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ABSTRACT

Numerous variables and their myriad interrelationships are acknowledged to account for the process by which a boy becomes socialized and ultimately finds his occupational position in the stratification system. This research report seeks to put together this set of links into a coherent model of the process. Four cohorts of Fort Wayne, Indiana Community School males comprised the research population: (1) graduates; (2) seniors; (3) 9th graders; and (4) 6th graders. The analysis focuses on factors associated with levels of educational and occupational expectations of the in-school cohorts and attainments of the graduates. Explanatory variables considered are: (1) social status; (2) IQ; (3) school performance; (4) personality factors; (5) parental influence; and (6) peer associations. Findings indicate that, while as much as one-half of the variance of the dependent variables can be explained on the basis of the independent variables, there are wide differences found among age cohorts and between blacks and whites. (Author/TL)

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August 1971

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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ABSTRACT

The research subjects are all of the males in the graduating class of Fort Wayne, Indiana Community Schools in 1963, all males in the senior class of 1969, and selected samples of boys in the sixth and ninth grades in 1969. Data were collected by questionnaire and taken from school records. In addition, interviews were conducted with the parents of samples of the boys in the three younger (in-school) cohorts. The analysis focusses on factors associated with levels of educational and occupational expectations of the in-school cohorts and attainments of the graduates. Path analysis is the basic method used. Explanatory variables considered are social status of origin, IQ, school performance, personality, parental influence, and peer associations. As much as one-half of the variance of the dependent variables is explained in this way, but wide differences are found among age cohorts and between blacks and whites. These differences involve both the level of explanation and the kinds of variables which provide that explanation. Both through interpretation of the results for the four cohorts and through a synthetic longitudinal analysis of the data, the findings are viewed from a processual as well as a cross-sectional perspective.

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U.S. DEPARTMENT OF
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PREFACE

A study of this kind can only be conducted if there are the necessary elements available. First and foremost, of course, is the availability of a population of subjects from whom the necessary data can be collected. This was made possible through the generous cooperation of the Fort Wayne Community Schools. Lester L. Grile, Superintendent, a strong supporter of the project from the outset, made that cooperation possible. The facilitation of the day-to-day work of the project in Fort Wayne was skillfully provided by Douglas Baugh, Assistant Director of Personnel. To those two gentlemen, as well as the many others there who contributed to the project, I am very grateful.

A second necessary element is a set of ideas which will guide both the plan of the data collection and the analysis of the data once collected. Although the final form of the data and my treatment of them are solely my own responsibility, the work has profited greatly from the consultation, assistance and advice of Otis Dudley Duncan, Robert M. Hauser, William M. Mason, James N. Porter, Sharon Sandomirsky Poss, and William H. Sewell. The involvement of several of these people in this or closely allied research has already produced tangible evidence of their efforts (see Kerckhoff and Poss, 1970; Kerckhoff, Mason, and Poss, 1971; Porter, 1971).

A third essential element is skilled technical assistance in the conduct of the study. I am indebted to The National Opinion Research Center of the University of Chicago, and especially to Paul B. Sheatsley, for providing such assistance in conducting the parent interviews. Although numerous others also assisted through their skilled participation, James Porter and Sharon Poss were particularly helpful. Porter administered the in-school questionnaires and participated fully in the construction of the several instruments used in the study. Sharon Poss helped in so many ways it would be impossible to list them here. Suffice it to say that without her the work would have been impossible, especially within the time limits. Such a skilled and motivated assistant is a rare find. I have been exceedingly fortunate.

Alan C. Kerckhoff

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PART I

ANTECEDENTS, DESIGN AND FORM OF ANALYSIS

This first part is divided into three chapters. Chapter One provides an overview of the study in terms of both the kinds of research that have preceded it and the logic of the design used here. Chapter Two provides a detailed account of the methods used and the kinds of data collected as well as reporting some of the distributions of responses by school grade and race. Chapter Three introduces the logic of path analysis and links the data of this study with those discussed by Duncan (1968b). It presents the basic path model which forms the framework for the analysis in the rest of the report. This part is thus introductory, the later parts building on this one and being more concerned with the original contribution of present research.

CHAPTER ONE

PURPOSE AND DESIGN OF THE STUDY

A major concern of numerous agencies, both private and public, in our society is the process by which a boy finds his place in the world of work. The major focus in most cases is on the educational process since occupations vary widely in educational prerequisites, and many occupations are closed to the boy who has performed inadequately in the educational system. Education provides the path to the world of work. Yet, it is also apparent that the mere presentation of educational opportunities is not sufficient to ensure that our youth will make use of these opportunities. Nor is it possible to explain educational success and occupational placement in any satisfactory way through reference to native personal qualities such as intelligence. It is increasingly apparent that social and cultural as well as personal factors enter in.

A diverse body of literature (see List of References) has provided the basis for a conceptualization of the process by which a boy becomes socialized and ultimately finds his occupational position in the stratification system. This literature comes from three general sources: (a) demographic studies of the structure of the stratification system and the pattern of intergenerational mobility; (b) social psychological studies of the factors influencing the personal characteristics of the maturing youth; and (c) studies focussing specifically on differential values, attitudes, goals and performances of boys of varying social or gins.

Within this body of literature one may find evidence of a complex set of interrelationships among various combinations of a large number of variables. For instance, there is a significant relationship between: (a) father's occupational position and son's occupational position, (b) father's occupational position and parental childrearing practices, (c) parental childrearing practices and characteristics of the son, (d) father's occupational position and the characteristics of the son's close peers, (e) father's occupational position and son's academic performance, (f) son's academic performance and occupational aspirations and expectations, (g) son's personal characteristics and academic performance, and so on.

This body of findings presents to the behavioral scientist both an immensely valuable basis for theoretical developments and a challenging set of problems of conceptualization. The most obvious difficulty one has in dealing with this literature is due to the fact that each finding consists of relationships (usually correlations) between a limited sub-set of the total array of variables involved. Although no one study has measured all of these variables, it is apparent that if it had done so the outcome would be a large correlation matrix, and the problem would remain as to how best to conceptualize the relationships reflected in the matrix. For instance: Is father's occupational position related to son's academic performance only through the intervening variable of parental childrearing practices, or is there a direct link? Is son's academic performance related to the characteristics of his significant peers because both are related to his father's occupational position, because both are related to the son's personal characteristics, because the peers influence

his academic performance, or what? In short, how do we go about putting this set of links together into a coherent model of the process involved?

The Approach

No single study can fully cope with such a question, but it is that question which guided the research reported here. Briefly, the approach used here is based on what are viewed as three important requirements: (1) We require a method which permits the combination of a rather large set of variables into a single conceptualization subject to empirical investigation. (2) We need a set of data which includes the critical measures taken for the same set of cases rather than having one relationship measured on one set of cases and another on another set. (3) In order to gain some understanding of the process involved, it will be necessary to have a number of points of measurement during the most critical period of the life cycle. Each of these issues will be discussed briefly in light of the previous work done in this area of inquiry.

(1) Multivariate techniques such as multiple correlation are of only limited value in such a situation because they are designed to examine the effects of a number of independent variables on a single dependent variable rather than to explicate the structure of a set of links among variables some of which may be best viewed as intervening variables. Also, it is almost always the case that once we have used three or four independent variables in our analysis, the addition of other independent variables does little to explain the variance in the dependent. Thus, if we simply used all of the variables involved in this problem area to explain the variation in, say, the level of occupational placement of the son, most of the variables would contribute little to the analysis. Such an approach, however, would give equal status to each of the independent variables as direct sources of explanation of the dependent variable. A more effective approach is to view the relationships as links in a chain of influences rather than as coequal sources of simultaneous influence.

The most promising technique for the purposes at hand, I believe, is that of path analysis, introduced to sociology by Boudon (1965) and Duncan (1966). This method is appropriate because it requires, as does an adequate conceptualization of the area of inquiry in general, a view of the process involved as one of a flow of influence. Although behavioral scientists often shy away from explicit acknowledgement of it, most of our theory has a causal logic to it. In the present case, the logic is not always fully explicit, but with respect to many of the links involved there would be general agreement about the direction of the flow of influence. Father's occupational position is seen as preceding parental childrearing practices, and thus if there is any dominant flow of influence between the two, it must be from the first to the second. Certainly son's academic performance influences his educational attainment rather than vice versa. And, although there may well be an interaction involved, my general theoretical position calls for parental childrearing practices to influence the son's characteristics more than the opposite.

Although not all of the links can without debate be placed in a flow diagram representing the direction of influence, the merit of attempting to construct such a diagram is considerable. It would simplify and make

explicit a theory that is currently implicit and rather fuzzy at best. Also, methods now available make it possible to evaluate the adequacy of the conceptualization through an internal analysis of the pattern of relationships among the variables. The important work of Blalock (1964 and 1967) with respect to inferring causal relationships from correlational data are of considerable value in such an endeavor, even though we must acknowledge with him (1965) that sources of error will be present.

(2) The previous studies of relevance here are almost all restricted to the examination of a limited set of the crucial variables. From one study we get an index of the relationship between father's and son's occupational position, from another we get a measure of the relationship between family SES and childrearing practices, from another come data on the link between SES and the son's academic performance, and so on. Even more critical is the fact that these studies present data on cases from different backgrounds (rural-urban, geographic location, etc.) and relevant to boys at different points in the life cycle. It is thus difficult to know if they provide pieces from the same or different theoretical puzzles. In spite of such difficulties, however, it is possible to make some progress toward the development of a coherent model of the process. The recent work of Duncan et al. (1968) has been devoted to the construction of a multiple-factor model, using the technique of path analysis, based on the several bits and pieces from several demographic and social psychological studies. It is largely as a result of Duncan's innovative work in this area that I am encouraged to believe that, with more explicitly relevant data, considerable progress can be made.

(3) If it seemed likely that the pattern of interrelationships among the many factors just discussed were constant through the period of the son's development, the diversity of the sources of the current knowledge of the process would not be so troublesome. Since we would expect that there is a shift in the pattern of relationships (both in magnitude and possibly the direction of the flow of influence) as the boy moves through adolescence and into adulthood, this diversity leaves the development of a summary model of the pattern of relationships open to serious criticism. The ideal solution to such a problem, of course, would be a continuing longitudinal study in which the critical variables were measured at specified intervals of time, and the shifting structure of the pattern of relationships could be specified. The state of development of work in this area, however, is not deemed sufficiently advanced at this point to warrant such an investment of time and funds. As a result, it is considered more efficient at this time to conduct what has been called a synthetic cohort analysis. In such an analysis, data are collected at one point in time from a series of age cohorts drawn from the same larger population, and comparisons are made across cohorts "as if" they represented successive measures on the same cohort. Analysis across cohorts can be made by interpolation from the structure of the model at one age to the structure at another age; it may also be made by use of data from any cohort on the characteristics of that cohort at an earlier point in time. The latter kind of analysis requires either recorded or retrospective data. Although retrospective data are not the strongest basis for an analysis, the fact that "real" data are available from younger cohorts to compare with retrospective data from older cohorts strengthens the analysis and provides the basis for making some reasonable assumptions.

about the adequacy of the retrospective data. Through such means, links between the models for successive cohorts may at least be tentatively inserted in the conceptualization of the overall process. Although such a method does not solve all of the problems involved (Schaie, 1965), considerable clarification may be gained thereby.

The present research, therefore, is an attempt to move us in the direction just described. It involved the collection of data from a series of age cohorts of boys, as well as from a sample of their parents, to further the attempt to develop a coherent multiple-factor model at each age level as well as a tentative processual model by linking the several cohort models together.

Methods of Procedure

The discussion here will be divided into sections dealing with: the selection of samples, the variables measured, and the data collection techniques used.

The sample of boys. In designing such a study, one is faced with a problem shared by all previous work in this area of inquiry, and I chose to deal with it as many previous investigators have done. The problem is how to obtain the necessary information from an acceptable sample of subjects. One's first tendency is to use some kind of national sample, but the difficulties with that approach are imposing. Such a sample, to be of real use in the kind of study proposed here, would have to be very sizable since it would be drawn from a population which varies by region and size of city or town as well as by such important characteristics as race, SES, age and so on. Even more challenging is the fact that one would need information not only from a sample of boys but also from their parents and peers. To get data from peers, one must either include in his sample all boys in an age cohort (the potential pool of significant peers) or use a multistage sample, getting data from the significant peers after the boys in the sample have named them. It would also be necessary, of course, to locate the parents of the sample (or a sub-sample) of the boys involved. The costs of such an endeavor appeared to outweigh the value gained.

The alternative most frequently used is simply to investigate a sample of those most accessible - high school students in Los Angeles, parents and children in Washington, residents of Wisconsin, etc. I attempted to move somewhat beyond mere convenience while at the same time not moving to a national sample. To do so, a single city was chosen in which the population composition is generally comparable to that of the core of the U.S. urban population. Such a city, while in no way viewed as "representative" of the U.S. urban population, provides the kind of diversity of characteristics associated with urban living without undue influence of special regional and compositional qualities.

One of the issues to deal with in the choice of a single city is to determine the size of the city to be chosen. There is a strain between wanting a city that is large enough so that it will adequately represent salient urban characteristics such as heterogeneity of social strata, diversity of industrial base, etc., and wanting a city that is small enough so that the sample studied can reasonably be viewed as a

cross-section of the city's total population. I chose to focus on cities in the general size range of 100,000 to 500,000 (in the central city) as providing an adequate compromise between these two concerns. Further, the aim was to choose a city of that size which is within reasonable distance of Durham, N. C. (in the eastern third of the U.S.) and which has characteristics similar to the average "urban place."

Through a review of basic demographic data, several possible cities were selected for consideration. A further requirement, of course, was that the school officials must cooperate in the conduct of the study, so the original selection had to involve more than one city in the event obtaining such cooperation became a problem. The specific variables of selection are reviewed in Chapter Two as is the similarity between the national statistics and those of the city chose. Here it need only be reported that Fort Wayne, Indiana was chosen at random from the original list of four cities and that the school officials were immediately responsive to my request for cooperation. The data of the study were thus collected in Fort Wayne.

Once the school system was selected, it was necessary to focus on a limited sample of the students within the system. Because of the interest in grade cohorts and the need for information from significant peers, it was advantageous to have data from all of the boys at the chosen levels in any particular school. Since it was not possible to include all boys at these levels in all schools in the system, it was necessary to choose a sample of schools from the total set in the system. All five of the system's high schools were used. Other schools at the lower levels were then chosen on the basis of the "feeder" relationships with the high schools and their social class and racial composition of their student bodies.

The focus of the study is on the movement of young boys through the developmental process and into an occupational position in adult society. Thus, information was needed about a series of cohorts during this critical period of the boys' lives. Although the whole of a boy's pre-adult life may be seen as relevant to this process, I will concentrate here on the latter portion of that period because of its more direct relevance to the ultimate outcome. Stewart (1959) and others have provided evidence that boys begin to be oriented to occupationally relevant issues as early as the fifth grade. The sixth grade was thus chosen as the first point of investigation. This has the advantage of providing a relatively early reference point while still being late enough for the boys to be able to respond to a structured questionnaire. It also provides a point of reference within a different context than the usual high school setting used for most previous studies. Two older school cohorts were also included, the ninth and the twelfth grades. The ninth grade should include a wide range of students, including those who will ultimately drop out before graduation. The twelfth grade is the most critical point of reference for further occupational potential, and it is the point at which most previous studies have concentrated. Finally, there is a post-high school cohort six years beyond the twelfth grade cohort.

There are thus four cohorts, three in school and one beyond the age of graduation. In all cases, the cohort consists of all of the boys in the school classes or graduated class chosen to the extent they were

available. They are a sample only in the sense that they constitute a subset of such boys in Fort Wayne; they are the entire population of that cohort of boys from the schools selected. The three school cohorts were administered questionnaires within the school setting, and the out-of-school subjects were contacted by mail, the mailings being conducted with the usual follow-up reminders and by repeated personal contact where necessary. Further details about the choice of the schools and the nature of their student bodies are reported in Chapter Two.

The sample of parents. Throughout, the analysis will examine black and white sub-samples separately. This will be done in part because of the expected differences along many dimensions in the two sub-samples, but it is also important to note that the very limited data we have on Negro mobility (Duncan, 1968a) suggest that the process of intergenerational mobility is strikingly different in the black and white populations. For instance, there is evidently much less father-to-son continuity in occupational level among blacks. More generally, it should be noted that our knowledge of black socialization is very limited, and the results of this study are a contribution to that knowledge.

In order to permit a full separate analysis of the black and white sub-samples, it was necessary to obtain information from an adequate number of parents of both races. The original goal was a sample of approximately 100 mothers and fathers (where possible) for each cohort of school boys for each race. Although that goal could not be fully reached, data are available for a sample of parents of both races at all three grade levels. Since these interviews constituted the most expensive and difficult part of the research operations, it was necessary to be cautious not to extend the number beyond that necessary for meaningful analysis. It was thus decided not to interview the parents of the cohort that graduated from school since these young men (ranging in age from about 23 to 25) may reasonably be seen as independent at the time of investigation. Parental influence is thus conceived of as being most relevant (in the development of the boy toward occupational placement) before high school graduation. Although it might be desirable to have data collected to test the adequacy of that conception, the additional cost seemed excessive for the purpose.

Data collected. The earlier discussion has suggested the need for measures of family SES, parental values and behavior *vis a vis* the boy, characteristics of the boy, characteristics of his significant peers, his academic experiences, his educational aspirations and/or attainment, and his occupational expectation and/or placement. The first and last of these are rather clear-cut dimensions. The first refers to father's (and, if relevant, mother's) occupation, father's and mother's education, and their experienced and desired mobility. Similarly, the son's educational and occupational expectations and attainment can be measured with reference to the usual stratification criteria (see Duncan, 1961, and Hodge, *et al.*, 1964). The other four kinds of measures, however, require further discussion. In all four cases, the number of possible dimensions to be studied is extremely large, but a more limited set which seemed especially promising were chosen for this study.

With regard to parental values and behaviors, I have followed the lead of a number of recent works in emphasizing the two dimensions of power and

support (see Strauss, 1964) as central to the parent-child relationship. Such an emphasis sometimes ignores an important dimension, that which Schutz (1958) calls "inclusion" and which may be seen as the rate of interaction between parents and the boy. This is closely related to the emphasis some have given to the importance of parental explanations to the boy of their behavior and expectations. Finally, in addition to these dimensions which refer to the "how" of the parent-child relationship, one may investigate the "what" of the relationship in terms of the goals which the parents set for their son. Kohn (1959b and 1969) has pointed up the variation in parental values by social class, and one would expect that such a factor would be crucial in influencing the boy's aspirations and expectations, while power, support, and inclusion would be significant in influencing the degree to which the boy would adopt his parents' values, whatever they are. Such data were, of course, collected from both mothers and fathe , and the boys were also asked to report how they see these matters.

The most carefully studied characteristics of the boy relevant to his aspirations and accomplishments in academic and occupational settings are intelligence and achievement orientation. Records of the I.Q. scores for the boys were available from the school records. With respect to achievement orientation, the measurement problem was approached at the level of conscious beliefs rather than using projective methods, and I followed the lead of Kahl (1965) in using a multidimensional set of items. In addition to these frequently studied variables, measures of autonomy and acceptance of authority were also included. In both cases, the work of Elder influenced the choice. In his monograph on adolescent achievement and mobility aspirations (1962), one of the measures which proved to be significant in the organization of his findings was a measure of autonomy; and in a further analysis of some of the same data (1963), he pointed up the significance of parental power legitimation. Both of these dimensions appeared potentially significant in the process of attaining academic and occupational success as well as with respect to the adoption of the values of adult society.

Since data were collected from all boys within each cohort, the boys were asked who their closest associates were within that cohort. In this way, it is possible to compare the characteristics of the boys with those of their significant peers. In addition to the personal characteristics of the peers, it is also possible to include in the analysis their educational and occupational expectations and experiences as well as their SES.

Finally, several dimensions relevant to the boy's school experience were measured. The most important of these was his academic performance to date which was available from the school records. In addition, his popularity within his cohort is known from the significant peer nominations. The boys were also asked about their participation in non-academic aspects of the school program. And finally, a crude index of conflict in the school setting is available.

All of the kinds of data that have been discussed thus far are contemporaneous data. That is, they were collected from the boys or their parents or the records with reference to the "here and now." In addition, some data were collected about earlier periods. In order to build the link between age cohorts in the synthetic cohort analysis, it is necessary to have some data about each cohort that is relevant to that cohort when they

were the age of a younger cohort (Duncan 1966; Schaie, 1965). Thus, some information was needed about the twelfth graders that is relevant to when they were ninth graders, and so on. Some such data (about school performance) were obtained from records. In addition, some retrospective data were collected where the dangers of distortion were viewed as limited. For instance, the boys were asked who their closest associates were at an earlier period, and parents were asked for SES data relevant to an earlier period.

It may be well at this point to summarize what has been said above. To do so, I have listed below the major variables to be studied along with their temporal point of reference and their source. The number of cohorts on which the data are available is indicated in parentheses where appropriate.

Variable	Temporal Reference	Source
Parental Characteristics		
Occupation	Current	Parents (3), son (4)
Education	Current	Parents (3), son (4)
Mobility	Current & past	Parents (3)
Mobility expectations	Current	Parents (3)
Parental Values and Behavior		
Power	Current	Parents and son (3)
Support	Current	Parents and son (3)
Inclusion	Current	Parents and son (3)
Achievement	Current	Parents and son (3)
Goal setting for son	Current	Parents (3), son (4)
Son's Characteristics		
Intelligence	Current (3), past (4)	School records
Achievement orientation	Current	Sons (4), parents (3)
Autonomy	Current	Sons (4), parents (3)
Acceptance of authority	Current	Sons (4), parents (3)
Peer's Characteristics		
(Same as for son)		
School Experience		
Academic performance	Current (3), past (4)	School records
Behavioral deviance	Current (3)	School officials
Non-academic participation	Current (3), past (1)	Sons
Popularity	Current (3), past (1)	Peers
Expectations and Placement		
Educational expectations	Current (4), past (1)	Sons
Occupational expectations	Current (4), past (1)	Sons
Educational attainment	Current (1)	Sons
Occupational placement	Current (1)	Sons

Data collection methods. Data from the sons who were still in school were collected at group sessions within the school by means of a structured questionnaire. A briefer questionnaire, which also contained questions about educational and occupational experience, was sent to the graduates. An intensive follow-up was carried out by telephone and, in the case of

those living in the Fort Wayne area, by personal visits of interviewers to the graduate's home. The cooperation of school officials was necessary at several points. The in-school questionnaire sessions had to be specially arranged, a number of items from school records (grades, IQ, etc.) were made available, and the names and addresses of parents and the addresses of the graduates were largely obtained from the school officials. The parent interviews were carried out by interviewers from the National Opinion Research Center of the University of Chicago. In those cohorts where there were more than 100 boys of a particular grade and race, a sample of 100 names and a list of replacements were provided N.O.R.C. In those cases in which there were less than 100 boys in a grade-race cohort, all names and addresses were provided. The interviews were carried out by teams who interviewed the mother and father simultaneously wherever possible. Black and white interviewers were used for black and white subjects, respectively. To the extent possible, also, male interviewers were used with the fathers and female interviewers with the mothers.

The in-school data were collected during the month of March 1969. The parent interviews were conducted between the middle of March and early July of 1969 with most interviews being conducted in April and May. The initial mailing of questionnaires to the graduates was made in September 1969. A follow-up mailing was sent out in early October. Intensive follow-up by telephone and in person was begun in October and continued into January 1970.

CHAPTER TWO

SAMPLE SELECTION AND BASIC DATA

Four early decisions needed to be made in the planning of the study: A city needed to be selected, a set of schools had to be designated, a selection of parents had to be made, and a set of questions needed to be chosen. A discussion of each of these early decisions is offered in the first sections of this chapter. A descriptive overview of the data collected is then provided which gives some indication of differences by grade level and differences by race within each grade level.

Selection of the City

The basic design of the study called for collecting data from all male students in given grades in particular schools in a single city. It also called for an analysis by race. Given the fact that some male students drop out of the school system before reaching the twelfth grade, and given the fact that blacks are more likely to do so than whites (Nam, Rhodes, and Herriott, 1968), one criterion of selection of the city was that it be large enough to have a "reasonably large number" of twelfth grade blacks. For preliminary purposes, a "reasonably large number" was defined as 100. At the same time, it was recognized that if the city were too large, it would be very difficult conducting the study, both because of the complexity of the school system and because of the problems of locating and interviewing the sample of parents. In addition, very large cities are likely to have highly "segregated" high schools by race and class. A third basic criterion of selection was that the city should be within "reasonable" travelling distance from Durham. These several criteria led to the consideration of cities in the eastern third of the United States which had populations over 90,000 and under 495,000 in the central city in the 1960 Census.

In addition to population size, six other demographic characteristics were considered in the selection of the research site. These characteristics were chosen because of their relevance to the research and their availability in the County and City Data Book. These characteristics were:

- Percent of the city's population classified as Negro
- Median age of the population
- Median family income
- Percent of the population aged 25 or over who graduated from high school
- Percent of the labor force unemployed
- Percent of the labor force in white collar occupations

The means and standard deviations of these measures were computed for the 129 cities which fit the basic population limits employed. All cities whose value on any of these criteria deviated more than one standard deviation from the mean were excluded. This left thirteen cities which were within reasonable distance of Durham.

A further reduction of the list was accomplished by two means. First,

it had been found that the standard deviation of "percent Negro" was quite large, and there were thus within the thirteen cities some with very low values on that measure. Three of these, having less than 7.5% Negro, were thus dropped. Several other criteria (data on which were available from a variety of sources) were then used to compare the remaining ten cities. These were:

Percent of population aged 5-34 attending private schools
Percent of labor force employed in manufacturing
Percent increase in population size, 1950-1960
Percent increase of employment in selected industries, 1958-1963

Of the ten cities, two were excluded because more than one-third of the population aged 5-34 attended private schools, one because less than 20% of the labor force was in manufacturing, and two because they had experienced losses in population and in percent employed in the selected industries. Of the five remaining, one was a relatively small city containing a large state university. It was also removed from consideration.

The four remaining cities were Springfield, Mass., Hartford, Conn., Peoria, Ill., and Fort Wayne, Ind. Each of these was considered an adequate research site. Fort Wayne was chosen arbitrarily, and contact was made with the appropriate school officials. Had it proved impossible to conduct the study in Fort Wayne, each of the other cities would have been tried until a suitable location had been found. As it turned out, the school officials in Fort Wayne were very interested and highly cooperative, so no other contact was made.

Table 2.1 compares the demographic characteristics of Fort Wayne with those of "the average city" using two definitions of "average city."

Table 2.1

Fort Wayne Compared with "The Average City"

	Population	% Negro	Avg. Age	Avg. Income	% High School	% Unemployed	% White Collar
Mean of 681 Cities > 25,000	123,042	9.8	30.3	$6,225	45.8	5.0	46.5
Mean of 129 Cities > 90,000 and < 495,000	184,430	14.0	30.6	$5,912	44.1	5.1	45.5
Fort Wayne	172,594	9.8	29.5	$6,492	47.4	3.8	47.9

In most respects, Fort Wayne is very close to the average of these other cities. It tends to have a somewhat smaller proportion Negro than the middle-sized cities, but is identical with the overall city average. It has a slight general tendency to be somewhat more prosperous than the average city on most measures, but the differences are very small. Thus,

although no claim is made that Fort Wayne is "the typical American city," its demographic characteristics are generally like those of the average of American cities.

Selection of the Schools

The central issue in the selection of schools was to determine the high schools to be used; the other schools were then chosen as feeders to those high schools. It happens that Fort Wayne has five public high schools, one of which was at the time of the data collection only three years old. Thus, for purposes of selecting a graduate cohort, there were only four high schools from which to choose. Also, since the building of the new school, the district lines had been shifted so that to make the graduate and twelfth grade cohorts comparable in the geographic areas represented, a highly selective inclusion and deletion of cases would have to be carried out. And, since the proportion of seniors who were black was small, any exclusion would necessarily have been an all-white school. It thus became most reasonable to include all five high schools in defining the twelfth grade sample and to include all graduates of the four existing high schools in the graduate sample. The class of 1963 was chosen as the graduate cohort. Since placement in the labor force was a focus of interest, it was necessary to choose a class which had been out of high school long enough for most of the men to have completed their education and their military service and to have gotten their first full-time jobs. At the same time, it was obvious that the longer they had been out of school the harder it would be to locate them. A six-year lapse seemed to meet both needs as well as possible.

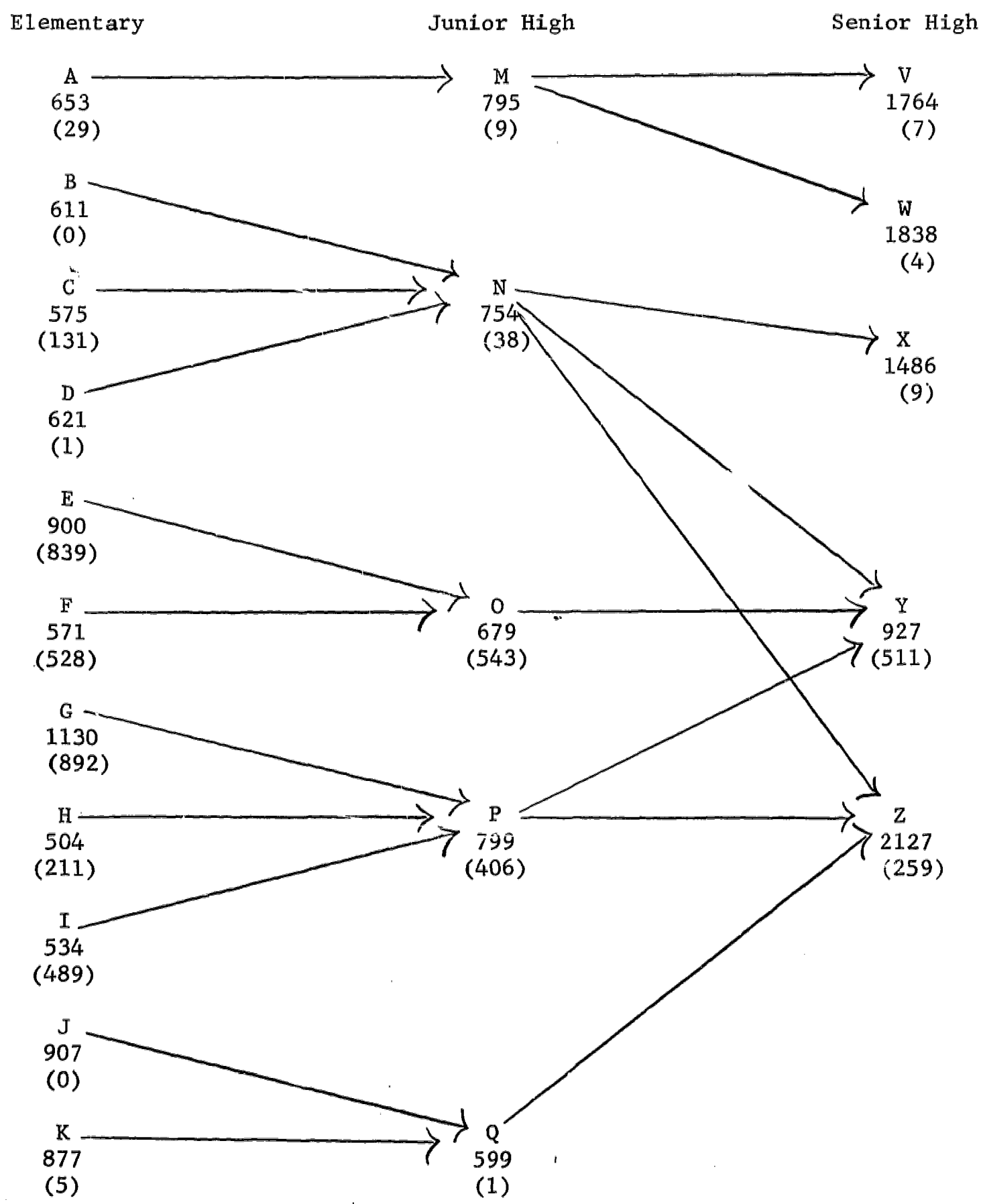
Choosing the younger cohorts was more difficult. The basic a priori criterion of selection was that the schools involved be feeder schools to the high schools. Since all high schools were used, however, this was no basis for exclusion at the junior high level.* Besides, the Fort Wayne system was organized in such a way that there was no simple relationship between elementary, junior high, and high schools. A given elementary school sometimes was a feeder to more than one junior high school, and it was very common for junior high schools to feed more than one high school. Another factor added to the problem. Given the limitations of the budget, and given the need to have a sizeable number of blacks in each grade cohort, it was necessary to select feeder schools so as to insure a relatively high proportion of blacks. At the same time, a reasonable mix of kinds of feeder schools was sought.

