Investigate the relationship between student career aspirations and selected student characteristics (i.e., sex, socioeconomic status, and ethnic identification).
3. Describe the career expectations held by elementary teachers concerning the career potential of students.
4. Investigate the relationship between teachers' career expectations for their students and sex, socioeconomic status, and ethnic identification of the students.
5. Investigate the relationship between teacher career expectations for their students and student's career aspirations.
6. Investigate the relationship between teacher and student aspirations and expectations and teacher-student interaction patterns.
7. Investigate the relationship between student evaluations and aspirations and teacher evaluations of the student.

8. Attempt to clarify the limitations of previous research in the general area of career education.

**HYPOTHESES**

The following hypotheses follow from the theoretical and empirical writings noted in Chapter II. The basic logical relationships being investigated in this study are expressed in the following paragraphs from which the hypotheses are derived.

Socioeconomic status of the student's family, the sex and the ethnic identification of the student affect the teacher's assessment of the student's academic ability and thus affect the teacher's interaction with the student and the teacher's career expectations for the student.

Socioeconomic status of the student's family, the sex and the ethnic identification of the student via teacher assessment of the student and interaction with the student affect student academic self-conception and therefore student academic performance and student career aspirations.

**Hypotheses Related to Teacher Career Expectations for Student**

**H1** Teacher assessment of student academic ability is positively related to student socioeconomic status, ethnic identification, and sex.
H₄ Teacher/student interaction perceived by both teacher and student is positively related to teacher assessment of student academic ability.

H₅ Teacher career expectations for student are positively related to teacher assessment of student academic ability and to teacher/student interaction.

Hypotheses Related to Student Career Aspirations

H₆ Student academic self-conception is positively related to teacher/student interaction and teacher assessment of student academic ability.

H₇ Student academic self-conception is positively related to sex, ethnic identification, or socioeconomic status of the student.

H₈ Student career aspirations are positively related to student academic self-concept.

H₉ Student career aspirations are positively related to teacher career expectations for the student.

POPULATION AND SAMPLE

The population consisted of all elementary teachers and students, grades two through seven, participating in the Comprehensive Career Education program in one local education agency of the Comprehensive Career Education project, who had field-tested CCE units during the school year, 1972-73.

SAMPLING PROCEDURE

A sample of twenty teachers was selected. In order to obtain a cross-section of socioeconomic status among the students participating in the study, initial selection was done by schools on the basis of
Title I and non-Title I criteria. Title I schools are defined as those schools in which the percentage of the number of pupils in low income families divided by the total enrollment is thirty-four percent or above. Non-Title I schools are those with a percentage of thirty-three or less of their pupils from low-income families. Low-income in this case is defined as $2,000 or below. The CCE elementary schools were arranged in groups, Title I and non-Title I. Two Title I and three non-Title I schools were chosen randomly from the listings as the source of participating teachers and students.

A list of the teachers in each of the five schools in grades two through seven who had taught CCE units was made. Teachers who had participated in a recent IED survey (May 21-25, 1973) were eliminated. Those teachers had been randomly selected. From the resultant lists, four teachers from each school were randomly selected, a total of twenty teachers.

Student lists for each selected teacher were provided by the building coordinators from each school. The lists included the students' names, sex, ethnic identification, and family income. The students in each class were stratified on ethnic identification (non-white and white) and family income (high, middle, low). The income range for each classroom was equally divided into three parts and students were placed in one of three categories. Within each cell, students were randomly selected for participation. The number of students was determined by the time which was required to complete the
instrument for each student, approximately ten minutes. The number of students per teacher was limited to six, since it was expected that teacher accuracy and response would decrease after one hour. Therefore, whenever possible, one student was chosen from each of six cells, i.e., one each: high income, non-white; high income, white; medium income, non-white; medium income, white; low income, non-white; low income, white. Alternates for each cell were chosen.

**INSTRUMENTATION**

Since few studies have measured career aspirations and expectations of elementary school children, teacher and student questionnaires were devised by combining modifications of items utilized in previous studies. One new assessment scale was prepared for this study.

**CAREER ASPIRATIONS AND EXPECTATIONS**

Haller and Miller\(^1\) operationalized the concept of Level of Occupational Aspiration utilizing the Occupational Aspiration Scale. The level of occupational aspiration is the point on the prestige continuum which a person chooses as his occupational goal. The Occupational Aspiration Scale utilizes four elicitor questions repeated twice with eight options for each question. The eight options are occupations from the NORC study of occupational heirarchy.

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Research has been conducted utilizing the OAS since 1957. Past as well as recent studies indicate that the OAS is a reliable and valid measurement of occupational aspirations.²

The instrument has been utilized in several studies at the upper elementary level.³ A Dale-Chall Readability score of grade 3.7 and below was discovered by Ms. Christine Lowe at Western Michigan University.⁴

The OAS is currently being utilized at The Center for Vocational and Technical Education in a study of the interpersonal determinants of the Vocational and Educational Decision-making Process of Male Black Adolescents.

A modification of the OAS was necessary in order to obtain permission for its use in the school district participating in the study.


⁴Ms. Christine Lowe is utilizing the instrument to evaluate the effect of the Michigan Career Education Model as implemented at the Calhoun Integrated School District at the fourth, fifth and sixth grades.
Therefore, the forced choice design was dropped, and the occupational options utilized in the original instrument were appended to the four eliciting questions. Students and teachers were asked to make two responses to each question.

ACADEMIC SELF CONCEPT

In the earlier discussion of interpersonal influence and significant others, the position of Mead, Sullivan, Cooley, etc. was clearly that feedback from others contributes to the development of one's values, attitudes and conceptions of oneself. In addition, the work of Super\(^5\) makes a direct correlation between the development of the self-concept and the effectiveness of career choice. Therefore, in this study, it is important to measure a student's conception of himself/herself in relation to his school experiences.

Although there are numerous instruments which purport to measure self-concept and studies abound about the relationship of self-concept to SES, academic achievement, ethnic group membership, etc., a review of these instruments,\(^6\) studies which have attempted to utilize the


concept and in-depth studies about the research in self-concept indicate that at this point there is a "seeming lack of consistency, clarity, and completeness in the...research findings... related to self-concept." Zirkel attributes this state of affairs to the "bewildering array of definitions, instruments, and research designs." Therefore, in this study, three kinds of student self-descriptions will serve as an "academic self-concept" variable. We cannot say if these will be comparable to those utilized in other research, but we will carefully describe what they are and how they relate to other variables in the study.

In this study, the school related self-image held by the pupil is most important, since educational achievement and occupational attainment are so closely related. The significant other being investigated in this study is the teacher, whose reactions to the student generally take place in school and in relation to school


10Ibid.
related abilities, behaviors, attitudes, and values. Thus the items deal only with the school or academic aspect of the student's perception of himself.

The first academic self-concept item is a very straightforward question: "What kind of student are you?" Available responses are
1. excellent  2. good  3. O.K.  4. fair  5. poor

The next measure is taken from Brookover, et al. It consists of three items, which were modified slightly in language and arrangement for the elementary level.

"How smart do you think you are, compared with other children your age?"

"How good a reader do you think you are, compared with other children your age?"

"Compare your ability in school with other children your age?"

On these three items, there was a seven point scale with an uncertain option.

Thus, these items are basically self-descriptive items. They depend on the "social comparison process" since they overtly request the student to compare himself with others his own age.

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ACADEMIC ABILITY

The objective measure of academic ability used in this study was the report of the grade equivalency score made by the student on the Iowa Test of Basic Skills routinely given to the students in this school system and completed just prior to this study in the spring of 1973.

Two subjective measures of the student's academic ability were utilized: (1) the student's own evaluations; and (2) the teacher's evaluation of the student's academic and school ability, utilizing a different wording of the three "self-concept" items described in the previous section.

"How do you rate this student in school ability...compared with those in his grade in school?"

"How intelligent do you think this student is compared with other students the same age?"

"How good a reader do you think this student is compared with other students the same age?"

ETHNIC IDENTIFICATION

All students and teachers were asked this question.

"Are you

1. American Indian
2. Black
3. Mexican American
4. Oriental
5. Puerto Rican
6. Spanish surname
7. White
8. Other (Please Specify________________________)"
In addition, teachers were asked to supply that same information about the students.

SEX

Both teachers and students were asked to identify their sex. In the case of the students the choice was "boy-girl", in the case of the teachers, "male-female".

SOCIOECONOMIC STATUS

Since most studies in educational and occupational attainment have shown significant relationships with socioeconomic status of student's family, this variable was measured in the present study by three items: parental educational attainments, parental occupations, and family income. Parental educational attainments and parental occupations were obtained by student report on the questionnaire.

Family income was taken from individual school records maintained for the schools' "free lunch" programs.

STUDENT TEACHER INTERACTION

The interactions between teacher and student are measured through the report of the teacher and student about the interaction in response to ten questions. These questions were based on an interaction continuum developed by Charles M. Galloway in 1962\(^1\) to serve as a framework for classroom observation of teacher nonverbal behavior. Galloway developed the continuum after a careful review of previous observational systems and an analysis of prominent categories appropriate to describe nonverbal communication which emerged from that review. The continuum describes teacher communication in terms of a scale from encouraging or supporting to inhibiting or controlling. The adaptability of this continuum to verbal interactions as well is indicated by the author's further definition of the terms "encouraging nonverbal communication" and "inhibiting nonverbal communication."

Nonverbal communication on the part of a teacher was defined as a nonverbal expression that enthusiastically supported a pupil, as a communicative act that performed a function which helped a pupil or answered a need, or as a nonverbal expression that implied a willingness to listen with patience or interest to pupil talk. Conversely, inhibiting nonverbal communication on the part of a teacher was defined as a nonverbal expression that implied an unwillingness or inability to engage attentively in the communicative process, as a communicative act that openly ignored a pupil's need or that was in the form of a tangential response, or as a nonverbal expression that implied strong disapproval, annoyance,

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or hostility toward a pupil....The first three categories of the continuum, such as enthusiastic support, helping, and receptivity, were conceptualized as encouraging. The latter three categories, such as inattentive, unresponsive, and disapproval, were viewed as inhibiting. Thus, the encouraging to inhibiting continuum ranges from enthusiastic support to disapproval.¹⁵

A look at the twenty items on the teacher and student questionnaires (Appendix I) will make the relationship between these descriptions and the behaviors the items were tapping clear. Further support for the use of this continuum in the present study for verbal as well as nonverbal behavior is provided by the observations made by Ray Rist¹⁶ and Kestor and Letchworth¹⁷ in their studies which were specifically designed to observe teacher behavior toward students in relation to the teachers' expectations for their students. Their observations and descriptions of the classroom interactions referred frequently to the teacher behavior as being warm, encouraging, or supportive, or not. In Rist's article, the frequency of such interaction was considered as an aspect of social distance. Therefore, the present questionnaires crudely elicited teacher and student written perception of their interaction patterns on the encouraging -- inhibiting continuum, verbal and nonverbal, by checking frequencies of the different types of interactions.

¹⁵Ibid., p. 60-61.

TEACHER CHARACTERISTICS

Teachers were asked to provide some personal information about their former careers, the careers of their parents and spouse, if they were married, and their educational attainment as well as those of their parents. Years of teaching experience were also measured.

DATA COLLECTION

During the last week of May, 1973, the questionnaires were answered by the sample of teachers and students participating in this study. Building Coordinators working with the Comprehensive Career Education project at the local education agency participating administered the instrument to the students after a training session with the investigator and provided an explanation and assistance deemed necessary so that the teachers would clearly understand what was to be done in answering the questions about the six students selected from each of their classrooms.

Student questionnaires were returned directly to the investigator. Teacher questionnaires were shipped one week later.

The office of research and development at the local educational agency participating in the study provided data on the Iowa Test of Basic Skills scores of the students in the study sample. Family income information was provided by the administrative staff of each participating school.
CONCLUSIONS

In this chapter, a description of the study objectives, the hypotheses for the study, study procedures -- including sample, instruments, data collection -- have been presented.

In the following chapter, the data will be presented and an analysis will be made of the data.
CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Included in this chapter will be a presentation of (1) selected background characteristics of the respondents; (2) data concerning student expectations and aspirations; and (3) an empirical evaluation of the ten hypotheses presented in Chapter III.

CHARACTERISTICS OF RESPONDENTS

The students in this study ranged in age from seven to fourteen, with 83 percent of them between the ages of nine and twelve. There were fifty-five males and sixty-five females. The students were in grades two through seven; however, of the 120 students in the sample, only 12 were in grades two and three (six in each). There were 30 white students, 87 black students, and three Mexican-American students in the sample. In discussing results, the Mexican-American and black students are grouped together and referred to as non-white. In the sample, there were ten white males, 20 white females, 45 non-white males and 45 non-white females.

SOCIOECONOMIC CHARACTERISTICS OF STUDENTS

The family incomes of this sample of students ranged from $2,000 per annum to $10,000 per annum. One third of the students were uncertain about the extent of their father's education (See table 1). Of
the remaining two-thirds, nearly one-half responded that their fathers had a high school education and a little over one-fourth reported a college education. Out of 119 responses, only two students reported that their fathers had no schooling, 12 reported an elementary education and only two reported a junior high school education. Seven reported professional education for their fathers.

### Table 1

**Fathers' Educational Attainment by Ethnic Identification**

<table>
<thead>
<tr>
<th>Fathers' Educational Attainment</th>
<th>White</th>
<th>Non-white</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Uncertain</td>
<td>14</td>
<td>47</td>
<td>25</td>
</tr>
<tr>
<td>No school</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Elementary</td>
<td>4</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Junior high</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>High school</td>
<td>8</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>College</td>
<td>1</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Professional</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>30</strong></td>
<td><strong>99</strong></td>
<td><strong>89</strong></td>
</tr>
</tbody>
</table>

Controlling for ethnic identification, nearly 47 percent of the white students were found to be uncertain about their father's educa-
tion, as compared to only one-third of the black respondents. A little over one-fourth of the white students' fathers had a high school education. Nearly one third of the black students' fathers completed high school. One-fourth of the black students' fathers had completed college and one-fifteenth of their fathers had completed some form of professional school. Of the white students, one out of thirty students reported that their father had completed college or a professional degree. Equal numbers of blacks' and whites' fathers had no schooling, but the percentage is different -- three percent of the whites and one percent of the blacks.

A similar pattern persists for the education reported for mothers (Table 2). This time, a slightly larger proportion of both races reported college graduation for their mother than for their father and there was also a smaller proportion of "uncertains" reported.

Of the 120 students, 39 were uncertain about their father's occupation and nine left the item blank. Of the remaining 72 responses, 51 were in the lowest levels of the socioeconomic index -- generally unskilled and semi-skilled workers. Thirteen of the responses were in the skilled category and two in the clerical/sales category. Approximately six responses were in the managerial and professional categories. (See Table 3).
**TABLE 2**

**MOTHERS' EDUCATIONAL ATTAINMENT BY ETHNIC IDENTIFICATION**

<table>
<thead>
<tr>
<th>Mothers' Educational Attainment</th>
<th>White</th>
<th>Non-white</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Uncertain</td>
<td>9</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>No Schooling</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Elementary</td>
<td>3</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Junior High</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>High School</td>
<td>12</td>
<td>40</td>
<td>26</td>
</tr>
<tr>
<td>College</td>
<td>3</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>Professional</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>30</td>
<td>100</td>
<td>88</td>
</tr>
</tbody>
</table>

**TABLE 3**

**FATHERS' OCCUPATION BY DUNCAN'S SOCIOECONOMIC INDEX**

<table>
<thead>
<tr>
<th>SES Index Range</th>
<th>n</th>
<th>%</th>
<th>SES Index Range</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 10</td>
<td>12</td>
<td>17</td>
<td>51 - 60</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11 - 20</td>
<td>28</td>
<td>39</td>
<td>61 - 70</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21 - 30</td>
<td>11</td>
<td>15</td>
<td>71 - 80</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31 - 40</td>
<td>13</td>
<td>18</td>
<td>81 - 90</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>41 - 50</td>
<td>2</td>
<td>3</td>
<td>91 - 96</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>66</td>
<td>92%</td>
<td><strong>Subtotal</strong></td>
<td>6</td>
<td>8%</td>
</tr>
</tbody>
</table>
One-third of the students indicated that their mothers did not work, either through missing data or the designation, housewife. Over one-fifth of them responded that they were uncertain of their mother's occupation. One-fifth of the students' mothers were employed in either clerical, sales, managerial or professional work. Eight of the mothers were employed in skilled areas and thirty percent were employed in semi-skilled or unskilled jobs (see Table 4).

### TABLE 4

**MOTHER'S OCCUPATION BY DUNCAN'S SOCIOECONOMIC INDEX**

<table>
<thead>
<tr>
<th>SES Index Range</th>
<th>n</th>
<th>%</th>
<th>SES Index Range</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 10</td>
<td>5</td>
<td>8</td>
<td>51 - 60</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>11 - 20</td>
<td>19</td>
<td>30</td>
<td>61 - 70</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>21 - 30</td>
<td>12</td>
<td>19</td>
<td>71 - 80</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>31 - 40</td>
<td>8</td>
<td>11</td>
<td>81 - 90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41 - 50</td>
<td>10</td>
<td>16</td>
<td>91 - 96</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td>54</td>
<td>84%</td>
<td>Subtotal</td>
<td>10</td>
<td>16%</td>
</tr>
</tbody>
</table>

**GRADE EQUIVALENCY SCORES**

The total frequencies of grade equivalency scores of the students in this sample compared with their grade level when the Iowa Test of Basic Skills was taken, indicates that a total of 108 students were below their grade level (grade and month) and two were above. A look
at the totals reveals that the scores were not available for nine students. This means that only six students in the whole sample were exactly equal to their grade and month on the test scores. However, without an exact control, it is difficult to tell exactly what the relationship is of the students' scores to their grade level. Seventy-four percent of the respondents obtained GE scores in the range 3.0 to 5.9 whereas only sixty percent of the students were enrolled at those grade levels (see Table 33 in Appendix II).

GENERAL CHARACTERISTICS OF RESPONDING TEACHERS

Among the teachers responding to the questionnaires, two were male and 18 were female, six were white and 14 were black. Six held masters degrees and the rest held bachelors. Of the 20 teachers, only seven had held jobs before teaching. Of those seven, one had been a lawyer, one a nurse, one an administrative assistant, one a buyer in a department store, and three in other professional positions.

The teacher respondents ranged in teaching experience from one to 42 years, with 11 of them having less than ten years' experience. Of the remaining nine teachers, four had taught between 11 and 20 years and five had 20 to 42 years of teaching experience.

Of the 20 teachers, five either were not married or had spouses who did not work. Five of their spouses had equivalent SES rank or above and nine had SES ranks below that of the teacher. Two were in the semi-skilled area. A summary of teacher characteristics can be found in Table 33, Appendix II.
SUMMARY: CHARACTERISTICS OF RESPONDENTS

The majority of the students in this study were enrolled in CCEM classrooms in the upper elementary grades. Seventy-two percent of the student sample were black, two percent were Mexican-American, and 20 percent were white. There were ten more females than males in the sample. Approximately 60 percent of the children’s families received assistance from the Aid to Dependent Children program. The total range of income for the group was $2,000 to $10,000. Most of the parents had completed high school or college. Ninety-one percent of the fathers and 84 percent of the mothers were employed in occupations classified in the lower half of the SES Index. Fourteen percent of the students were below their grade level on the Iowa Test of Basic Skills. The majority of the teachers were black, female, had less than ten years teaching experience and had not held any other occupation.

STUDENTS’ OCCUPATIONAL EXPECTATIONS AND ASPIRATIONS

As described in Chapter III, the occupational expectations and aspirations of students were measured via a modified version of the Occupational Aspiration Scale. The stimulus questions about "responses at both the realistic and the idealistic expression levels of LOA (Level of Occupational Aspiration), each at two goal periods, called career periods...short range (end of schooling) and long range (at age 30)."1

Students were asked to give a first and second choice response for each of the four questions, thus providing eight responses. The 80 items utilized in the Occupational Aspiration Scale were appended to the questions for use by the students, although they were not required to use them. Free choices were encouraged. Those eight items represented the entire range of occupational prestige as ranked by the NORC study of the prestige of occupations. This survey has been updated several times since 1947. The basic prestige hierarchy holds, with certain variations obviously for geographic regions and communities across the country.

The jobs listed by each student were then coded by the Duncan Socioeconomic Index, which uses income and education as variables to determine socioeconomic status of each occupation. Research has determined that the prestige ratings of occupations on the NORC correlate highly with these two variables. The Index (DSEI) utilizes ratings from 4 to 96 -- with the lowest number corresponding to the lowest socioeconomic status, etc.

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Using the Duncan Socioeconomic Index, Tables 36-39 in Appendix II present the range of occupational choices reported by the students on the realistic, idealistic, short-range, long-range scales. Short-range realistic goals are identified as students' short-range job expectations, first and second choice (SSRJE₁ & SSRJE₂); short-range idealistic goals are identified as student short range job aspirations, first and second choice (SSRJA₁ & SSRJA₂).

Long-range realistic goals are identified as student long-range job expectations, first and second choice (SLRJE₁ & SLRJE₂); and student long-range idealistic goals reported as student long-range job aspirations, first and second choice (SLRJA₁ & SLRJA₂).

Considering student first choice responses only, we will first discuss student short range occupational expectations and aspirations. Forty percent of the students in this sample expected to enter lower prestige occupations when their schooling was ended (Duncan SES Index range 0-50); 58 percent believed they would enter higher prestige occupations (Duncan SES Index Range 51-96). Eighteen percent of the students expected to enter unskilled occupations (Duncan SES Index Range 0-30) and slightly over 40 percent anticipated entering the professions upon completion of their schooling (Duncan Index Range 71-96). This demonstrates that a wide range of expectations existed among the students with a heavy emphasis on the professions.

Comparing student short range aspirations with the above, it appears that only 35 percent of the students would most like to enter
lower prestige jobs at the end of their schooling while 63 percent would enter higher prestige occupations if they were free to choose. As many as 15 percent would choose unskilled jobs above all others at the end of their schooling. Thirty-eight percent would choose the professions.

It appears that when students report their preferred occupations, they defect slightly from the professions into the managerial, proprietor and technical careers and out of the unskilled jobs into the semi-skilled, skilled, and white-collar occupations.\(^5\)

Student long range occupational expectations at first appear to be almost identical with short range expectations since as many of the students expect lower and higher prestige occupations when they are 30 years old as when they leave school. But a closer look reveals that 25 percent of the students expect unskilled jobs when they are 30 years of age. And only 38 percent of the students expected to be professionals at the age of 30 compared with 40 percent reporting that expectation after schooling is finished. Thus the time element alters student expectations in a downward direction.

Students aspire to similar levels of occupational prestige at the age of 30 as they aspired to immediately after their schooling if occupations are divided into only lower and higher ranges. But at closer examination it appears that students raise their aspirations slightly for long-range thinking. It is apparently more difficult for

\(^5\)For a detailed report of student short range job expectations and aspirations, see Tables 36 and 39 in Appendix II.
students to consider their long-range aspirations and expectations; 10 percent did not provide long range choices. Of those responding, 31 percent chose lower prestige occupations and 68 percent chose the higher prestige occupations.

Comparing long range expectations with long range aspirations reveals that 14 percent of the students desired higher occupational goals then they actually expected to achieve.6

In addition, student first choice long range and short range job aspirations were coded by the seven level modification of the Edward's Scale utilized by Picou in 19697 and then collapsed into two general job levels, blue-collar and white-collar.

The seven level scheme provides a ranking of occupations as follows:

1. Professional
2. Glamour (i.e. movie star, singer, airline stewardess, etc.)
3. Owner, Manager, Official
4. Clerical and Sales
5. Skilled Workers
6. Operatives (Semi-skilled)
7. Unskilled Workers (i.e., private household workers, service workers, and laborers)

See Tables 38 and 39 in Appendix II for data on long range occupational aspirations and expectations held by these students.

This scheme (with the exception of the Glamour category) is utilized in current Census analyses. The Glamour category contains careers previously classified as professional, but for which training and achievement depend upon noticeably different criteria from other professional careers, such as lawyer, doctor, teacher, etc.

DESCRIPTION OF STUDENTS' OCCUPATIONAL ASPIRATIONS

The students' short-range aspirations were quite high. Forty-one percent held professional aspirations, eight percent desired glamour occupations, 14 percent wanted to enter managerial, official, or owner jobs, and 16 percent aspired to clerical or sales positions at the end of their schooling. Fifteen percent of the students aspired to operative positions, three percent to unskilled and two percent to skilled labor (see Table 5).

Eighty percent of the students aspired to white collar occupations when their schooling was over. In contrast, at the age of thirty, only 72 percent saw themselves as holding white collar positions.

Because this study particularly concerns the career futures of students by sex, ethnic identification, and socioeconomic status, the occupational aspirations and expectations of these special sub-populations of the sample will be described briefly below.
### TABLE 5
STUDENT FIRST CHOICE SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS

<table>
<thead>
<tr>
<th>Edward's Scale</th>
<th>Student Occupational Aspirations</th>
<th>Short Range</th>
<th>Long Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td>49</td>
<td>41</td>
</tr>
<tr>
<td>Glamour</td>
<td></td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Manager, Official, Owner</td>
<td></td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Clerical/Sales</td>
<td></td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Skilled Worker</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operatives</td>
<td></td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Unskilled</td>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Missing Data</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Housewives</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

### TABLE 6
STUDENT FIRST CHOICE SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS

<table>
<thead>
<tr>
<th>White Collar/Blue Collar</th>
<th>Student Occupational Aspirations</th>
<th>Short Range</th>
<th>Long Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>White Collar</td>
<td></td>
<td>96</td>
<td>80</td>
</tr>
<tr>
<td>Blue Collar</td>
<td></td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Missing Data</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 7 below presents comparative occupational aspirations for male and female students participating in this study.