Balancing all of these factors as well as possible, a selection was made of five of the thirteen junior high schools and eleven of the thirty-nine elementary schools in the system. Figure 2.1 reports the feeder relationships among the schools at the three levels. Although the feeder

*The entire system was on a 6-3-3 basis, so that the choice of sixth, ninth and twelfth grade cohorts meant the selection of the highest level students in each school. Whatever effects such seniority might have on any of the measures used in this study, therefore, the variable of seniority is held constant both within and across cohorts.

Figure 2.1

Enrollments and Feeder Relationships among Schools Studied



Note: The number below the code letter is the school's total enrollment. The number in parentheses is the number of black students.

relationship between the elementary and junior high schools chosen is a simple one (i.e., no chosen elementary school feeds more than one chosen junior high school), some of the chosen elementary schools also feed other junior high schools that were not chosen. The feeder relationship between junior and senior high schools is, of course, even less simple. The overlapping nature of the districts at the different grade levels made such complexities inevitable.

Figure 2.1 also reports the size of the student body in each of the chosen schools as well as the number of blacks within the student body. At the two lower levels, the total enrollments in the whole system were: 24,261 in elementary schools, 9,192 in junior high schools. Thus, the schools chosen included 32.5% of the elementary and 39.4% of the junior high school students in the system. In the system as a whole, 15.5% of the elementary and 13.3% of the junior high school students were black. In the schools chosen, 39.6% of the elementary and 27.5% of the junior high school students were black. Thus, there is in the sample of schools chosen about one-third of all the elementary and junior high school students in the system, but blacks are over-sampled at about double their rate in the total school population. At the same time, the elementary schools in the sample selected range in per cent black from zero to 93% and the junior high schools range from less than one per cent to 80%. The five high schools range from less than one per cent to 55% black.

The Samples of Boys

Within each school chosen, arrangements were made to bring together in a group meeting all of the boys in the particular grade (sixth, ninth or twelfth) used in that school. The basic questionnaire was administered at these sessions. In some cases, it was possible to arrange with the school administration to have absentees fill out the questionnaire the next day they were back in school, but this was not always possible. Of the total of 2,254 relevant students registered with the 21 schools involved, completed questionnaires were received from 2,156, a return rate of over 95%. Of the 98 students missed, by far the largest number (66) were twelfth graders. It was not possible to account for all of the lost cases with any certainty, but the lost twelfth grade cases seemed in most instances to be boys who had actually dropped out of school but who had not yet been removed from the school roles. Those missed at the lower levels were usually boys who had extended illnesses, although some were probably boys who had moved out of the district without having given the school notice.

Reaching the graduate cohort was considerably more difficult. Where possible, the school's records were used to obtain an address for the young man's parents. The parents were then asked by mail to send us their son's current address. In those cases in which the parent did not respond, a telephone call and/or a personal visit to their home was used to get the information. If that failed, other means were used on an ad hoc basis. For instance, some of the school personnel were familiar with some of the graduates' recent activities and were able to help us locate them. In other cases, it was possible to learn from one of the graduates the location of another one whom we had been unable to locate in any other way.

Sometimes the city directory or telephone book or a former neighbor provided a means of locating them.

When an address was found, a questionnaire was sent. It was necessarily shorter than the in-school version. There was no certainty that the questionnaire would be returned, however, and a follow-up postcard was used if it was not returned. If that failed, a telephone call and/or personal visit was used to persuade the man to complete the questionnaire. Since there were very few blacks (only 33) in the graduate cohort, and since the follow-up techniques were quite expensive, the decision was made not to attempt to follow up the blacks in the cohort. This decision was also based on the fact that only two of the 33 blacks had returned questionnaires from the original mailing or mailed follow-up. In fact, almost half of them could not be located at all. This is a regrettable but unavoidable loss. For the whites in the class of 1963, however, it was possible to locate the vast majority and almost all of those located ultimately completed the questionnaire.

Table 2.2 reports the sample loss in the four cohorts by race. In all but two cases, at least 95% of the possible subjects completed the questionnaires. The failure to obtain adequate responses from the black graduates was, of course, largely a result of the decision not to follow them up with the intensive techniques. The lower return rate from the twelfth grade blacks seems to reflect the greater tendency of blacks to drop out of high school before graduation. Many of those missing blacks are boys whom the counselors said they assumed had dropped out.

Table 2.2

Fort Wayne Sample Loss by Cohort and Race

Cohort & Race	Total Sample	Questionnaires Received	% of Total Received
1963 Whites	569	521	92
Blacks	33	2	6
12th Grade			
Whites	1047	994	95
Blacks	88	75	85
9th Grade			
Whites	453	446	98
Blacks	138	131	95
6th Grade			
Whites	378	368	97
Blacks	150	142	95

In a number of cases it was possible to obtain information about the missing white graduates from their parents or from the school records. There were 29 such cases (of the 48 missed). Summary data about them are presented in Table 2.3 along with comparable data on the 521 men who returned the questionnaires. Although there are some differences between the respondents and the non-respondents on these various measures, the direction of the differences is not consistent, and none of them is particularly large. To the extent there is a pattern, the non-respondents seem to be relatively low achievers from relatively high status backgrounds. The small proportion of cases missed does not, however, seem to be a very deviant segment of the total, at least so far as these measures are concerned.

Table 2.3

Comparison of Respondent and Non-Respondent

White Graduates

	Respondent	Non-Respondent
Average IQ	108.1	105.0
Average Father's Education	3.94	4.50
Average Mother's Education	3.82	4.39
Average Father's Occupation	48.2	49.4
Average Educational Attainment	3.26	2.86
Average Occupation	42.55	39.4
Proportion Married	.699	.724

Parent Interviews

The initial design of the study called for interviews with the parents of approximately 100 boys from each race in each of the three in-school cohorts. The data in Table 2.2 make it obvious that that goal could not be reached so far as blacks in the twelfth grade are concerned. For that group, an attempt was made to interview the parents of all of the boys. For the other five groups, a sample of 100 boys was drawn and a list of replacements designated for cases in which the interview could not be obtained. The National Opinion Research Center of the University of Chicago conducted the interviews. If the boy lived with both parents, a concerted attempt was made to interview both parents. If the boy lived with only one parent, the one parent was interviewed. If it was impossible to complete even one parental interview, a substitution was made according to the prearranged replacement system.

The size of the interview loss is highly variable from one grade-race cohort to the next. (See Table 2.4.) In general, there is greater loss among the whites than the blacks, and this is especially true so far as refusals are concerned. Among blacks, on the other hand, loss was more often based on the interviewers' inability to locate the family or to contact them once they had presumably been located. The overall size of the loss is greater than one might hope for, but under the circumstances it does not seem excessive. So far as we could determine, the rather high refusal rate was largely due to the fact that the request was for interviews with both parents. In many of these cases, the father not only refused to be interviewed but also refused to let his wife be interviewed. In spite of this, 77% of those households where interviews were attempted provided at least one interview, and in 73% all possible interviews were completed.

Table 2.4

Parent Interview Completion Rate

	White			Black		
	6th	9th	12th	6th	9th	12th
Both Parents Interviewed	81	80	82	52	47	34
Interview with the Single Parent Present	9	11	14	43	40	19
Both Present, One Interviewed	11	10	5	8	8	0
Unable to Locate or Contact	4	7	11	11	14	7
Refusal	15	19	26	5	8	7
Proportion Completed (at least one) of Those Attempted	.78	.80	.73	.87	.81	.77

The proportion of cases in which there was only one parent present is much higher among the blacks. In most cases, in both races, this one parent was the mother. The greater ease with which the interviewers could arrange interviews with the mothers was undoubtedly in part the basis for the lower refusal rate among the blacks, where more frequently the mother was the only parent present. As a result of this race difference in one-parent families, there are many fewer black cases with interviews with both parents. With the exception of the black twelfth grade cohort, however, there are between 95 and 103 cases in each cohort in which there are data available from the boy and one or both parents.

Table 2.5

Scales and Borrowed Items in the Parent Interview

Measure	Item(s)	Source
Level of Interaction with Son	4-12	--
Parent-Son Affective Integration	13-15	Rushing (1964), p. 162
Parental Power and Explanation	30, 31	Elder (1963), p.55
Parental Control and Support	37-39, 75-77	Kohn (1969), pp.93, 257
Parent Interest in Son	17, 20-26	--
Parents' Values for Son	43	Kohn (1969), p.257
Father's Commitment to Work	56B, C, E-J, M	Westoff *et al.* (1961), pp. 385-387
Mother's Achievement of Life Goals	56(1)	Westoff *et al.* (1961), pp. 383-385
Sense of Economic Security	Father: 56O, S; 71D, P, Q, S, T Mother: 56(2)C, F; 71C, N, O, R	Westoff *et al.* (1961), pp. 388-391
Importance of Getting Ahead	Father: 71B, F, H, I, K, M, O Mother: 71E, G, I, K, M	Westoff *et al.* (1961), pp. 399-400
Achievement Values	Father: 56R; 71A, C, E, G, J, L, N Mother: 56(2)E; 71A, B, D, F, H, J, L	Strodtbeck (1958), p. 169
Sense of Trust	Father: 56L, N, P, T; 71R, U Mother: 56(2)A, B, D, G; 71P, S	Kahl (1965), p.680
Parental Power Balance	72-74	Westoff *et al.* (1961), pp. 406-7
Educational and Occupational Expectations and Aspirations for Son	57-69	Some items are modified from Haller & Miller (1963) methods
Perceptions of Son's Independence	16, 18, 19, 27-29, 70	Psathas (1957), P. 416

30

Table 2.5 Continued

Measure	Item(s)	Source
Perception of Son's Autonomy	32-35	Elder (1963), p. 61
Perceptions of Son's Ambition and Endurance	44-48	--

The Data Set

Four sources of data were available: in-school questionnaires administered in group sessions, mailed questionnaires from graduates, interviews with some parents, and the school records. An attempt was made to collect measures of all the kinds of variables reviewed in Chapter One. Where possible, also, measures which had been used in previous studies were used so that some degree of continuity and comparability would be possible. The questionnaires, interview schedule, and school record sheet are included in the Appendix. Most of the items are self-explanatory in both their intent and their potential use in the analysis. In some cases, multiple items which are intended as measures of the same dimension are scattered through the interview or questionnaire. Since many of the items are borrowed from previous investigators, their source should be acknowledged. Table 2.5 and 2.6 summarize such scales and items for the reader. In some cases, only part of the items from the earlier source are used, and in other cases, there have been some modifications in either wording or response format. Such minor alterations will not be considered in this report unless they become relevant to the data analysis. The interested reader may make a detailed comparison, using the information provided in the cables. In some cases, more extensive alterations were made, however, due to internal analysis of inter-item relations. These are referred to in the text and discussed in detail in the Appendix.

Characteristics of the Four Cohorts

The basic task of this report is to analyze the factors associated with educational and occupational expectations and attainments of boys who are or have been in the Fort Wayne Community Schools. As a preliminary step in this direction, it is well to get an overview of the boys in the four cohorts. Since the later analysis will be concerned in part with gaining an understanding of black-white differences in the process of goal-setting and achievement, this overview should also highlight basic differences between the races.

Table 2.7 reports descriptive data for the three in-school cohorts, by race. With the exception of IQ, days absent, and behavior problems, all data reported there come from the boys themselves, although some refer to their parents. With so many pieces of information, it is possible to find a large number of noteworthy findings. The discussion here, however, will concentrate on differences by race and by age, in that order. From the first block of data in Table 2.7 it is apparent that the black and

Table 2.6
Scales and Borrowed Items in the In-School Questionnaire

Measure	Item(s)	Source
Autonomy	16, 17	Elder (1963), p.61
Control of Environment	25A, H; 79G	Coleman, Campbell, *et al* (1966), p. 288
Achievement Values	25B, C, G, K, M; 79C, D, F, H, K	Strodtbeck (1958), p. 169; Rosen (1959), p.56
Activism	25J, R; 79A, F, J, M	Kahl (1965), p. 680
Self-Esteem	25D, I, L, Q; 79B, E, I, L	Rosenberg (1965) pp. 305-7
Attitude toward Authority	25E, N, O, P; 68; 83E, G, H, J	--
Educational & Occupational Expectations & Aspirations	10-15, 18-20, 22, 24	Some items are modified from Haller & Miller (1963) methods
Attitudes toward School	83C, D, F, I, K; 84D	--
Parents' Respect for Son	60, 61, 66, 67, 69	Psathas (1957), p.416
Parental Interest	33; 40A, B; 48; 55A, B; 58	Rosenberg (1965), pp. 316-18
Parental Power and Explanation	36-37, 51-52	Elder (1963), pp.54-5
Son's Compliance with Parental Wishes	59	Elder (1963), p. 59
Effectiveness of Parental Control	35, 50, 63-65	--
Parent-Son Affective Integration	38, 39, 40C-G; 53, 54, 55C-G	Rushing (1964), p. 162
Parent-Son Normative Integration	34, 49	--
Peer-Parent Conflict Resolution	75	Based on Brittain (1963), pp.385-7

Table 2.7

Descriptive Summary of the In-School Cohorts, by Race

Characteristic	Twelfth Grade			Ninth Grade			Sixth Grade		
	Total	White	Black	Total	White	Black	Total	White	Black
% Living with both parents:									
Now	82	84	56	77	84	53	79	88	58
3 years ago	87	88	69	81	88	57	84	90	68
When in first grade	94	95	82	89	95	70	89	93	77
Avg. Number of Siblings	3.12	2.94	5.47	3.83	3.39	5.38	3.98	3.59	4.95
Avg. Father's Occupation	46.17	47.26	28.96	43.44	47.95	24.58	41.51	46.81	25.27
% Fathers H.S. Graduates	72	80	55	79	83	58	82	86	71
% Fathers College Graduates	19	20	9	20	24	2	28	33	13
% Mothers H.S. Graduates	76	86	64	79	81	69	81	86	68
% Mothers College Graduates	11	12	2	12	13	5	17	19	13
Average IQ	108.8	109.8	95.8	103.5	107.0	91.6	99.8	104.6	87.3
Avg. Days Absent Last Year	6.8	6.5	10.2	9.1	8.8	10.3	7.7	7.4	8.4
% Who are Severe Behavior Problems	8	7	24	13	8	35	10	7	17
% Expecting H.S. Graduation	99	99	98	98	98	98	98	98	98

Table 2.7 Continued

	Twelfth Grade			Ninth Grade			Sixth Grade		
	Total	White	Black	Total	White	Black	Total	White	Black
% Expecting Further Education	85	86	84	73	75	64	83	83	82
% Expecting to go to College	49	50	27	47	51	33	64	67	54
% Strongly Wanting H.S. Graduation	80	80	72	76	77	72	67	72	51
% Wanting Further Education	84	83	91	74	75	70	84	83	85
% Wanting to go to College	56	57	48	49	51	41	63	66	55
% Mothers Wanting College	62	63	49	59	62	46	72	77	59
% Fathers Wanting College	61	61	46	56	59	45	71	76	57
% In College Prep. Program	54	57	13	--	--	--	--	--	--
Avg. Expected Job	57.4	57.7	53.2	56.8	57.9	52.8	57.1	57.7	55.7
Avg. Wanted Job	59.3	59.5	57.4	55.3	57.0	48.9	54.5	56.0	50.3
Avg. Satisfactory Jobs	56.3	56.4	53.8	50.0	50.4	48.5	47.1	47.2	46.8
Avg. Mothers' Satisfactory Jobs	60.0	60.1	57.8	55.9	56.4	53.8	51.6	52.6	49.2
Avg. Fathers' Satisfactory Jobs	57.4	57.7	53.2	51.3	51.6	50.5	49.1	49.2	48.7

white boys come from very different backgrounds. Fewer blacks live with both parents, they have more siblings, their fathers have lower status occupations, and their parents have lower levels of education than do the whites. Their school characteristics are also different. They have lower IQs, they are absent from school more, and they are more frequently defined by the counsellors as "severe" behavior problems. Despite these differences, whites and blacks are about equally likely to expect to graduate from high school and to obtain some kind of further education beyond high school. However, at least the younger blacks are less likely to feel strongly about the need for high school graduation. The expectations for further education by blacks also less frequently include attendance at a college, and they more often involve some kind of technical training.* The difference between "expecting" and "wanting" further education is greatest among the older blacks, especially when it comes to going to college. The fact that fewer twelfth grade blacks are in the college preparatory program seems to reflect their lower educational expectations. Also, the blacks report that their parents have more limited goals for their sons' education. In contrast to these findings concerning education, few large differences by race are found when it comes to occupational goals. The "expected," "wanted," and "satisfactory" job levels all tend to be very similar.

Many fewer noteworthy differences are found when age groups are compared. It may be significant that the twelfth grade whites have fewer siblings than the younger white boys; those from larger families may be more likely to drop out of school before reaching the senior year. On the other hand, the opposite pattern is found among the black boys. The average IQ of twelfth graders is also somewhat higher than for the two younger cohorts, presumably because low IQ boys drop out more often. Fewer older boys expect to go to college, and there is a greater difference between expectations and desires for college education among the twelfth graders. Although there are no differences among the age groups in the level of first job expected, the younger boys seem to find somewhat lower level jobs at least "satisfactory." They also seem somewhat less committed to high school graduation, although the difference is more pronounced among blacks than whites. Also, strangely enough, the average sixth grade "wanted" job is lower in prestige level than their average "expected" job. This is true also of ninth graders, though the difference is smaller. This probably reflects the younger boys' less adequate understanding of the world of work. Other evidence presented later in this report also points to such differences by age.

In general, the greatest contrasts in Table 2.7 are between whites and blacks, the former having higher social origins, higher IQs, fewer disciplinary problems in school, higher educational expectations, and a smaller gap between what they want and whay they expect. There is also some difference between older and younger boys in IQ and in the pattern of

*"College" in these data refers to a four-year college. Those specifying a junior college or community college are included in "further education" but not in "college" categories. The white cohorts gave this as their expectation in only 5-10% of the cases, but blacks gave it more frequently (12-18%). Even if that response is included in the "college" category, blacks expectations are consistently lower than whites.

their educational and occupational expectations and desires. The age differences may well reflect the younger boys' less adequate understanding of "what it takes" to achieve one's goals. The differences between blacks and whites, however, appear more likely to be a function of differences in the kinds of background and experience. A major purpose of the later analysis will be to seek clarification of such differences.

When attention is shifted to the men in the graduating class of 1963, a different perspective must be taken. First, all of the men on whom adequate data are available are white; thus racial comparisons cannot be made. Second, though most of the data from the in-school boys discussed above dealt with images of the future, most of the data from the graduates deal with accomplishments rather than goals. One of the useful kinds of comparisons that can be made, therefore, is between the goals of twelfth grade whites and the accomplishments of the men of the class of 1963. For this purpose, the data in Table 2.8 can be compared with those in the twelfth grade white column of Table 2.7

To the extent that comparisons can be made, the backgrounds of the twelfth graders (seniors) and the graduates are rather similar. There is some tendency for the graduates' parents to have slightly less education, but their fathers have slightly higher status jobs. The average IQs of the two groups are almost the same. When the graduates' educational attainments are compared with the seniors' expectations, though, more notable differences appear. Although 86% of the seniors expect to get further education, only 68% of the graduates have done so. So far as college education is concerned, such a difference does not appear - 50% of the seniors expect to go to college and 55% of the graduates have gone. (Only 31% of the graduates have graduated from college, however.) The main difference thus lies in the lower proportion of graduates who get other kinds of further education - business, technical or vocational school or community or junior college. It is also noteworthy that a sizeable number of graduates still hope eventually to go to college, the proportion of graduates giving this response being larger than for the seniors.

Making comparisons between the seniors' occupational expectations and the graduates' accomplishments is more difficult. A sizeable number of the graduates were either in the service or still in school at the time the data were collected (42 and 58, respectively). Thus, the average level of first job reported in Table 2.8 is only for those who were working full-time at the time the data were collected. If we assume that those still in school or service will eventually finish the programs they are or were in, and if we further assume some probable level of occupation for them when they enter the labor force full-time, we can then estimate the average first full-time job level of the entire class. If one does this, even on the basis of generous estimates of the level of jobs these other men might attain, the average attainment level of the graduates is only raised from the 42.6 shown in Table 2.8 to 49.2.* This is still considerably lower than the level of expectation recorded by the seniors (57.7).

*Of those still in school, 4 were taking vocational training, 18 were in college, and 36 were in graduate or professional school. Of those in the service, 5 had had no additional education after high school, 4 had had

Table 2.8

Descriptive Summary of the Class of 1963

% Living with Mother in Twelfth Grade	95
% Living with Father in Twelfth Grade	87
Average Father's Occupation	48.2
% Fathers High School Graduates	70
% Fathers College Graduates	15
% Mothers High School Graduates	72
% Mothers College Graduates	8
Average IQ	108.1
- -	
% Who Got Further Education beyond High School	68
% Who Went to College	31
% Who Want Eventually to Have Education beyond High School	84
% Who Want Eventually to Go to College	64
- -	
Average Level of First Full-Time Job	42.6
Average Level of Satisfactory Jobs	62.3
Average Level of Satisfactory Jobs in Mother's View	61.3
Average Level of Satisfactory Jobs in Father's View	58.6
- -	
% Who Expected Further Education When a Senior	72
% Who Expected College When a Senior	56
% Who Wanted Further Education When a Senior	77
% Who Wanted to Go to College When a Senior	59

In spite of their relatively low level of occupational attainment, however, the graduates' level of occupational desires (specified as jobs with which they would be "satisfied" at age 30) is even higher than that of the seniors. One might speculate that their experience in the world of work has given them a comparative basis not available to the seniors. Since they are approaching the age referred to in the question, however, and their first jobs are considerably below the level they define as satisfactory, it is doubtful that their views are very realistic.

The general picture that emerges is one of a group of graduates who come from families similar to those of the white seniors, whose accomplishments have fallen short of the goals defined by those seniors, but whose ambition remains undimmed. Whether the graduates actually had similar expectations and hopes when they were seniors cannot, of course, be confidently determined. Two questions in the graduate questionnaire are relevant to the issue, however, one which asked about their educational expectations when in twelfth grade, the other which asked about their educational wishes in twelfth grade. Comparing the responses to these questions with the other data just reviewed, two things become apparent. First, the graduates report their twelfth grade goals as being lower than their current goals. Second, their twelfth grade goals correspond more closely to those of the seniors than do their current goals. Although the validity of the retrospective data may be questioned, there has evidently been a tendency for the graduates to raise their educational sights since graduation.

Analytic Strategy

These first two chapters have posed the research problem and provided an overview of the data available for the analysis. In the preceding section it has been shown that large differences are found between blacks and whites on some of the dimensions of central concern to this study. It has also been shown that some differences occur between age cohorts and that some of the expectations of in-school boys do not seem to be borne out by the experience of the graduates. All of these differences raise questions which will require further investigation in the later chapters. Although not all of them will prove amenable to satisfactory explanation, each will be considered at some point in the report.

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vocational or community college education, 11 had had some college, 13 had graduated from college, and 9 had gone to graduate or professional school. If we assume that those who had only partially completed a program will actually complete it before obtaining a first full-time job, we can combine these into four categories: 5 high school graduates, 8 with vocational or community college education, 42 college graduates, and 45 with graduate or professional education. Generous average first job occupational scores for such categories would be: 35 for high school, 55 for vocational or community college, 75 for four-year college, and 90 for a graduate or professional degree. If one assigns such scores to these 100 men, the average first-job occupational score for the entire class of 1963 becomes 49.2

A fundamental problem is deciding where to begin. The orientation outlined in Chapter One provides some guidance, but rather arbitrary decisions must be made nonetheless; others might have approached the task in a different way. I will use as my point of departure the so-called "basic model" presented by Duncan in several of his writings. This model views the achievement process as based on the boy's family background and intellectual ability, and it sees educational attainment as a means by which that background and ability are translated into the boy's own occupational attainment. This basic model is reviewed in Chapter Three, and data from this study are analyzed from the perspective of that model. That analysis, together with the material presented in these first two chapters, sets the stage for the more detailed analysis in the later chapters.

CHAPTER THREE

BASIC MODELS

The overall purpose of this research is to explicate the flow of influence which leads a young man from a point of origin in the stratification system to an adult destination in that same system. The basic problem is posed by the general pattern of intergenerational mobility in the United States, a pattern which involves more than chance continuity between generations but which also involves considerable mobility. A first step in the explication of the pattern was offered by Blau and Duncan (1967) and added to later by Duncan (1968b). In that analysis, Father's Occupation (FaOcc), Father's Education (FaEd), Son's IQ, and Number of Siblings (Sib) were used as co-equal independent variables (called "exogenous variables"), Son's Educational Attainment (EdAtt) was used as an intervening variable, and Son's First Job (OccAtt) was used as the dependent variable.* The correlation matrix used by Duncan is presented in Table 3.1, and the path model constructed from those data is shown in Figure 3.1.**

The conventions of path diagrams need to be reviewed before commenting on Figure 3.1. The variables to the left in the diagram, referred to as exogenous variables, are seen as "given" in the analysis. That is, the analysis does not deal with an attempt to explain their values. The curved, two-headed arrows linking such variables simply indicate that those variables are interrelated, and the coefficient associated with each of those curved arrows is the zero order correlation between the two variables linked by the arrow. The straight, single-headed arrows indicate an ordered relationship, the variable at the head of the arrow being caused by or dependent on the variable at the other end. The dependent variables are viewed as ordered (one follows and is thus dependent on the other) and as being influenced by multiple variables (all those to the left of the dependent variable in the diagram). The coefficient associated with each arrow is called a path coefficient and is simply a standardized regression coefficient. Since all such coefficients are standardized, the relative importance of the several sources of influence can be measured by the sizes of the coefficients. Finally, the arrows which originate outside the system represent the influence on the dependent variables of other unmeasured variables. The coefficient associated with such an arrow is the implied correlation between the dependent variable and all such unmeasured sources of influence. The coefficients reported in the

*All of these measures except IQ were available on the same men in a national sample analyzed by Blau and Duncan. Using the logic of synthetic cohort analysis, Duncan added IQ to the analysis by using data from other samples.

**In his analysis, Duncan (1968b) used two estimates of IQ, one for early adulthood, the other for pre-adolescence. Since the latter was based on even more indirect estimates than the former, and since the IQ measures used for the comparable sample in this study were made in high school, only Duncan's early adulthood estimates (called "later IQ" in his paper) are used here.

Table 3.1

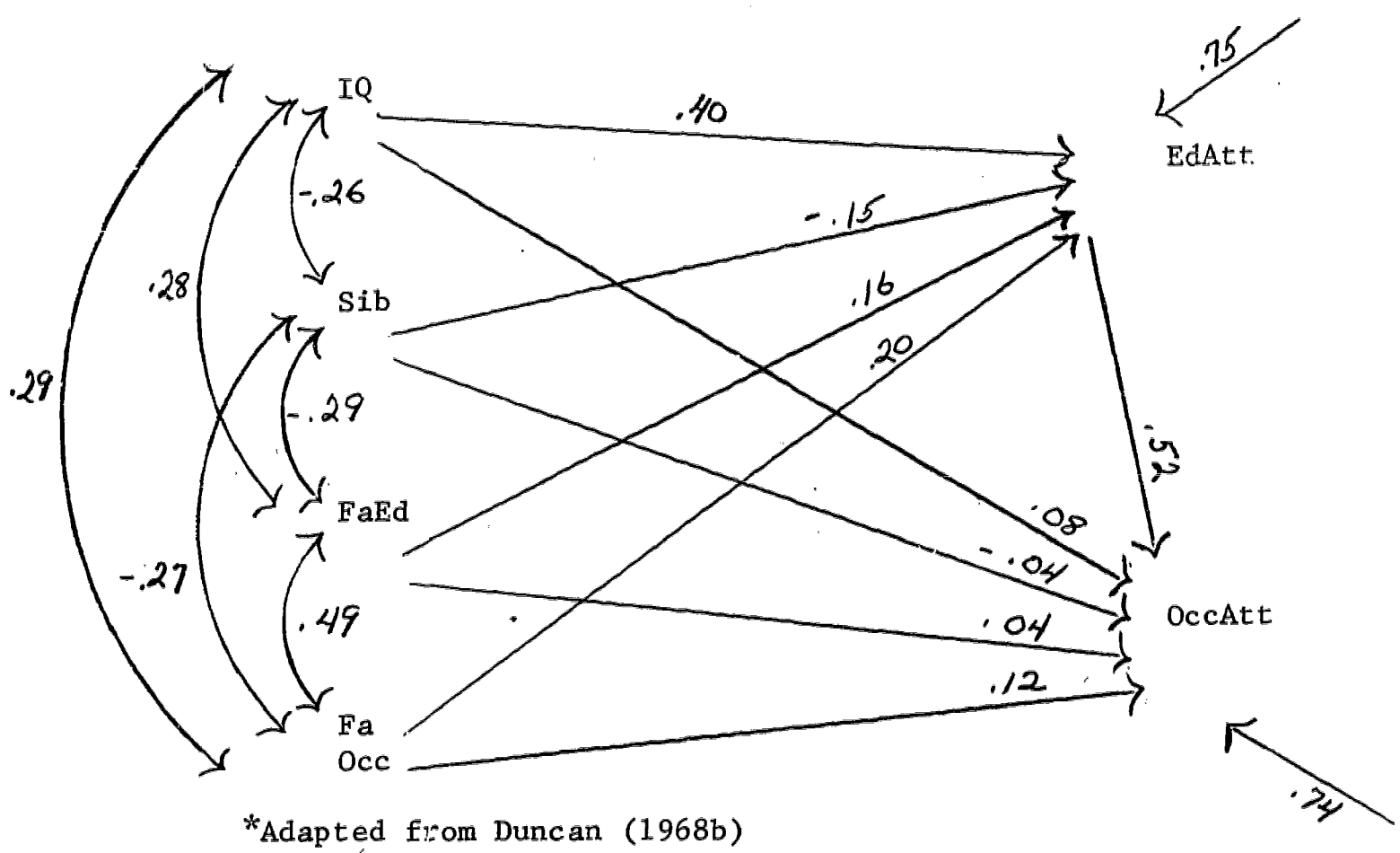
Correlation Matrix for Basic Model of Duncan*

	Sib	FaEd	FaOcc	EdAtt	OccAtt
IQ	-.26	.28	.29	.59	.45
Sib		-.29	-.27	-.35	-.28
FaEd			.49	.41	.34
FaOcc				.43	.39
EdAtt					.64

*Adapted from Duncan (1968b)

Figure 3.1

Basic Path Model of Duncan*



*Adapted from Duncan (1968b)

diagram thus account for all of the variance in the dependent variables, although only those linking variables in the diagram represent known sources of influence.