### TABLE 7

**STUDENT SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS BY SEX ON THE EDWARDS SCALE**

<table>
<thead>
<tr>
<th>Edwards Scale</th>
<th>Student Occupational Aspirations</th>
<th>Short Range</th>
<th>Long Range</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male  n</td>
<td>Female n</td>
<td>Male n</td>
<td>Female n</td>
<td>Male n</td>
<td>Female n</td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td>17</td>
<td>31</td>
<td>32</td>
<td>49</td>
<td>21</td>
<td>39</td>
</tr>
<tr>
<td>Glamour</td>
<td></td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Owner, Manager, Official</td>
<td></td>
<td>11</td>
<td>20</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Clerical/Sales</td>
<td></td>
<td>4</td>
<td>7</td>
<td>15</td>
<td>23</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>35</td>
<td>64</td>
<td>60</td>
<td>92</td>
<td>37</td>
<td>68</td>
</tr>
<tr>
<td>Skilled</td>
<td></td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Operative</td>
<td></td>
<td>13</td>
<td>24</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Unskilled</td>
<td></td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>19</td>
<td>34</td>
<td>5</td>
<td>8</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>54</td>
<td>98</td>
<td>65</td>
<td>100</td>
<td>51</td>
<td>94</td>
</tr>
</tbody>
</table>
Short range aspirations were more reflective of the status-quo in present society than long range aspirations, with the exception of the larger proportion of females than males aspiring to professional positions. On long range job aspirations, males and females were very similar. The correlations reflect this difference between sexes on short range aspirations and not for long range (see Table 8). Females held significantly higher short range aspirations than males.

**TABLE 8**

CORRELATIONS BETWEEN SEX AND STUDENT SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS BY THE EDWARDS SCALE

<table>
<thead>
<tr>
<th>Sex</th>
<th>Student Occupational Aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
</tr>
<tr>
<td>Female</td>
<td>.265**</td>
</tr>
</tbody>
</table>

**P < .01**

When analyzed by the blue collar/white collar scheme, short range job aspirations are significantly related to the sex of the student with more females aspiring to white collar occupations than males. Whereas, for long range job aspirations, the direction of the relationship is the same, however, the relationship is not nearly as strong (see Table 9).
In agreement with previous research, both males and females in this sample aspired to high status, predominantly professional occupations. In terms of long range aspirations, 38 percent of both males and females aspired to professional positions. On short range aspirations, only 31 percent of the males and 49 percent of the females expressed an interest in professional occupations. Typical of former findings and representing again the status-quo in American labor differentiation by white and blue collar aspirations, only five girls out of 65 aspired short term to blue collar work.

**TABLE 9**

CORRELATIONS BETWEEN SEX AND STUDENT SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS BY THE WHITE COLLAR/BLUE COLLAR SCHEME

<table>
<thead>
<tr>
<th>Sex</th>
<th>Student Occupational Aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
</tr>
<tr>
<td>Female</td>
<td>.366*</td>
</tr>
</tbody>
</table>

**P<.01**

Based on Picou's finding that higher female aspirations were a result of commitment to traditionally feminine occupations, the responses of female students were tabulated by specific occupations and then analyzed as to frequencies and percentages in typical female dominated

---

occupations -- those cited by the Department of Labor as comprised of more than 50 percent female workers. 9 (See Table 10.)

TABLE 10
FEMALE STUDENTS EXPECTING OR ASPIRING TO FEMALE DOMINATED OR OTHER OCCUPATIONS

<table>
<thead>
<tr>
<th>Female Occupational Expectations and Aspirations</th>
<th>Female Dominated</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Range (N=121)</td>
<td>86 71</td>
<td>35 28</td>
</tr>
<tr>
<td>Long Range (N=129)</td>
<td>58 45</td>
<td>53 41</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Female Occupational Expectations and Aspirations</th>
<th>Female Dominated</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Range (N=121)</td>
<td>70 58</td>
<td>51 42</td>
</tr>
<tr>
<td>Long Range (N=112)</td>
<td>58 52</td>
<td>54 48</td>
</tr>
</tbody>
</table>

Tables detailing these choices will be found in Appendix II. It is interesting to note that for both long range occupational expectations and aspirations, the ratio between traditional female choices and other occupations becomes more balanced. The largest imbalance occurs at short term job expectations, for which 71 percent of the female students chose female-dominated occupations.

Matching specific jobs aspired to by female students with the numbers listed in Table 7, page we get a clearer picture of the situation. Of the 32 females who aspired to professional careers when their schooling was over, 53 percent chose female-dominated occupations--

in this case, teacher, nurse, and librarian. The remaining 47 percent aspired to such non-traditional careers as banker, lawyer, dentist, doctor, welfare worker, etc. Of the 24 females who retained their professional aspirations when considering long term plans, 37 percent went the traditional teacher, nurse route but 63 percent selected such non-traditional professions as architect, accountant, physician, zoo-keeper, dentist, banker, dentist, lawyer, scientist, reporter, etc. Therefore, although the percentage of female students who aspired to professional positions by the age of 30 decreased from earlier plans, those who felt they would like a profession at that time were more interested in non-traditional occupations for females.

In analyzing the female-dominated occupations listed by the Department of Labor, it appears that a large percentage of them would be classified as blue-collar, 68 percent. Female students' short and long range aspirations for blue collar work are for below that, eight percent and 20 percent respectively. Because the status quo in the labor market is not the trend of the future, one cannot judge the realism or fantasy of a student's expectation or aspiration by that criteria.

It appears, therefore, that the higher short range aspirations of female students in this sample cannot be attributed to their choice of more traditional female roles -- although 53 percent of those who chose professional occupations did choose female-dominated occupations. The problem is that female students are probably not familiar with

\[10^\text{Ibid.}\]
occupations in the blue-collar field other than those in the unskilled area -- maid, waitress, etc., which are probably less attractive. Yet, an additional eight jobs did choose skilled and unskilled occupations for their long range aspirations. There doesn't seem to be anything in the data to suggest why this should be true.

In summary, both males and females in this sample hold high aspirations, as had been found in earlier studies of career aspirations among public school students. A majority of the female students aspired to traditional female occupations both short and long term and expected to pursue such traditional careers, especially after schooling and even at the age of 30, although the percentage expecting non-traditional occupations had increased from 28 percent for short range expectations to 41 percent for long range expectations. It appears that if these female students are encouraged to pursue their interests and assisted in dealing with the internal and external conflict, there may be a tremendous expansion of women in formerly male-dominated occupations.

**Occupational Aspirations by Ethnic Identification**

When student occupational aspirations were analyzed according to the Edwards scale, by ethnic identification, no significant relationships emerged, although the direction of the relationship suggested that the white students in this sample held higher short and long range aspirations than the non-white students in this sample (see Table 11).
### TABLE 11

**STUDENT OCCUPATIONAL ASPIRATIONS BY STUDENT ETHNIC IDENTIFICATION ON THE EDWARDS SCALE**

<table>
<thead>
<tr>
<th>Edwards Scale</th>
<th>Student Occupational Aspirations</th>
<th>Short Range</th>
<th>Long Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non-white</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Glamour</td>
<td></td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Manager, Owner, Official</td>
<td></td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Clerical/Sales</td>
<td></td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td>68</td>
<td>73</td>
</tr>
<tr>
<td>Skilled</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Semi-skilled</td>
<td></td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Unskilled</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Uncertain</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Housewife</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>93</td>
<td>99</td>
</tr>
</tbody>
</table>

\[ r = .142 \quad r = .159 \]
For short-range aspirations, a higher percentage of the white students aspired to professional and glamour occupations than non-white students. The short range aspirations were very similar for managerial/proprietor and clerical categories. Only non-white students held short term aspirations for skilled and unskilled occupations -- six percent of their total number. Sixteen percent of non-white students as compared with ten percent of the white students aspired to semi-skilled occupations at the end of their schooling.

By the age of thirty, thirty-one percent of the non-white students aspired to professional occupations compared with 56 percent of the white students. An equal number of both ethnic groups aspired to glamour positions by the age of thirty. Nine percent of the non-white students aspired to managerial, proprietor or official positions for long range goals whereas 17 percent held long range clerical aspirations. Only three percent of the white students held long range aspirations in these two categories. Fifteen percent of the white students held long range aspirations for unskilled positions by the age of thirty; 13 percent desired semi-skilled positions and one percent a skilled labor position. One percent of the girls held long term aspirations to be a housewife, all non-white. For both short and long range aspirations, a higher percentage of students in both ethnic groups chose either professional, clerical, or semi-skilled occupations than any other.

When the aspirations are analyzed by a blue and white collar scheme, it appears that non-white students desire blue collar occupations for short range goals significantly more than white students. A look at
Table 12 presents the data which has a correlation (.186) significant at the .05 level, between being non-white and desiring blue collar work.

In summary, this analysis has shown that the career aspirations of white and non-white students in this sample are very similar. The major differences are a consistently higher aspiration for white students to professions than non-white students and non-white students aspired to blue collar positions immediately after their schooling significantly more than white students.

TABLE 12
STUDENT OCCUPATIONAL ASPIRATIONS BY STUDENT ETHNIC IDENTIFICATION ON THE WHITE COLLAR/BLUE COLLAR SCALE

<table>
<thead>
<tr>
<th>White Collar/ Blue Collar</th>
<th>Student Occupational Aspirations</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
<td>Long Range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-white</td>
<td>White</td>
<td>Non-white</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Blue Collar</td>
<td>21</td>
<td>23</td>
<td>2</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>White Collar</td>
<td>68</td>
<td>76</td>
<td>28</td>
<td>94</td>
<td>61</td>
</tr>
<tr>
<td>Totals</td>
<td>89</td>
<td>99</td>
<td>30</td>
<td>100</td>
<td>81</td>
</tr>
</tbody>
</table>

The generally high aspirations of both ethnic groups is consistent with former research comparing the two groups. None of the research cited suggested that black students would aspire to blue collar occupations more than white students.
The generally high aspirations of both ethnic groups is consistent with former research comparing the two groups. None of the research cited suggested that black students would aspire to blue collar occupations more than white students.

**Student Occupational Aspirations and Socioeconomic Status**

Five variables were utilized as indicators of the socioeconomic status of the student's family: father's occupation, mother's occupation, father's education, mother's education, and income. Table 13 presents correlations between each of these items and student short and long range occupational aspirations as represented on the Edwards Scale.

As is evident from Table 13, only two socioeconomic indicators were found to correlate significantly with students' short and long range job aspirations as categorized by the Edwards Scale. Those indicators are mother's education, related significantly with student long range job aspirations and father's occupation, which is related significantly to student's short range job aspirations. Mother's education was found to have the strongest correlation, although neither variable was significant for both short range and long range aspirations.

For long range job aspirations, it is interesting to note that four out of the five socioeconomic status variables did not obtain significance. A similar pattern was found to exist for short range job aspirations. These findings suggest minimal significance of socioeconomic
variables in determining student career aspirations. Previous studies\textsuperscript{11} have indicated a strong relationship between these variables and student career aspirations. Most of the studies, however, combined several indications of socioeconomic status and utilized that combination as a single variable in their analysis, rather than presenting them separately as here. The advantage of disaggregating the socioeconomic status variables includes, among others, specification of significant relationships. From the data presented in Table 13, it is concluded that significant relationships exist between father’s occupation and student short range aspirations and between mother’s education and student long range aspirations.

**TABLE 13**

**ZERO ORDER CORRELATIONS BETWEEN STUDENT SHORT AND LONG RANGE OCCUPATIONAL ASPIRATIONS AND SOCIOECONOMIC INDICATORS**

<table>
<thead>
<tr>
<th>Socioeconomic Indicators</th>
<th>Student Occupational Aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
</tr>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Father’s education</td>
<td>-.064</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>.066</td>
</tr>
<tr>
<td>Father’s occupation</td>
<td>.183</td>
</tr>
<tr>
<td>Mother’s occupation</td>
<td>-.006</td>
</tr>
<tr>
<td>Income</td>
<td>-.079</td>
</tr>
</tbody>
</table>

*\textsuperscript{*P}$.05

SUMMARY: STUDENT OCCUPATIONAL EXPECTATIONS AND ASPIRATIONS

As was expected from the literature, as a group, these students held very high expectations and aspirations. Over 40 percent of the students anticipated entering the professions upon the completion of their schooling. Another 40 percent anticipated blue collar work, eighteen percent in the unskilled area. Short range aspirations were very similar to short range expectations. However, comparing long range expectations with long range aspirations, about 14 percent of the students experienced "anticipatory goal deflection,"\textsuperscript{12} aspiring to higher level occupations than they expect to attain. Eighty percent of the students aspired to white collar occupations when their schooling is over while only 72 percent desired white collar positions at the age of thirty.

Female students in this sample hold higher aspirations immediately after their schooling is ended than do male students and lower aspirations by age thirty than do male students. In general, except for short-range job expectations, a small majority of girls expected or aspired to female dominated occupations. Only 28 percent of the girls expected non-traditional occupations when their schooling was completed.

White and non-white students held similar aspirations with one exception; a larger percentage of non-white students anticipated entering blue collar positions at the end of their schooling.

Only two socioeconomic indicators related significantly with student career aspirations -- father's occupations with student short range job aspirations and mother's education with student's long range aspirations.

Thus we find that the characteristics sex, ethnic identification, and socioeconomic status did not significantly effect student occupational aspirations.

HYPOTHESES RELATED TO TEACHER CAREER EXPECTATIONS FOR STUDENTS

\[ H_1 \] Teacher assessment of student academic ability is positively related to student socioeconomic status.\(^{13}\)

Five variables were utilized as indicators of socioeconomic status of the student: father's education, mother's education, father's occupation, mother's occupation, and family income.

Table 14 reveals that only one of the five socioeconomic variables was significantly related to the teacher's assessment of student academic ability -- father's occupation. Three other indicators related in the predicted direction -- mother's occupation, father's education, and income.

---

### TABLE 14

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND SOCIOECONOMIC INDICATORS

<table>
<thead>
<tr>
<th>Socioeconomic Indicators</th>
<th>Sum of Teacher Assessment Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( r )</td>
</tr>
<tr>
<td>Father's Education</td>
<td>.133</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>-.043</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td>.249**</td>
</tr>
<tr>
<td>Mother's Occupation</td>
<td>.173</td>
</tr>
<tr>
<td>Income</td>
<td>.101</td>
</tr>
</tbody>
</table>

**P \leq .01

### TABLE 15

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND FATHER'S OCCUPATION AND MOTHER'S EDUCATION

<table>
<thead>
<tr>
<th>Socioeconomic Indicators</th>
<th>Teacher Assessment Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student School Ability</td>
</tr>
<tr>
<td>Father's Occupation (n=111)</td>
<td>.241**</td>
</tr>
<tr>
<td>Mother's Education (n=118)</td>
<td>-.022</td>
</tr>
</tbody>
</table>

**P \leq .01
Mother's education showed a negative relationship to teacher assessment of student academic ability. Table 15 presents all three teacher assessment items with their correlation coefficients related to father's occupation and mother's education -- the most positively and negatively related indicators.

The student's reading ability and ability in school are more positively related with father's occupation than student intelligence, as assessed by the teacher. The strongest negative relationship between teacher assessment of student academic ability and mother's education is student intelligence. This finding appears contrary to extensive literature which places strong emphasis on the effect of mother's educational level upon the development of a child's intelligence. In looking back at Table 2 on page 104 one finds that 32 percent of the mothers for this sample of students were reported to have completed high school, 29 percent were reported to have completed college, and four percent were reported to have completed graduate school. Only twelve percent were reported as school dropouts. The educational attainment is high for the income reported only 50 percent of the mothers were employed and only nine mothers had occupations in the upper half of the socioeconomic index. Thus it may be that the educational report of the students is inaccurate.

Hypotheses 1 is not supported, since teacher assessment of student academic ability was significantly related with only one socio-
economic indicator, father's occupation, and was negatively related to one variable, mother's education. In all relationships, teacher assessment of student school ability and reading ability were more positively correlated than teacher assessment of student intelligence with the socioeconomic variables.

The rejection of this hypothesis contradicts the Gouldner study which so clearly documented the teacher's differential assessment of student ability according to socioeconomic status of the student. The difference between these findings and those of Gouldner may be explored in the SES indicators utilized. In that study, direct information on families receiving financial assistance, number of parents at home and employed, and direct observational indicators such as clothes, appearance, health, etc. were used to designate SES of students. In the present study, parental occupation and education were reported by the children only and information about income was gathered from the only available source, the free lunch program, which might tend to be skewed by the uses made of the information.

The rejection of this hypothesis supports Sewell and Hauser's contentions that teachers were not influenced by SES in their assessment of student potential. However, Sewell and Hauser were studying high school seniors.

The varying correlations of the five socioeconomic variables with teacher assessment indicate that a clearer understanding of the effect of different SES factors is necessary.

---

14 Sewell and Hauser, "Causes and Consequences of Higher Education."
H2 Teacher assessment of student academic ability is positively related to student ethnic identification.15

The correlations in Table 16 indicate the relationship between student ethnic identification and the three teacher assessment items. The direction of the correlations indicate that teacher assessment of student academic ability is more positive for white students than for non-white students, but not to a significant degree.

TABLE 16

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND STUDENT ETHNIC IDENTIFICATION

<table>
<thead>
<tr>
<th>Teacher Assessment Items</th>
<th>Student School Ability</th>
<th>Student Intelligence</th>
<th>Student Reading Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Ethnic Identification</td>
<td>-.042</td>
<td>-.047</td>
<td>-.045</td>
</tr>
</tbody>
</table>

A number of factors may explain why this hypothesis was not supported in contradiction to an extensive literature built up in the sixties. Of the 20 teachers participating in the study, 14 were black, six were white. Although in the past black teachers have been shown to also be prejudiced against non-white students, the black consciousness

of the sixties has brought about a tremendous awareness and change of attitudes. In addition, the study was conducted in a cosmopolitan community with a large number of black leaders and a recent heritage of black pride. The region of the country has also been involved in massive desegregation efforts which have included extensive concentrated attention upon the attitudes of teachers concerning ethnic groups. Therefore, it is suggested that this is an unusual sample.

H3 Teacher assessment of student academic ability is positively related to the sex of the student.

As indicated in Table 17, the relationship between the sum of teacher assessment items and the sex of the student is positive, but not to a significant degree. The direction of the relationship indicates that these teachers tended to hold more favorable views of female students' academic ability than male students' academic ability.

**TABLE 17**

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND SEX OF THE STUDENT

<table>
<thead>
<tr>
<th>Teacher Assessment Items</th>
<th>Student School Ability</th>
<th>Student Intelligence</th>
<th>Student Reading Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Student (n=120)</td>
<td>.153</td>
<td>.194*</td>
<td>.152</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>.171</td>
<td></td>
</tr>
</tbody>
</table>

*P ≤ .05

A look at the individual assessment items indicates that these teachers held significantly higher evaluations of female student intelligence than male student intelligence but no such significantly more positive attitude was held about student school ability or student capability as a reader according to the sex of the student. The assumption that teachers' favorable attitudes toward female ability is related to female submissive and sedentary behavior and dependency behaviors would not be supported with these data, since the school ability scale did not correlate significantly with sex and the nature of that question taps the teacher's perception of the student's school adjustment. This will be considered in further detail below under Hypothesis 4.

To further explore the teachers' significantly more positive evaluation of the female students' intelligence, the correlation between sex and student grade equivalency scores is examined (see Table 18).

**TABLE 18**

<table>
<thead>
<tr>
<th>Sex of Student</th>
<th>Student Grade Equivalency Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.201*</td>
</tr>
</tbody>
</table>

*P ≤ .05

This correlation indicates that female students scored significantly higher on the Iowa Test of Basic Skills than did male students, to the .05 level of significance for a sample of 114.
Thus, the hypothesis is rejected since it received only partial support in that teachers had a more favorable assessment of female student intelligence.

H₄ Teacher/student interaction perceived by both teacher and student is positively related to teacher assessment of student academic ability.

As Table 19 indicates, Hypothesis 4 has very strong support from the zero-order correlations between all teacher assessment items and their sum and student and teacher perceptions of the teacher/student interaction pattern in the classroom.

TABLE 19

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND STUDENT AND TEACHER PERCEPTION OF TEACHER/STUDENT INTERACTION PATTERNS

<table>
<thead>
<tr>
<th>Teacher Assessment Items</th>
<th>Student/Teacher Interaction</th>
<th>Student Perception (n=109)</th>
<th>Teacher Perception (n=117)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student School Ability</td>
<td></td>
<td>.406**</td>
<td>.529**</td>
</tr>
<tr>
<td>Student Intelligence</td>
<td></td>
<td>.352**</td>
<td>.531**</td>
</tr>
<tr>
<td>Student Reading Ability</td>
<td></td>
<td>.398**</td>
<td>.497**</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>.398**</td>
<td>.535**</td>
</tr>
</tbody>
</table>

**P ≤ .01
Rosenthal and Jacobson, in *Pygmalion in the Classroom*, studied the relationship between teacher assessment of student ability and student achievement. They suggested that the link between the two variables might be the teacher/student interaction. Kestor and Letchworth conducted an experiment at the seventh grade level to examine the self-fulfilling prophecy and the means by which it was communicated to students. Although no alteration in student achievement occurred in the Kestor and Letchworth study, teachers were observed to interact more frequently and in a more supportive and warm manner with those students they had been led to believe were intellectual "bloomers." In Gouldner's study, the teachers were observed to interact more frequently and in more warm and supportive ways with those students they rated as "high" achieving students than with those students they rated as "low" achieving students.

The data from the present study indicate, in agreement with those studies cited above, that positive, frequent student/teacher interaction, as measured by the interaction scale designed for this study (see Appendix I), is quite strongly related to the teacher's high assessment of the students' academic ability. The teacher considered their interactions to be most supportive and frequent with students they judged to

---


19 Gouldner, *et al.*, *Natural History*. 
be most intelligent \((r = 0.531)\) and considered their interactions slightly less frequent and encouraging with students whom they assessed as higher in school ability \((r = 0.529)\) and better readers \((r = 0.497)\).

In comparison, those students the teacher assessed as more capable in school behaviors felt that they had the most frequent and positive interaction with the teacher \((r = 0.406)\). The students identified as more intelligent than their classmates by the teacher felt that their interactions with the teacher were less frequent and supportive \((r = 0.352)\) than the students judged to be good readers and students identified as more capable in school. The comparisons of student and teacher perceptions of their interaction indicate that the teachers' behaviors may be slightly different from their perceptions of their own behaviors. However, from both the student viewpoint and the teacher's perception, those students whom the teacher assessed as more intelligent, having greater school ability, and as better readers had more frequent supportive and warm interactions with the teacher.

Table 20 presents comparative correlation coefficients for teacher and student perceptions of the teacher/student interaction in relation to the variables sex, ethnic identification, two socioeconomic status indicators, and grade equivalency scores.

As can be seen from the correlation coefficients the teachers perceive themselves interacting in a significantly more positive and supportive way with female students than with male students. No other
variables are significantly related. The correlations indicate more frequent supportive, positive interaction with white students than with non-white students, with students whose fathers have higher status occupations, whose mothers have more education, and with students who have higher grade equivalency scores.

**TABLE 20**

ZERO ORDER CORRELATIONS BETWEEN TEACHER AND STUDENT PERCEPTIONS OF THE TEACHER/STUDENT INTERACTION AND SELECTED STUDENT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Student Characteristics</th>
<th>Student Perception</th>
<th>Teacher Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( r )</td>
<td>( n )</td>
</tr>
<tr>
<td>Sex</td>
<td>0.086</td>
<td>109</td>
</tr>
<tr>
<td>Ethnic Identification</td>
<td>-0.056</td>
<td>109</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td>0.015</td>
<td>101</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>-0.078</td>
<td>107</td>
</tr>
<tr>
<td>Grade Equivalency Score</td>
<td>0.016</td>
<td>103</td>
</tr>
</tbody>
</table>

\[**P \leq 0.01\]

But none of these relationships were strong enough to be attributed to anything other than chance. Correlations between student perceptions of teacher/student interaction and these variables were much weaker but followed the same direction as teacher perceptions of the inter-
action pattern except in relation to mother's education. Students' perceptions of their interaction with the teacher is negatively related to the years of educational attainment for their mothers. But that relationship is also not significant.

The weak correlation between teacher/student interaction patterns and student grade equivalency scores suggests that the frequent, supportive interaction between the teacher and student does not bring about high achievement on the part of the students. It also indicates that teacher/student interaction is significantly less strongly related to student achievement than to teacher assessment of student school and reading abilities and student intelligence.

H2 Teacher occupational expectations for student are positively related to teacher assessment of student academic ability and to teacher/student interaction.

For the analyses of teacher occupational expectations for students, only the first choice short and long range occupational expectations measured on the Duncan Socioeconomic Index will be utilized. As seen in Table 21, the number of responses provided by teachers decreases on second choice items for both short and long range expectations. Therefore, second choice responses have been eliminated from the analysis.