A first task of the present research is to compare the data from this study with those of Duncan. The most comparable data from the present study are those for the graduates of the class of 1963. They were approximately 24 years old when the data were collected; Duncan's data are for men 25-34 years old. All of the variables used in Table 3.1 and Figure 3.1 were available on the graduates except number of siblings. Table 3.2 presents the correlation matrix for the graduates data and Figure 3.2 presents the path model constructed with the five available variables. In that model, the coefficients derived from both sets of data (Duncan's and mine) are presented, those based on Duncan's data being in parentheses.

Comparing Tables 3.1 and 3.2, there are four of the ten comparable coefficients which differ by more than .05. Two of these involve the IQ measure, in both cases Duncan's coefficient being larger than mine. It is difficult to know how to assess these differences since Duncan used a "correction" for his originally obtained coefficients which increased their size. In the cases he discusses, the original coefficients were within .05 of those in the Fort Wayne data set. A third difference, in the FaEd-EdAtt coefficients, is easier to understand. Since the Fort Wayne graduates were only 24 years old when surveyed, not all of them had completed their education and had taken a first full-time job. Some were still in school, some were in the military service.* These had to be deleted from this analysis, thus tending to lower the number of highly educated men in the Fort Wayne analysis. It seems likely that the Fort Wayne coefficient would have been higher if the data had been collected later in the men's lives when such highly educated men would be included. The last, and most sizeable, difference in coefficients is not at all easy to explain. This is the difference in the correlation of FaOcc and FaEd, the Fort Wayne coefficient being much higher. There is no obvious explanation for this difference. The relationship between these two variables is consistently high in the Fort Wayne data (being .61, .64, and .52 for the twelfth, ninth and sixth grade cohorts, respectively). A somewhat similar finding is reported by Hauser (1968) in his analysis of data from Nashville, Tennessee. It might be thought that middle-sized cities have somewhat different demographic characteristics in the parental generation than are found in the U.S. as a whole, but I see no reason why this should be so.

In spite of this basic difference in the relation between two of the exogenous variables, the two path models are remarkably similar. The other two correlation coefficients between the pairs of exogenous

*A total of 517 graduate questionnaires were received. Of these, 58 were from men still in school and 42 from men in the military service. Some sample loss was also experienced because of missing IQ data in the school records, the fact that some men had no father at the time they graduated from college, and various forms of inadequate response in the questionnaire. The model thus reports the analysis for those 323 men for whom all data were available.

Table 3.2

Correlation Matrix for Basic Model, Fort Wayne

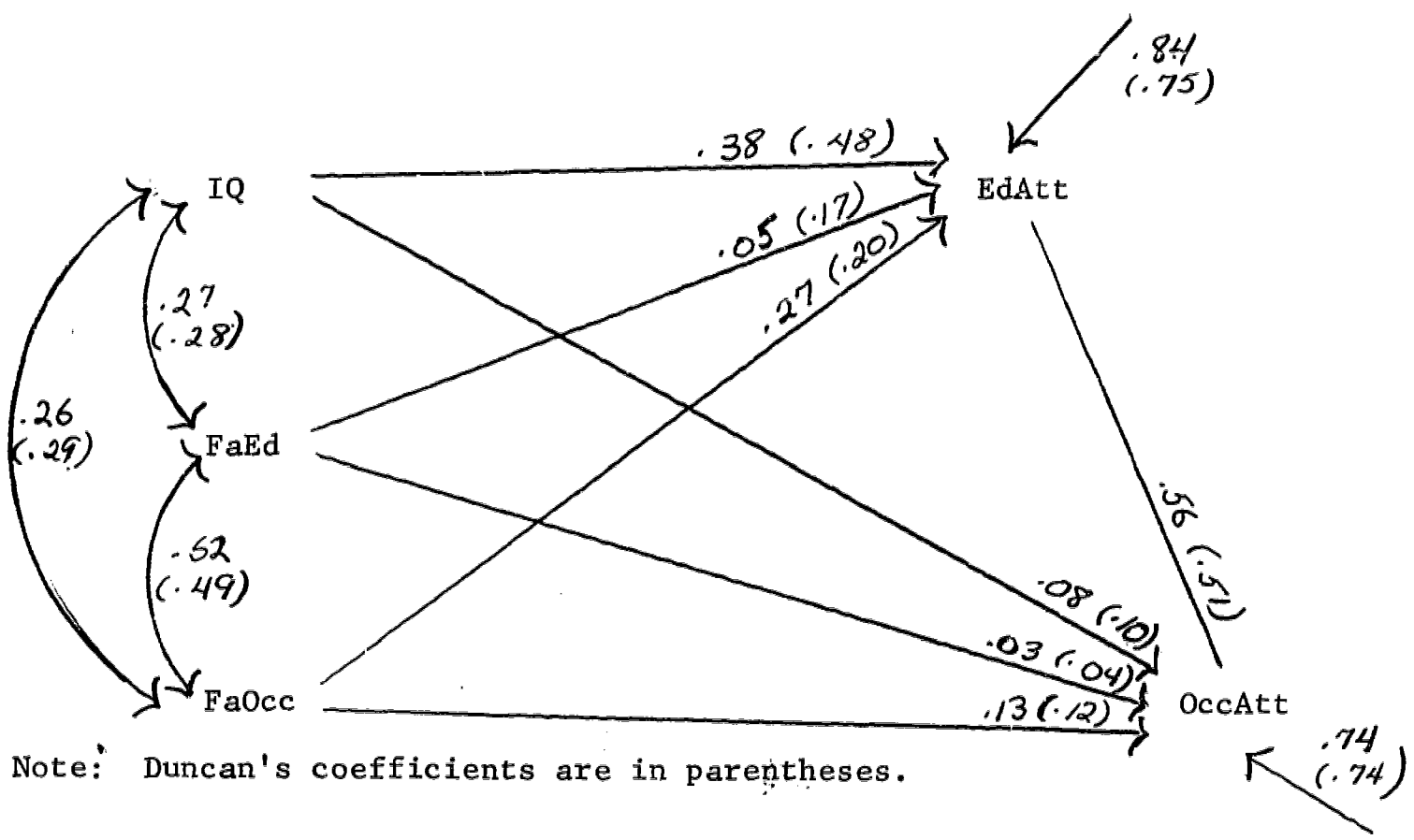
White Graduates

	FaEd	FaOcc	EdAtt	OccAtt	Mean	St. Dev.
IQ	.265	.261	.458	.378	106.2	11.77
FaEd		.616	.315	.305	3.77	2.30
FaOcc			.396	.391	46.44	23.09
EdAtt				.656	2.98	1.78
OccAtt					42.91	24.86

Figure 3.2

Basic Path Model for Fort Wayne

White Graduates



Note: Duncan's coefficients are in parentheses.

variables are almost the same. Of the seven paths within the model, only one shows a notable difference in the two sets of data, that being the EdAtt-FaEd path. In both data sets there is a weak direct OccAtt-FaOcc path, but with that exception, the effects of the exogenous variables on OccAtt are all accounted for by their effect on EdAtt. Thus, although there are sizeable correlations between the exogenous variables and OccAtt, they can very largely be explained by the intervening variable of EdAtt.*

An Ambition Model

Since most of the subjects of this research were still in school at the time of the data collection, it is not possible to deal with educational and occupational attainment in their case. Instead, the focus of the analysis of their responses is on their orientations to the future as they see it. As with the graduates, the future is defined largely in terms of educational and occupational dimensions, but here we will deal with what they expect rather than what they actually attain.**

The three panels of Table 3.3 report the intercorrelations among the six variables involved (the four exogenous variables as used previously and the two expectation variables) for the white boys in grades 6, 9, and 12. (Data from the blacks are presented later.) Several variations in the patterns of correlations are worthy of comment. First, the correlation between FaOcc and IQ is stronger in grades 6 and 9 than in grade 12 (.44 and .44 versus .25). It seems likely that this is at least in part a function of the fact that a sizeable proportion of the age group has dropped out of school by the time the group reaches the twelfth grade. This leads both to a higher mean IQ in grade 12 and to a smaller variance in the IQ scores. It also happens to be the case that the variance in

*In some cases, researchers using path analysis remove from their diagrams all paths which are not statistically significant. When this is done, the model is recomputed using the assumption that the missing path(s) have coefficient(s) of zero. This is not done here nor will it be done elsewhere in this report, unless it is necessary to do so to make precise comparisons with the analyses of others. It seems preferable, especially given the small size of some of the Fort Wayne samples, to provide all of the information and let the reader decide if deletion is both statistically and theoretically justifiable.

**The questionnaire included questions related to both expectations and aspirations, what they thought would happen and what they would ideally like to happen. The basic analysis in this report deals only with the former, the latter being viewed more as an expression of the boy's dreams rather than his goals. Although such dreams may well influence his response to his experience (now and in the future), they are less likely to reflect his view of the realities with which he must cope. I have thus conducted a separate analysis of the differences between expectations and aspirations which is summarized in the Appendix.

Table 3.3

Correlation Matrix for Basic White Ambition Models

12th Grade (N=778)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.104	.274	.250	.487	.331	110.2	11.52
Sib		-.158	-.116	-.221	-.161	2.95	1.98
FaEd			.612	.449	.301	4.34	2.17
FaOcc				.412	.331	47.05	23.23
EdExp					.671	3.16	1.34
OccExp						58.58	26.12

9th Grade (N=354)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.275	.307	.439	.493	.381	108.45	12.35
Sib		-.103	-.196	-.175	-.156	3.22	1.97
FaEd			.637	.449	.404	4.54	2.22
FaOcc				.444	.374	48.53	24.19
EdExp					.612	3.11	1.42
OccExp						59.06	28.01

6th Grade (N=280)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.327	.278	.441	.342	.309	106.27	13.81
Sib		-.218	-.225	-.221	-.219	3.45	2.32
FaEd			.522	.340	.154	5.03	2.24
FaOcc				.333	.339	47.39	24.82
EdExp					.345	3.64	1.23
OccExp						59.52	26.01

FaOcc scores is lower for twelfth graders. This would tend to restrict the size of the correlation coefficient also. It may also be worth noting that the correlation between IQ and FaOcc for the graduates is similar to that for the twelfth graders, and the variances of IQ and FaOcc scores are also relatively low.*

Second, the correlation between IQ and Sib is lower for the twelfth graders than for either of the younger cohorts (-.10, -.27, and -.33 for sixth, ninth and twelfth grades, respectively). The twelfth grade correlation is also much lower than that found by Duncan (-.25) for his national sample of young men age 25-34. Duncan's mean FaOcc is smaller and his mean and standard deviation of Sib are both larger than mine. Here again the drop-out pattern may be significant; those with lower IQs and those from larger families are evidently more likely to leave school before the twelfth grade.

More directly relevant to present concerns are the correlations between Educational and Occupational Expectations (EdExp and OccExp) on the one hand and the four exogenous variables on the other. There is no pattern among the cohorts in the correlations between Sib and either expectation measure. For the other three exogenous variables, however, there is a general pattern of lower correlations in the sixth grade cohort. FaOcc is related to OccExp at about the same level in all three cohorts, but it is more weakly related to EdExp in the sixth grade (.33, .44, and .41 for sixth, ninth and twelfth grades, respectively). FaEd is also more weakly related to EdExp in the sixth grade (.34, .45, and .45), but the differences in its association with OccExp are even greater (.15, .37, and .33). Finally, IQ is less highly correlated with EdExp in sixth grade (.34, .49, and .49), though there is less variation in its relation with OccExp.

A clue to the basis of these cohort differences is found in the correlations between the two expectation measures. They are <u>much</u> more highly correlated in the two older cohorts (.35, .61, and .67). It seems very likely that one of the things this indicates is that the younger boys do not have a very adequate grasp of the link between educational and occupational attainment. That is, they do not appreciate how fully one's level of education determines the access he has to jobs at any given status level. At the same time, it is interesting to note that the actual <u>level</u> of their expectations is as high as those of the older boys so far as occupations are concerned and <u>higher</u> so far as education is concerned. This comparison can be made easily from Table 3.3 so far as OccExp is concerned (all three cohorts have a mean OccExp of about 59). It is more difficult in the case of EdExp, however, since the mean in that case is based on response category codes. More illuminating is the fact that the proportion of the boys who say they expect to go to a junior, community, or four-year college increases from .56 to .57 to .77 as we move from twelfth to ninth to sixth grade. (Considering only four-year college, the proportions are .50, .51, and .67.) Clearly the sixth graders have very high educational expectations.

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*The mean IQ score of the graduates, however, is as low as that for the sixth graders, so the parallel is not fully consistent.

Are these expectations unrealistic? Given the only basis we have for comparison, they seem clearly to be so. As reported in Chapter 2, the men in the class of 1963 went to four-year college in almost the same proportion (.55) as the twelfth graders say they expect to go (.50). By this basis of evaluation, therefore, the twelfth graders are realistic, but the sixth graders clearly are not. Even more striking, using this basis of evaluation, the boys in all three cohorts are unrealistic so far as occupational expectations are concerned. Although all three cohorts have mean OccExp scores of about 5[illegible], the men in the class of 1963 actually obtained first jobs having a mean score of 43.*

Thus, the older boys seem much more realistic than the sixth graders with respect to their educational expectations. There is a very general lack of realism at all levels, though, so far as occupational expectations are concerned. Perhaps most noteworthy of all, the younger boys do not seem to understand the relationship between level of educational attainment and level of occupational attainment. Their expectations in these two realms are not very closely related.

It is highly problematic how one should consider the two expectations variables in a path model. If one orders them in such a model, it may seem to imply that the boy decides on one kind of goal (educational or occupational) before the other and that the first decision affects the second. There are those who have argued that the boy decides on an occupation (or a kind of occupation) first and then seeks the amount of education he needs to attain such a position. It may equally well be argued that a boy orients himself first to continuing or not continuing his education and then zeroes in on an occupation which is available to one with the desired or attained level of education. Some of the research in this area has avoided the issue completely through one of two other approaches. One approach is to combine the two kinds of expectation into a summary measure of "ambition," the other is to build the two measures into a model at the same point and to permit them to be freely correlated (Sewell, Haller and Ohlendorf, 1970). If one views education as a means of attaining (or at least attaining access to) various levels of occupation, as I do, it seems undesirable to combine the two measures into a single measure of ambition. This is especially undesirable in the present analysis in light of the very different levels of association between the two expectation measures in the three cohorts. More would be obscured

*It will be recalled that a large proportion of the graduates were either in the service or still in school at the time the data were collected. Thus, it was not possible to assign meaningful scores to them for "first full-time job." Using a liberal (i.e., probably high) estimate of the probable level of first job for those men, the overall average for the graduates was estimated at 49 instead of the reported 43. Also, the in-school average for expected first job reported in Chapter 2 was about 58 for all cohorts instead of the 59 reported here, a difference due to sample loss from missing data on other variables used in the path models. Even if these factors are taken into account and all possible assumptions are made which would bring the two average scores closer together, the average first job of the graduates is 49 and the average expected first job of each in-school cohort is 58.

than illuminated so far as comparisons across cohorts is concerned.

For the present analysis, therefore, the two are considered separately. Also, they are built into the models in the same order as the attainment variables (education before occupation) largely as a function of the prime significance of education as a means of achievement. Without arguing that a boy actually sets educational goals before occupational goals, this structure at least reflects the order in which he needs to cope with the specifics of achieving his goals - educational goals are more proximate than occupational goals. It is also true that most boys have a much better experiential basis for defining educational goals since their accomplishment is clearly predicated on their previous educational performance. It is thus not surprising that younger boys seem less realistic than older ones in their educational goals. I judge it to be even more significant, however, that all of these boys are unrealistic in their occupational goals, even those who are very close to the point of attainment. The twelfth graders' goals are as unreasonably high as the sixth graders'. The ordering here, therefore, reflects this concern for "realism" as well as the central significance of education in the achievement process.

Figure 3.3 presents the path model for the twelfth grade cohort.* Both standardized and unstandardized coefficients are presented in Table 3.4, the latter in parentheses. Both are needed for the kind of analysis proposed here. The standardized coefficients, which are the usual ones presented in path models, provide a basis for determining the relative importance of the several independent variables in explaining a dependent variable within a particular model. They tell us that, for a unit change in a given independent variable, the dependent variable changes so much of a unit change. Since such coefficients are standardized according to the standard deviation of each variable within a particular model, comparisons across models are of doubtful value if there is the possibility of different sizes of standard deviations in the two samples being compared. The unstandardized coefficients, on the other hand, make it possible to compare the contribution of a particular independent variable across models, but they make it more difficult to compare the relative contributions of different independent variables within a model since each variable has its own unique metric. The basic analysis here is concerned with the relative contributions of independent variables in explaining a dependent variable. Thus, the standardized coefficients are of central interest. However, since such an analysis leads us to make statements about differences between cohorts, it is necessary to examine the unstandardized coefficients also to guard against basing

*In all three cohorts, there is a considerable loss in the sample size due to missing data. For instance, there were 994 questionnaires available from twelfth grade white boys. Of these, there was no recorded IQ score for 85, 87 of them had no father or father-substitute (stepfather, for instance), and varying numbers of them gave inadequate answers to some of the questions used for this analysis. As a result, complete data for this analysis were available for only 778 twelfth graders. Similarly, the ninth grade sample was reduced from 446 to 354, and the sixth grade sample was reduced from 368 to 280.

comparative statements on coefficient differences which simply reflect differences in the distributions and their standard deviations. The initial discussion will thus focus on the standardized coefficients, but the unstandardized coefficients will be used as a secondary basis of interpretation.

Figure 3.3

Basic Ambition Model, Twelfth Grade Whites

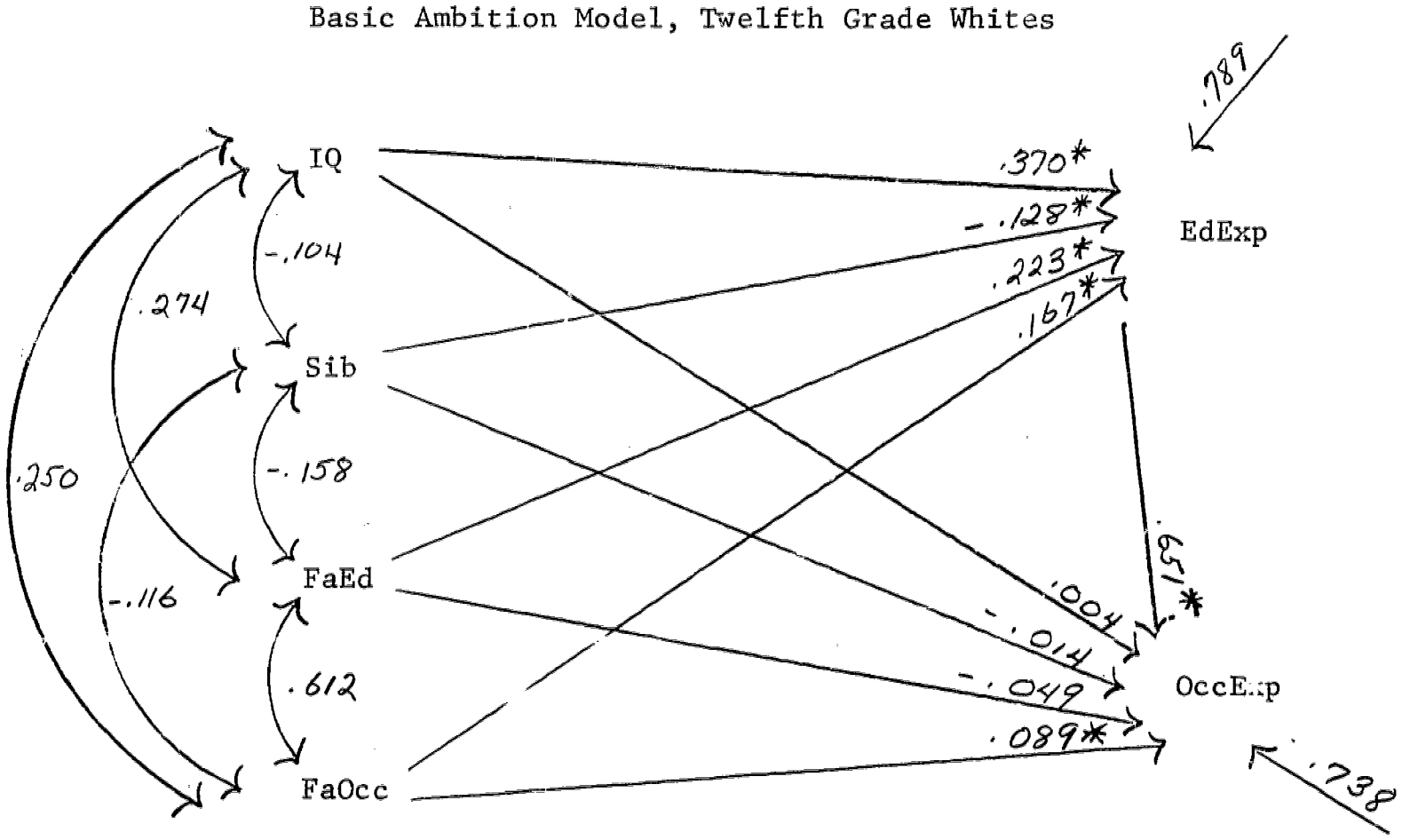

Figure 3.3 may be used as a reference point in considering the influence process in all three in-school cohorts. The path coefficients for the other two cohorts (ninth and sixth grades) are presented along with those for the twelfth grade in Table 3.4 The entries in Table 3.4 are as in Figure 3.3 with two exceptions. First, no correlations are reported there since they have already been presented in Table 3.3. Second, instead of a residual path representing all unmeasured variables, Table 3.4 reports the "coefficient of determination." This is simply the squared multiple correlation (R^2) of the dependent variable with all relevant independent variables. The coefficient of determination (R^2) and the residual path (u) are easily derivable one from the other in that $R^2 = 1 - u^2$. R^2 is included in Table 3.4 and in subsequent tables of this kind because it is more easily interpretable.

Looking first at the paths (the standardized coefficients) between the exogenous variables and EdExp, three differences are seen in the three models. First, the EdExp-IQ path coefficient is much larger for both of the older cohorts than for the sixth graders (.21, .35, and .37). Second, the EdExp-Sib coefficient is somewhat stronger for the twelfth graders (-.08, -.03, and -.13). Finally, the EdExp-FaOcc coefficient is somewhat stronger for the twelfth graders (.12, .11, and .17). As a result of

these differences, the power of the exogenous variables in explaining the variation in EdExp decreases markedly as we move from the oldest to the youngest cohort. In contrast with these three variables, the contribution of FaEd is consistently strong in all three cohorts, though the ninth grade coefficient is the largest.

Table 3.4

Path Coefficients, Basic Ambition Models,

In-School Whites

Dependent Variables	Independent Variables					Coeff. of Determination
	IQ	Sib	FaEd	FaOcc	EdExp	
12th Grade						
EdExp	.370*	-.128*	.223*	.167*	-	.378
	(.0432)	(-.0867)	(.1393)	(.0097)		
OccExp	.004	-.014	-.049	.089*	.651*	.456
	(.0080)	(-.1832)	(-.5858)	(.1006)	(12.66)	
9th Grade						
EdExp	.354*	-.028	.264*	.115	-	.349
	(.0407)	(-.0199)	(.1689)	(.0068)		
OccExp	.074	-.030	.139*	.027	.496*	.402
	(.1682)	(-.4208)	(1.753)	(.0309)	(9.771)	
6th Grade						
EdExp	.206*	-.083	.203*	.118	-	.197
	(.0184)	(-.0439)	(.1121)	(.0059)		
OccExp	.119	-.096	-.106	.241*	.239*	.205
	(.2236)	(-1.075)	(-1.239)	(.2525)	(5.047)	

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

The differences in relative importance of the four exogenous variables can thus be summarized as follows: In the sixth grade cohort, only IQ and FaEd make a significant contribution* to an explanation of EdExp, and they are of equal importance. In the ninth grade cohort, these same two variables are the only ones making significant contributions, but they are both of greater importance than in the sixth grade, the difference being more pronounced for IQ. In the twelfth grade cohort, all four

*In this and all subsequent analyses a "significant" path is one whose coefficient is at least twice its standard error. Such coefficients are marked with an asterisk in all figures and tables.

exogenous variables make a significant contribution; IQ is as strong as in the ninth grade, and Sib and FaOcc are stronger than in either of the two younger cohorts.*

When the unstandardized coefficients are considered, comparisons between coefficients within a single model are no longer meaningful, but the relative sizes of the coefficients for any given path in the three models are meaningful. Although there are some minor changes across cohorts in the relative sizes of some of the coefficients from what they were in standardized form, the general pattern just described is still found. IQ is more strongly related to EdExp in the two older cohorts, Sib and FaOcc are stronger in the twelfth grade than in either of the younger cohorts, and FaEd is a significant factor in all three cohorts. The significance of FaEd is perhaps somewhat less in the sixth grade cohort, compared with the other two cohorts, than it appeared to be in standardized form, but the change is not great. (The ratio of the EdExp-FaEd coefficients for the sixth and ninth grades in standardized form is .77; in unstandardized form it is .66.)

Combining these two sets of observations, there is the suggestion of a progressive alteration in the dynamics of educational goal-setting among the boys in Fort Wayne. From an early age, the father's own educational attainment seems to provide a model for the son. Although this modeling influence seems strongest in the ninth grade, all three cohorts clearly reflect it. In contrast, the data suggest that as the boy progresses through the school system, he becomes increasingly responsive to his own academic abilities.** Finally, as the boy nears the major point of determination of his educational attainment (graduation from high school), the importance of such practical matters as his father's source of income and the size of the family become more apparent.

This interpretation not only suggests a shifting dynamic in the generation of educational goals, it also suggests a feed-back effect of experience on the process. It suggests that goals become adjusted to the "realities" of the boy's life, at first to the reality of his academic ability, later to the reality of his family's ability to support his further educational desires. Such an adjustment appears to be reflected in the coefficients just discussed, and it is also reflected in the lower absolute level of educational goals in the twelfth grade than in the younger cohorts. This lower level is particularly striking when one realizes that among the

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*The twelfth grade cohort is, of course, larger than the younger cohorts. Thus, a given size of coefficient may be statistically significant in the twelfth grade but not in the other cohorts. In the present instance, however, the sizes of the coefficients are also notably different.

**In the usual case, the boy will not know his own actual IQ score, although he will know his level of academic performance. In the present discussion, the former may be viewed as a proxy measure for the latter, although a boy's image of his ability will not simply reflect his performance. A more explicit consideration of the significance of academic performance in goal-setting is offered in the next chapter.

sixth and ninth graders are undoubtedly many who will leave school even before finishing high school. That is, the twelfth graders have already attained more education than some of the younger boys will attain. In spite of this, their average level of educational expectation is lower than the sixth graders and no higher than the ninth graders.

When we shift our attention to OccExp, a similar pattern is found. As with EdExp, the other variables in the model contribute more to an explanation of the variation in OccExp among the oldest than among the youngest boys. Most impressively, among the twelfth graders almost all of the explanatory power of the model lies in the strong link between EdExp and OccExp. A weak direct OccExp-FaOcc path is the only other statistically significant contributor. In sharp contrast, for the sixth graders the direct OccExp-FaOcc path coefficient is equal in size to the OccExp-EdExp path. Thus, not only do sixth graders fail to exhibit an understanding of the link between education and occupation, they seem to use their fathers as occupational models irrespective of their educational goals. Since the overall association between FaOcc and OccExp is basically the same in all three cohorts (see Table 3.3), this probably means that all boys use their fathers as an occupational model to some extent, but older boys become more aware of what is required educationally to achieve their occupational goals. The patterns of the unstandardized coefficients are also consistent with this interpretation.

Black-White Differences

The previous discussion dealt solely with the whites in the three in-school cohorts. This was done because of the importance of race in the achievement process in this society and the consequent interest in this study in making comparisons between blacks and whites. The proportion of blacks in the Fort Wayne school is not large in comparison with some other cities, and it is true in Fort Wayne as elsewhere that blacks drop out of school before graduation more than whites do. Thus, the sizes of the basic black samples in this study are quite small. These numbers are further reduced by other factors when it comes to the kind of analysis carried out here. For instance, although there were 88 blacks listed in the twelfth grades in the Fort Wayne schools at the time of our data collection, only 75 were available to complete the questionnaire. Of those 75, IQ scores were available on only 66 and only 57 of them had fathers living in the same household. Such case losses, together with the usual loss resulting from some individuals' providing incomplete or inadequate information in the questionnaire, reduced the sample size available for full analysis in this section to 41. In similar ways, the black sample sizes for the ninth and sixth grade analysis were reduced to 63 and 69, respectively. Given these small sample sizes, one must be cautious in the kinds of statements made about the results of the analysis. The outcome is nonetheless worthy of report and comment.