Teacher short and long range occupational expectations for their students are very similar (see Table 22).

The teachers expect 53 percent of their students to hold lower ranked occupations when their schooling is complete and 58 percent when they are 30 years old. In this case, lower ranked occupations are
TABLE 21
TEACHER FIRST AND SECOND CHOICE SHORT AND LONG RANGE OCCUPATIONAL EXPECTATIONS FOR STUDENTS

<table>
<thead>
<tr>
<th>Duncan Socio-economic Index Range</th>
<th>Teacher Occupational Expectations</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
<td></td>
<td></td>
<td>Long Range</td>
<td></td>
</tr>
<tr>
<td></td>
<td>First Choice</td>
<td>Second Choice</td>
<td>First Choice</td>
<td>Second Choice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>0 - 10</td>
<td>12</td>
<td>11</td>
<td>7</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>11 - 20</td>
<td>20</td>
<td>18</td>
<td>24</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>21 - 30</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>31 - 40</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>41 - 50</td>
<td>14</td>
<td>12</td>
<td>13</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>51 - 60</td>
<td>17</td>
<td>15</td>
<td>7</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>61 - 70</td>
<td>12</td>
<td>11</td>
<td>13</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>71 - 80</td>
<td>14</td>
<td>12</td>
<td>16</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>81 - 90</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>91 - 96</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100</td>
<td>101</td>
<td>100</td>
<td>104</td>
</tr>
</tbody>
</table>

TABLE 22
ZERO ORDER CORRELATION BETWEEN TEACHER SHORT RANGE OCCUPATIONAL EXPECTATIONS FOR STUDENTS AND TEACHER LONG RANGE OCCUPATIONAL EXPECTATIONS FOR STUDENTS

Teacher Occupational Expectations for Students

<table>
<thead>
<tr>
<th>Short Range</th>
<th>Long Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.642**</td>
</tr>
</tbody>
</table>

**P ≤ .01
defined as those coded 0 - 50 on the Duncan Socioeconomic Index. As described in Chapter III, these represent occupations which require less educational attainment, have less societal prestige, and obtain lower incomes. It is also suggested that this ranking represents hierarchy of difficulty and power. Over 25 percent of the students were expected to become unskilled workers, a category within our labor structure which is phasing out. In addition, over 25 percent of the students were expected by the teachers to become professionals.

As can be seen by comparing teacher expectations with the 1971 manpower statistics presented by Edwards occupational categories in Table 23, the teachers hold professional expectations for twice as many of their students as the percentage currently employed at that occupational level. Also, they believe that a larger percentage of their students will be employed in unskilled jobs than the percentage of American workers employed in that category in 1971.

Now that we have looked at the nature of the occupational expectations these teachers held for their students, we will analyze the relationship between these expectations and teacher assessment of student academic ability. A look at Table 24 reveals that the correlation coefficients between each teacher assessment item and both short and long range occupational expectations teachers hold for their pupils are quite strong.

---

20 Haller and Woelfel, Wisconsin Significant Other.

### TABLE 23

PERCENTAGE OF EMPLOYED PERSONS 16 YEARS AND OVER, BY OCCUPATION GROUP FOR 1971

<table>
<thead>
<tr>
<th>Occupation Group</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Collar Occupations</td>
<td>48.3</td>
</tr>
<tr>
<td>Professional/Technical Manager, Official, Owner</td>
<td>11</td>
</tr>
<tr>
<td>Clerical and Sales</td>
<td>23.3</td>
</tr>
<tr>
<td>Blue Collar Occupations</td>
<td>51.7</td>
</tr>
<tr>
<td>Skilled</td>
<td>15</td>
</tr>
<tr>
<td>Operatives</td>
<td>16.4</td>
</tr>
<tr>
<td>Unskilled</td>
<td>20.3</td>
</tr>
</tbody>
</table>


### TABLE 24

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND TEACHER OCCUPATIONAL EXPECTATIONS FOR THE STUDENT

<table>
<thead>
<tr>
<th>Teacher Assessment of Student Academic Ability Items</th>
<th>Teacher Occupational Expectations for Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
</tr>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>School Ability</td>
<td>.566**</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.621**</td>
</tr>
<tr>
<td>Reader</td>
<td>.575**</td>
</tr>
<tr>
<td>Sum</td>
<td>.605**</td>
</tr>
</tbody>
</table>

**P ≤ .01
In this case, for both short and long range occupational expectations, the teachers held the highest expectations for those students they perceived as good readers, and third highest expectations for those students they perceived to be well adjusted to school as measured by the school ability item.

Teacher career expectations were also found to be significantly related to teacher/student interaction patterns. In Table 25, it can be seen that the teacher report of the teacher/student interaction is more highly correlated with teacher career expectations for the student than are student reports.

**TABLE 25**

ZERO ORDER CORRELATIONS BETWEEN TEACHER OCCUPATIONAL EXPECTATIONS FOR THE STUDENT AND TEACHER/STUDENT INTERACTION PATTERNS

<table>
<thead>
<tr>
<th>Teacher Occupational Expectations for Student</th>
<th>Teacher/Student Interaction</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Student Perception</td>
<td>Teacher Perception</td>
</tr>
<tr>
<td></td>
<td></td>
<td>r</td>
<td>n</td>
</tr>
<tr>
<td>Short Range</td>
<td></td>
<td>.191*</td>
<td>109</td>
</tr>
<tr>
<td>Long Range</td>
<td></td>
<td>.293**</td>
<td>107</td>
</tr>
</tbody>
</table>

**P ≤ .01  **  **P ≤ .05  **

Long range occupational expectations held by teachers for students are more highly correlated with student and teacher perception of the interaction.
This data clearly indicates that teachers interact in a more supportive encouraging, and warm manner with students for whom they hold higher career expectations. Hypothesis 5 is clearly supported by this data.

HYPOTHESES RELATED TO STUDENT CAREER ASPIRATIONS

H₆ Student academic self-conception is positively related to teacher/student interaction.

The correlation coefficient between the sum of the three student academic self-concept items and teacher's perception of the teacher/student interaction pattern is .252, significant at the .01 level (see Table 26). Between the sum of the academic self-concept items and the students' perception of the teacher/student interaction pattern, the correlation coefficient is .399, significant at the .01 level also. Since the relationship between teacher and student perception of their interaction is high (r=.413**), the conclusion from these data is that the students' academic self-concepts are significantly related to the interaction with their teachers. The more frequent encouraging, supportive interaction the student has with the teacher, the higher the students' academic self-concept.

These findings agree with the Gouldner, et al. study, Kestor and Letchworth and Rosenthal and Jacobson.²² They also suggest a link between teacher assessment of the student and student self-conception.

²²Gouldner, et al., Natural History; Kestor and Letchworth, "Communication;" Rosenthal and Jacobson, Pygmalion.
H7 Student academic self-conception is positively related to teacher assessment of student academic ability.

The correlation between the sum of the student academic self-concept and teacher assessment of student academic ability is .286, (P ≤ .01).

**TABLE 26**

ZERO ORDER CORRELATIONS BETWEEN STUDENT ACADEMIC SELF-CONCEPT AND TEACHER AND STUDENT PERCEPTION OF STUDENT/TEACHER INTERACTION

<table>
<thead>
<tr>
<th>Student Academic Self-Concept</th>
<th>Student/Teacher Interaction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student Perception</td>
<td>Teacher Perception</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>n</td>
</tr>
<tr>
<td>School Ability</td>
<td>.299**</td>
<td>109</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.238**</td>
<td>109</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>.406**</td>
<td>109</td>
</tr>
<tr>
<td>Sum</td>
<td>.399**</td>
<td>109</td>
</tr>
</tbody>
</table>

**P ≤ .01

Table 27 shows the correlations between each of the items. The highest correlation is between teacher and student assessment of the students' reading ability. The lowest correlations are between the students' reports of their own ability in school and the teachers' assessments of the students on all three items. The school ability item
is the most abstract and least well-defined of the three academic self-concept items. It is possible that the students did not have a clear understanding of the meaning of the item. Of the significant correlations, the correlation between teacher and student assessment of student intelligence is the lowest.

**TABLE 27**

ZERO ORDER CORRELATIONS BETWEEN TEACHER ASSESSMENT OF STUDENT ACADEMIC ABILITY AND STUDENT ACADEMIC SELF-CONCEITION

<table>
<thead>
<tr>
<th>Student Academic Self-Concept</th>
<th>Teacher Assessment of Student Ability Items</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School Ability</td>
<td>Intelligence</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>n</td>
</tr>
<tr>
<td>School Ability</td>
<td>.130</td>
<td>120</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.300**</td>
<td>120</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>.324**</td>
<td>120</td>
</tr>
<tr>
<td>Sums</td>
<td>r = .286**</td>
<td>n = 120</td>
</tr>
</tbody>
</table>

**P < .01**

Hypothesis 7 is supported by these data, in agreement with Gouldner, et al.23

H8 Student academic self-concept is positively related to sex, ethnic identification, and socioeconomic status of the student.24

As can be seen when studying Table 28, the only student academic self-concept item which related significantly to any of the student characteristics was students' conceptions of their intelligence.

TABLE 28
ZERO ORDER CORRELATIONS BETWEEN STUDENT ACADEMIC SELF-CONCEPT AND STUDENT SEX, ETHNIC IDENTIFICATION AND SOCIOECONOMIC STATUS

<table>
<thead>
<tr>
<th>Student Characteristics</th>
<th>Student Academic Self-Concept Items</th>
<th>Intelligence</th>
<th>Reading Ability</th>
<th>School Ability</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>r  n</td>
<td>r  n</td>
<td>r  n</td>
<td>r  n</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td>.009 120</td>
<td>.101 120</td>
<td>-.006 118</td>
<td>.044 120</td>
</tr>
<tr>
<td>Ethnic Identification</td>
<td></td>
<td>.279** 120</td>
<td>.118 120</td>
<td>.033 120</td>
<td>.172 120</td>
</tr>
<tr>
<td>Father's Education</td>
<td></td>
<td>.301** 117</td>
<td>.000 117</td>
<td>.138 117</td>
<td>.215 117</td>
</tr>
<tr>
<td>Mother's Education</td>
<td></td>
<td>.185** 118</td>
<td>-.057 118</td>
<td>.004 118</td>
<td>.090 118</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td></td>
<td>.102 111</td>
<td>-.056 111</td>
<td>.031 109</td>
<td>.047 111</td>
</tr>
<tr>
<td>Mother's Occupation</td>
<td></td>
<td>.062 89</td>
<td>.015 89</td>
<td>.028 88</td>
<td>.051 89</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td>-.001 118</td>
<td>-.012 118</td>
<td>.173 116</td>
<td>.070 118</td>
</tr>
</tbody>
</table>

Non-white students held higher conceptions of their intelligence than did white students. Also, students whose mothers and fathers had attained the most education held higher conceptions of their own intelligence. The most significant relationship was between father's education and student's conception of his own intelligence, followed by ethnic identification and then mother's education. No other correlations were significant, including the ones between student self-concept and student sex. When all self-concept items were summed and correlated with the other variables, only father's education retained a significant relationship.

H2: Student career aspirations are positively related to student academic self-conception.

The data do not support this hypothesis. As can be seen from looking at Table 29, only the student's assessments of their intelligence is positively related to student occupational aspirations and only to short range aspirations. When the self-conception items are summed and correlated with student occupational aspirations, no significant relationships emerge.

This raises questions about the means by which occupational aspirations are determined. According to Super, occupational choice is the operationalization of a person's self-concept. Therefore, one would expect occupational preferences to grow out of the students' intentions.

self-conceptions, especially the students' academic self-conceptions since educational attainment is so closely aligned with occupational achievement.

**TABLE 29**

ZERO ORDER CORRELATIONS BETWEEN STUDENT OCCUPATIONAL ASPIRATIONS AND STUDENT ACADEMIC SELF-CONCEPTION

<table>
<thead>
<tr>
<th>Student Academic Self-Conception</th>
<th>Short Range</th>
<th>Long Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>n</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.182*</td>
<td>120</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>-.020</td>
<td>120</td>
</tr>
<tr>
<td>School Ability</td>
<td>.019</td>
<td>118</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>.106</td>
<td>120</td>
</tr>
</tbody>
</table>

*P \leq 0.05

There are two possible explanations for this discrepancy. It may be that Ginzberg is correct in assigning elementary children to a fantasy stage in terms of career development. The other is that a students' self-conception may be more closely alighed with his actual job expectations than with his aspirations. Although we do not have an analysis of this correlation between these three self-concept items and students' job expectations, another self-report item -- "What kind of student are you?" -- was correlated with all eight occupational aspira-
tions and expectations held by the student. This self-rating item correlated with students' short range occupational aspirations with a coefficient of .085 and with student long range occupational aspirations .110, both correlations not statistically significant (see Table 30).