Table 3.5 reports the correlation matrices for the three black in-school cohorts, and Figure 3.4 presents the resulting twelfth grade model which parallels the white model in Figure 3.3. First, using Tables 3.3 and 3.5 to compare the black and white cohorts at each grade level, it is apparent that the distributions of the exogenous variables are very different for the two races. The overall difference in class level of the

Table 3.5

Correlation Matrix for Basic Black Ambition Models

12th Grade (N=41)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	.020	-.247	.221	.171	.126	96.51	10.07
Sib		-.467	-.080	-.028	.149	5.46	2.74
FaEd			.204	-.010	-.075	2.56	2.18
FaOcc				.246	.104	27.05	15.83
EdExp					.533	2.83	1.24
OccExp						58.85	24.04

9th Grade (N=63)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.079	-.067	.033	.334	-.059	94.54	11.29
Sib		-.215	-.138	-.085	.063	5.06	2.73
FaEd			.296	.055	.027	2.81	1.85
FaOcc				.058	.101	26.32	16.53
EdExp					.353	2.75	1.26
OccExp						56.08	27.92

6th Grade (N=69)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.094	-.131	.022	.088	.050	90.22	12.13
Sib		-.187	-.357	-.062	-.011	4.91	2.64
FaEd			.349	.061	.088	3.22	2.22
FaOcc				-.001	.128	26.39	19.79
EdExp					.214	3.38	1.33
OccExp						55.25	25.52

two races is massive. The white fathers' occupations, on the average, have scores around 47 or 48; those of the black fathers average about 26 or 27. Similarly, the black fathers on the average have at least two years less education than the white fathers. The IQ levels of the black boys are lower than those of the whites by at least ten points on the average. Finally, the blacks come from larger families. They report having about five siblings on the average compared with three for the whites. Thus, if, as was suggested by the earlier analysis, high IQ, a high status father, and a small family are associated with higher levels of educational and occupational expectation, these basic data would lead us to anticipate low levels of expectation on the part of the blacks. In fact, the differences in occupational expectation by race are quite small in all three cohorts. There are greater differences in educational expectation, fewer blacks expecting to go to college, although there are very small differences in the proportions who expect to obtain some kind of further education (see Table 2.7).

Shifting attention to the portions of Tables 3.3 and 3.5 which report the correlations among the six variables, dramatic differences are again found. The most obvious difference is that the correlations in Table 3.5 are much smaller than those in Table 3.3. Of the 45 coefficients in each table, only 6 are over .30 in Table 3.5 compared with 27 in Table 3.3. Beyond that, the direction of the relationships are not even the same in all cases of comparisons between black and white cohorts. For the three white cohorts, the only negative coefficients are those involving Sib, and all of those are negative. For the three black cohorts, those coefficients are not always negative, and some other coefficients are negative. In most cases, such "deviant" coefficients in Table 3.5 are not very large, and they may reasonably be considered as indicating no relationship rather than a negative relationship. There is at least one notable exception, however, the relationship between IQ and FaEd. Although that relationship is consistently positive and of sizeable magnitude in Table 3.3, it is consistently negative for blacks, and for black twelfth graders it is -.25. Another consistent difference between blacks and whites is the stronger negative association among blacks between FaOcc and Sib. This is particularly striking given the general dearth of sizeable coefficients in Table 3.5.

In light of these impressive differences between Tables 3.3 and 3.5, it is not surprising that the path coefficients in Table 3.6 are very different from those in Table 3.4. In none of the black models do the exogenous variables explain much of the variance in EdExp.* Not only are

*The coefficients reported in Table 3.6 are for the same paths as those reported in Table 3.4. They can be conceptualized in structure in the same way, as shown in Figure 3.3. Throughout this report, actual path models (in diagram form) will be kept to a minimum. A diagram will be presented at any point at which a new model structure is introduced, but so long as the later analysis retains that particular model structure, only the necessary coefficients will then be reported in tabular form. For instance, all of the later analysis in this chapter is organized around the models presented in Figures 3.2 and 3.3, and thus no new model diagrams will need to be introduced.

Table 3.6

Path Coefficients, Basic Ambition Models,

In-School Blacks

Dependent Variables	Independent Variables					Coeff. of Determination
	IQ	Sib	FaEd	FaOcc	EdExp	
12th Grade						
EdExp	.110 (.0136)	-.032 (-.0147)	-.044 (-.0253)	.228 (.0179)	-	.076
OccExp	.045 (.1068)	.174 (1.523)	.029 (.3144)	-.030 (-.0462)	.538* (10.40)	.313
9th Grade						
EdExp	.334* (.0371)	-.042 (-.0192)	.062 (.0421)	.022 (.0017)	-	.120
OccExp	-.197 (-.4878)	.093 (.9495)	-.020 (-.2979	.102 (.1715)	.422* (9.366)	.176
6th Grade						
EdExp	.095 (.0104)	-.059 (-.0299)	.085 (.0506)	-.062 (-.0042)	-	.018
OccExp	.040 (.0838)	.063 (.6138)	.044 (.5109)	.137 (.1763)	.213 (4.087)	.068

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

the black models different from the comparable white models, there is little consistency among the three black models - except their weak path coefficients. There is only one statistically significant path to EdExp in any of the black models (the EdExp-IQ path for the ninth grade cohort). When OccExp is considered, the only significant paths to it are those from EdExp for the two older cohorts, and there is little consistency among the cohorts so far as the other paths are concerned. The only other possible noteworthy outcome is the rather persistent role FaOcc seems to play in the three black models. Although the coefficients are not statistically significant, the EdExp-FaOcc path in the twelfth grade model and the OccExp-FaOcc path in the ninth grade model are stronger than their counterparts in the white models. Also, the OccExp-FaOcc path in the sixth grade black model is stronger than it is in either of the older white cohort models, and it is almost as strong as in the sixth grade white model. The same outcome is found whether one looks at the standardized or unstandardized coefficients. There is so much inconsistency in the other paths, however, and the sample sizes are so small, that it is not clear that one should make much of these findings.

Actually, the only really consistent pattern, one which clearly parallels the white models, is the pattern of the OccExp-EdExp paths. The sizes of the coefficients are roughly the same in the comparable black and white cohorts, and that size diminishes rapidly as we move from the older to the younger cohorts. This is true whether we consider standardized or unstandardized coefficients. Evidently black and white boys' perceptions (or misperceptions) of the link between education and occupation are very much the same. On the other hand, there is little evidence of similarity in the antecedents of such perceptions. In light of the overall lack of significant findings in the black cohorts, therefore, the only general conclusion one can reach is that the analysis does not tell us much about the bases of the blacks' expectations.

Social Class Differences

One possible explanation of such racial differences involves the very different distributions of the whites and blacks on the exogenous variables, especially the measures of social class. Perhaps the truncated distributions of FaOcc and FaEd have led to lowered correlation and path coefficients. Perhaps the system of relations among these variables is different in lower status families than in higher status families, and the black-white differences result from the fact that the black samples are almost wholly lower status. In order to examine this possibility more closely, the white cohorts were divided on the social status dimensions by constructing an index based on FaOcc, FaEd and mother's education.* The lower protion of each cohort, using an arbitrary division point in the array of index scores, was used to construct Tables 3.7 and 3.8. By comparing the means of the six variables in Tables 3.5 and 3.7, it can be seen that these lower status whites are roughly comparable to the blacks on FaOcc and FaEd. The blacks have slightly higher status jobs and slightly less education. On the other hand, they have higher EdExp and OccExp scores than the whites do.

When one examines the correlation matrices in Tables 3.5 and 3.7 and compares the path coefficients in Tables 3.6 and 3.8, it becomes apparent that limiting the analysis of the whites to those with social status levels roughly comparable to the blacks does not do much to equalize the relationships among the six variables. It is apparent that the correlations among the exogenous variables are different for the lower status whites than for the total white cohorts (see Table 3.3), and the weak associations are reminiscent of those found for blacks in Table 3.5. In contrast to these coefficients, however, the path coefficients in Table 3.8 are larger and more consistent with expectations than those in Table 3.6. In fact, there are few notable differences between the path coefficients for lower SES whites and the total white samples. The explanatory power of the exogenous variables seems to be about as great in both cases, and it is much greater than for the blacks. Evidently low status alone will not help explain the black-white differences.

*This index was based on a rotated factor analysis of these three variables. The solution gave greatest weight to FaOcc (.90) with less to FaEd (.40) and MoEd (.30).

Table 3.7

Correlation Matrix for Basic Low SES White

Ambition Models

12th Grade (N=346)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.075	.048	-.006	.433	.322	107.18	11.74
Sib		-.223	-.042	-.200	-.148	3.21	2.14
FaEd			-.011	.190	.134	2.87	1.75
FaOcc				.073	.131	25.70	10.50
EdExp					.706	2.59	1.29
OccExp						50.58	26.58

9th Grade (N=151)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.210	-.113	.127	.400	.301	103.07	11.74
Sib		-.031	-.044	-.202	-.178	3.52	2.20
FaEd			-.141	.086	.113	2.98	1.60
FaOcc				.040	.117	25.78	10.61
EdExp					.534	2.41	1.42
OccExp						48.66	28.69

6th Grade (N=117)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.306	.074	.148	.164	.210	99.70	12.74
Sib		-.213	-.167	-.153	-.175	4.04	2.56
FaEd			-.077	.138	-.044	3.60	2.28
FaOcc				.015	.271	23.29	9.80
EdExp					.287	3.09	1.46
OccExp						50.82	27.08

Table 3.8

Path Coefficients, Basic Ambition Models,

White Low SES

Dependent Variables	Independent Variables IQ	Sib	FaEd	FaOcc	EdExp	Coeff. of Determination
12th Grade						
EdExp	.417* (.0457)	-.134* (-.0803)	.141* (.1033)	.071 (.0087)	-	.239
OccExp	.023 (.0520)	-.004 (-.0544)	.002 (.0373)	.080* (.2035)	.689* (14.23)	.505
9th Grade						
EdExp	.387* (.0467)	-.116 (-.0748)	.127 (.1118)	.003 (.0004)	-	.188
OccExp	.100 (.2449)	-.054 (-.7092)	.096 (1.722)	.097 (.2612)	.471* (9.553)	.314
6th Grade						
EdExp	.129 (.0148)	-.093 (-.0530)	.108 (.0694)	-.011 (-.0017)	-	.050
OccExp	.114 (.2430)	-.080 (-.8468)	-.088 (-1.049)	.230* (.6366)	.265* (4.908)	.180

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

To complete this analysis by social class, two other sets of data are presented. Tables 3.9 and 3.10 present the analysis for the higher status portion of the three white in-school cohorts. Tables 3.11 and 3.12 present comparable analyses of the higher and lower status portions of the graduate cohort. Turning first to a comparison of the higher and lower status portions of the in-school cohorts (see Tables 3.7 and 3.9), it is apparent that the two segments are different from each other not only on the social status variables used to define them but on all other variables as well. The higher status segments have higher IQ scores and smaller families in all three cohorts. They also have consistently higher levels of EdExp and OccExp. The relationships among these variables within the social status segments also exhibit striking differences. One of the most impressive is the relationship between FaOcc and FaEd. It is weakly negative in all three lower status segments but positive and stronger in the higher segments.* Similarly, the associations between these two

*There may well be three factors contributing to these differences in

Table 3.9

Correlation Matrix for Basic High SES White

Ambition Models

12th Grade (N=420)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.072	.270	.171	.456	.253	112.75	10.77
Sib		.039	.009	-.166	-.122	2.71	1.80
FaEd			.397	.370	.197	5.56	1.66
FaOcc				.207	.196	64.85	14.13
EdExp					.570	3.65	1.19
OccExp						65.47	23.71

9th Grade (N=194)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.221	.224	.273	.364	.248	112.80	10.82
Sib		.059	-.075	.009	-.005	2.91	1.68
FaEd			.466	.378	.376	5.79	1.80
FaOcc				.254	.229	66.84	13.91
EdExp					.551	3.69	1.15
OccExp						67.54	24.68

6th Grade (N=160)	Sib	FaEd	FaOcc	EdExp	OccExp	Mean	St. Dev.
IQ	-.238	.084	.229	.320	.234	111.06	12.56
Sib		-.012	-.029	-.159	-.170	2.99	2.03
FaEd			.283	.254	.090	6.09	1.47
FaOcc				.076	.213	65.41	15.56
EdExp					.255	4.04	0.85
OccExp						65.44	23.45

Table 3.10

Path Coefficients, Basic Ambition Models,

White High SES

Dependent Variables	Independent Variables					Coeff. of Determination
	IQ	Sib	FaEd	FaOcc	EdExp	
12th Grade						
EdExp	.367* (.0407)	-.150* (-.0998)	.260* (.1868)	.043 (.0036)	-	.297
OccExp	-.012 (-.0261)	-.027 (-.3541)	-.049 (-.6954)	.100* (.1676)	.568* (11.28)	.334
9th Grade						
EdExp	.302* (.0321)	.062 (.0425)	.287* (.1832)	.042 (.0035)	-	.230
OccExp	.031 (.0697)	-.013 (-.1863)	.187* (2.561)	.014 (.0253)	.465* (9.976)	.337
6th Grade						
EdExp	.292* (.0199)	-.089 (-.0372)	.246* (.1432)	-.064 (-.0035)	-	.165
OccExp	.107 (.1995)	-.108 (-1.246)	-.020 (-.3242)	.176* (.2655)	.196* (5.381)	.129

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

correlation in the two status segments. The first is the difference in distributions of the variables. In all three cohorts, the standard deviation of the FaOcc scores is considerably larger in the higher status segment. The second is the characteristics of the labor market for men with relatively low levels of education. Although some higher level jobs require the incumbent to have a particular level of education, this is less true in lower status occupations. Almost all of the lower status fathers had from nine to twelve years of education; with that much education, many jobs are unattainable, and those jobs that are attainable do not often require a particular level of education to gain access even though they may vary considerable in income and social prestige. Finally, since these data were collected from the sons rather than the fathers, it may be that the sons of lower status men are poorer reporters of their fathers' socioeconomic characteristics. This is a complex issue which will be dealt with later in the report.

variables (FaOcc and FaEd) on the one hand and IQ on the other tend to be more consistently positive and sizeable in the higher status segments. In contrast to such differences, the relationship between IQ and Sib (though varying from one cohort to the next) is basically the same in the two status segments of each cohort. When such comparisons are made for correlations involving EdExp and OccExp, there is more variation across cohorts, and general statements about the higher and lower segments of all three cohorts are not so easily made. In general, however, the associations between the exogenous variables and the expectations measures are weaker in the lower status segments. This is especially true of the relationships between these measures and between FaOcc and FaEd, the differences being most striking in the older cohorts.

When the path coefficients in Table 3.10 are compared with those in Table 3.8, the most impressive part of the comparison is the very close similarity between the two status segments in each cohort. In spite of the sizeable differences in the correlations among the exogenous variables, the basic model produces remarkably similar outcomes in the higher and lower status segments, whichever set of coefficients is used. There are differences between the comparable path coefficients in several cases (e.g., the EdExp-IQ paths in the two sixth grade models), but there are few consistent status-related differences, and in general the coefficients are highly similar. However, it is worth noting the differences found in the two tables.

In the earlier discussion, an interpretation was offered which called for a shifting pattern of goal-setting as the boys get older. So far as EdExp is concerned, it was found that the sixth graders seemed to be strongly influenced by the model their fathers offered, ninth graders were additionally more strongly influenced by their own abilities, and twelfth graders seemed to be responding to the influence of all four exogenous variables. This pattern is more clearly seen among the higher status boys in Table 3.10 than among the lower status boys in Table 3.8. Both IQ and FaEd are significant influences on EdExp in higher status sixth graders, but neither is as strong in lower status sixth graders. Among higher status ninth graders, these same two paths are strong (stronger than among higher status sixth graders), but only the EdExp-IQ path is strong among lower status ninth graders. (It is noteworthy, however, that this is the strongest EdExp-IQ path in any of these models.) In the twelfth grade, the two status segments are more similar, though the EdExp-Sib and EdExp-FaEd paths are both somewhat stronger for the higher status segment. (The EdExp-FaOcc path is not significant in either case though it is stronger in the lower status segment.)

A similar general pattern was noted earlier with regard to OccExp. There, the twelfth grade model showed that almost all of the explanatory power was based on EdExp, whereas in the sixth grade there was greater evidence of a direct influence from FaOcc. This general pattern is more clearly found among lower status boys. Although there is a decrease at both status levels in the size of the OccExp-EdExp coefficients as we move from twelfth to sixth grades, the increase in the size of the OccExp-FaOcc coefficient is more striking in the lower status segments. This is true whichever coefficient is considered, but it is more apparent for the unstandardized coefficients.

Such variations may well indicate differences in the process of goal setting at different status levels. On the other hand, these differences are actually variations on a general pattern which is found in both cases. At both status levels, IQ and FaEd are the two strongest influences on EdExp among the younger boys with IQ becoming more important and the other exogenous variables entering the picture in the older cohorts. Similarly, at both status levels, only EdExp and FaOcc influence OccExp, and the balance of this influence shifts in favor of EdExp in the older cohorts. Thus, although the status-related differences are worthy of note, the overall outcome of this analysis is to emphasize the similarities rather than the differences between the two status levels. The similarities are particularly striking in the twelfth grade cohort.

Tables 3.11 and 3.12 provide a similar analysis of the data from the graduates, and the results are basically the same. The correlations among the exogenous variables are higher for the high status segment, and the path coefficients are almost the same for both segments. There is a slight difference in the path coefficients here in that the EdAtt-FaOcc path is stronger in the high status segment. This suggests that the high status fathers may be able to provide their sons with higher education as a function of their economic position, irrespective of their sons' ability level. The higher OccAtt-IQ coefficient in the lower status model may also reflect this difference - lower status sons need to "make it" on their own resources. The most significant thing about the two sets of data in Table 3.12, though, is the similarity of the path coefficients, in spite of the differences in the correlations among the exogenous variables. Thus, this same kind of similarity is found in all four cohorts, giving added support to the view of the exogenous variables as equally effective sources of influence on expectations and attainments throughout the range of social status - at least among whites.

Conclusions

The four exogenous variables have been shown to be significant sources of influence on educational and occupational expectations and attainment. The form of their influence on attainment is similar, though far from identical, to their influence on expectations when expectations are measured in the senior year of high school. IQ has the strongest effect on both EdExp and EdAtt, and the OccExp-EdExp and OccAtt-EdAtt paths are similarly strong. The most noteworthy difference is the greater influence of FaOcc and the weaker influence of FaEd on EdAtt than on EdExp. Evidently father's occupational position influences educational attainment more but father's educational level influences educational expectation more.

At the same time, the pattern of relationships between the exogenous variables and expectations shifts rather markedly when one measures expectations at earlier points in the life cycle. In general, expectations are less fully explainable by reference to the exogenous variables in the younger cohorts. In addition, the two kinds of expectations are less clearly related to each other, especially among the sixth graders. Finally, the younger boys seem to be more influenced by the father's role as model, (especially reflected in the OccExp-FaOcc path) less influenced by their own abilities (reflected in the EdExp-IQ path), and less influenced by

Table 3.11

Correlation Matrix for Basic Models,

White Graduates by SES

Lo SES (N=158)	FaEd	FaOcc	EdAtt	OccAtt	Mean	St. Dev.
IQ	.109	.045	.383	.332	103.16	11.42
FaEd		.105	.127	.147	2.30	1.90
FaOcc			.104	.185	27.44	11.09
EdAtt				.570	2.31	1.60
OccAtt					34.63	21.64

Hi SES (N=158)	FaEd	FaOcc	EdAtt	OccAtt	Mean	St. Dev.
IQ	.156	.106	.436	.320	109.27	11.39
FaEd		.283	.082	.102	5.27	1.64
FaOcc			.212	.247	65.79	14.51
EdAtt				.631	3.67	1.71
OccAtt					51.54	25.18

the family's economic situation (reflected in the EdExp-Sib and EdExp-FaOcc paths). It is noteworthy also that, although the patterns of relations among the variables are as just noted, the average level of education and occupation expected by the in-school cohorts is different from that attained by the graduates. The older school boys have more realistic educational expectations (at least so far as college is concerned) than do the younger school boys, but all cohorts of school boys seem to have unrealistic occupational expectations - at least if we take the 1963 graduates as a point of reference.

Given these differences among the four cohorts, an analysis by social status level within each cohort has shown little difference in the explanatory power of the model among higher and lower status segments of the samples. There are striking differences in the relationships among the exogenous variables in most cases, the lower status segments generally exhibiting weaker associations. On the other hand, the pattern of path coefficients linking the exogenous variables with the two attainment or expectation measures (and linking those two measures together) tend to be very similar at both status levels. This consistency suggests that

Table 3.12

Path Coefficients, Basic Models,

White Graduates by SES

Dependent Variables	Independent Variables IQ	FaEd	FaOcc	EdAtt	Coeff. of Determination
Lo SES					
EdAtt	.371* (.0519)	.078 (.0658)	.079 (.0114)	-	.160
OccAtt	.129 (.2448)	.057 (.6453)	.122 (.2370)	.501* (6.777)	.359
Hi SES					
EdAtt	.423* (.0636)	-.034 (-.0354)	.176* (.0208)	-	.219
OccAtt	.051 (.1132)	.013 (.2048)	.114 (.1986)	.584* (8.578)	.414

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

controlling for status levels in later analysis will not be particularly fruitful, and such control will not be used.

Quite the opposite outcome was produced by the analysis of blacks and whites separately. Although the relationships between the two expectation measures were roughly the same for the two races at each age level, there were few other similarities in the data sets. The mean values of most of the variables, the correlations among the exogenous variables, and the path coefficients to the expectation measures were all very different. Generally speaking, the exogenous variables did little to explain the variation in the expectation measures among blacks. Comparisons between the blacks and lower status whites also demonstrated that the overall black-white differences cannot be attributed to the low family status position of the blacks. In short, we have not learned much about the antecedents of black expectations from this analysis except that they are different from those of whites. The two kinds of expectations seem to be related to each other among blacks about the same as among whites, but that is about all we can say.

Outline of Further Analysis

This chapter has provided an overview of the basic path model approach to the data from the several cohorts. Although it has resulted in a number of significant findings, it has also posed several puzzling

problems. In addition, it has not made use of all of the kinds of data available in this study. The rest of the report thus attempts to "flesh out" the basic model through the use of other kinds of information. It also investigates further some of the unresolved issues noted in this chapter.

Part II takes the basic model as a point of departure and investigates, for the four white cohorts, the explanatory power of other variables which might be added to those in the model. As with the basic model itself, all of this analysis deals only with data that are obtained from the boys themselves or from school records. The analysis is divided into four chapters. Chapter Four is concerned with the significance of the boys' school experience in the achievement process; Chapter Five examines the relevance of the boys' own personal characteristics; Chapter Six investigates the role of parents in the process; Chapter Seven does the same for the role of the boys' peers. Part III deals with two related problems noted in the eariler analysis. Chapter Eight reports on a series of analyses of the black boys' responses in an effort to clarify the failure of the basic model to explain their expectations of the future. Chapter Nine focusses on the parent-child relationship again, this time using the parent interviews as an additional source of information. Finally, Part IV provides an overview of the study and interprets the findings in terms of a longitudinal flow of influence.

PART II

ELABORATIONS ON THE BASIC MODELS

The four chapters in this part of the report take the basic models reviewed in Chapter Three as a point of departure and consider a number of variables which may provide further clarification of the process of anticipation and achievement. Because of the special characteristics of the analysis of the black cohorts, these four chapters deal only with the whites. Chapter Four reviews the effects of school experience on the process, especially the effects of academic performance and the extent and type of the boy's participation in the school activities. Chapter Five investigates the degree to which the boy's personal characteristics influence his view of the future and the extent to which his characteristics reflect his background and ability. Chapter Six examines the boy's relationship with his parents as a mechanism through which his ability and background are directed toward future goals. Chapter Seven does the same for the boy's relationship with his peers in school. Although some indication of the interrelationships among these several kinds of variables is given in these chapters, that issue is dealt with more specifically in Part IV.

CHAPTER FOUR

SCHOOL EXPERIENCE

Educational expectations and goals are presumably influenced by the kinds of experiences the individual has had previously in the school setting. It is unlikely that he will look forward to continuing his educational experience beyond some minimal level if he has been generally unsuccessful in school up to the present. One would expect this both because the experience of inadequate performance would presumably be unpleasant and because most boys would realize that higher education is not fully available to one who has not performed well at the lower levels. Previous academic performance should not be the only part of the school experience involved, however. School can become a place to be avoided if the boy has had serious disciplinary problems there. He may be actually or potentially a very good student, but if he finds the rules and authority relations with teachers overly restrictive, he may well want to limit his educational experience as much as possible. Similarly, if the boy's social relations within the school are not satisfying, his interest in continuing his education may be affected, whatever his ability or his academic interest.

This chapter will explore the relevance of all of these factors for an understanding of the distribution of the boys' educational (and, indirectly, their occupational) expectations. In doing so, such factors will be conceived of as intervening between the exogenous variables in the basic model and the two expectations measures. They are thus viewed as at least potentially influenced by the exogenous variables as well as influencing expectations. The several exogenous variables may well assume different degrees of significance with respect to different intervening variables. For instance, IQ would be expected to show a stronger relationship with academic performance than would father's education or occupation. Similarly, one might expect the latter variables to be more clearly associated with the degree of disciplinary difficulty. All of the measures of school experience, however, can be expected be associated with one or more of the exogenous variables. Not only do these intervening variables "come between" the exogenous variables and expectations in a temporal sense, therefore, they also can be viewed as <u>influencing</u> expectations while themselves being <u>influenced</u> by the exogenous variables. In the case of the graduates, a similar view can be taken regarding the relationship between educational experience and attainment.

Academic Performance

The most obvious location of academic performance in a conceptualization of the flow of influence leading to educational and occupational expectations is between IQ and EdExp. One would expect academic performance to be strongly affected by IQ and, in turn, performance would be expected to influence EdExp. An examination of these two relationships is thus in order at the outset. The measure of academic performance to be used here is grade average over a specified period of time (to be called Grade). For the sixth graders, it is based on their grades in the fourth and fifth grades; for the ninth graders, it is based on their seventh and

eighth grade records; for the twelfth graders, it is based on the tenth and eleventh grade records; and for the graduates, it is based on the tenth through twelfth grade records.

The "Grade" columns of Tables 4.1 and 4.2 present the correlations of Grade with all the variables included in the basic models for the three white in-school cohorts and the white graduates, respectively. The previous discussion would lead us to expect the highest coefficients would involve IQ and EdExp. For the two older in-school cohorts that is clearly the case, although Grade is also rather strongly related to some of the other variables in the table. In both the ninth and twelfth grades, Grade is strongly related (>.40) to OccExp, and in the ninth grade it is strongly related to both FaEd and FaOcc. Finally, in the sixth grade, the IQ-Grade relationship is stronger than in either of the other two cohorts, but no other relationship involving Grade is greater than .39.

Thus, as expected, Grade is strongly associated with IQ in all three in-school cohorts, although the strength of the association diminishes somewhat as we move from the younger to the older cohorts. With respect to the other exogenous variables, the strongest association between them and Grade is in the ninth grade, and the weakest is in the twelfth grade. Grade is, in turn, also strongly associated with EdExp in the two older cohorts, but not in the sixth grade. Similarly, Grade is more strongly associated with OccExp in the two older cohorts, although the relationship there is weaker than the Grade-EdExp relationship.

The same pattern of relationships of Grade with the available exogenous variables is apparent for the graduates. The link between Grade and IQ is again by far the strongest. Also, Grade has a strong relationship with both EdAtt and OccAtt. The position of Grade as an intervening variable is thus similar for older males, whether EdExp of EdAtt is used as the dependent variable. IQ has a strong influence on Grade, and Grade has a strong effect on EdExp and EdAtt.

At the same time, this understandable and expected pattern of relationships among IQ, Grade, and EdExp (or EdAtt) is far from perfect. Not all boys with high IQs get good grades, and there are evidently many boys with high grades who do not expect to pursue levels of education consistent with their prior academic performance. The next two sections of this chapter are devoted to efforts to understand the reasons for such deviant cases. They attempt to identify some of the conditions under which IQ is not clearly reflected in Grade and the conditions under which level of academic performance (indexed by Grade) is not predictive of EdExp of EdAtt.

The Link between IQ and Grades

Tables 4.1 and 4.2 provide some suggestions regarding other factors which might help explain the failure of IQ to be more strongly reflected in a boy's grades. The other three exogenous variables are also, in most cases, significantly related to Grade. For the three in-school cohorts, Sib, FaEd and FaOcc are all correlated with Grade at the .24 level or above with one exception (Sib in the twelfth grade cohort). FaEd and FaOcc are also correlated with Grade at that level among the graduates. This would

Table 4.1

Correlation Matrix for Grade Model, In-School Whites

12th Grade (N=753)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Mean	St. Dev.
IQ	-.098	.279	.253	.493	.335	.573	110.37	11.49
Sib		-.151	-.109	-.214	-.157	-.102	2.92	1.97
FaEd			.617	.451	.297	.290	4.36	2.16
FaOcc				.410	.321	.244	47.31	23.23
EdExp					.681	.599	3.18	1.34
OccExp						.483	58.95	26.07
Grade							82.61	5.85

9th Grade (N=317)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Mean	St. Dev.
IQ	-.256	.293	.442	.496	.380	.591	108.49	12.29
Sib		-.057	-.139	-.132	-.143	-.260	3.14	1.86
FaEd			.639	.447	.398	.421	4.59	2.21
FaOcc				.460	.385	.479	49.12	23.89
EdExp					.598	.571	3.15	1.41
OccExp						.424	59.38	28.00
Grade							83.70	5.91

6th Grade (N=251)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Mean	St. Dev.
IQ	-.307	.277	.440	.315	.321	.704	106.71	13.78
Sib		-.221	-.256	-.197	-.243	-.279	3.37	2.22
FaEd			.545	.327	.149	.288	5.08	2.23
FaOcc				.339	.344	.387	48.24	24.81
EdExp					.329	.293	3.66	1.20
OccExp						.266	59.80	25.83
Grade							83.12	6.71

Table 4.2

Correlation Matrix for Grade Model, White Graduates

(N=322)

	FaEd	FaOcc	EdAtt	OccAtt	Grade	Mean	St. Dev.
IQ	.265	.255	.464	.368	.480	107.16	11.69
FaEd		.618	.316	.305	.240	3.77	2.30
FaOcc			.395	.391	.254	46.52	23.07
EdAtt				.656	.535	2.98	1.79
Occ Att					.467	42.94	24.89
Grade						80.80	5.51

suggest that grades are also somehow affected by the boy's family background as well as by his ability. The effect is not as strong as the zero order correlation coefficients would suggest, however. If for the in-school cohorts, one compares the multiple correlation between all four exogenous variables and Grade with the zero order correlation of IQ with Grade, the addition of the other three exogenous variables is shown to have relatively little effect for two of the three cohorts. For the sixth graders, the zero order correlation is .70 and the multiple correlation is .71; in the ninth grade the comparable coefficients are .59 and .66; in the twelfth grade they are .57 and .59. Among the graduates, the zero order correlation is .48 and the multiple is .50. Thus, only in the case of the ninth graders does the addition of the other exogenous variables make a notable addition to the explanation of Grade provided by IQ, where their addition increases the variance explained from 35% to 44%.*

*It is tempting to seek some explanation for the progressive decline in the variance explained as one moves from the younger to the older cohorts, whether one uses IQ alone or all of the exogenous variables. It may be that the strong link between IQ and Grade and the minimal contribution made by the other exogenous variables in the sixth grade is a function of the tendency for status groups to be segregated in elementary school. Teachers are faced with a relatively homogenous group of students, and differential treatment by social status level is not even potentially a part of the student's experience. In junior high school the mixing of students with diverse backgrounds is greatly increased up to the drop-out age of sixteen. The fact that differentiation of kinds of educational programs (college preparatory, technical, etc.) is not found in junior high tends to place this diverse set of students in the same academic situation, and thus maximizes the possibility of invidious comparisons by social background. In high school, the combination of drop-out patterns and differentiated educational programs may reduce the salience of such

Thus, except in the ninth grade, there appears to be little association between the background variables and Grade beyond that reflected in the IQ-Grade relationship. Yet there are many of the boys in the several cohorts who are not performing at a level predictable from their IQs. In order to take a closer look at such boys, the overall pattern of IQ-Grade association was examined in the three in-school cohorts. In general, for any category of IQ scores, most of the boys fell within a rather narrow range of Grade scores, but there were some well above and others well below that central range. By designating the central cluster of grade averages for each IQ category as "normal," it was possible to define some of the boys as "overperformers" and others as "underperformers." This was done by choosing for each IQ level within each of the in-school cohorts a range of grade averages that represented about the middle two-thirds of the Grade distribution. Those not within that range were then designated as over- and underperformers.* A somewhat different set of Grade ranges had to be selected for the twelfth grade than for the two younger cohorts to accomplish this purpose, and it was naturally found that no particular cutting points provided exactly equal proportions within IQ categories and cohorts. Table 4.3 reports the distribution of normal, over- and underperformers within each IQ category and cohort. The total of the boys in each performance category for each cohort may now be examined in the effort to provide greater understanding of the IQ-Grade relationship.**

The basic logic of the analysis is based on the proposition that a boy's ability to perform academically at a level expected from his IQ depends on the conditions the school provides for that performance. Although the conditions are presumably the same for all boys in a given school, these same conditions are likely to be more or less satisfying to different boys. Other characteristics of the boys, besides their intelligence, are relevant to their overall response to the school setting and their resulting performance there. Within the school, other non-academic attractions may increase a boy's ability to perform at a level his basic intelligence makes possible. Conversely, to the extent a boy has attractions or commitments outside the school, one would expect him to invest less of himself in the tasks he faces in school. Such outside interests should thus reduce the association between IQ and grades.