**TABLE 30**

ZERO ORDER CORRELATIONS BETWEEN STUDENT ACADEMIC RATING AND STUDENT OCCUPATIONAL ASPIRATIONS

<table>
<thead>
<tr>
<th></th>
<th>Student Occupational Aspirations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
<td>Long Range</td>
</tr>
<tr>
<td>r</td>
<td>n</td>
<td>r</td>
</tr>
<tr>
<td>Student Academic Self-Rating</td>
<td>.085</td>
<td>119</td>
</tr>
</tbody>
</table>

These correlations are lower than those between the same occupational aspiration items and the sum of the student self-concept items. The correlation coefficients between this self-rating item and student occupational expectations are not consistently significant (see Table 31).

Thus, it can be suggested that not even student expectations for future careers are significantly related to student academic self report as measured in this study.
A comparison of the relationships which exist between the teachers' short and long term expectations for students' careers and other relevant variables indicate that teachers' short and long range expectations show about equally strong relationships (see Table 32).

### TABLE 31

ZERO ORDER CORRELATIONS BETWEEN STUDENT OCCUPATIONAL EXPECTATIONS AND STUDENT ACADEMIC SELF RATING

<table>
<thead>
<tr>
<th>Student Academic Self-Rating</th>
<th>Student Occupational Expectations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
<td>Long Range</td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>Second</td>
</tr>
<tr>
<td></td>
<td>r n</td>
<td>r n</td>
</tr>
<tr>
<td><strong>TABLE 31</strong></td>
<td></td>
<td>(.003)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.259</td>
</tr>
</tbody>
</table>

*P ≤ .05

### TABLE 32

ZERO ORDER CORRELATIONS BETWEEN TEACHER CAREER EXPECTATIONS FOR STUDENTS AND SELECTED STUDENT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Student Characteristics</th>
<th>Teacher Career Expectations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
<td>Long Range</td>
</tr>
<tr>
<td></td>
<td>r n</td>
<td>r n</td>
</tr>
<tr>
<td>Sex</td>
<td>.173</td>
<td>.277**</td>
</tr>
<tr>
<td>Ethnic Identification</td>
<td>-.021</td>
<td>-.029</td>
</tr>
<tr>
<td>Father's Education</td>
<td>.203*</td>
<td>.151</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>.060</td>
<td>.094</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td>.277**</td>
<td>.307**</td>
</tr>
<tr>
<td>Mother's Occupation</td>
<td>.178</td>
<td>.230*</td>
</tr>
<tr>
<td>Income</td>
<td>-.034</td>
<td>-.000</td>
</tr>
</tbody>
</table>

*P ≤ .05;  **P ≤ .01
**H10** Student career aspirations are positively related to teacher career expectations for the student.

As can be seen in Table 33 below, student short and long term career aspirations are significantly related to teacher short range job expectations for the students.

**TABLE 33**

ZERO ORDER CORRELATIONS BETWEEN TEACHER CAREER EXPECTATIONS FOR THE STUDENT AND STUDENT CAREER ASPIRATIONS

<table>
<thead>
<tr>
<th>Student Occupational Aspirations</th>
<th>Teacher Career Expectations for Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Range</td>
</tr>
<tr>
<td></td>
<td>( r )</td>
</tr>
<tr>
<td>Short Range</td>
<td>.190*</td>
</tr>
<tr>
<td>Long Range</td>
<td>.269**</td>
</tr>
</tbody>
</table>

\*\( P \leq 0.05 \); \**\( P \leq 0.01 \)

The higher the teachers' short range career expectations for the student the higher the students' own short and long range career aspirations. Considering that the teachers' long range occupational expectations for the student are not significantly related to the students' career aspirations, this hypothesis is only partially substantiated.

The only variable which related with both short and long range expectations was father's occupation -- both at the .01 level of probability. Other than that, teacher's short range expectations related significantly to father's education and teachers' long range expectations related significantly to sex of the student and mother's occupation.
Thus, teachers hold higher long range career expectations for female students than male students in this sample. The more education the students' fathers have the higher the teachers' short range career expectations for the students. As the father's occupation rises up the Duncan SES heirarchy, the teacher holds higher short range and long range aspirations for the student. The mother's level of occupational attainment is only positively related to teachers long range occupational expectations for the students. And income shows no correlation or a negative correlation with teachers' occupational expectations for students. A look at Table 34 reveals that although

**TABLE 34**

**TEACHERS' OCCUPATIONAL EXPECTATIONS FOR FEMALE STUDENTS BY PERCENTAGE OF FEMALES EMPLOYED IN THE OCCUPATION**

<table>
<thead>
<tr>
<th>Teacher's Occupational Expectations</th>
<th>Female Dominated Occupations</th>
<th>Other Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Short Range</td>
<td>91</td>
<td>75</td>
</tr>
<tr>
<td>Long Range</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>171</td>
<td>81</td>
</tr>
</tbody>
</table>

*Female-dominated occupations are those in which 50 percent or more of the personnel employed are female.*

---

the teacher held significantly higher long range occupational expecta-
tions for their female students than for their male students, those
occupations were in predominantly female dominated occupations, such
as teacher, nurse, secretary, store clerk, airline stewardess,
waitress, etc.

SUMMARY: DATA ANALYSIS
The hypotheses of this study represented a statement of
expected logical relationships between the variables under study. As
stated in Chapter III, it was posited that:
Socioeconomic status of the students' family, the sex and the
ethnic identification of the student affect the teacher's assessment
of the student's academic ability and thus affect the teacher's inter-
action with the student and the teacher's career expectations for the
student.

Socioeconomic status of the student's family, the sex and the
ethnic identification of the student via teacher assessment of the
student and interaction with the student affect student academic self-
conception and therefore student career aspirations.

Although these statements suggest causal relationships, they are
intended only as a logical presentation of relevant variables. The
analysis utilized in this study was in all cases one of bivariate
relationships. Therefore the following schematic presentations are not
intended to imply any form of causal modeling. (See Figures 1-4).
Thus, the findings of this study are that the sex of the student and the level of the student's father's occupation are positively related to teacher assessment of student academic ability and the teacher's career expectations for the student. Teacher assessment of student academic ability relates positively with patterns of teacher/student interaction and teacher career expectations.

Fig. 2 -- Statistically significant zero order correlations between selected variables.

---

29Figure 1 is a heuristic presentation of the hypotheses and is not intended to imply any form of causal modeling.
In terms of the effect upon students of teacher assessment, for this sample, the data indicate a strong relationship between teacher assessment of student academic ability and student academic self-conception. The correlation between teacher/student interaction and student academic self-concept is also very strong. Student assessment of their own intelligence has a significant positive relationship to the level of the father's educational attainment, to being black, to the level of the mother's educational attainment, in that order. No other self-conception items have significant relationships with sex, ethnic identification, or other socioeconomic indicators. Only father's educational attainment relates significantly with the sum of the student's academic self-conception. The next step in the sequence, the relationship between student academic self-concept and student career aspirations is only supported for student assessment of his/her own intelligence in terms of short range aspirations. The final relationship is partially supported because teachers short range expectations for students are significantly related to student short and long range aspirations. Teachers long range expectations for students do not relate significantly to any of the students' career aspirations. (See Figure 3.)

Figure 4 presents the significant bivariate relationships discovered in this study. As total variables, socioeconomic status, sex, and ethnic identification did not significantly relate with teacher assessment of student academic ability or teacher career expectations. However, the unusually large representation of black teachers in the
Fig. 3 -- Significant zero order correlations between selected variables.

Fig. 4 -- Significant bivariate relationships discovered in study.
sample clearly explains why there were no significant relationships between ethnic identification and teacher assessment of student academic ability and teacher career expectations for the student.

One socioeconomic variable, father's occupation, was significantly related to teacher's assessment of student academic ability and teacher career expectations for the student. As discussed earlier, this may be the most accurate indicator of socioeconomic status in the study since the names of parental occupations may be a common part of a career education curriculum. Female students were assessed as more intelligent by teachers, which is expected from former studies. Teachers also held higher long range career expectations for girls; however, those expectations fell into the traditional female careers -- teacher, nurse, secretary, store clerk, etc. -- white collar, but less than professional.

The other major focus for this study was the relationship between teacher career expectations and student career aspirations. It was found that the teachers' short range career expectations were significantly related to student short and long range career aspirations.

An additional relationship between teacher assessment of student academic ability and teacher career expectations for students and between both teacher assessment and teacher expectations with teacher/student interaction suggest a strong area for future study.

In Chapter V, a summary of the study, implications for previous research, limitations of the study, and recommendations for future research will be presented.
CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter will present: (1) a summary of the major findings of this study; (2) a discussion of the implications of these findings for past research on occupational expectations of elementary students, career expectations and aspirations of elementary teachers for students, and the effect of teacher expectations upon the aspirations of students; (3) a statement of the limitations of this study; and (4) suggestions for further research.

SUMMARY OF THE STUDY

In order to investigate the career expectations held by a group of elementary teachers for their pupils, a sample of twenty teachers was selected from one school system participating in the Comprehensive Career Education Model. Six pupils from each of the twenty classes taught by the selected teachers were chosen using a stratified randomization process. Teachers and pupils completed questionnaires investigating their career expectations and aspirations, short and long range, for the pupils; assessment of students' academic ability; report of student ethnic identification; sex; and the perception of both teacher and student of the typical nature of their classroom interaction. In addition, students were asked to report their parents' educational attainment and occupation. Family income was obtained from the school records and grade equivalency scores were obtained from the local board of education.
SUMMARY OF MAJOR FINDINGS

TEACHER OCCUPATIONAL EXPECTATIONS FOR STUDENTS

Teachers' first choice short term occupational expectations for their students as coded on the Duncan Socioeconomic Index were significantly related to the teachers' assessment of the student's academic ability; to the student's self-conception of his/her intelligence and reading ability; to the student's grade equivalency score; and to student's first choice short and long term occupational aspirations as coded on the Duncan Socioeconomic Index. Teachers' first choice short term occupational expectations for their students were not significantly related to the ethnic identification of the student nor to the sex of the student. Two socioeconomic variables showed a significant relationship with teachers' first choice short term occupational expectations: father's education and father's occupation.

Teachers' first choice long term occupational expectations for their students as coded on the Duncan Socioeconomic Index were found to be significantly related to the sex of the student, father's occupation and mother's occupation, the student's grade equivalency score, and the student's short term occupational aspirations as coded on the blue collar, white collar dichotomy.

Basically, teacher occupational expectations for these students were high in comparison with the percentages within various occupational groupings in the current labor market. This may reflect an instinctive
awareness of the movement of the labor market in the future toward less unskilled positions or a desire for their students to participate in the mainstream of American society on an equal level, since higher occupational prestige is a major American value and leads to greater participation in the American way of life.

STUDENT OCCUPATIONAL EXPECTATIONS AND ASPIRATIONS

As was expected from the literature, as a group, these students held high occupational expectations and aspirations. Over forty percent of the students anticipated entering the professions upon the completion of their schooling. Another forty percent anticipated blue collar work, eighteen percent in the unskilled area. Short range aspirations were very similar to short range expectations. However, comparing long range expectations with long range aspirations, about fourteen percent of the students experienced "anticipatory goal deflection," aspiring to higher level occupations than they expect to attain. Eighty percent of the students aspired to white collar occupations when their schooling is over while seventy-two percent desired white collar positions at the age of thirty.

Female students in this sample held higher aspirations for immediately after their schooling is ended than did male students and lower aspirations by age thirty than male students. Except for short-range job expectations, a small majority of the girls expected or aspired to female-dominated occupations when their schooling was completed.
White and non-white students held similar aspirations with one exception, a larger percentage of non-white students anticipated entering blue collar positions at the end of their schooling. Only two socioeconomic indicators related significantly with student career aspirations - father's occupation with student short range job aspirations and mother's education with student's long range aspirations.

Thus, in this study, no significant relationships were found between student occupational aspirations and the socioeconomic status of the student, student sex, or student ethnic identification.

SUMMARY: DATA ANALYSIS

The hypotheses for this study suggested a logical series of relationships between teacher assessment of student ability, teacher/student interaction patterns, student characteristics, student self-conceptions, and teacher occupational expectations for the student and student occupational aspirations for themselves. Those relationships are depicted in Figure 5 below. This presentation is heuristic and is

Fig. 5 -- Schematic presentation of bivariate relationships tested in study hypotheses.
not intended to imply any form of causal modeling.

The findings indicate these relationships (See Figure 6):

Fig. 6 -- Significant bivariate relationships discovered in study.