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comparisons. Although such a speculative interpretation might be viewed as consistent with the correlations for the three in-school cohorts, however, it does not help to explain why the IQ-Grade relationship is lower among the graduates than among the twelfth graders.

*Such a three-way division into normal, over- and underperformers is not possible within the highest and lowest IQ levels. In the highest, it is not reasonable to refer to overperformance since such high IQ boys would be expected to receive the highest grades, and in the lowest, there cannot be underperformers since such boys would be expected to receive the lowest grades.

*It was not possible to carry out the analysis reported here for the graduates because the necessary data had not been collected for that cohort.

Table 4.3

Distribution of Over-, Normal, and Under-Performers,*

In-School Whites

IQ Categories#	Twelfth Grade			Ninth Grade			Sixth Grade		
	Over	Norm	Under	Over	Norm	Under	Over	Norm	Under
85 or below	8	46	-	16	30	-	10	51	-
93	4	38	2	2	22	5	6	24	5
101	47	180	17	8	61	24	14	52	19
108	28	117	23	15	37	12	12	25	5
116	31	155	64	25	68	14	14	42	8
126 or over	-	136	44	-	45	12	-	49	7
Total	118	672	150	66	263	67	56	243	44

*The "normal" grade ranges for the six IQ categories in the sixth and ninth grades were: 80 or less, 74-83, 77-86, 77-86, 80-89, 86 or above. For the twelfth graders, the same ranges were used except in the 101 IQ and 126 and above IQ categories where the ranges were 74-83 and 83 and above, respectively.

#IQ records at some of the schools were kept in alphabetical category form (A, B, etc.) rather than numerical form. Those which were in numerical form were thus similarly categorized, and the numerical categories noted here are the median numerical scores for those alaphabetical categories.

The first columns of Table 4.4 present data which provide a group description of the three categories of academic performers in the twelfth grade. The data include both factual and attitudinal measures. Consistently, the underperformers express a stronger orientation toward the world outside the school, a lack of involvement in school activities, and a less favorable attitude toward school. They more frequently work long hours, they do not participate in school activities as often, they are absent more often, and they more frequently are defined by their counsellors as behavior problems. Their responses to various attitude items reflect their external orientation and restiveness in school. They object to the authority structure of the school, they have a hard time keeping their minds on their school work, and they less often see the relevance of school for their later life. Although the differences in response to the item about "enjoying going to classes" are not as great as one might have expected, this is undoubtedly due in part to the fact that most of the underperformers (64%) are in the business, technical or

Table 4.4

Characteristics of Over-, Under- and Normal Academic Performers
(In-School Whites)

	Proportion Having Characteristic								
	12th Grade			9th Grade			6th Grade		
Characteristic*	Over	Normal	Under	Over	Normal	Under	Over	Normal	Under
A. Has no job#	.814	.751	.645	.800	.782	.766	.782	.815	.683
B. Is on one or more athletic teams	.405	.392	.304	.650	.608	.344	.688	.725	.625
C. Is in one or more organization	.621	.552	.391	.659	.504	.328	.435	.543	.516
D. Missed < 10 days last year	.882	.790	.680	.758	.708	.538	.803	.786	.728
E. Is not a behavior problem	.848	.735	.540	.828	.794	.597	.857	.725	.500
F. Has most good times at school	.405	.369	.173	.483	.433	.361	.688	.601	.750
G. Enjoys going to most classes	.596	.562	.474	.729	.603	.550	.833	.719	.633
H. Has no trouble keepig mind on what teacher is saying most times	.816	.812	.664	.847	.765	.639	.750	.649	.606
I. Thinks courses will help in a job after leaving school	.832	.719	.686	.767	.703	.639	.708	.645	.485
J. Does not think there are too many rules in school	.425	.366	.171	.500	.662	.230	.583	.438	.364
K. Thinks teachers and principals have right to prescribe student behavior	.482	.468	.348	.644	.515	.295	.638	.562	.406

*Items D and E were taken from school records. The others came from the student questionnaire. The items in the questionnaire are: 8, 81, 82, 83A, 83F, 83G, 83J, 84A, and 84C.

#For twelfth graders, these are the proportions who worked less than 25 hours a week.

general program while most of the overperformers (75%) are in the college program. They are thus responding to somewhat different experiences. Given this distribution in the several programs, also, it is striking that so many of the underperformers believe that their courses will not help them in a job later on.

The other columns of Table 4.4 present similar data for the ninth and sixth grade cohorts. The pattern for the ninth graders is similar to that for the twelfth graders; if anything, the differences are greater. In contrast, the differences in the sixth grade data, though usually in the same direction, are usually not so great. The involvement in the world of work is not very extensive for either of the two younger cohorts, and one must wonder how meaningful the responses to the questions about athletic and organizational participation are for the sixth graders, but even ignoring those questions, the cohorts differ markedly on some of the measures.

In both cohorts, the underperformers are more apt to be behavior problems and to be absent frequently, although in the first case the contrast is greater in the sixth grade, and in the second case it is greater in the ninth grade. Sixth graders more often say that the good times they have with their friends are in school, and the underperformers say this even more often than the other sixth graders. Such "good times" may help explain why the sixth graders more often say they enjoy their classes. In both cohorts there is considerable complaint about the authority structure of the school, though it is more pronounced among the ninth graders and especially the underperforming ninth graders. Although the sixth graders more often say their schooling will not help them in a job, one might challenge the meaningfulness of that question to such young boys.

These findings seem to reflect the different conditions faced by boys at these three grade levels. The ninth grade represents the period of maximum diversity of the student body of the public schools. Almost all of the boys reach this level, but many fail to go much beyond it. Especially if the boy has older friends or siblings, it is likely that he will have interests outside the school. If he is sixteen, or nearly that age, he will begin to be interested in jobs, girls, cars, and such. For the sixth grader, in contrast, there are few external attractions. Everyone who is even close to his age is in school, and there is little for him to do outside of school, except when everyone else is out of school. Thus, even the underperformer finds his good times in school, in spite of his dissatisfaction with the authority structure and the material being taught. He participates in the non-academic activities, even though his academic performance is poor. He gets in trouble a lot, but he is not very likely to stay away. Whereas the ninth grade underperformer can begin to contemplate alternatives, the sixth grader has to accommodate to the school setting. By the twelfth grade, many boys have dropped out, though some of those who remain are only grudgingly going through the motions in order to get a diploma. Since they may be only marking time, they often express their disinterest by non-participation, absenteeism, and disruptive behavior. Although they clearly have external options which they utilize, they also are constrained from full withdrawal, and this constraint is reflected in their attitudes and behavior.

Such structural and attitudinal factors as reported in Table 4.4 thus

appear to be associated with the degree to which a boy translates his mental ability into academic performance as evaluated by his teachers. Yet one might expect that these factors are also associated with his background as well. Thus, in an attempt to explain the boy's level of academic performance they may well add little to an explanation based on his background. At least one needs to determine the extent to which they do add to such an explanation.

In order to introduce such factors into the overall analysis, two scales were constructed. One, which will be called "Participation" (Partic), is based on the five structural variables identified as A through E in Table 4.4. A simple summation score was derived by assigning a +1 each time a boy had one of those characteristics. The second scale, which will be called "Involvement" (Involv), is based on the six attitude items identified as F through K in Table 4.4. Again a simple summation score was derived by assigning a +1 each time a boy gave the response indicated.*

The resulting scale scores for Partic and Involv were correlated with Grade and also entered into multiple correlation analyses. Table 4.5 reports the basic findings. Several things are noteworthy. First, both Partic and Involv have sizeable zero order correlations with Grade in the two older cohorts, but in both cases the Partic coefficient is higher. Second, in all three cohorts, when Partic and Involv are combined with IQ, the multiple correlation is larger than when "background" is added to IQ. This is even true in the sixth grade where the zero order correlations of Partic and Involv with Grade are very small. Finally, only in the ninth grade do these two scales and background independently raise the multiple correlation appreciably.**

The strong association between these scales and academic performance is very impressive. In fact, in the older cohorts, and especially in the ninth grade, the association between Partic and Grade is almost as strong as between IQ and Grade. The fact that the two scales make a sizeable independent contribution to an explanation of Grade even after

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*Since there were some cases of missing data on some of the items in the two scales, the actual score was computed by summing all those items on which data were available, dividing by the number of such items, and multiplying by five or six. Thus, all scores on the two scales have possible ranges of 0 to +5 or +6 even when data were missing.

**Not reported in Table 4.5 is the somewhat surprising fact that Partic and Involv are not highly intercorrelated. The correlations are .26, .29 and .04 for the twelfth, ninth and sixth grades, respectively. It may also be worth noting that in the two older cohorts Partic entered the step-wise multiple correlation analysis before Involv while in the sixth grade the opposite occurred. Finally, in the full step-wise analsis only IQ entered the analysis before Partic and Involv in the twelfth grade; in the ninth grade the order was IQ, Partic, FaOcc, Involv, Sib, and FaEd; and in the sixth grade it was IQ, Involv, FaEd, Partic, Sib, and FaOcc. Thus, these two scales, and especially Partic, are important correlates of academic performance, particularly in the older cohorts.

Table 4.5

Correlates of Grade Average,

In-School Whites

Variables	12th Grade	9th Grade	6th Grade
IQ	.567	.589	.704
Partic	.424	.561	.155
Involv	.219	.350	.163
IQ + Partic + Involv	.647	.693	.736
IQ + Background*	.590	.664	.713
IQ + Background + Partic + Involv	.654	.726	.754
Total variance explained	42.8%	52.7%	56.9%

*"Background" includes FaOcc, FaEd, and Sib.

IQ and background are taken into account, provides added force to the argument that the boy's overall reaction to the school setting is an important factor in his academic performance. It is especially impressive that Partic, a rather indirect measure of the boy's relationship to the school, is a more powerful predictor of Grade than Involv which directly asks him how he likes school. Finally, the strong independent contribution of both background and the two scales in explaining Grade in the ninth grade provides further evidence of the significance of non-intellectual factors at that stage in a boy's school experience. The amount of the variance in Grade explained in that cohort is increased by half when both background and the scales are added to IQ, and increase from 35% to 53%.

Grades and Educational Expectations and Attainment

It seems reasonable to anticipate that those with good grades in school would plan to go farther in school than those whose performance has not been so good (or at least so well-rewarded). A sizeable positive correlation between Grade and either EdExp or EdAtt should occur. For the three in-school cohorts, the correlations between Grade and EdExp are: .60, .57, and .29 for the twelfth, ninth and sixth grades, respectively. For the graduates, the correlation between Grade and EdAtt is .54. Thus, for the older cohorts at least, the anticipated relationship is found. As with the IQ-Grade relationship, however, it is far from perfect, many boys with low grades planning (or attaining) high levels of education and many with high grades planning (or attaining) relatively low levels.

Just as one might expect the boy's overall school experience to

influence his performance in school (and thereby influence his grades), one might also expect that his educational expectations would be influenced by that experience. If he performs well academically in school, he might be expected to plan further education, but since going to school involves more than academic performance, his grades may not be the only part of the school experience that would influence his plans. To the extent that our two scales, Partic and Involv, represent his school experiences and reactions to them, therefore, one might expect them to be related to EdExp.

Table 4.6

Correlates of Educational Expectations,

In-School Whites

Variables	12th Grade	9th Grade	6th Grade
Grade	.599	.571	.293
Grade + IQ	.622	.593	.423
Grade + IQ + Background*	.699	.645	.426
Partic	.464	.481	.112
Involv	.221	.288	.079
Grade + Partic + Involv	.630	.587	.373
Grade + Partic + Involv + IQ	.649	.626	.433
All Variables	.715	.645	.441
Total variance explained	51.1%	41.6%	19.7%

*Background includes FaOcc, FaEd, and Sib

The two scales were thus used in a correlation analysis similar to that reported in the previous section. Table 4.6 summarizes the findings. It will be noted that again the two scales are more strongly associated with the dependent variable (EdExp) in the two older cohorts and that Partic is consistently more highly correlated with EdExp than is Involv. In the two older cohorts, Partic is as strongly correlated with EdExp as any of the four exogenous variables, and it is nearly as strongly correlated as Grade. In the two older cohorts, also, the addition of Partic and Involv to Grade does increase the correlation appreciably. Yet, it does not increase it nearly as much as does the addition of IQ and the background variables. Once Grade, IQ and the background variables have been taken into account, in fact, the two scales make no independent contribution.

Thus, although these two measures of the boy's school experience help explain variation in academic performance, they do not help in the same way to explain the level of the boy's educational expectation.

Implications for the Basic Model

The analysis to this point has suggested that, if we wish to explain the level of EdExp or EdAtt reported by the boys in this study, it is useful to take the boys' experience in school into account. School experience has been indexed in two ways, according to the grades the boys have received and according to measures of their participation and involvement in the school. The analysis has demonstrated: (1) that Grade makes an independent contribution to the explanation of EdExp and EdAtt beyond that made by the exogenous variables; (2) that Grade partially but not wholly explains the association between the exogenous variables and EdExp or EdAtt; (3) that Partic and Involv make an independent contribution to the explanation of Grade beyond that made by the exogenous variables; but (4) that Partic and Involv do not contribute to the explanation of the variation in EdExp once Grade and the exogenous variables have been taken into account.

In terms of the basic model discussed in Chapter Three, this suggests two things. First, if we wish to increase the statistical explanation of EdExp (or EdAtt), including Grade is important but Partic or Involv add nothing.* Second, if we seek to understand the flow of influence from the exogenous variables to EdExp (or EdAtt), the inclusion of both Grade and the two scales is useful. Grade provides a partial explanation of the effect of the exogenous variables on EdExp and EdAtt, and Partic and Involv seem to provide a partial explanation of the effect of the exogenous variables on Grade.

It is tempting to interpret these findings as indicating a flow of influence that runs from the exogenous variables to Partic and Involv to Grade and then to EdExp. I am not comfortable with that interpretation, however. Partic and Involv seem to be intimately linked with Grade, but it is not wholly clear that the flow of influence is unidirectional. Partic and Involv help to <u>predict</u> Grade, but it is no more obvious that they <u>cause</u> or <u>influence</u> Grade than is the reverse. It may well be that one withdraws from the school situation if he does not perform well rather than performing poorly because of withdrawal. After all, Grade <u>predicts</u> Partic and Involv as much as the reverse; they are simply intercorrelated. In fact, it seems reasonable to argue that there is a simultaneous flow of influence in <u>both</u> directions. The analysis has suggested that (especially for ninth graders) a boy's overall performance in school, academic and non-academic, is of a piece, that if one kind of performance is "poor" the other will be also.** It is not clear, however, that any one kind of performance influences the other more than the reverse.

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*We do not, of course, really know whether Partic or Involv would add to an explanation of EdAtt since the requisite information to construct the scales is not available for the graduates.

**Grade and Partic are correlated .42, .52 and .15 in the twelfth, ninth and sixth grades, respectively; Grade and Involv are correlated .22, .35, and .17. Thus, this statement is more true for the older cohorts and more true for Partic than Involv.

From the perspective of the basic model, therefore, it is not reasonable to order Grade and the two scales. But their inclusion still seems desirable. It is true, of course, that the scales do not make an independent contribution to the explanation of EdExp; yet they may well contribute to an explanation of the flow of influence of the exogenous variables on EdExp. This seems especially likely for Partic which is correlated with both EdExp and the exogenous variables in all three cohorts. In the effort to understand the relevance of the exogenous variables in explaining EdExp (and ultimately OccExp), therefore, it may be useful to include such non-academic measures in the analysis.

Such inclusion, within the path analytic format, is possible if the school experience variables are treated as co-equal intervening variables and permitted to be "freely correlated." That is, they will not be ordered, nor will their residuals be required to be uncorrelated. Instead, they will be entered in the analysis at the same point together with the notation that their residuals are correlated. To simplify both the diagram and the computation, only two school experience variables will be used, Grade and Partic. The latter is preferable to Involv because it is more highly correlated with the exogenous variables and because it is more clearly a measure of the boy's school experience rather than his reaction <u>to</u> that experience.

Two Elaborated Models

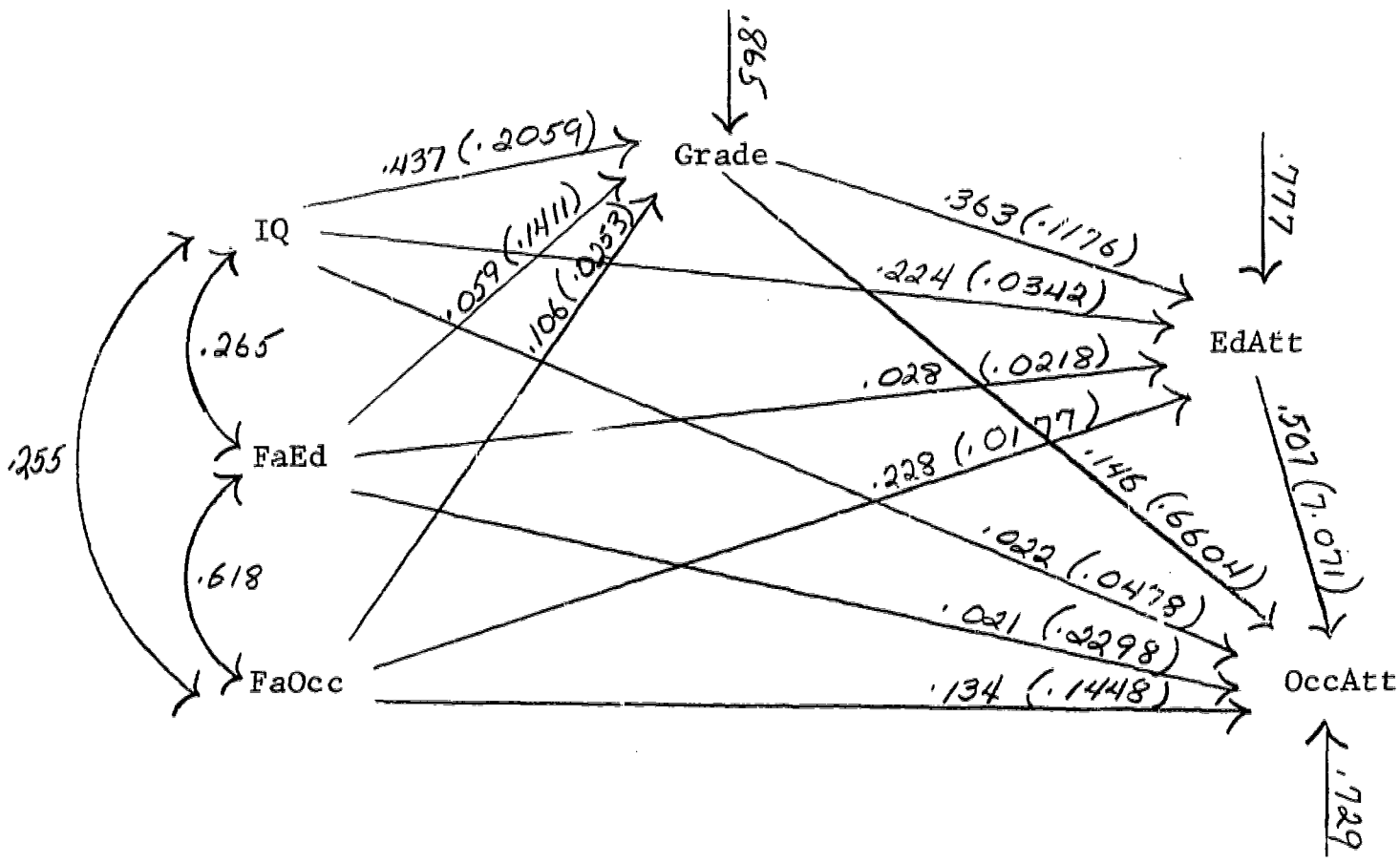
Two separate models can be constructed with the school experience measures defined as intervening variables between the exogenous variables and EdExp. The simpler of these, using only Grade as an intervening variable, can be constructed for all four cohorts, and it will be considered first. Tables 4.1 and 4.2 present the intercorrelations of the variables involved for the four cohorts. Figure 41. presents the path diagram for the graduate cohort, and Figure 4.2 does the same for the twelfth grade white cohort. In each of these diagrams both standardized and unstandardized path coefficients are reported so that comparisons both within and across cohorts can be made. Path coefficients for all three in-school cohorts are reported in Table 4.7.

Turning to Figure 4.1 first, several observations are in order. First, as noted earlier, the inclusion of Grade increases appreciably the explanation of the variance in EdAtt (from 29.4% as reported in Figure 3.2 to 39.7%). Second, its inclusion adds very little to the explanation of the variance in OccAtt (from 45.2% to 46.8%). Third, the direct effects of the exogenous variables on EdAtt are decreased by including Grade in the model, but this is primarily true of the effect of IQ. Previously the EdAtt-IQ path coefficient was .38 (see Fig. 3.2), but it is now only .22. The EdAtt-FaEd path has been reduced from .05 to .03, and the EdAtt-FaOcc path has gone down from .27 to .23. Finally, the only notable alteration in the paths to OccAtt is a reduction of the OccAtt-IQ coefficient from .08 to .02. However, there is a sizeable direct path from Grade to OccAtt and a slight reduction in the OccAtt-EdAtt path (from .56 to .51).

Thus, the inclusion of Grade in the model has done two things. It has added another source of explanation of EdAtt whose effect is not wholly

Figure 4.1

Grade Model, White Graduates

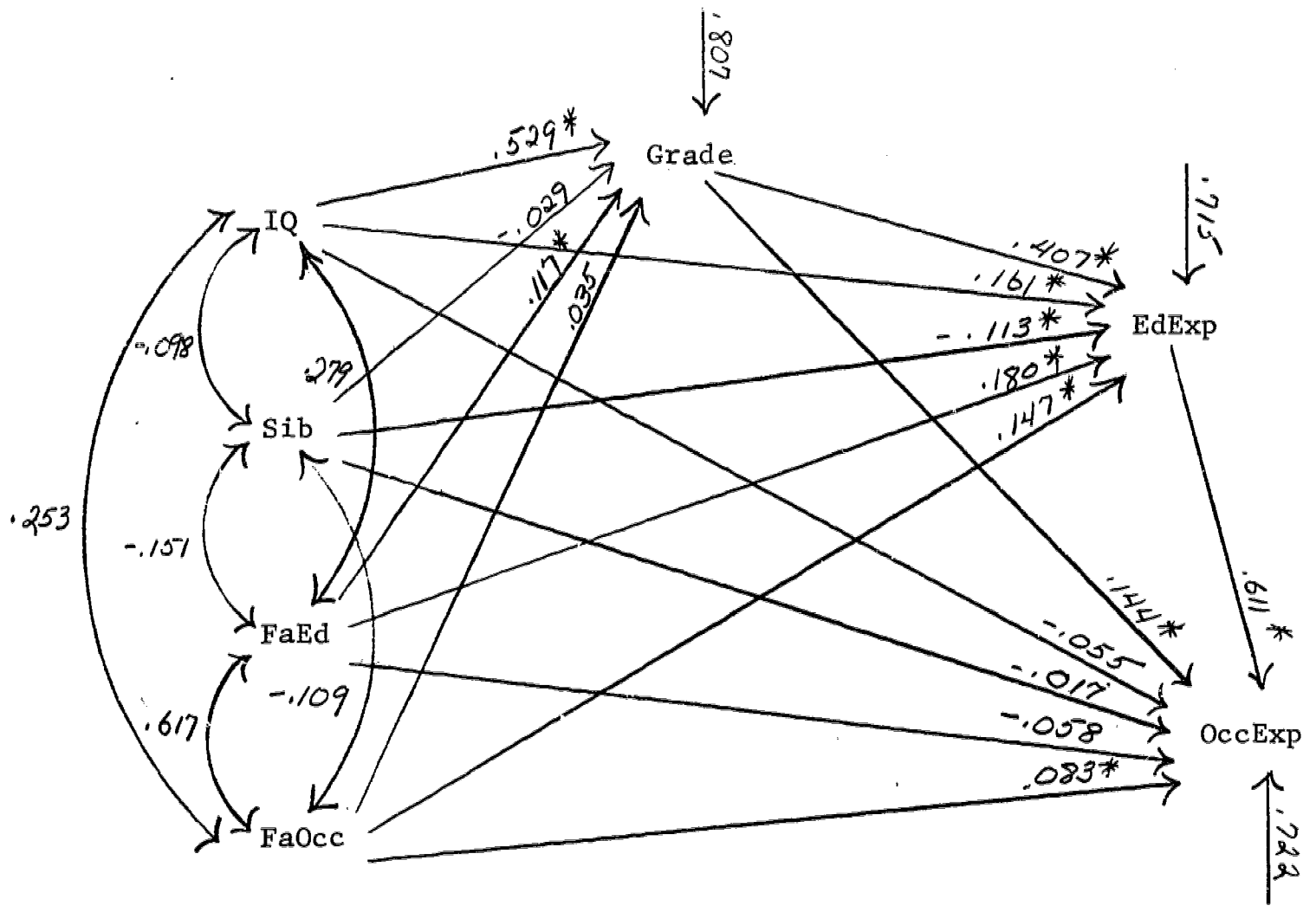


explained by the basic model. That is, the inclusion of Grade increases the explanation of EdAtt beyond that provided by the exogenous variables. On the other hand, Grade does act as a means of explanation of the influence of the exogenous variables on EdAtt (and ultimately OccAtt). It is not just that smart (high IQ) boys get further education; they get good grades which, in turn, influences their educational attainment. Yet, it is apparent that it is not <u>just</u> academic performance that is involved. There are still strong residual paths to EdAtt from IQ and FaOcc, even with Grade in the model. Smart boys tend to go on in school, even when they don't get good grades; and boys with high prestige (and rich?) fathers tend to go on even when they aren't very smart <u>and</u> don't get good grades. At the same time, irrespective of further educational attainment, getting good grades in high school seems to affect a boy's occupational attainment - as does his father's occupational level.

Figure 4.2, which presents the model for the twelfth graders, has some of the same features. First, the amount of variance in EdExp explained is increased from 37.6% (as in Figure 3.3) to 48.9%. Second, the variance in OccExp explained is not increased as much - from 45.2% to 52.1%. Third, the direct effects of the exogenous variables on EdExp are decreased, but only the EdExp-IQ path is reduced appreciably (from .37 to .16). Finally, none of the paths from the exogenous variables to OccExp is changed greatly, but there is a sizeable OccExp-Grade path (.14), and the OccExp-EdExp path is reduced slightly (from .65 to .61).

Figure 4.2

Grade Model, Twelfth Grade Whites



Thus, again, Grade provides both an additional source of explanation of variance in the dependent variables (and especially EdExp) as well as a means of interpretation of the influence the exogenous variables (especially IQ) have on the dependent variables. However, in contrast to EdAtt for the graduates, all exogenous variables continue to have a significant effect on EdExp.

If one examines the path coefficients for the two younger cohorts, reported in Table 4.7, it is apparent that they are different both from each other and from the twelfth grade coefficients. In the ninth grade, all four exogenous variables have significant effects on Grade, with IQ being strongest. In the sixth grade only IQ has a significant effect. In the ninth grade, Grade has a strong effect on EdExp and there are significant direct influences on EdExp from IQ and FaEd. In the sixth grade, none of the paths is significant although IQ, FaEd and FaOcc all approach significance. Finally, the OccExp-EdExp path is strong and there is a significant direct OccExp-FaEd path in the ninth grade. In the sixth grade the OccExpEdExp path is much weaker (though significant) and about equal to the direct OccExp-FaOcc path.

These models thus reflect the patterns discussed earlier in this and the previous chapter. There is a general weakness in the sixth grade

Table 4.7

Path Coefficients, Grade Model, In-School Whites

Dependent Variables	Independent Variables IQ	Sib	FaEd	FaOcc	Grade	EdExp	Coeff. of Determination
12th Grade							
Grade	.529* (.2695)	-.029 (-.0852)	.117* (.3153)	.035 (.0088)	-	-	.349
EdExp	.161* (.0188)	-.113* (-.0773)	.180* (.1121)	.147* (.0085)	.407* (.0934)	-	.489
OccExp	-.055 (-.1245)	-.017 (-.2286)	-.058 (-.7024)	.083* (.0931)	.144* (.6409)	.611* (11.85)	.479
9th Grade							
Grade	.440* (.2115)	-.117* (-.3696)	.191* (.5108)	.146* (.0362)	-	-	.441
EdExp	.213* (.0246)	.031 (.0238)	.190* (.1214)	.091 (.0054)	.329* (.0789)	-	.416
OccExp	.062 (.1408)	-.043 (-.6442)	.131* (1.659)	.035 (.0406)	.039 (.1859)	.465* (9.195)	.390
6th Grade							
Grade	.645* (.3143)	-.052 (-.1583)	.069 (.2063)	.053 (.0143)	-	-	.509
EdExp	.130 (.0113)	-.060 (-.0322)	.180* (.0964)	.138 (.0066)	.080 (.0142)	-	.181
OccExp	.130 (.2443)	-.120 (-1.400)	-.122 (-1.409)	.241* (.2508)	.019 (.0744)	.216* (4.670)	.212

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

model, no path except the Grade-IQ being very strong, nothing doing very much in explaining EdExp, and OccExp evidently reflecting FaOcc as much as anything else. It is particularly striking that Grade does not add to the explanation of EdExp. This seems to be another example of the limited understanding of means-ends relations in the sixth grade, like the weak link between EdExp and OccExp. It is equally impressive, however, that among these younger boys Grade clearly reflects IQ but not much else, while in the ninth grade the boy's family background contributes a great deal to the explanation of Grade. Although the EdExp-Grade and OccExp-EdExp paths are much stronger in the ninth than in the sixth grade, they are still weaker than in the twelfth grade. There is thus evidence that the boys increasingly use their previous performance (and the image they have of their own ability) as a basis for predicting their future as well as evidence of an understanding of the association in the "real world" between education and occupation. Yet it also seems to be true that as the boys get older they see the significance of their own backgrounds for their future. Especially with respect to EdExp, the older boys tend to respond to the effects of their family situation as well as their own ability and performance.