The sex of the student and the level of the student's father's occupation are positively related to teacher assessment of student academic ability which related positively to teacher/student interaction and the teacher's career expectations for the student.
In terms of the effect of these relationships upon student career expectations, the analysis indicates that any effect of sex, ethnic identification, or socioeconomic variables which filtered through teacher assessment and teacher/student interaction were indirect since none of these variables related significantly to student academic self-concept. However, teacher assessment of student academic ability and the quality of teacher/student interaction do relate in a significantly positive way to student academic self-concept. However, the relationship between this self-conception and student career aspirations is totally insignificant for this sample. There is a significant relationship between teacher short range career expectations for students and the students' short and long range career aspirations, which may suggest that the teacher is operating as a significant other for the student in the area of careers, but that the means by which this influence is being made is not through the student's academic self-concept.

**IMPLICATIONS FOR PREVIOUS RESEARCH**

Sewell and Hauser\(^1\) documented a definite effect of socioeconomic status upon student status attainment. However, they clearly stated that socioeconomic status of the student did not affect teacher expectations for the student directly, if at all. In contrast, in a study of teacher/student interaction in K-2 urban classrooms, teachers verbally

and behaviorally assessed student academic ability more favorably if the student were more economically affluent.\textsuperscript{2}

The present study partially reinforces Sewell and Hauser since no significant relations were found between teacher assessment of student academic ability and four of the five socioeconomic indicators utilized in this study.

Father's occupation, one socioeconomic indicator, was found to relate significantly (P. .01) to teacher assessment of student academic ability.

The different measurements of socioeconomic status utilized in these studies restricts their comparability. In addition, while teacher assessment of student academic ability at the secondary level may relate quite directly to student academic performance and reported student ability, at the elementary level when the students' abilities are more malleable, a teacher's judgements may be based on other criteria, perhaps father's occupation, for one. However, the limited socioeconomic range of this sample restricts any definitive application of the data to former research. (Incomes ranged from $2,000. to $10,000.)

Concerning teacher assessment of student academic ability in relation to the ethnic identification of the student, a wide descriptive

The present study is limited in its applicability for this area of major concern since seventy percent of the teachers randomly selected were black. The direction of the relationship found between teacher assessment of student academic ability and ethnic identification indicates a more positive evaluation of the academic ability of white students. However, the relationship is very weak and could be totally attributed to chance.

Therefore, the fact that no significant relationship was found between teacher assessment of student ability and ethnic identification in this study is considered a function of this unusual sample and holds no implications for previous research. Peltier provided a review of studies which revealed a more positive assessment of female students than males by school teachers. The present study does not support the general stance that teachers view female students in a more positive academic light than male students. There is no significant relationship between teacher assessment of student academic ability and the sex of the student. Teachers in this sample do see female students as more intelligent than male students to a significant degree, but do not view the

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girls as significantly better readers or more capable in school than boys.

Rosenthal and Jacobson suggested that teachers expectations might be transmitted to students through quality of interaction. They cited many studies in which a warm, encouraging manner on the part of a researcher, interviewer, tester, or teacher brought out higher achievement on the part of the subjects (pupils). The Gouldner study documented the positive, encouraging, supportive behaviors teachers exhibited toward students they rated in a "high" group and the opposite behaviors they exhibited toward students they assigned to the "low" group. Kestor and Letchworth recorded the frequency of positive, supportive interactions teachers in their study had with their students and found that the students for whom they held great expectations received significantly more positive, supportive interactions than those students for whom they did not hold high school-related expectations.

The present study reinforces these earlier findings. Teachers interacted more frequently in a more positive and supportive way with those students whom they perceived to be more intelligent, better readers, and having better school ability.


7 Ibid.
There are no studies identified in the present investigation which deal directly with the relationship between teacher career expectations for the student and either teacher assessment of student's academic ability or the quality of the teacher/student interaction. By implication, Finlayson and Sewell and Hauser suggested that teacher assessment of student academic ability relates to vocational or status/educational expectations and encouragement. Consistently, in the present study, teachers' occupational expectations for their students were significantly related to teacher academic assessment of the student and to the teacher/student interaction in the classroom, as described by both parties. These strong relationships suggest that a more careful look must be taken at the influence of teachers upon the development of the student's academic ability since whatever influence teachers may have upon student career choice will be based on the teacher's assessment of that student's academic ability and will be reinforced by the teacher's interactions with that student. This would call for questioning teacher objectivity toward their pupils, as depicted by Sewell and Hauser, since the secondary students in that study may have been influenced very early in their academic development because of other factors such as father's occupation, sex, or ethnic identification, as Gouldner would indicate.


This questioning attitude seems particularly appropriate when the relationships between student academic self-concept and teacher/student interaction and between teacher assessment of student academic ability and student academic self-concept in this study are highly significant. This finding also provides some explication of the means by which student academic self-conception is influenced significant others, a point raised by Haller and Woelfel.

Numerous studies have positively related student academic self-concept to the variables sex, ethnic identification, and socioeconomic status. However, the findings of the study indicate that for this sample of students, academic self-concept in sum is not significantly related to any of these variables. The student's conception of his/her intelligence is significantly higher if he/she is black and her/his parents have obtained a higher educational level. Father's education is the only student characteristic which holds a significant relationship with the sum of the self-concept items. As indicated earlier, teachers' assessment of student academic ability related significantly with femaleness, a higher Duncan SEI score for father's occupation, and white ethnic identification. Father's education is the only variable significantly related to student self-concept. This study contradicts those studies which relate sex and ethnic identification with student self-concept. The only socioeconomic variable which relates significantly with student academic self-concept is father's education. However, the limited range of socioeconomic status in this sample may explain lack of differentiation
on this variable as well. In addition, it is very difficult to compare former studies with present findings about self-concept since instrumentation and definition vary greatly from study to study.

Super, in his theory, suggested that a person’s choice of occupations or careers relates to that person’s self-conception. By extension, one would posit that a student’s occupational aspirations and expectations would express that student’s self-conception. The data from this study does not support that theory. The student’s conception of her/his intelligence is significantly related to student short range occupational aspirations, but no other significant relationships emerge. This may provide some data for examining more closely the "fantasy" aspect of career development theory relating to students in elementary school (pre-adolescents). It certainly raises questions as to the point at which the self-conception begins to concretize in the area of career aspirations and expectations.

A major concern in this study has been the effect upon student career aspirations of teacher career expectations for those students. Finlayson, among others, suggested the effect which teacher’s occupational expectations might have upon student aspirations for their futures. In this study, teachers’ short term occupational expectations for students related significantly with both short and long term occupational aspirations held by the students. In reviewing other variables which relate significantly to student career aspirations, only student grade equivalency scores and teacher assessment of student academic ability emerge. Thus, student career aspira-
tions are strongly related to their academic achievement, and for their long range goals, to teacher assessment of their academic ability.

Therefore, future analyses of the relationship between teacher occupational expectations and student occupational aspirations should look carefully at the relationship between these factors and educational and academic factors.

LIMITATIONS OF THE STUDY

A major limitation of the present study is dependence upon written responses by both teachers and students for the data. Interviews and classroom observations would yield more accurate data about teacher and student attitudes and about teacher/student interaction patterns. The significant relationships found via the simple frequency interaction questions suggest that classroom observations might discover other significant interaction patterns and add new data to understanding the means by which teachers influence student self-conceptions. Interviews with the children might have brought about a clearer delineation of their responses.

The sample size was restricted by the participating school district which had hosted a number of research studies during the school year. These limitations make these findings generalizable only to this particular sample.

A final limitation is the lack of data about student's educational aspirations and expectations. Since both educational goals and occupational goals are conceived together as representing career goals, the accidental deletion of that item from the student question-
naire limited the interpretation of the data for a fuller understanding of student career aspirations and expectations and their relationship to teacher career expectations. This is especially limiting for the present study since student occupational aspirations were significantly related to other academic and educational measures.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research into the area of elementary student and teacher expectations and aspirations would be well served by attention to the following concerns.

With elementary age children, interactive, personal measures would probably yield a more thorough and accurate description of all variables related to students. Observations in the classroom and interviews with teachers would provide a clearer depiction of the interactions between teacher and student and more in-depth descriptions of teachers' assessment of students.

In the area of career expectations and aspirations, student educational aspirations and expectations as well as occupational aspirations and expectations should be measured.

Because of the interdependence of career preference and career attainment with school preference and school attainment, any investigation of teacher effect upon student career aspirations must look very carefully into those factors which affect student educational attainment. The literature suggests that teacher interaction with the student and the development of the student's academic self-conception are important
variables to consider when investigating student academic achievement. In addition, a more thorough consideration of the measurement of student self-concept should be included in future research in this area.

The present study was initiated out of a concern for the effect upon student career aspirations of teacher career expectations for the students. Because of previous research findings about the effect of student ethnic identification, sex, and socioeconomic status upon teacher academic expectations for the student, it was posited that these same effects might operate in relation to teacher career expectations for students.

This study did not provide any clear conclusions in this area, primarily because of the nature of the sample. The large percentage of black teachers participating and the limited range of socioeconomic status represented by the students' families make any conclusions in these areas from this study impossible. Future investigations should utilize a more representative sample.

The continued expansion of career education and the nebulous nature of our knowledge of career development foundations at the elementary level make this an excellent area for continued investigation.
APPENDIX I
Career as defined in the CCEH Glossary for Staff Development is "a pattern of work-related roles a person pursues throughout life. Reflects a personal value system that produces a life-style pattern and influences one's choice of environments." As you have worked with the CCEH unit(s), we hope that you have become more aware of careers in relation to your pupils. We would like to tap your perceptions of the students' career futures as you perceive them at this point. This involves questions about your perceptions about the child's academic interest and ability, occupational interests, and a few personality and physical characteristics which might be relevant to the child's choices later in life. This gives us valuable feedback as to individual differences a teacher is able to perceive and utilize in effectively teaching career education through CCEH units. Thank you very much for your cooperation. Your participation in this survey is voluntary. If you agree to participate, your cooperation in answering all items would be greatly appreciated.
Teacher Career and Educational Data

1. How many years have you taught?

2. What career(s) (if any) did you pursue before becoming a teacher?

3. What academic degrees do you hold? (Circle all relevant)
   - BA, BS, MA, MS, Ed. Spec., Ed.D., Ph.D.

4. If you are married, what is the occupation of your spouse?
   - 1. ____________________________
   - 2. Does not work

5. What is (was) your father's occupation?

6. What is (was) your mother's occupation?

7. What size was the community you grew up in?
   - 1. rural  (2) small town  (3) small city  (4) large city  (5) suburb

8. What school grade did your father finish? (Circle one number)
   - 1. Elementary
   - 2. Junior High School
   - 3. Tenth or Eleventh Grade
   - 4. Graduated from High School
   - 5. Post-Secondary Studies
   - 6. Graduated from College (BA or BS degree)
   - 7. Has done graduate work
   - 8. Masters'
   - 9. Has a professional degree (Ph.D., M.D., Lawyer, etc.)

9. What school grade did your mother finish? (Place an answer number from question 9 above in this blank.)

10. Are you: (1) male  (2) female

11. Are you: (1) American Indian  
    - (2) Black  
    - (3) Mexican American  
    - (4) Oriental  
    - (5) Puerto Rican  
    - (6) Spanish surname  
    - (7) White  
    - (8) Other (Please specify)
In this inventory, there are four types of questions regarding several of your students. The forms are identified by the students' names and are grouped according to question types.

Please answer questions 1-4 for all students, then 5-8 for all students, etc. through question 19.

Although there are 19 questions, the response time should only be from 5 to 10 minutes per student. The name of each student is typed on a removable label. Once you've completed the forms, please remove and discard the labels identifying the students to assure the anonymity of teacher and student.

Although an "uncertain" option has been provided for most questions, please make every effort to provide a substantive response. The "certainty" is not predictive but relates to your observations and intuitions at this time.

Thank you.
Please Answer Questions 1-4

For All Students
Before Proceeding to
Remaining Questions

Each of these questions is different although similar. Please read all four carefully before answering any.
Student's #_________________________ has been in your class this year when the focus has been on career education. Please think about your knowledge and observations of the child and your verbal interactions with him as you answer the following questions about possible career directions he might take.

For each of the next four questions, please list in order of choice at least two careers or as many as you like. A list of careers is attached for reference, but do not feel compelled to use it.

1. At this time, what possible careers do you envision this student pursuing successfully when his schooling is over?
   a. 1. 6.
   2. 7.
   3. 8.
   4. 9.
   5. 10.
   b. Uncertain_________

2. At this time, what careers would you most like to see this child pursue if he were free to choose any he wished when his schooling is over?
   a. 1. 6.
   2. 7.
   3. 8.
   4. 9.
   5. 10.
   b. Uncertain_________

3. At this time, what possible careers do you envision this student successfully pursuing by the time he is 30 years old?
   a. 1. 6.
   2. 7.
   3. 8.
   4. 9.
   5. 10.
   b. Uncertain_________
4. At this time, what careers would you most like to see this student pursue if he were free to choose any he wished by the time he is 30 years old?

   a. 1.  
   2.  
   3.  
   4.  
   5.  