If Partic is added to the model as an intervening variable at the same point as Grade, the resulting path diagram is as shown in Figure 4.3. The correlation matrix for each cohort is shown in Table 4.8.* The path coefficients for the Grade-Partic models of all three in-school white cohorts are reported in Table 4.9.

The resulting models provide additional explanation of the flow of influence beyond the previous models (including only Grade as an intervening variable) only in the two older cohorts, and mostly in the twelfth grade. (Compare Tables 4.7 and 4.9.) In the twelfth grade, Partic is significantly linked with all four exogenous variables while Grade has a significant link only with IQ and FaEd. In turn, the inclusion of Partic has slightly reduced the paths to EdExp from three of the exogenous variables (not from IQ), and the EdExp-Grade path has been reduced appreciably (from .41 to .33). Partic has a significant link with EdExp but not with OccExp. None of the paths to OccExp is altered appreciably, though the OccExp-EdExp path is reduced slightly. In the ninth grade, all paths from the exogenous variables to both Partic and Grade are significant except the Partic-Sib path. The inclusion of Partic has reduced the EdExp-FaOcc path somewhat as well as reducing the EdExp-Grade path. Both Grade

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*The reader may have noted that the sample frequencies for the several models presented thus far vary somewhat. This has been due to two factors. First, whenever a new variable is added, there is the possibility of additional sample loss due to insufficient information on individual boys. The loss of sample from Table 3.3 to Table 4.8 (from the basic model to the Grade-Partic model) is due to this. There is a further difference between the frequencies in these tables and in Table 4.1. The analysis for the Grade models (Tables 4.1 and 4.2) used only those boys who were living with their mothers. This reduced the size of the samples slightly, but it had no effect on the outcome of the analysis. Because of these variations in sample sizes, there may also be noted some slight inconsistency in the same correlations or path coefficients from one model to another. In no case are the differences large, however.

Table 4.8

Correlation Matrix for Grade-Partic Models,

In-School Whites

12th Grade (N=715)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Partic	Mean	St. Dev.
IQ	-.097	.276	.249	.485	.328	.571	.254	110.28	11.50
Sib		-.157	-.111	-.216	-.154	-.104	-.178	2.94	1.97
FaEd			.612	.449	.301	.295	.264	4.34	2.17
FaOcc				.410	.327	.247	.240	47.07	23.21
EdExp					.670	.596	.472	3.16	1.34
OccExp						.478	.379	58.65	26.09
Grade							.421	82.52	5.82
Partic								3.18	1.30

9th Grade (N=329)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Partic	Mean	St. Dev.
IQ	-.279	.282	.437	.485	.379	.592	.384	108.56	12.36
Sib		-.067	-.169	-.136	-.151	-.277	-.195	3.16	1.89
FaEd			.632	.442	.393	.402	.310	4.57	2.20
FaOcc				.446	.375	.472	.357	48.91	23.95
EdExp					.598	.554	.426	3.13	1.41
OccExp						.407	.32[illegible]	59.28	27.87
Grade							.516	83.67	5.99
Partic								3.37	1.28

6th Grade (N=258)	Sib	FaEd	FaOcc	EdExp	OccExp	Grade	Partic	Mean	St. Dev.
IQ	-.310	.272	.440	.320	.316	.707	.078	106.75	13.77
Sib		-.216	-.258	-.207	-.239	-.275	-.136	3.39	2.21
FaEd			.545	.330	.143	.280	.042	5.03	2.24
FaOcc				.345	.338	.377	.162	47.84	24.82
EdExp					.342	.288	.083	3.65	1.21
OccExp						.260	.083	59.79	25.97
Grade							.154	83.17	6.76
Partic								3.57	1.09

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Table 4.9

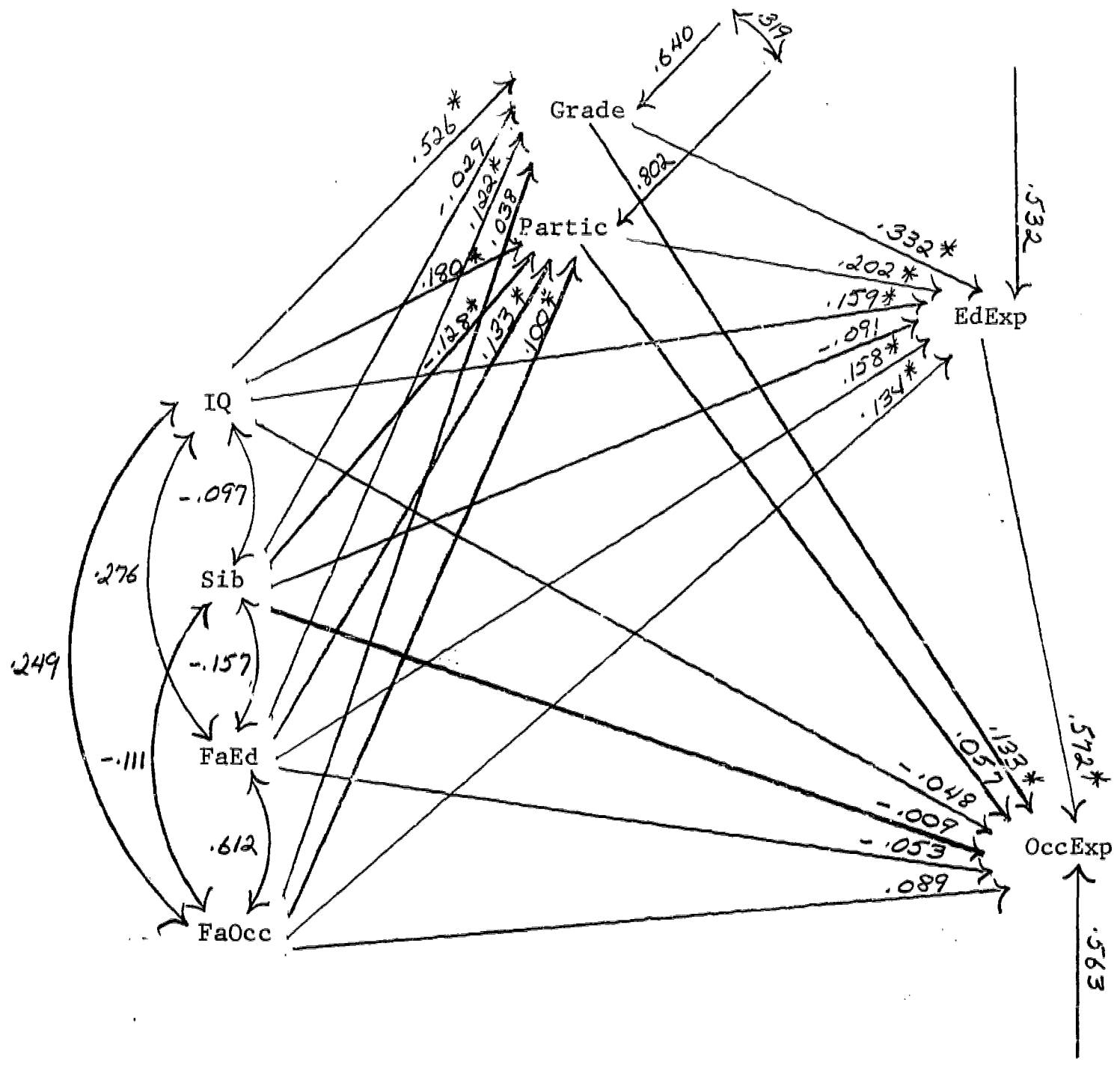
Path Coefficients, Grade-Partic Model, In-School Whites

Dependent Variables	Independent Variables: IQ	Sib	FaEd	FaOcc	Grade	Partic	EdExp	Coeff. of Determination
12th Grade								
Grade	.526* (.2661)	-.029 (-.0859)	.122* (.3277)	.038 (.0096)	-	-	-	.349
Partic	.180* (.0204)	-.128* (-.0845)	.133* (.0799)	.100* (.0056)	-	-	-	.128
EdExp	.159* (.0185)	-.091* (-.0621)	.158* (.0977)	.134* (.0077)	.332* (.0766)	.202* (.2083)	-	.515
OccExp	-.048 (-.1092)	-.009 (-.1249)	-.053 (-.6364)	.089 (.1005)	.133* (.5955)	.057 (1.141)	.572* (11.10)	.467
9th Grade								
Grade	.446* (.2161)	-.116* (-.3661)	.176* (.4796)	.146* (.0365)	-	-	-	.436
Partic	.258* (.0266)	-.090 (-.0607)	.144* (.0834)	.138* (.0073)	-	-	-	.210
EdExp	.205* (.0233)	.045 (.0339)	.198* (.1271)	.065 (.0038)	.266* (.0626)	.135* (.1493)	-	.414
OccExp	.071 (.1610)	-.045 (-.6599)	.130* (1.645)	.030 (.0351)	.011 (.0501)	.032 (.6906)	.467* (9.227)	.390
6th Grade								
Grade	.657* (.3223)	-.046 (-.1418)	.071 (.2142)	.037 (.0100)	-	-	-	.511
Partic	-.016 (-.0013)	-.110 (-.0544)	-.078 (-.0379)	.184* (.0080)	-	-	-	.040
EdExp	.144 (.0127)	-.068 (-.0371)	.183* (.0986)	.137 (.0067)	.061 (.0109)	.023 (.0257)	-	.187
OccExp	.121 (.2281)	-.113 (-1.330)	-.126 (-1.455)	.234* (.2452)	.023 (.0870)	.002 (.0578)	.234* (5.024)	.212

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized. The Grade and Partic residuals are correlated .319, .323, and .127 in the 12th, 9th and 6th grade models, respectively.

Figure 4.3

Grade-Partic Model, Twelfth Grade Whites



and Partic are significantly linked with EdExp, but neither has a significant path to OccExp. Finally, in the sixth grade the addition of Partic to the model changes nothing in a meaningful way. Although Partic is linked with FaOcc and Grade with IQ, neither of them is significantly linked with either EdExp or OccExp, and none of the paths from the exogenous variables to EdExp or OccEcp is changed by the inclusion of Partic.

The inclusion of Partic thus has an effect on the model primarily in the two older cohorts, although even there its effect is not nearly as impressive as was the effect of Grade when added to the basic model. The primary effect of Partic is as a source of explanation of the flow of influence within the Grade model rather than as an independent source of explanation of variance in the dependent variables. It is also primarily a source of explanation of the flow of influence on EdExp rather than

OccExp, although its inclusion reduces the OccExp-EdExp path slightly in the twelfth grade. It reduces three of the paths from the exogenous variables to EdExp in the twelfth grade and one path in the ninth grade. Its most significant effect, however, seems to be in providing an alternative source of explanation of EdExp beyond that provided by Grade. Its inclusion reduces the EdExp-Grade path in both older cohorts, and there appear to be two means by which school experience links the boys' abilities and backgrounds with their expectations of the future.

Summary

This chapter has investigated the effect of school experience on the educational and occupational expectations and attainments of boys as well as the degree to which this experience varies by ability level and social background. The inclusion of Grade as an intervening variable in the basic model has increased the explanation of variation in educational expectation and attainment as well as (to a lesser extent) the variation in occupational expectation. In addition, its inclusion has helped explain the relationships between the exogenous variables and educational expectation and attainment. It has been especially important in explaining the relationship between IQ and educational expectations and attainments. The further addition of Partic to the in-school models has had less dramatic but nonetheless noteworthy effects. It also reduces the paths between some of the exogenous variables and EdExp, and it provides an indication of the relative importance of academic and non-academic experiences as bridges between origins and anticipated destinations. In the analysis it became clear that neither Grade nor Partic did much to clarify the model in the sixth grade, and they were most effective in the older (graduate and twelfth grade) cohorts.

If one compares Table 3.4, which reports the path coefficients for the basic models of the three in-school cohorts, with Table 4.9, the overall effect of the school experience measures may be assessed. Several striking differences appear. First, the amount of variance in EdExp explained by the Grade-Partic model is clearly greater than by the basic model, at least in the two older cohorts.* There is no increase in the explanation of OccExp, however. Second, the inclusion of Grade and Partic reduces appreciably the direct paths from the exogenous variables to EdExp, at least in the two older cohorts. This is most striking in the case of IQ, but there are also sizeable reductions in the EdExp-FaEd and EdExp-FaOcc paths in both older cohorts, and the EdExp-Sib path is reduced in the twelfth grade model. Third, there is almost no change in the paths from the exogenous variables to OccExp. These paths tend to be insignificant in the basic model, and although their coefficients change some in the Grade-Partic model, the changes are neither orderly nor sizeable.

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*The sixth grade coefficient of determination of EdExp in Table 4.9 is actually slightly lower than in Table 3.4. This seems to be a function of the loss in sample size due to a lack of data on Grade for some of the boys.

The analysis has thus shown that measures of school experience help both to increase the explanation of the boy's educational expectations and attainments and to provide a basis for explanation of the link between the exogenous variables and these expectations and attainments. Except for the sixth graders, inclusion of measures of school experience have improved the models considerably.

CHAPTER FIVE

PERSONALITY CHARACTERISTICS

From the beginning of the analysis, it has been assumed that the intelligence of the boy should influence his academic and occupational future both as he anticipates it and as it is likely to be experienced. The implicit assumption has been that his intelligence should influence his level of performance which, in turn, should demonstrate both to him and to others what his probable level of future attainment will be. In short, the characteristics of the boy are assumed to influence both his level (and kind) of performance and the way in which he and others respond to that performance. IQ has been included among the exogenous variables in the analysis because of the presumed innate component of measured and the difficulty of separating that component from the experiential component, either conceptually or empirically. In the case of other characteristics of the individual, especially personality characteristics, there seems to be a firmer basis for viewing them as learned. Although the nature-nurture problem cannot be wholly resolved in any case, the importance of experience in the development of personality is well-established.

In the framework of this analysis, therefore, personality characteristics may be viewed as lying between the exogenous variables and the dependent variables. They may be seen as having been influenced by the boy's background and ability and as influencing his expectations of the future. In the case of the graduates, personality characteristics may be seen as influencing their level of attainment only to the extent one is willing to assume that an individual's personality is relatively stable after adolescence and that the measures one obtains from young men are very similar to those one would have obtained had they been made a number of years earlier. Both because that assumption may be challenged and because only limited relevant data are available for the graduates, the bulk of the analysis in this chapter will be concerned with the three white in-school cohorts.

Developing the Scales

As reported in Table 2.6 and as is apparent from a perusal of the in-school questionnaire, there were many items which dealt with the boys' personal characteristics. Many of these were taken from previous research, although some of them were original. They generally dealt with the dimensions of self-esteem, achievement orientation, autonomy, a sense of potency, and attitudes toward authority. As reported in the Appendix, in those cases where there were several items which presumably formed a scale, the inter-item consistency was investigated by means of factor analysis. In some cases sets of items were broken up into two or more separate scales, and in some cases items were dropped because they did not seem to be measuring the same thing as others in the set. (The most involved analysis of this kind was carried out with the achievement orientation items, three scales being formed from an original set of fifteen items.) The level of intercorrelation of the items (and the resulting factor loadings) was sufficiently consistent in each of the multiple item scales that the use of item weights seemed unwarranted.

In all cases, therefore, simple summation scores were used as scale scores.

The resulting scales were the following:

Control of Environment (ConEnv). This is the three-item measure used by Coleman, Campbell, et al (1966) and is concerned with the boy's belief in his ability to control his own destiny. (In abbreviated form, they are: "Good luck is more important than hard work;" "Every time I try to get ahead, something stops me;" "People like me don't have much of a chance to be successful"). Although the items are negatively worded, the analysis uses reversed scores which make a high score indicate a sense of control.

Fatalism (Fate). This is one of the scales derived from the achievement orientation items. It is similar to ConEnv in that its six items suggest that it doesn't pay to strive. It includes such items as: "The wise person lives for today and lets tomorrow take care of itself;" "When a man is born, the success he is going to have is in the cards, so he might as well accept it;" "The secret to happiness is not to expect too much out of life."

Planning (Plan). This was also devised from the achievement orientation items. The four items in this scale all deal with the desirability or futility of making plans: "Planning only makes a person unhappy since your plans hardly ever work out anyway;" "It is important to make plans for one's life and not just accept what comes." This scale is scored so that a higher score indicates greater acceptance of the desirability of planning.

Group Loyalty (Loyal). These five items were, in a sense, the "leftovers" from the achievement orientation item pool. Yet they did form a rather good scale by factor analytic criteria (the loadings on the first factor ranged from .73 to .43 with three of them being over .65). The three core items all deal with the importance of staying near one's parents ("Nothing in life is worth the sacrifice of moving away from your parents"). A fourth item refers to a desire for involvement in a work group ("The best kind of job to have is one where you are part of an organization all working together"). The fifth item is less directly relevant to the assigned scale name ("It's silly for a teenager to put money into a car when the money could be used to get started in business or for an education"). Thus, although it is not a wholly pure scale, the major emphasis seems to be on loyalty, particularly to one's parents.

Acceptance of Authority (Auth). This scale is made up of six original items. It deals with the boy's attitude toward the legitimacy of his parents' and his teachers' authority. It includes such items as: "Most of the rules at our school make good sense to me;" "High school teachers and principals have the right to tell students what to do about things like smoking, cars, clothing and so on;" "Most parents know what is best for their children;" "My parents know what is best for me."

Self-Esteem (SelfEst). The nine items in this scale come directly from Rosenberg (1965). All but one of his original set were used, the Office of Education having refused permission to use one of the items in this study. Although Rosenberg used a more complex combination of the

items in his research, a simple summation is used here, a high score indicating high self-seteem.

In addition to these six scales, two individual items, borrowed from Elder (1963) were used. One is a measure of Self-Confidence (SelfCon): "How confident are you that your own ideas and opinions about what you should do and believe are right and best for you?" The other is a measure of Self-Reliance (SelfRel): "When you have a really important decision to make do you make it on your own, or do you like to get help on it?" Each of these questions (numbers 16 and 17 in the in-school questionnaire) had multiple possible responses which were scored from 0 to 4.

Not everyone would agree to refer to these several measures as measures of "personality," but that term will be used here in the absence of a better generic term under which to subsume them. No particular theoretical perspective is implied, convenience alone being the basis for the use of the term.

Interrelationships among the Measures

As a description of the several measures suggests, it seemed reasonable to expect that there would be some significant relationships among them. For instance, one would expect ConEnv and Fate to be negatively related, and SelfEst, SelfCon, and SelfRel seem to be measuring nearly the same thing. To provide a preliminary indication of the validity of such expectations, the intercorrelations of the eight measures were computed. They are reported in Table 5.1*

Most of the anticipated relationships among the measures may be observed in the table. Although none of the correlations go much beyond .40, there is a negative relationship between Fate and ConEnv, a positive relationship between ConEnv and Plan, a negative relationship between Fate and Plan, and a positive relationship between ConEnv and SelfEst. The relationships among SelfEst, SelfCon, and SelfRel are not as anticipated, however. In fact, SelfRel does not seem to be strongly associated with any of the other variables. An additional association which, though not specifically anticipated, is far from surprising, is that between Loyal and Auth; boys who respect authority also have a sense of loyalty to their parents.

The fact that the strength of the relationships is almost the same in all three cohorts is both gratifying and somewhat surprising. I had expected that the sixth grade boys would respond somewhat more

*The correlations reported in Table 5.1 are based on the maximum frequencies possible for any pair of variables, and the frequencies thus vary to some extent. It will also be noted in later analysis that the correlations presented here are sometimes somewhat different from those based on a more restricted sample. Since the purpose here was to examine the relationships among the variables rather than to determine their role in the explanation of a dependent variable, however, this maximum frequency form of analysis seemed most appropriate.

Table 5.1

Intercorrelations of Personality Measures, In-School Whites

12th Grade	Fate	Plan	Loyal	Auth	SelfEst	SelfRel	SelfCon
ConEnv	-.432	.362	-.117	.051	.437	-.012	.161
Fate		-.378	.282	.060	-.387	-.062	-.172
Plan			-.034	.109	.311	-.032	.192
Loyal				.391	-.113	-.097	-.056
Auth					.017	-.132	-.003
SelfEst						.108	.333
SelfRel							.094

9th Grade	Fate	Plan	Loyal	Auth	SelfEst	SelfRel	SelfCon
ConEnv	-.466	.418	-.127	.139	.292	.072	.154
Fate		-.438	.235	-.069	-.334	-.173	-.264
Plan			-.080	.111	.289	.034	.269
Loyal				.429	-.145	-.128	-.082
Auth					-.031	-.105	-.012
SelfEst						.075	.203
SelfRel							.170

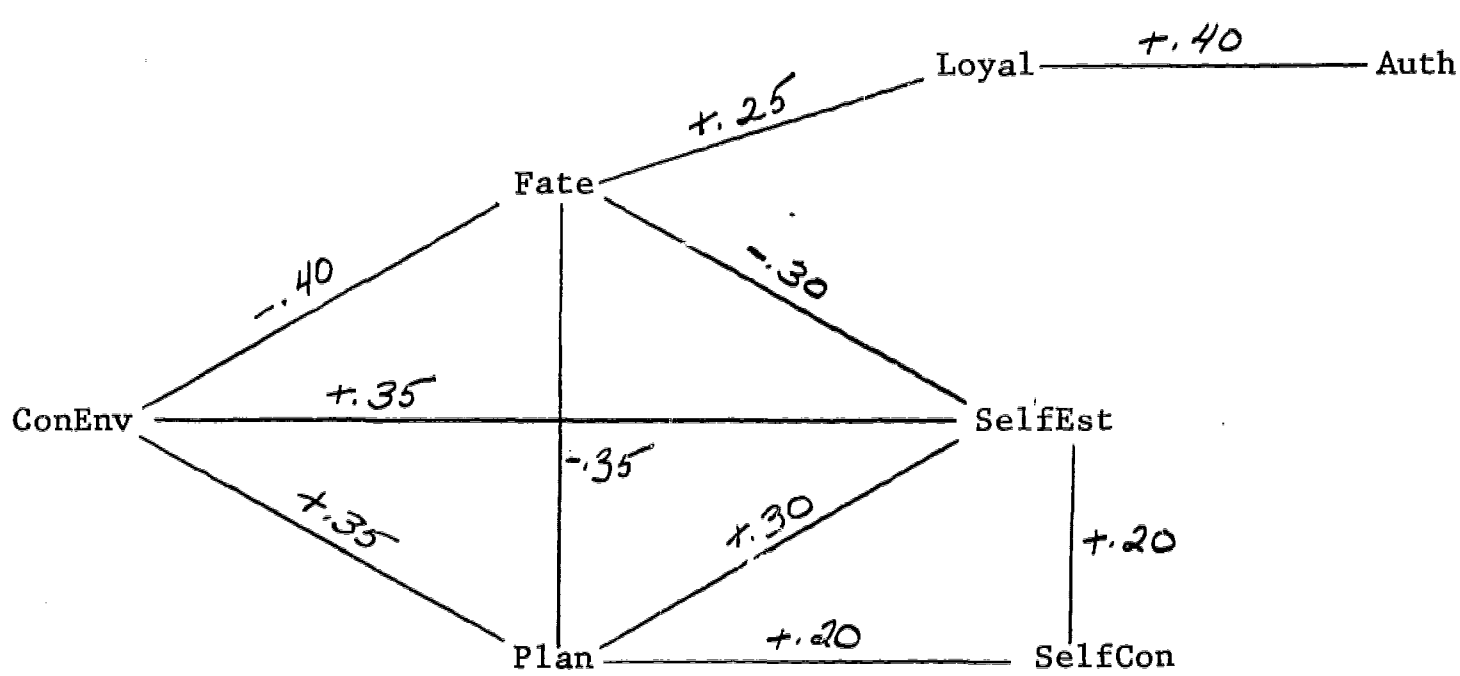
6th Grade	Fate	Plan	Loyal	Auth	SelfEst	SelfRel	SelfCon
ConEnv	-.366	.311	-.015	-.038	.345	-.038	.126
Fate		-.199	.249	.093	-.245	.052	-.104
Plan			-.054	.047	.314	-.096	.140
Loyal				.385	.067	-.103	-.027
Auth					.071	-.023	.025
SelfEst						-.026	.206
SelfRel							.172

inconsistently than the older boys and that the correlation coefficients would generally be somewhat lower in that cohort. This is not actually the case to any noteworthy extent. As a result of this consistency, it is possible to make more general statements than anticipated about the pattern of relationships among the personality dimensions. Figure 5.1 is a schematic summary of the pattern of relationships reported in Table 5.1. It includes all of the variables except SelfRel. The coefficients reported in the figure are approximate averages for the three cohorts. The most significant portion of the figure is the cluster of ConEnv, Fate, Plan, and SelfEst. Boys who believe they have some control over their environment tend to like to plan ahead, have a favorable self-image, and reject a fatalistic view of life.

Figure 5.1

Pattern of Relationships Among Personality Measures,

In-School Whites



Associations with Other Variables

Table 5.1 and Figure 5.1 provide a coherent picture of the personality dimensions of the boys. The more relevant question, however, concerns the extent to which such personality characteristics are associated with the key variables in this research. Do boys from different backgrounds or with different levels of ability tend to have different personal qualities? Do boys with different personality characteristics view their futures differently? An initial attempt to answer such questions can be made by examining the correlations between the personality characteristics and the variables included in the basic model. These correlations are reported in Table 5.2.

The only exogenous variable that is correlated with any of these measures to a notable extent is IQ. Six of the measures have correlations

Table 5.2

Correlations of Personality Variables with

Basic Model Variables, In-School Whites

12th Grade	FaOcc	FaEd	IQ	Sib	EdExp	OccExp
ConEnv	.033	.082	.147	-.049	.272	.203
Fate	-.176	-.218	-.314	.065	-.388	-.276
Plan	.034	.047	.080	-.024	.202	.163
Loyal	-.037	-.084	-.273	.048	-.093	-.077
Auth	-.022	-.033	-.057	.003	.044	.007
SelfEst	.072	.096	.122	.001	.223	.201
SelfRel	-.005	-.021	.026	.004	-.048	-.055
SelfCon	.074	.090	.035	.008	.112	.082

9th Grade	FaOcc	FaEd	IQ	Sib	EdExp	OccExp
ConEnv	.209	.188	.345	-.148	.354	.293
Fate	-.269	-.235	-.517	.182	-.468	-.313
Plan	.152	.138	.321	-.110	.349	.285
Loyal	-.056	-.017	-.182	.043	-.123	-.066
Auth	.102	.102	.016	.048	.048	.036
SelfEst	.093	.109	.180	.024	.206	.088
SelfRel	.038	-.013	.162	-.050	.051	-.028
SelfCon	.175	.071	.280	-.092	.285	.165

6th Grade	FaOcc	FaEd	IQ	Sib	EdExp	OccExp
ConEnv	.233	.232	.403	-.182	.165	.140
Fate	-.210	-.093	-.414	.215	-.214	-.135
Plan	.107	.080	.309	-.252	.136	.147
Loyal	-.048	-.036	-.108	-.002	.056	.018
Auth	.008	-.041	.044	.018	.021	.128
SelfEst	.203	.128	.325	-.120	.213	.022
SelfRel	-.038	-.043	-.020	.073	-.041	-.101
SelfCon	.144	.101	.187	-.008	.195	.111

with IQ of .25 or better in at least one of the cohorts. Only in the case of Fate, however, is a relationship of that magnitude found in all three cohorts. In most of the other cases, the link between IQ and the personal characteristics of the boys is stronger in the younger cohorts. This is true for the relationship between IQ and Fate, ConEnv, Plan, SelfEst and SelfCon. Only Loyal is more strongly related to IQ in the twelfth grade cohort. There are only two other correlations between any of the personality measures and the exogenous variables which reach .25. The Plan-Sib relationship is that strong in the sixth grade, and the Fate-FaOcc correlation reaches that level in the ninth grade. In general, therefore, only IQ is associated with these personality measures, and this is true primarily among the younger boys.

Four of the personality measures have correlations with EdExp of .25 or better. These are Fate, ConEnv, Plan and SelfCon. None of these correlations is found in the sixth grade, however, and the highest correlations are found in the ninth grade cohort. Similarly, OccExp is correlated at the .25 level or better with Fate, ConEnv, and Plan; none of these correlations is in the sixth grade; and all but one are in the ninth grade.

If we view these several personality measures as possible links between the exogenous variables and the boys' expectations, it is apparent that the link is largely one between IO and EdExp and that few of the measures are correlated with both IQ and EdExp. Only Fate, ConEnv, Plan and SelfCon have correlations of .25 or better with both IQ and EdExp in <u>any</u> cohort. Fate is the only measure correlated at that level with both IQ and EdExp in two cohorts (the older two). It is also correlated with OccExp at that level or better in the two older cohorts. In the case of the other measures, such a link with both IQ and EdExp is found only in the ninth grade. For the sake of simplicity in the later analysis, therefore, only Fate will be used as a measure of the boy's personal characteristics.

Two Models Incorporating Fatalism

If Fate is considered to be an intervening variable, it may be introduced between the exogenous variables and EdExp in the basic ambition model. This will be done in two ways - by itself and together with Grade. The resulting correlation matrix is presented in Table 5.3* The structure of the Fate model is exactly like the Grade model in Chapter Four. The path coefficients for all three in-school white cohorts are reported in Table 5.4

In Table 5.4 it is apparent that the exogenous variables do not do much to explain the variation in Fate scores in any of the cohorts. The only exogenous variable that consistently contributes to an understanding of Fate is IQ. FaEd also contributes in the twelfth grade cohort

*The correlations between Fate and the model variables are somewhat different here than in Table 5.2 because only those cases for whom <u>all</u> measures are available are used in Table 5.3 whereas all cases in which a particular <u>pair</u> of measures are available are used in Table 5.2

Table 5.3

Correlation Matrix for Fatalism and Grade-Fatalism Models,

In-School Whites

12th Grade (N=748)	Sib	FaEd	FaOcc	EdExp	OccExp	Fate	Grade	Mean	St. Dev.
IQ	-.092	.273	.246	.490	.332	-.311	.567	110.39	11.51
Sib		-.150	-.104	-.210	-.153	.067	-.093	2.93	1.97
FaEd			.618	.446	.297	-.220	.283	4.35	2.17
FaOcc				.412	.317	-.186	.235	47.16	23.15
EdExp					.677	-.353	.605	3.18	1.34
OccExp						-.273	.487	58.71	26.17
Fate							-.281	12.53	2.61
Grade								82.54	5.80

9th Grade (N=293)	Sib	FaEd	FaOcc	EdExp	OccExp	Fate	Grade	Mean	St. Dev.
IQ	-.272	.257	.409	.477	.365	-.465	.584	109.31	12.06
Sib		-.061	-.145	-.157	-.129	.154	-.252	3.08	1.83
FaEd			.635	.414	.375	-.184	.400	4.63	2.16
FaOcc				.421	.358	-.259	.466	49.68	23.66
EdExp					.606	-.470	.548	3.19	1.37
OccExp						-.337	.391	60.48	27.51
Fate							-.399	11.53	2.85
Grade								83.96	5.94

6th Grade (N=210)	Sib	FaEd	FaOcc	EdExp	OccExp	Fate	Grade	Mean	St. Dev.
IQ	-.325	.283	.437	.335	.312	-.386	.725	107.66	13.68
Sib		-.245	-.264	-.212	-.242	.166	-.288	3.40	2.32
FaEd			.557	.337	.122	-.110	.310	5.07	2.24
FaOcc				.316	.308	-.227	.404	48.65	25.11
EdExp					.299	-.171	.297	3.64	1.21
OccExp						-.162	.247	60.34	25.82
Fate							-.366	9.97	2.63
Grade								83.58	6.80

Table 5.4

Path Coefficients, Fatalism Model, In-School Whites

Dependent Variables	Independent Variables IQ	Sib	FaEd	FaOcc	Fate	EdExp	Coeff. of Determination
12th Grade							
Fate	-.266* (-.0603)	.020 (.0265)	-.115* (-.1381)	-.048 (-.0054)	-	-	.118
EdExp	.332* (.0387)	-.122* (-.0827)	.199* (.1236)	.163* (.0095)	-.167* (-.0861)	-	.403
OccExp	-.007 (-.0168)	-.013 (-.1737)	-.046 (-.5604)	-.069* (.0782)	-.040 (-.3983)	.656* (12.78)	.463
9th Grade							
Fate	-.425* (-.1002)	.028 (.0430)	-.037 (-.0487)	-.057 (-.0069)	-	-	.223
EdExp	.238* (.0270)	-.019 (-.0145)	.238* (.1516)	.095 (.0055)	-.288* (-.1388)	-	.390
OccExp	.060 (.1379)	-.017 (-.2496)	.128* (1.628)	.034 (.0397)	-.046 (-.4426)	.485* (9.732)	.394
6th Grade							
Fate	-.336* (-.0663)	.042 (.0475)	.050 (.0581)	-.093 (-.0097)	-	-	.156
EdExp	.202* (.0178)	-.066 (-.0343)	.214* (.1149)	.082 (.0040)	-.040 (-.0185)	-	.187
OccExp	.139 (.2620)	-.127 (-1.417)	-.144 (-1.659)	.228* (.2341)	-.017 (-.1670)	.199* (4.260)	.189

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

where the contribution of IQ is weakest, but no other path coefficient is significant in any of the cohorts. The paths from the exogenous variables to EdExp tend to be weaker in the two older cohorts than they were in the basic ambition model presented in Chapter Three. In both older cohorts the EdExp-Fate path is significant. That path is stronger in the ninth grade, and the inclusion of Fate reduces the EdExp-IQ path appreciably (from .35 to .24) in that cohort. In contrast with these older cohorts, the inclusion of Fate has almost no effect in the sixth grade model. Although there is a strong Fate-IQ path, Fate does not contribute to the explanation of EdExp, and none of the paths from the exogenous variables to EdExp is altered appreciably by the inclusion of Fate in the model. In none of the cohorts does the inclusion of Fate alter the paths to OccExp very much, and in none of them is there a sizeable increase in the explanation of the variance of either EdExp or OccExp.

Thus, Fate alters the model most notably in the ninth grade although it has more limited effects in the twelfth grade. The most important effect it has is to reduce the strength of the paths between EdExp and the exogenous variables and most significantly to reduce the EdExp-IQ path.

It is possible to include both Fate and Grade in the model (as was done with Grade and Partic in Chapter Four), but to do so requires one to decide on the ordering of the two intervening variables. In Chapter Four it was decided not to order Grade and Partic since they both referred to the same period of time and since it was quite possible to argue that each influenced the other. In the present case, there is at least a stronger basis for arguing for ordering Grade and Fate. Since Grade is based on the boy's performance in the past and Fate is based on questions asked at a later time, if there is an influence of one on the other, it is easier to argue that Grade influences Fate. This is true, of course, only if Fate is viewed as a possibly shifting characteristic, subject to such experiences as the boy's academic performance over a few years. If Fate is viewed as a more stable characteristic, one which would have provided the same scale score several years earlier, such an order could not be defended so easily. In the present case, the analysis will be carried out as if Fate were subject to influence by this recent academic performance, and Grade will be included in the model before Fate. Since a very different position will necessarily be taken in the next section, however, such an ordering is adopted here without firm conviction and largely for the sake of convenience in the present analysis.

Table 5.5 presents the path coefficients for such a model for the three in-school white cohorts. In both of the older cohorts there is evidence of an effect of Grade on Fate, but the Fate-Grade path is not quite significant in the sixth grade. In all three cohorts, the inclusion of Grade reduces the size of the Fate-IQ path appreciably, but there is little change in any of the other paths from the exogenous variables to Fate. Although Grade thus helps to explain the relationship between IQ and Fate, it does not add to the coefficient of determination of Fate in any of the cohorts.

If the Pattern in Table 5.5 is compared with that in Table 4.7, where path coefficients for the Grade model for the in-school cohorts are reported,

Table 5.5

Path Coefficients, Grade-Fatalism Model, In-School Whites

Dependent Variables	Independent Variables: IQ	Sib	FaEd	FaOcc	Grade	Fate	EdExp	Coeff. of Determination
12th Grade Grade	.525* (.2646)	-.024 (-.0709)	.116* (.3114)	.032 (.0080)	-	-	-	.340
Fate	-.198* (-.0450)	.017 (.0224)	-.100* (-.1200)	-.044 (-.0049)	-.129* (-.0582)	-	-	.129
EdExp	.129* (.0151)	-.113* (-.0766)	.157* (.0971)	.152* (.0088)	.405* (.0939)	-.128* (-.0660)	-	.510
OccExp	-.059 (-.1349)	-.018 (-.2353)	-.049 (-.5910)	.076* (.0856)	.147* (.6646)	-.036 (-.3654)	.591* (11.51)	.474
9th Grade Grade	.449* (.2213)	-.096* (-.3121)	.182* (.5010)	.153* (.0383)	-	-	-	.430
Fate	-.344* (-.0812)	.010 (.0161)	-.004 (-.0056)	-.030 (-.0036)	-.180* (-.0860)	-	-	.242
EdExp	.132* (.0150)	.006 (.0041)	.190* (.1212)	.056 (.0032)	.269* (.0622)	-.252* (-.1217)	-	.430
OccExp	.061 (.1382)	-.017 (-.2501)	.128* (1.628)	.034 (.0397)	-.000 (-.0019)	-.046 (-.4429)	.486* (9.734)	.394
6th Grade Grade	.664* (.3301)	-.037 (-.1079)	.080 (.2433)	.059 (.0159)	-	-	-	.541
Fate	-.227* (-.0436)	.035 (.0410)	.064 (.0748)	-.082 (-.0086)	-.178 (-.0689)	-	-	.170
EdExp	.178 (.0157)	-.065 (-.0337)	.211* (.1132)	.081 (.0039)	.038 (.0068)	-.037 (-.0168)	-	.188
OccExp	.143 (.2702)	-.128 (-1.419)	-.144 (-1.652)	.228* (.2345)	.007 (-.0264)	-.018 (-.1736)	.199* (4.263)	.189

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

it can be seen that Fate alters the Grade model only slightly and only in the older cohorts. In the ninth grade there is a slight reduction in EdExp-Grade path (from .33 to .27). The most notable reduction in both older cohorts, however, is in the EdExp-IQ path, a reduction that is greater in the ninth grade(from .21 to .13). The combined effect of Grade and Fate on the EdExp-IQ path is impressive in these two cohorts. In the basic model (Chapter Two) the EdExp-IQ path coefficient is .37 in the twelfth and .35 in the ninth grade. It is reduced to .13 in both cohorts in Table 5.5. Thus, Grade and Fate contribute a great deal to the explanation of the effect of IQ on educational expectations, and in both of the older cohorts both variables make an independent contribution to that explanation.*

The overall effect of the inclusion of Fate in the model, either alone or with Grade, is thus limited to the two older cohorts and primarily affects the EdExp-IQ path. The effect is greatest in the ninth grade cohort, and there is practically no effect at all in the sixth grade. Although the position of Grade in the Grade-Fatalism model is subject to debate, it does serve to lower the Fate-IQ path as well as the EdExp-IQ path. In this way, both Grade and Fate help to explicate the relationship between the boy's ability and his expectations for the future. At least for the older boys, the data are consistent with the view that a boy's expectations are conditioned by his previous experience in situations in which his attempts to use his abilities have been evaluated. In general, there is a positive correlation between ability and performance, performance and ability are related to the boy's degree of fatalism, and all three affect his view of the future. In addition, the pattern found earlier continues to be found: the older boys' expectations are also affected by their family background, the effect being strongest among the twelfth graders. In fact, in the twelfth grade, even fatalism is influenced by the boy's background, the Fate-FaEd path being a significant one.

Graduate Personality Models

As noted earlier, the use of personality variables in the analysis of the graduate cohort is more difficult than with the in-school cohorts. This is largely because little personality data exist for that cohort. It is also due, however, to the difficulty of interpreting the role of personality, as measured here, in the attainment process. Ideally, we would have personality measures taken before the boys' educational and occupational attainment, and we could then use the former as predictors of the latter. The only personality measure we have, however, was made after rather than before the attainment. As a result, one might prefer to view the attainment process as having influenced the personality measure rather than the reverse. A similar problem was noted in the previous section when we had to decide about the ordering of Grade and Fate.

*It is not necessary, of course, to accept the ordering of Fate and Grade as used here for this reduction of the EdExp-IQ path to be meaningful. The coefficient of that path would be the same in the present case, whatever the order of Grade and Fate.

There, Fate was viewed as subject to such experiences as getting graded for one's academic performance, and thus Grade was placed before Fate in the model. Here, in order to place a personality measure before EdAtt and OccAtt, it is necessary to argue that the personality measure would have been substantially the same for the graduates if it had been made before they graduated. Thus, in effect, the combined force of these two sections is to argue that personality (as measured here) is becoming formed during the pre-adolescent and adolescent years, but that it is relatively stable by the time a boy is a senior in high school. At least such a position is tentatively adopted for purposes of the analysis.

The only personality measure used in this chapter for which there are even roughly comparable data from the graduates is Fate. Four of the six items in that scale were included in the graduate questionnaire ("Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself;" "All I want out of life in the way of a career is a secure, not too difficult job, with enough pay to afford a nice car and eventually a home of my own;" "When a man is born, the success he is going to have is already in the cards, so he might as well accept it and not fight against it;" "With things the way they are today, an intelligent person ought to think about the present, without worrying about what is going to happen tomorrow"). A simple summation score of these four items was used as an approximation of a Fate score, and that variable was introduced into the analysis in the same way as it had been for the in-school cohorts.

Table 5.6 presents the intercorrelations of this variable (also called Fate) with the variables from the basic model and with Grade. Table 5.7 reports the path coefficients for both the Fatalism and the Grade-Fatalism models. To begin with, it is instructive to compare the correlations in Table 5.6 with those for the twelfth graders in Table 5.3. If one scans the column of correlations between Fate and the other variables, it is clear that Fate is less strongly related to <u>all</u> of the other variables in the graduate cohort. The most striking difference, however, is found in the Fate-FaEd and Fate-FaOcc coefficients. Both of these are of a noteworthy size (about .20) for the twelfth graders but practically zero for the graduates. This is in sharp contrast to the correlations between Grade and the other variables, the coefficients for the graduates being about the same size as those for the twelfth graders. Thus, the most impressive part about the comparison between the two cohorts is the generally weaker correlations with Fate, especially the correlations involving the father's characteristics.

This weak relationship between the exogenous variables and Fate leads to a very small coefficient of determination of Fate in Table 5.7. Even in the Grade-Fatalism model this coefficient is very small. On the other hand, Fate is significantly related to EdAtt both with and without Grade in the model. The inclusion of Fate reduces the EdAtt-IQ path from what it was in the basic model in Chapter Three (from .42 to .36), but it has no other significant effect. When it and Grade are included in the same model, the EdAtt-IQ path is reduced even further (to .21). However, the addition of Fate to the Grade model presented in Chapter Four does not alter any of the paths appreciably, even though there is a significant EdAtt-Fate path.

Table 5.6

Correlation Matrix for Fatalism and Grade-Fatalism Models,

White Graduates

(N=315)

	FaEd	FaOcc	EdAtt	OccAtt	Fate	Grade	Mean	St. Dev.
IQ	.265	.253	.466	.368	-.217	.480	107.13	11.75
FaEd		.615	.310	.303	.013	.238	3.79	2.30
FaOcc			.393	.392	-.039	.255	46.45	23.18
EdAtt				.656	-.223	.531	3.00	1.79
OccAtt					-.207	.462	43.10	25.00
Fate						-.141	9.49	2.11
Grade							80.84	5.52

Thus, the effect of Fate in the analysis of the graduate attainment data is less noteworthy than for the expectations data for the in-school cohorts. It is striking that the Fate scores are so independent of the boy's background, the only correlation over .20 being between Fate and IQ. The correlations between Fate and EdAtt and OccAtt are of this magnitude also, however, and the EdAtt-Fate path is significant in both models. One might argue that this pattern of results supports the idea that Fate is more a result of the boy's level of attainment than it is an influence on that attainment, but there is really little basis for arguing for either direction of influence. In any event, the analysis has suggested that the personality variable Fate is not as effective a contributor to an explanation of the boys' attainments as it was to an explanation of their expectations. Although its inclusion did alter the structure of the basic model, when it and Grade were included together, it made less of an independent contribution than it did with the in-school cohorts.

There are some data for the graduates which are comparable to the in-school cohorts' expectations data, and these may also be considered in the present analysis. The graduates were asked how much more education they "really expect to get," and they were asked to choose from two lists of occupations the two which they thought were "the best you think you can have by the time you are 30 years old." The first question appears to be a very appropriate measure of educational expectations. Although the latter question is not considered a particularly good one (for reasons discussed in the Appendix), it at least gives some indication of the graduates' ultimate occupational expectations. The average Duncan score of the two occupations chosen was used in the analysis. These two

Table 5.7

Path Coefficients, Fatalism and Grade-Fatalism Models,

White Graduates

Dependent Variables	Independent Variables						Coeff. of Determination
	IQ	FaEd	FaOcc	Grade	Fate	EdAtt	
Fate Model							
Fate	-.233* (-.0418)	.100 (.0913)	-.041 (-.0037)	-	-	-	.053
EdAtt	.355* (.0541)	.055 (.0424)	.264* (.0204)	-	-.136* (-.1155)	-	.317
OccAtt	.052 (.1097)	.035 (.3791)	.138* (.1487)	-	-.069 (-.8118)	.551* (7.699)	.459
Grade-Fate Model							
Grade	.437* (.2052)	.055 (.1313)	.110 (.0262)	-	-	-	.251
Fate	-.208* (-.0374)	.103 (.0941)	-.035 (-.0032)	-.056 (-.0216)	-	-	.056
EdAtt	.206* (.0314)	.034 (.0263)	.226* (.0175)	.350* (.1136)	-.121* (.1022)	-	.408
OccAtt	.011 (.0230)	.030 (.3207)	.137* (.1476)	.140* (.2332)	-.070 (.8242)	.498* (6.950)	.472

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized

measures will be referred to as ultimate educational attainment (UltEd) and ultimate occupational attainment (UltOcc), respectively.

One might view these as most appropriately included in a model in exactly the same way as EdExp and OccExp are used for the in-school cohorts. They could be treated in this way in an analysis of the same form as that found in Table 5.4. This would be the most unambiguous form of a model so far as the ordering of variables is concerned; the measure of Grade clearly precedes the measure of Fate, and both of these at least precede the relevant point in time of UltEd and UltOcc. Such an analysis, however, would ignore the fact that the graduates have already attained varying levels of education and occupational placement. Thus, it might be more appropriate to view UltEd and UltOcc as additional variables besides those used in the analysis in Table 5.7, UltEd being dependent on all of the variables in that analysis and UltOcc being dependent on all those variables plus UltEd. Both models were considered, and the relevant data are presented in Tables 5.8 and 5.9.*

Turning to the simpler model first (presented at the top of Table 5.9), it will be noted that only IQ and Fate make significant contributions to an explanation of UltEd (row 5 of Table 5.9). These same two paths are significant when EdAtt is the dependent variable (row 3), but in that case Grade and FaOcc also make a significant contribution. All of the paths comparable to those that were significant in explaining EdAtt have much smaller coefficients in the UltEd analysis except the UltEd-Fate path, and the coefficient of determination of UltEd is much smaller than that for EdAtt. So far as UltOcc is concerned, we find that those paths that were significant in row 4 (where OccAtt is the dependent variable) are also significant in row 6, but in the latter case the UltOcc-Fate path is also significant. Although the UltOcc-UltEd path is much weaker than the OccAtt-EdAtt path, all other significant coefficients are larger in row 6 than in row 4. The coefficient of determination of UltOcc is also much smaller than that for OccAtt.

When EdAtt and OccAtt are introduced into the analysis in Table 5.9 (rows 7 and 8), the coefficients of determination of both UltEd and UltOcc are increased but not as much as might have been expected. OccAtt does not contribute significantly to the explanation of either UltEd or UltOcc, but EdAtt makes a strong contribution to the explanation of both. The inclusion of EdAtt and OccAtt reduces the paths between all other variables and UltEd and UltOcc.** All such paths fall below the significance level except those from Fate. Thus, only EdAtt and Fate make a significant contribution and they contribute to an explanation of both UltEd and UltOcc.

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*There was some loss of sample size when these two additional variables were introduced. The sample for the analysis in Tables 5.8 and 5.9 is thus 305. Some of the coefficients which parallel those in Tables 5.6 and 5.7 are also changed somewhat as a result of this loss.

**The UltOcc-FaEd path is a minor exception, but its coefficient is extremely small in both cases.

Table 5.8

Correlation for Models Using Ultimate Educational and Occupational Attainment, White Graduates

(N=305)

	FaOcc	FaEd	Grade	Fate	EdAtt	OccAtt	UltEd	UltOcc	Mean	St. Dev.
IQ	.249	.269	.476	-.218	.456	.373	.274	.263	07.35	11.68
FaOcc		.612	.255	-.027	.392	.390	.202	.260	46.66	23.21
FaEd			.240	.002	.308	.293	.189	.163	3.80	2.31
Grade				-.135	.519	.451	.220	.319	80.82	5.49
Fate					-.220	-.215	-.216	-.272	9.54	2.04
EdAtt						.657	.481	.504	3.00	1.79
OccAtt							.344	.389	42.96	24.77
UltEd								.292	2.33	1.98
UltOcc									65.59	17.25

Table 5.9

Path Coefficients for Models using Ultimate Educational

and Occupational Attainment, White Graduates

Dependent Variables	Independent Variables								Coeff. of Determination
	IQ	FaEd	FaOcc	Grade	Fate	EdAtt	OccAtt	UltEd	
Grade	.434* (.2039)	.053 (.1262)	.115 (.0272)	-	-	-	-	-	.249
Fate	-.212* (-.0371)	.076 (.0674)	-.008 (-.0007)	-.050 (-.0187)	-	-	-	-	.053
EdAtt	.201* (.0307)	.030 (.0232)	.234* (.0180)	.339* (.1105)	-.124* (-.1087)	-	-	-	.396
OccAtt	.028 (.0594)	.014 (.1454)	.144* (.1534)	.127* (.5726)	-.078 (-.9441)	.501* (6.940)	-	-	.474
UltEd	.156* (.0264)	.070 (.0598)	.095 (.0081)	.082 (.0295)	-.168* (-.1636)	-	-	-	.129
UltOcc	.046 (.0682)	-.040 (-.2965)	.184* (.1365)	.197* (.6194)	-.194* (-1.641)	-	-	.164* (1.430)	.217
UltEd	.064 (.0109)	.056 (.0478)	-.016 (-.0013)	-.076 (-.0274)	-.110* (-.1065)	.433* (.4799)	.036 (.0029)	-	.253
UltOcc	-.013 (-.0199)	-.043 (-.3246)	.098 (.0729)	.070 (.2207)	-.163* (-1.377)	.358* (3.457)	.051 (.0357)	.043 (.3756)	.295

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

An overall comparison of the last four rows of Table 5.9 thus points up two striking differences. First, the variables used are much more effective in explaining the variation in the graduates' actual attainments than they are in explaining their expected ultimate attainments. The coefficients of determination of UltEd and UltOcc are much smaller than those for EdAtt and OccAtt. Second, the only variable which makes a significant contribution to the explanation of both attainments and ultimate expectations is Fate. It is a relatively minor contributor to an explanation of EdAtt; Grade, FaOcc and IQ make stronger contributions. But it contributes as much as any other variable to the explanation of UltEd and UltOcc when the attainment variables are not included, and it is the only variable besides EdAtt to make a significant contribution when the attainment variables are included. The inclusion of EdAtt washes out the effects of all of the exogenous variables and of Grade, but it has a relatively minor effect on Fate.* Again, this may be interpreted as indication that the more appropriate place for Fate in the expanded model is after EdAtt and OccAtt and before UltEd and UltOcc.

Summary

This chapter has explored the relevance of personality dimensions for an understanding of the expectations and attainments of our white subjects. In all three in-school white cohorts there was a similar pattern of intercorrelations among the personality characteristics measured. Boys who were fatalistic in their view of the world had relatively low self-esteem, had a lower sense of control of their environment, and rejected the utility of planning for the future. Yet, few of these personal qualities seemed to vary by the boy's background or level of ability and fewer still were associated with the educational and occupational expectations they reported. The measure that came closest to providing a bridge between the exogenous variables in the basic model and the expectations measures was fatalism. It was used in the further analysis.

Fatalism (Fate) did not provide a strong bridge in the model, but it did serve to reduce the EdExp-IQ path, and the simultaneous inclusion of Grade and Fate reduced that path even further. This occurred only in the two older in-school cohorts and especially in the ninth grade. A somewhat more limited measure of Fate was used with the graduate cohort. It served much the same function in that analysis as in the older in-school cohorts, but the effect was somewhat weaker. When the graduate model was elaborated to include not only the graduates' attainments but also their expectations of the future, Fate was the most consistent source of explanation of those expectations. Only Fate and EdAtt contributed significantly to an explanation of UltEd and UltOcc.

The analysis has thus suggested that the personality variables used in this study do not add a great deal to an understanding of the basic models, either by way of explicating the flow of influence between exogenous and dependent variables or by way of increasing the level of

*Even the UltOcc-UltEd path drops below significance when EdAtt is included.

explanation of the dependent variables. They are not strongly associated with either the exogenous variables or the dependent variables. Yet, the one personality variable that was studied most intensively did consistently contribute to the explanation of the dependent variables, albeit at a relatively modest level. In general, the contribution was somewhat greater when the dependent variable was a measure of expectation rather than attainment. It may well be that such a quality as fatalism does not affect a boy's accomplishments in any direct way but it has an effect through the kinds of goals the boy sets for himself.

CHAPTER SIX

PARENTAL INFLUENCES

The literature on the attainment process in the United States has consistently emphasized the importance of the boy's family background. The basic model which this research has used as a point of departure uses FaOcc, FaEd and Sib as indices of that background, and it has been demonstrated both here and elsewhere that these variables help explain both the boy's attainments and his expectations of the future. The use of the characteristics of the father rather than the mother in the basic model is defensible from two different perspectives. First, given the usual great significance of the husband-father in the economic support of the family in this country, his characteristics are usually more significant than those of the mother in determining the economic level from which the boy begins the attainment process. Whatever advantages are associated with higher socio-economic level, they are most fully indexed by the father's characteristics in the normal case. Second, if one views the parents as potential models for their children and if one assumes that such models actually influence the development of the children, it seems more likely that the father will be such a significant figure for a boy than will the mother. Yet, to limit the analysis to the father is to deny the obvious fact that a boy normally has two parents and that both of them at least have the potential for influencing him. In fact, increasingly American mothers are in the labor force and are thus contributing to the economic support of their families as well as providing socialization influence. Therefore, in this chapter the mother and father are both considered in the analysis.

The basic model also has another kind of limitation. It implicitly assumes that the parental influence is a function of what the parent <u>is</u> rather than being a function of the goals which the parent may have. At least it suggests that all fathers of a given level of occupation and education and with the same size of family have the same kind of influence on their children, and that if parental goals are significant in a boy's development, they may be indexed by the father's characteristics. There is sufficient evidence, however, that parents' goals for their children are not wholly uniform within any social level (Kahl, 1953) to question the adequacy of such an implicit assumption. Thus, we will be concerned here not only with the characteristics of the parents but also with what they seek for their sons.

Finally, it may also be suggested that parental goals are not in themselves sources of effective influence on their sons. A mother or father may have high aspirations for their son but these aspirations may not be shared by the boy. It will be necessary for the boy to adopt parental goals and values if the parents' influence is to be effective. It will also be necessary, of course, for the conditions within which the family lives to be such as to make possible the accomplishment of those goals. We will therefore be concerned with the quality of the parent-child relationship as it interacts with the parents' goals and the social conditions of the family. The very complexity of the possible interrelations among these factors suggests that the logic of path analysis may not always be appropriate. That form of analysis is based on the

assumption of linear, additive relationships among the variables used whereas it is suggested here that parental characteristics, parental goals and values, and the form of the parent-child relationship may not be related to each other in this way. The basic model will continue to be our point of departure in the analysis, but it will at times be necessary to use somewhat different methods in the investigation of these relationships.

Characteristics of Mother

One might expect that the inclusion of the mother's characteristics in the basic model would increase the explanation of the dependent variables. Although the characteristics might be expected to be similar to those of the father, given the tendency for marriages to be homogamous with respect to social level, where differences occur they might be expected to have an effect on the son's view of the future. The two social characteristics of the father included in the basic model are his education and occupational level. Since only about half of the mothers work, it is not possible to include mother's occupation as a variable in the model for the entire sample at each grade level,* but we do have information on mother's education for all mothers. Mother's education (MoEd) was thus added as a fifth exogenous variable in the basic model.

The results of this additional variable were not very impressive. For none of the in-school white cohorts did its inclusion increase the coefficient of determination of EdExp more than 3%, and its effect on the other paths in the basic model was usually minimal. Although the EdExp-MoEd path coefficient was significant in both of the older cohorts (.12 and .18 in the twelfth and ninth grades, respectively), the other path coefficients changed very little. The only notable change in any of the models was in the EdExp-FaEd path, and it was reduced appreciably only in the ninth grade (from .26 to .14). In that cohort, in fact, the EdExp-MoEd path was slightly larger than the EdExp-FaEd path. In general, however, the addition of this measure did not alter the models appreciably.** Although MoEd will be used in some of the later analysis, its effect on the model is not great enough to warrant the inclusion of the full set of data here.

Another possible source of influence due to the mother's characteristics is her role as wage-earner. Since only some of the mothers worked, the only way in which this maternal characteristic could be used in the analysis was either by means of a dummy variable or by a separate analysis for those cases with and without a working mother. The latter option was

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*This could be done with the use of a dummy variable, but I have chosen not to use that approach.

**It may be worth noting that in each of the step-wise regression computations used in this analysis, FaEd entered the analysis before MoEd, even in the ninth grade analysis. The correlations between MoEd and FaEd were .52, .60 and .62 for the twelfth, ninth and sixth grade cohorts, respectively.

chosen. The basic model was computed twice in each in-school white cohort, for those boys with working mothers and for those whose mothers were nor working. In making the division, a mother was considered to be working whether she had a full-time or a part-time job.

The correlations among the basic model variables for these two sets cases are presented in Table 6.1. A number of features of those correlations are worthy of note. First, in all three cohorts, boys whose mothers work have fathers with lower levels of education and lower status jobs. Second, although the differences are not large, there is a consistent tendency for FaEd and FaOcc to be less highly correlated in those families in which the mother is working. The difference is greatest in the twelfth grade where the correlations are .68 and .53. Third, the correlations between FaEd and FaOcc on the one hand and EdExp and OccExp on the other are consistently higher in those families in which the mother does not work. Again, this difference is greatest in the twelfth grade, but it is sizeable in the ninth grade as well. Thus, there are both differences in the characteristics of families with and without working mothers, and boys from such families appear differentially influenced by their fathers' characteristics when stating their educational and occupational expectations.

The path coefficients for the basic models for families in which the mother is and is not working are reported in Table 6.2. There are some striking differences between the two sets of coefficients. First of all, the coefficients of determination are consistently higher where the mother is not working. This is true for all cohorts and for both EdExp and OccExp, although the size of the differences is not consistent. The sixth grade non-working model is the first in which more than 20% of the variance of EdExp and 25% of the variance of OccExp has been explained in that cohort. Second, although with the reduced size of the samples involved a detailed comparison of the sizes of the path coefficients is risky, there are some differences that are extremely large. The most impressive difference is in the size of the EdExp-FaEd paths in the twelfth grade cohort. Although the path is statistically significant in both cases, it is two and one-half times as large when the mother is not working. The other sizeable differences are all found in the sixth grade, and in each case the coefficient is larger when the mother is not working. This is the case for the OccExp-FaOcc, the OccExp-Sib and the EdExp-IQ paths. Finally, the OccExp-EdExp path is larger where the mother is not working. This is true in all three cohorts but especially in the sixth grade.

Thus, although the picture is not completely clear, there seems to be a consistent tendency for the basic model to work better when the mother is not employed. It not only serves more effectively to explain the variance in the dependent variables, it also exhibits stronger and more consistent links between the exogenous variables representing family background and the boy's expectations. Such an outcome suggests that "something else" may be involved in the situation when the mother is working. In an effort to specify that something else, the analysis was redone using MoEd as a fifth exogenous variable. The reasoning was that, although MoEd did not contribute a great deal when it was used with the total sample, it might be a more effective contributor when the mother becomes a more significant figure through her participation in the labor force.