   B. Uncertain_______
List of possible careers from which to choose for questions 1-4.

1. Architect
2. Diplomat in the United States Foreign Services
3. Accountant for a large business
4. Clerk in a store
5. Restaurant waiter
6. Machine operator in a factory
7. Undertaker
8. Clothes presser in a laundry
9. Banker
10. Plumber
11. Insurance agent
12. Filling station attendant
13. Railroad engineer
14. Doctor (physician)
15. Janitor
16. Truck driver
17. Corporal in the Army
18. Mail carrier
19. United States representative in Congress
20. College professor
21. Shoeshiner
22. Author of novels
23. Carpenter
24. Farm hand
25. Coal miner
26. Barber
27. Owner-operator of a lunch stand
28. Singer in a night club
29. Airline pilot
30. Minister or Priest
31. Milk route man
32. Building contractor
33. County agricultural agent
34. Lumberjack
35. Garbage collector
36. Taxi driver
37. Lawyer
38. Dock worker
39. Sociologist
40. Nuclear physicist
41. Policeman
42. Electrician
43. Bookkeeper
44. Psychologist
45. Street sweeper
46. Trained machinist
47. Manager of a small store in a city
48. Soda fountain clerk
49. Reporter for a daily newspaper
50. Railroad conductor
51. Night watchman
52. Chemist
53. Civil engineer
54. United States Supreme Court Justice
55. Playground director
56. Artist who paints pictures that are exhibited in galleries
57. Dentist
58. Scientist
59. Radio announcer
60. Public school teacher
61. Member of the board of directors of a large corporation
62. Streetcar motorman or city bus driver
63. Share cropper (one who owns no livestock or farm machinery & does not manage the farm)
64. Traveling salesman for a wholesale concern
65. Cabinet member in the federal government
66. Owner-operator of a printing shop
67. State governor
68. Railroad section hand
69. Biologist
70. Captain in the Army
71. Head of a department in state government
72. Musician in a symphony orchestra
73. Owner of a factory that employs about 100 people
74. Official of an international labor union
75. Welfare worker for a city government
76. Local official of a labor union
77. County judge
78. Garage mechanic
79. Mayor of a large city
80. Newspaper columnist
Questions 12-19
The following is an attempt to get your perception of the type of interaction you have with this child. Please estimate frequency of these specific interactions on a normal day.

12. How often do you call on this student to answer a question?

<table>
<thead>
<tr>
<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Uncertain</th>
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<td>3</td>
<td>4</td>
<td>5</td>
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</table>

13. How often does this student volunteer to answer a question?

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<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Uncertain</th>
</tr>
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<td>3</td>
<td>4</td>
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</table>

14. How often does this student ask you questions?

<table>
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<tr>
<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Uncertain</th>
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<td>3</td>
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15. How often do you talk with this student about something other than school work?

<table>
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<tr>
<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
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16. How often do you call the student down for inappropriate conduct?

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<tr>
<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Uncertain</th>
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17. How often do you praise the student's work or behavior?

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<th></th>
<th>Very Seldom</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Uncertain</th>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>0</td>
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</tbody>
</table>
18. How often do you have eye contact with this student?

Very Seldom  Seldom  Sometimes  Often  Very Often  Uncertain

1  2  3  4  5  0

19. How frequently is your eye contact
a. Controlling (i.e., "stop that!")
Very Seldom  Seldom  Sometimes  Often  Very Often  Uncertain
1  2  3  4  5  0
b. Supporting (i.e., "Good!" "I like you.")
Very Seldom  Seldom  Sometimes  Often  Very Often  Uncertain
1  2  3  4  5  0
c. Neutral (i.e., routine glances, checking presence)
Very Seldom  Seldom  Sometimes  Often  Very Often  Uncertain
1  2  3  4  5  0

Thank you.
We are asking your help on a study being done in many schools in Atlanta. On the next few pages we ask questions about you and your thoughts about school and careers. Your answers would be very helpful to us, but you do not have to answer these questions. It will not make any difference to your teacher or your grades in this class. If you do decide to answer these questions, no one in your school will see your answers. So, please be as honest as you can.

Thank you for helping us.

Student Name

Student #
All of these four questions are different. Read each one carefully when the research worker reads it aloud. You can pick job answers from the list behind this page or just write down jobs you think of yourself. Write at least two answers for each question. Put your best answers first. If you have any questions, please raise your hand.

1. Pretend you just got out of school and are out looking for a job. What two (or more) jobs are the best ones you are really sure you could get. Put your best answers first.
   1. ____________________  4. ____________________
   2. ____________________  5. ____________________
   3. ____________________  0. Don't know

2. Pretend you just got out of school and are out looking for a job. Which two (or more) jobs would you take if you could have any of them you wanted? Put your favorite jobs first.
   1. ____________________  4. ____________________
   2. ____________________  5. ____________________
   3. ____________________  0. Don't know

3. Pretend you are 30 years old. What two (or more) jobs are the best ones you are really sure you could get? Put your best answers down first.
   1. ____________________  4. ____________________
   2. ____________________  5. ____________________
   3. ____________________  0. Don't know

4. Pretend you are 30 years old. What two (or more) jobs would you take if you could have any of them you wanted? Put your favorite jobs first.
   1. ____________________  4. ____________________
   2. ____________________  5. ____________________
   3. ____________________  0. Don't know
Directions: Read each of the following questions carefully. Answer to the best of your ability. There are questions about your parents. If for any reason you are not living with your parents, answer for the person who acts as your parent or guardian. Please answer all questions. If you have any questions, please raise your hand for help.

5. How old are you? ____________


7. What grade are you in? 3 4 5 6 Ungraded


10. How far did your father go in school? (circle one number) 1. Did not go to school 2. Elementary School 3. Junior High School 4. High School 5. College 6. Professional School: to be a dentist, doctor, lawyer, etc. 0. Don't know
11. How far did your mother go in school? (circle one number)

1. Did not go to school
2. Elementary School
3. Junior High School
4. High School
5. College
6. Professional School: to be a dentist, doctor, lawyer, etc.
0. Don't know

12. What is your father's job?

0. Don't know
1. Doesn't work

13. What is your mother's job?

0. Don't know
1. Doesn't work
Instructions: To answer these questions, think about a regular day in your class. Circle the answer that describes closest how you and your teacher act on a regular day.

14. How often does your teacher call on you to answer questions?

<table>
<thead>
<tr>
<th>Almost Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Many Times</th>
<th>Almost All The Time</th>
<th>Uncertain</th>
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</table>

15. How often do you let the teacher know you want to answer a question?

<table>
<thead>
<tr>
<th>Almost Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Many Times</th>
<th>Almost All The Time</th>
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16. How often do you ask the teacher questions?

<table>
<thead>
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<th>Many Times</th>
<th>Almost All The Time</th>
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17. How often do you talk with your teacher about something other than school work?

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18. How often does the teacher call you down for bad behavior (cutting up, talking, etc.)?

<table>
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<th>Almost Never</th>
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<th>Many Times</th>
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</table>
19. How often does the teacher answer your questions or listen to your comments?

<table>
<thead>
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<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Almost Not Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sometimes</td>
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<td></td>
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</tr>
<tr>
<td>Many Times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almost All The Time</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

20. How often does the teacher say he/she likes your school work or your behavior?

<table>
<thead>
<tr>
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<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>Almost Never</td>
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</tr>
<tr>
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<td>Sometimes</td>
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<td></td>
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<td>Many Times</td>
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<tr>
<td>Almost All The Time</td>
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</table>

21. How often does the teacher look at you as though he/she were pleased or happy with you?

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<thead>
<tr>
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</tr>
<tr>
<td>Almost Not Often</td>
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<td>Sometimes</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Many Times</td>
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<td></td>
</tr>
<tr>
<td>Almost All The Time</td>
<td></td>
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</tr>
</tbody>
</table>

22. How often does the teacher look at you as though he/she were displeased, unhappy or angry with you?

<table>
<thead>
<tr>
<th>Frequency</th>
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<th>4</th>
<th>5</th>
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<tbody>
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<td></td>
<td></td>
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<td>Almost Not Often</td>
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</tr>
<tr>
<td>Sometimes</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Many Times</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Almost All The Time</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

23. How often does the teacher just look at you without meaning anything?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>0</th>
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<tbody>
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<tr>
<td>Almost Not Often</td>
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</tr>
<tr>
<td>Sometimes</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Many Times</td>
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<td></td>
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<tr>
<td>Almost All The Time</td>
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</table>

24. How smart do you think you are, compared with other children your age?

<table>
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<tr>
<th>Intelligence Level</th>
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<tbody>
<tr>
<td>Alot Less Smart</td>
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<tr>
<td>Slightly Less Smart</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About the Same</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Little Smarter</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smarter</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Much Smarter</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
25. How good a reader do you think you are, compared with other children your age?

<table>
<thead>
<tr>
<th>Much Better</th>
<th>Better</th>
<th>A Little Better</th>
<th>About the Same</th>
<th>A Little Worse</th>
<th>Worse</th>
<th>Much Worse</th>
<th>Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
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<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

26. Compare your ability in school with other children your age. Are you:

<table>
<thead>
<tr>
<th>Much Better</th>
<th>Better</th>
<th>A Little Better</th>
<th>About the Same</th>
<th>A Little Worse</th>
<th>Worse</th>
<th>Much Worse</th>
<th>Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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APPENDIX II
TABLE 35
A COMPARISON OF
STUDENT GRADE LEVEL WITH STUDENT GRADE EQUIVALENCY SCORES

<table>
<thead>
<tr>
<th>Grade Equivalency Scores</th>
<th>%</th>
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<th>Grade Levels</th>
<th>%</th>
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<tbody>
<tr>
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<td>1.9</td>
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<td>0</td>
</tr>
<tr>
<td>2.2 - 2.9</td>
<td>11</td>
<td>13</td>
<td>2.9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3.0 - 3.9</td>
<td>31</td>
<td>34</td>
<td>3.9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4.0 - 4.9</td>
<td>28</td>
<td>31</td>
<td>4.9</td>
<td>30</td>
<td>36</td>
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<tr>
<td>5.2 - 5.9</td>
<td>15</td>
<td>17</td>
<td>5.9</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>6.0 - 6.9</td>
<td>9</td>
<td>10</td>
<td>6.9</td>
<td>17</td>
<td>20</td>
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<td>7.0 - 7.2</td>
<td>3</td>
<td>3</td>
<td>7.9</td>
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<td>8.9</td>
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### TABLE 36
SELECTED TEACHER CHARACTERISTICS

#### Years of Teaching Experience

<table>
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<th>Years</th>
<th>n</th>
<th>Years</th>
<th>n</th>
<th>Years</th>
<th>n</th>
<th>Years</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>11</td>
<td>1</td>
<td>20</td>
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<td>3</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>14</td>
<td>1</td>
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</tr>
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<td>4</td>
<td>2</td>
<td>7</td>
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#### Teachers' Former Careers

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<tr>
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<th>n</th>
<th>DSEI</th>
<th>n</th>
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<td>61</td>
<td>64</td>
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<td>64</td>
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</table>

#### Teachers' Academic Degrees

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Bachelors</td>
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<tr>
<td>Masters</td>
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</table>

#### Sex of Teachers

<table>
<thead>
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<th>Male</th>
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<td>18</td>
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TABLE 36 -- Continued

Parental and Spouse Occupations

<table>
<thead>
<tr>
<th>Father's Occupation</th>
<th>Mother's Occupation</th>
<th>Spouse Occupation</th>
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</tr>
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<tr>
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<td>1</td>
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Parental Education

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</tr>
<tr>
<td>College</td>
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</tr>
<tr>
<td>Professional School</td>
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<td>3</td>
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<td>SES INDEX RANGE</td>
<td>Student Short Range Occupational Expectations</td>
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<tr>
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<td>-----------------------------------------------</td>
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<tr>
<td></td>
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### TABLE 38

**STUDENT SHORT RANGE OCCUPATIONAL ASPIRATIONS BY DUNCAN SOCIOECONOMIC INDEX**

<table>
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<th>SES Index Range</th>
<th>Student Short Range Occupational Aspirations</th>
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<td>%</td>
</tr>
<tr>
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<td>5</td>
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<tr>
<td>11 - 20</td>
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<td>4</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>
TABLE 39
STUDENT LONG RANGE OCCUPATIONAL EXPECTATIONS
BY DUNCAN SOCIOECONOMIC INDEX

<table>
<thead>
<tr>
<th>SES Index Range</th>
<th>Student Long Range Occupational Expectations</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
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</tr>
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<td>%</td>
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</tr>
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<td>16</td>
<td>13</td>
<td>7</td>
</tr>
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**TABLE 40**

**STUDENT LONG RANGE OCCUPATIONAL ASPIRATIONS BY DUNCAN SOCIOECONOMIC INDEX**

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