Table 6.1

Correlation Coefficients for Basic Models for Boys

with Working and Non-Working Mothers

Grade 12 White

Non-Working Mothers (N=355)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.684	-.210	.345	.495	.380	51.13	24.66
FaEd		-.251	.345	.578	.385	4.62	2.22
Sib			-.150	-.278	-.212	3.20	2.17
IQ				.521	.370	109.38	11.75
EdExp					.683	3.20	1.34
OccExp						59.19	26.88

Working Mothers (N=410)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.533	-.053	.200	.342	.274	43.36	21.30
FaEd		-.071	.225	.338	.224	4.11	2.09
Sib			-.032	-.168	-.119	2.72	1.78
IQ				.468	.312	111.02	11.34
EdExp					.669	3.15	1.35
OccExp						58.23	25.53

Grade 9 White

Non-Working Mothers (N=175)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.669	-.202	.481	.494	.421	50.30	25.04
FaEd		-.150	.312	.464	.462	4.79	2.19
Sib			-.305	-.188	-.191	3.35	2.12
IQ				.484	.384	109.35	12.79
EdExp					.647	3.25	1.45
OccExp						58.66	28.22

Table 6.1 Continued

Grade 9 Whites

Working Mothers (N=166)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.617	-.205	.414	.396	.314	46.96	22.78
FaEd		-.082	.372	.425	.327	4.22	2.19
Sib			-.281	-.200	-.143	3.04	1.81
IQ				.528	.413	107.93	11.70
EdExp					.570	2.96	1.38
OccExp						59.10	28.01

Grade 6 Whites

Non-Working Mothers (N=151)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.537	-.164	.338	.352	.386	50.34	24.16
FaEd		-.308	.238	.348	.176	5.36	2.16
Sib			-.246	-.248	-.254	3.43	2.43
IQ				.367	.306	108.63	13.06
EdExp					.423	3.78	1.18
OccExp						59.51	26.05

Working Mothers (N=124)	FaEd	Sib	IQ	EdExp	OccExp	Mean	St. Dev.
FaOcc	.497	-.303	.520	.312	.306	44.70	25.28
FaEd		-.146	.302	.316	.170	4.64	2.26
Sib			-.441	-.206	-.174	3.41	2.20
IQ				.296	.308	103.60	14.21
EdExp					.268	3.46	1.30
OccExp						59.23	26.05

Table 6.2

Path Coefficients for Basic Models for Boys

with Working and Non-Working Mothers

Working Mothers

Dependent Variables	Independent Variables FaOcc	FaEd	Sib	IQ	EdExp	Coeff. of Determination
12th Grade (N=410)						
EdExp	.180* (.0114)	.144* (.0932)	-.136* (-.1029)	.395* (.0472)	-	.317
OccExp	.068 (.0812)	-.034 (-.4179)	-.008 (-.1094)	-.001 (-.0017)	.656* (12.37)	.450
9th Grade (N=166)						
EdExp	.084 (.0051)	.222* (.1396)	-.054 (-.0413)	.395* (.0467)	-	.347
OccExp	.043 (.0534)	.056 (.7179)	-.000 (-.0048)	.131 (.3147)	.459* (9.307)	.348
6th Grade (N=124)						
EdExp	.112 (.0057)	.206* (.1184)	-.080 (-.0471)	.140 (.0128)	-	.158
OccExp	.172 (.1775)	-.022 (-.2499)	-.016 (-.1900)	.168 (.3081)	.168 (3.371)	.148

Non-Working Mothers

Dependent Variables	Independent Variables FaOcc	FaEd	Sib	IQ	EdExp	Coeff. of Determination
12th Grade (N=355)						
EdExp	.110* (.0060)	.355* (.2138)	-.114* (-.0706)	.344* (.0392)	-	.471
OccExp	.090 (.0976)	-.071 (-.8628)	-.024 (-.3032)	.012 (.0282)	.666* (13.39)	.471
9th Grade (N=175)						
EdExp	.172 (.0100)	.247* (.1629)	-.019 (-.0128)	.318* (.0360)	-	.357
OccExp	-.008 (-.0095)	.200* (2.582)	.046 (-.6141)	.060 (.1319)	.521* (10.16)	.458
6th Grade (N=151)						
EdExp	.160 (.0078)	.170 (.0932)	-.109 (-.0531)	.246* (.0223)	-	.232
OccExp	.314* (.3381)	-.166 (-2.012)	-.157* (-1.690)	.092 (.1829)	.298* (6.571)	.286

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

Perhaps under those conditions, the mother's characteristics become more important to a boy and influence his view of his future more appreciably.

The findings are at least consistent with that interpretation, but the effect is not very strong. The only significant paths involving MoEd in any of the models are the EdExp-MoEd paths in 12-working, 12-non-working, and 9-working. In all of the models, the addition of MoEd lowered the value of the EdExp-FaEd path, but this was a sizeable reduction only in the 9-working model. For the group of ninth grade boys with working mothers the EdExp-FaEd path dropped to .077 (compared with .222 in Table 6.2), and the EdExp-MoEd path coefficient was .286. In that group, only MoEd and IQ contribute to EdExp, while in 9-working, only FaEd and IQ make a significant contribution. Thus, there is some evidence that mother's education has a greater influence when the mother is working, at least with the ninth graders. The more cautious conclusion, however, is simply that the basic model explains more when the mother is not working, the reasons for this still being somewhat cloudy.

Parental Encouragement

A second perspective on the possible influence of parents on their sons views the parent as a more active source of influence rather than simply a model. Here, the important thing is not what the parent is but what the parent wants for his (or her) son. (So far as the present analysis is concerned, it is not exactly what the parent wants, but what the son thinks he wants, since all of the data were collected from the son.) Two questions in the boys' questionnaire dealt with parental goals, and each question was asked with reference to each parent. The first simply asked "how much schooling" the mother or father "wants you to get." The second asked the boy to check those in a list of ten occupations that the mother or father "would be satisfied for you to have" when "you are thirty years old." The occupations listed had Duncan scores ranging from 9 to 84. In the analysis presented here, the average Duncan score of those occupations checked constitutes the measure.

Table 6.3 reports the correlations of these four measures with the son's own goals, EdExp and OccExp.* One interesting thing about the three panels of coefficients is that the highest correlation in each panel is that between the two parental educational goal measures (EdMo and EdFa). Also, in each panel the two next highest correlations are between these two measures and EdExp. And, finally, in the two younger cohorts the correlation between the two parental occupational goal measures (JobMo and JobFa) are next highest. (In the twelfth grade, only the EdExp-OccExp correlation intervenes.) Thus, the intercorrelations of measures using the same question are higher than those using different questions. Overall, the correlations are much lower in the sixth grade than in the two older cohorts, but the EdMo-EdFa coefficient is much higher than the others in the sixth grade.

When one examines the parent-son correlations, it is quite clear

*These correlations are again based on maximum frequencies and the sample base thus varies.

Table 6.3

Correlations Among Measures of Parents' Goals

for Son and Son's Own Goals

In-School Whites

12th Grade	OccExp	EdMo	JobMo	EdFa	JobFa
EdExp	.671	.749	.474	.768	.451
OccExp		.542	.437	.544	.399
EdMo			.415	.806	.418
JobMo				.410	.636
EdFa					.444

9th Grade	OccExp	EdMo	JobMo	EdFa	JobFa
EdExp	.622	.719	.368	.726	.403
OccExp		.530	.293	.530	.367
EdMo			.398	.767	.413
JobMo				.370	.656
EdFa					.449

6th Grade	OccExp	EdMo	JobMo	EdFa	JobFa
EdExp	.317	.543	.293	.529	.191
OccExp		.254	.214	.208	.218
EdMo			.228	.759	.137
JobMo				.248	.473
EdFa					.151

that those referring to education are much higher in all three cohorts than those referring to jobs. Presumably this is at least in part a function of the different nature of the questions used. The son's own occupational goal (OccExp) is measured by means of an open-ended question about what he expects while the parents' occupational goals for the son (JobMo and JobFa) are measured by the jobs the son thinks they would be "satisfied" for him to have. In any event, the link between these two measures is weaker than that between the educational goals measures. (In fact, in all but one case, the correlations between OccExp and EdMo or EdFa are higher than those between OccExp and JobMo or JobFa.) Because of these differences, it was decided to pursue the further analysis using only education measures. Also, because of the strong correlations between EdMo and EdFa and the desire to keep the analysis as simple as possible, the two measures were combined through simple summation to provide a measure of parental educational encouragement (ParEnc).

In order to explore the effect of ParEnc in the model used throughout the report, it was introduced as an intervening variable between the exogenous variables and EdExp. To give some indication of its link with both the mother's and the father's characteristics, MoEd was used as an exogenous variable along with the four exogenous variables from the basic model. Finally, because of the presumed role of academic performance in both the encouragement given by the boy's parents and his own expectations of the future, Grade was also used in the analysis. When Grade was introduced, it was necessary to determine its location vis a vis ParEnc. Since the boy's grade average was based on his past performance and the measure of ParEnc was current, and since it was assumed that parents adjust their goals for their children somewhat in accordance with the children's past performance, it was decided to place Grade before ParEnc.

Table 6.4 presents the intercorrelations among these several variables, and Table 6.5 reports the path coefficients for the two models that were constructed for each white in-school cohort. MoEd was included here as an exogenous variable. It will be noted that in Table 6.5 each dependent variable except Grade appears twice in the stub. In the first of these rows in each case the coefficients are for the model without Grade, and in the second row the coefficients are for the model including Grade.

In general, the inclusion of Grade does not add appreciably to the size of the coefficient of determination of any of the dependent variables, but it does alter the size of some of the other path coefficients. In most cases, the other paths are reduced in size when Grade is included, but there is a sizeable reduction only in the EdExp-IQ paths, and this is primarily true in the two older cohorts. The only place Grade contributes significantly to an explanation of ParEnc is in the twelfth grade, the ParEnc-Grade path becoming successively smaller in the ninth and sixth grades.

All of the exogenous variables contribute to an explanation of ParEnc in the twelfth grade, but only IQ does so in the sixth grade. In the ninth, MoEd, FaEd, and IQ all contribute. The intellective measures (IQ and Grade) are the most powerful sources of explanation of ParEnc. Not surprisingly, ParEnc is the most powerful contributor to EdExp of all the

Table 6.4

Correlation Coefficients for Parent Encouragement Models

In-School Whites

12th Grade (N=757)	FaOcc	FaEd	IQ	Sib	ParEnc	EdExp	Grade	OccExp	Mean	St.Dev.
MoEd	.438	.518	.237	-.414	.352	.378	.272	.205	4.26	1.73
FaOcc		.619	.258	.113	.421	.411	.250	.322	47.19	23.20
FaEd			.274	-.152	.423	.454	.294	.305	4.35	2.17
IQ				-.093	.462	.489	.566	.335	110.31	11.50
Sib					-.199	.211	.097	-.161	2.93	1.96
ParEnc						.813	.516	.570	6.78	2.39
EdExp							.597	.673	3.17	1.35
Grade								.485	82.56	5.83
OccExp									58.77	26.11

9th Grade (N=320)	FaOcc	FaEd	IQ	Sib	ParEnc	EdExp	Grade	OccExp	Mean	St.Dev.
MoEd	.489	.585	.287	-.083	.424	.441	.455	.292	4.16	1.93
FaOcc		.640	.432	-.145	.414	.457	.465	.373	49.06	23.88
FaEd			.289	-.058	.413	.446	.416	.390	4.57	2.20
IQ				-.261	.450	.490	.590	.373	108.69	12.31
Sib					-.160	-.126	-.259	-.143	3.13	1.86
ParEnc						.778	.446	.552	6.91	2.52
EdExp							.564	.596	3.13	1.41
Grade								.406	83.77	5.94
OccExp									59.49	28.04

Table 6.4 Continued

6th Grade (N=249)	FaOcc	FaEd	IQ	Sib	ParEnc	EdExp	Grade	OccExp	Mean	St.Dev.
MoEd	.426	.577	.273	-.261	243	.267	.239	.167	4.52	1.95
FaOcc		.539	.427	-.258	.255	.351	.370	.347	48.31	24.74
FaEd			.266	-.218	.235	.325	.283	.161	5.07	2.22
IQ				-.314	.252	.320	.698	.311	106.90	13.65
Sib					-.188	-.198	-.282	-.257	3.37	2.22
ParEnc						.582	.206	.242	7.82	2.15
EdExp							.293	.355	3.65	1.21
Grade								.255	83.26	6.69
OccExp									59.49	26.04

variables, and the coefficient of determination of EdExp is higher here (in all cohorts) than in any other model. This would be expected, if for no other reason, because one would expect most boys to at least report parental goals that are similar to their own, even if such a report is in error. Although EdExp and the two components of ParEnc are scattered through the questionnaire, they are rather highly intercorrelated (see Table 6.3). It is equally understandable that the coefficients of determination of EdExp using ParEnc and Grade, are the highest of any found in this study. What is perhaps more surprising is that, even when such a powerful variable as ParEnc is included in the model, some of the other variables continue to contribute to an explanation of EdExp. In both of the older cohorts, the EdExp-IQ path is significant when Grade is not included, and the EdExp-Grade path is significant when Grade is included.

It is true, of course, that ParEnc is correlated with the measures of family social status (FaEd, MoEd, FaOcc), and when a parallel analysis to that presented by Sewell and Shah (1968) is carried out, using only such variables, they are found to explain much of the variation of ParEnc. But the present analysis suggests that it is not the high social level of the family in itself that leads parents to have high educational goals for their sons. Social status does make an independent contribution to the explanation of ParEnc, but the more powerful contributors are IQ and Grade. This suggests that parents do not set educational goals in a vacuum; they respond to the intellectual ability and previous performance of their son. At least this seems to be the case if we accept ParEnc as a measure of the parents' actual goals.

Table 6.5

Path Coefficients for Parent Encouragement Models,

In-School Whites

12th Grade

Dependent Variables	Independent Variables								Coeff. of Determination
	MoEd	FaOcc	FaEd	IQ	Sib	Grade	ParEnc	EdExp	
Grade	.093* (.1334)	.018 (.0047)	.090* (.0403)	.513* (.2602)	-.020 (-.0602)	-	-	-	.349
ParEnc	.097* (.1349)	.187* (.0193)	.147* (.1626)	.340* (.0707)	-.110* (-.1340)	-	-	-	.354
ParEnc	.069* (.0960)	.182* (.0187)	.120* (.1324)	.184* (.0384)	-.104* (-.1265)	.303* (.1241)	-	-	.413
EdExp	.050* (.0391)	.004 (.0002)	.093* (.0577)	.130* (.0152)	-.041 (-.0282)	-	.687* (.3865)	-	.693
EdExp	.037 (.0289)	.012 (.0007)	.083* (.0518)	.045 (.0052)	-.044* (-.0301)	.207* (.0479)	.624* (.3508)	-	.719
OccExp	-.084* (-1.266)	.085* (.0959)	-.016 (-.1898)	.004 (.0080)	-.023 (-.3010)	-	.056 (.6132)	.625* (12.12)	.463
OccExp	-.090* (-1.368)	.092* (.1030)	-.017 (-.2055)	-.053 (-.1193)	-.027 (-.3630)	.157* (.7021)	.051 (.5614)	.562* (10.90)	.476

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

Table 6.5 Continued

9th Grade

Dependent Variables	Independent Variables								Coeff. of Determination
	MoEd	FaOcc	FaEd	IQ	Sib	Grade	ParEnc	EdExp	
Grade	.219* (.6738)	.095 (.0235)	.096 (.2598)	.430* (.2074)	-.109* (-.3482)	-	-	-	.466
ParEnc	.206* (.2683)	.079 (.0083)	.152* (.1733)	.302* (.0617)	-.043 (-.0587)	-	-	-	.325
ParEnc	.180* (.2345)	.068 (.0072)	.140* (.1602)	.251* (.0512)	-.030 (-.0412)	.118 (.0502)	-	-	.333
EdExp	.062 (.0455)	.061 (.0036)	.067 (.0431)	.147* (.0169)	.033 (.0248)	-	.637* (.3579)	-	.649
EdExp	.018 (.0132)	.042 (.0025)	.049 (.0315)	.059 (.0067)	.056 (.0424)	.221* (.0525)	.616* (.3463)	-	.675
OccExp	-.076 (-1.110)	.036 (.0426)	.151* (1.927)	.060 (.1372)	-.044 (-.6567)	-	.191* (2.133)	.362* (7.185)	.401
OccExp	-.086 (-1.242)	.033 (.0386)	.148* (1.888)	.042 (.0965)	-.038 (-.5682)	.051 (.2394)	.197* (2.200)	.345* (6.851)	.402

Table 6.5 Continued

6th Grade

Dependent Variables	Independent Variables								Coeff. of Determination
	MoEd	FaOcc	FaEd	IQ	Sib	Grade	ParEnc	EdExp	
Grade	-.020 (-.0695)	.040 (.0109)	.090 (.2708)	.646* (.3166)	-.054 (-.1639)	-	-	-	.502
ParEnc	.104 (.1145)	.093 (.0081)	.070 (.0681)	.141* (.0222)	-.077 (-.0745)	-	-	-	.115
ParEnc	.104 (.1148)	.093 (.0081)	.069 (.0669)	.132 (.0209)	-.076 (.0738)	.013 (.0043)	-	-	.115
EdExp	-.003 (-.0017)	.109 (.0054)	.118 (.0645)	.113 (.0101)	-.016 (-.0086)	-	.495* (.2790)	-	.403
EdExp	-.001 (-.0008)	.107 (.0052)	.112 (.0611)	.070 (.0062)	-.012 (-.0066)	.068 (.0123)	.495* (.2787)	-	.406
OccExp	-.009 (-.1135)	.233* (.2450)	-.101 (-1.181)	.120 (.2283)	-.134* (-1.569)	-	.017 (.2002)	.234* (5.021)	.222
OccExp	-.008 (-.1103)	.232* (.2446)	-.102 (-1.192)	.112 (.2141)	-.133* (-1.562)	.012 (.0453)	.017 (.2031)	.233* (5.007)	.222

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

The Quality of the Parent-Son Relationship

The probability of parental influence in the setting of educational and occupational goals should depend to a considerable extent on the nature of the relationship between the boy and his parents. Although it is reasonable to assume that most boys have the kind of relationship which makes the parents significant sources of influence, this is certainly not always the case. If the relationship is badly strained, in fact, what the parents want might ipso facto be responded to negatively by the boy. In any general population such a reverse influence is presumably not an important factor, but certainly degrees of parental significance would be expected in any population.

To explore this issue, three measures of the parent-child relationship, all based on the boys' reports, were used in this study. One was a measure of the degree of respect the parents show for their son's ideas (Respt). It included five items such as: "Do your parents give you a chance to share responsibilities?" "In family discussions, do your parents encourage you to say what you think?" and "My parents respect my judgment." A second was a measure of the boy's sense of integration with his parents (ParInt). There were five pairs of items, each pair based on questions about the mother and the father individually. Examples are: "How close would you say you are to your mother (father)?" "My mother (father) tries to understand my problems." "It helps me just to talk with my mother (father) when I am upset."* A third measure was made up of two pairs of items dealing with the parents' concern over the boy's school work (SchCon). The items were: "My mother (father) doesn't seem to care when I bring home a report card with high grades," "My mother (father) doesn't seem to care when I bring home a report card with low grades."**

The intercorrelations of these scales and the several measures used in previous models are presented in Table 6.6.*** Very few of the correlations between these measures of the parent-child relationship and the other variables are at all sizeable. Only four of them are over .25, three in the sixth grade cohort and one in the twelfth. Nineteen are over .20, nine in the sixth grade, six in the ninth, and four in the twelfth. The fact that the link between the model variables and these measures decreases as one moves from the younger to the older cohorts is perhaps not surprising, given the increasing independence of boys as they mature. It is more surprising that the magnitude of the correlations is so limited throughout. Given previous research, one would expect a variation in the

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*The items for each parent were originally defined as separate scales, but they were so highly correlated (over .85 in all three cohorts) it was decided to use them only in combined form.

**In all three scales, the scores were such that a high score refers to the scale title - i.e., high respect, high interest and high concern.

***These correlations are based on maximum possible frequencies, and they thus vary in the sample size involved. They will also be seen to deviate somewhat from those coefficients based on the more restricted samples for which all measures are present.

Table 6.6

Correlations between Measures of the Parent-Child Relationship

and other Model Variables,

In-School Whites

12th Grade	ParInt	SchCon	FaEd	FaOcc	MoEd	IQ	Sib	EdExp	OccExp	Grade
Respt	.631	.312	.153	.183	.162	.122	-.061	.238	.205	.166
ParInt		.364	.082	.104	.106	-.026	-.104	.182	.164	.096
SchCon			.177	.163	.169	.190	-.126	.303	.247	.179

9th Grade	ParInt	SchCon	FaEd	FaOcc	MoEd	IQ	Sib	EdExp	OccExp	Grade
Respt	.578	.252	.201	.144	.167	.151	-.137	.154	.205	.241
ParInt		.295	.092	.081	.068	.019	-.119	.130	.153	.137
SchCon			.209	.220	.189	.235	-.131	.248	.172	.163

6th Grade	ParInt	SchCon	FaEd	FaOcc	MoEd	IQ	Sib	EdExp	OccExp	Grade
Respt	.605	.304	.199	.194	.230	.232	-.183	.168	.181	.291
ParInt		.336	.143	.080	.221	.181	-.19	.157	.159	.191
SchCon			.176	.247	.200	.363	-.097	.241	.188	.292

parent-child relationship by social status level. Although the data in Table 6.6 are consistent with that expectation to the extent that in all cases the correlations are positive (i.e., higher social status is associated with higher Respt, ParInt, and SchCon), the association is not a strong one in any cohort.

If one views such variables as possible bric in the model between the exogenous and the dependent variables, it is clear that only SchCon is likely to serve this purpose. Especially in the sixth grade, it is linked with several of the exogenous variables and with Grade and EdExp. Its association with the exogenous variables drops considerably by the twelfth grade, but it is as highly correlated with the model variables there as is either Respt of ParInt.

In contrast with SchCon, ParInt is only very weakly associated with any of the model variables in any of the cohorts. Yet to the extent that one would expect the quality of the parent-child relationship to make a difference in the degree of influence parents have on their children, ParInt would seem to be the kind of measure which should be most important. It appears to tap more effectively than either of the other measures the degree to which parents are significant others to the boy. The significance of such a variable may not be well reflected in such coefficients as reported in Table 6.6, however. If the quality of the parent-child relationship functions as just suggested, a measure of this quality should differentiate families in which the parents do and do not have influence on their sons. What influence they may exert and what outcomes that influence may have is not necessarily a direct correlate of the quality of the relationship. It may well be, therefore that a more meaningful way to introduce ParInt into this analysis is as a control or conditioning variable. As was the case with the mother's employment, we will want to consider the possibility that the structure of the model may be somewhat different for boys who are hihgly integrated with their parents than it is for those who have a low level of integration.

Therefore, two rather different kinds of analysis are proposed using two of the measures of the parent-child relationship. With SchCon it can be argued that how the parents respond to the specific content of the feedback from the boy's academic endeavors may influence his expectations of further education. In turn, SchCon may well be a function of the boy's background, his ability, and the level of his previous academic performance. It will thus be worth examining the outcome for our model if SchCon is inserted as a dependent variable between Grade and EdExp. In contrast, ParInt will be viewed as a conditioning variable whose major function is to differentiate the degree to which the dependent variables are affected by the boy's parents' characteristics. In particular, one might expect parental encouragement to make a greater difference in what the boy does if ParInt is high than if it is low. Thus, the analysis reported in Table 6.5 was redone for boys having high and low ParInt scores.

Turning to the analysis of ParInt first, it may simply be noted that the outcome was not particularly illuminating. Although the coefficient of determination was somewhat higher for most dependent variables in the high ParInt group in all three cohorts, the magnitudes of the paths did not follow any very meaningful pattern. The pattern one might have

Table 6.7

Correlation Coefficients for Parent School Concern Model,

In-School Whites

12th Grade (N=757)	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	OccExp	Mean	St.Dev.
MoEd	.519	.240	-.139	.438	.273	.168	.378	.207	4.26	1.73
FaEd		.272	-.153	.618	.291	.174	.447	.300	4.35	2.17
IQ			-.100	.251	.569	.175	.488	.330	110.34	11.54
Sib				-.106	-.102	-.117	-.215	-.161	2.93	1.97
FaOcc					.242	.170	.403	.321	47.20	23.24
Grade						.216	.594	.480	82.58	5.85
SchCon							.292	.264	9.49	2.25
EdExp								.672	3.18	1.35
OccExp									58.89	26.02

9th Grade (N=315)	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	OccExp	Mean	St.Dev.
MoEd	.591	.292	-.075	.494	.455	.166	.449	.295	4.17	1.94
FaEd		.284	-.058	.641	.416	.196	.450	.391	4.58	2.22
IQ			-.276	.420	.593	.241	.483	.363	108.87	12.24
Sib				-.143	-.264	-.115	-.134	-.149	3.13	1.85
FaOcc					.465	.217	.455	.366	49.33	23.83
Grade						.141	.562	.404	83.78	5.97
SchCon							.262	.173	10.06	2.24
EdExp								.589	3.14	1.41
OccExp									59.59	27.99

Table 6.7 Continued

6th Grade (N=248)	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	OccExp	Mean	St.Dev.
MoEd	.580	.297	-.247	.441	.253	.139	.307	.154	4.50	1.96
FaEd		.283	-.200	.550	.278	.177	.352	.138	5.06	2.22
IQ			-.320	.434	.708	.334	.318	.310	106.69	13.82
Sib				-.259	-.276	-.109	-.227	-.236	3.35	2.19
FaOcc					.375	.210	.345	.335	47.91	24.71
Grade						.287	.277	.243	83.25	6.77
SchCon							.208	.084	9.98	2.26
EdExp								.325	3.67	1.20
OccExp									59.73	25.78

expected was for the paths involving ParEnc to be somewhat higher in the high ParInt groups. This was not consistently the case. The outcome was thus not very helpful and not worth reporting in detail.

The analysis using SchCon was somewhat more noteworthy, although the effects are not as strong as those using some of the other variables considered in this and previous chapters. The correlation matrices for the model using SchCon are presented in Table 6.7, and the path coefficients are reported in Table 6.8. SchCon is introduced in the model between Grade and EdExp. It is thus viewed as partially the result of the exogenous variables and the boy's previous academic performance, and it is expected to contribute to an explanation of EdExp.

Although SchCon is not highly correlated with any of the other model variables (only one of the coefficients in Table 6.7 is over .30 and only 10 of 24 are over .20), it still contributes significantly to the models described in Table 6.8. Its limited correlation with the exogenous variables is reflected in the fact that the coefficient of determination is quite low in all three cohorts. However, the EdExp-SchCon path is significant in both of the older cohorts, and the OccExp-SchCon path is significant in the twelfth grade.

The contribution of SchCon to the explanation of EdExp in the older cohorts is of some interest, but the fact that SchCon is not, in turn, explained to any great degree by the exogenous variables of Grade suggests that it is itself actually exogenous to the model. Although we have viewed it as an intervening variable, it does not actually provide a very satisfying link between the variables that precede it and those which follow. In fact, none of the measures of the parent-child relationship

Table 6.8

Path Coefficients for Parent School Concern Model,

In-School Whites

Dependent Variables	Independent Variables								Coeff. of Determination
	MoEd	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	
12th Grade									
Grade	.093* (.3153)	.091* (.2446)	.517* (.2620)	-.022 (-.0664)	.013 (.0034)	-	-	-	.352
SchCon	.059 (.0773)	.036 (.0378)	.047 (.0092)	-.077 (-.0879)	.068 (.0066)	.138* (.0533)	-	-	.075
EdExp	.076* (.0594)	.148* (.0917)	.155* (.0181)	-.102* (-.0696)	.117* (.0068)	.378* (.0870)	.113* (.0676)	-	.497
OccExp	-.090* (-1.358)	-.024 (-.2837)	-.056 (-.1260)	-.022 (-.2873)	.102* (.1138)	.153* (.6824)	.068* (.7841)	.587* (11.35)	.478

Dependent Variables	Independent Variables								Coeff. of Determination
	MoEd	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	
9th Grade									
Grade	.214* (.6577)	.095 (.2569)	.431* (.2102)	-.109* (-.3501)	.101 (.0254)	-	-	-	.469
SchCon	.049 (.0566)	.093 (.0937)	.205* (.0376)	-.063 (-.0766)	.083 (.0078)	-.097 (-.0363)	-	-	.087

Table 6.8 Continued

Dependent Variables	Independent Variables: MoEd	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	Coeff. of Determination
9th Grade EdExp	.130* (.0946)	.130* (.0827)	.182* (.0210)	.037 (.0280)	.071 (.0042)	.301* (.0712)	.117* (.0738)	-	.432
OccExp	-.067 (-.9611)	.163* (2.054)	.058 (.1326)	-.051 (-.7702)	.028 (.0333)	.038 (.1793)	-.004 (-.0496)	.478* (9.476)	.379

Dependent Variables	Independent Variables: MoEd	FaEd	IQ	Sib	FaOcc	Grade	SchCon	EdExp	Coeff. of Determination
6th Grade Grade	-.011 (-.0393)	.063 (.1921)	.659* (.3227)	-.043 (-.1324)	.048 (.0132)	-	-	-	.511
SchCon	-.010 (-.0111)	.069 (.0703)	.242* (.0396)	.016 (.0160)	.043 (.0039)	.087 (.0291)	-	-	.124
EdExp	.084 (.0515)	.166* (.0894)	.114 (.0099)	-.088 (-.0481)	.113 (.0055)	.038 (.0067)	.085 (.0449)	-	.207
OccExp	-.019 (-.2463)	-.124 (1.437)	.152 (.2828)	-.105 (-1.238)	.250* (.2600)	.005 (.0187)	-.055 (-.6281)	.226* (4.871)	.205

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

seem to function very well as intervening variables in the model. We have also found that ParInt does not function very well as a control or conditioning variable. Thus, the general outcome of this section of the analysis is not very helpful either in explicating the link between the exogenous variables and EdExp or in adding to the explanation of EdExp or OccExp.

Summary

This chapter has viewed the role of the parents in influencing the boys' expectations of the future from three perspectives. It has expanded the implicit logic of the basic model by viewing the social status characteristics of both parents as potentially significant, not just those of the father. It has included an analysis of the goals parents set for their sons. And it has sought some indication of the significance of the nature of the parent-child relationship in the flow of influence on the boys' expectations.

Including the level of the mother's education as an exogenous variable in the model altered both the coefficients of determination and the path coefficients to some extent, but the changes were neither consistent nor very large. A more significant result occurred when the labor force status of the mother was considered. In the basic model based only on cases in which the mother was not working, both the coefficients of determination and many of the individual paths are considerably larger than in the model using only cases in which the mother was working. There is some suggestion that mother's education contributes more to the model if the mother is working, but the effect is not strong or consistent enough to depend on.

Parental educational encouragement, as seen by the boy, is highly correlated with the boy's own educational expectations. When ParEnc is introduced in the model it thus contributes very strongly to an explanation of EdExp. The coefficient of determination of EdExp in such a model is greater than in any other analysis in the report, in fact. Yet, it is equally noteworthy that even with ParEnc in the model, IQ and Grade are significant contributors to an explanation of EdExp. Those same two variables are the strongest contributors to an explanation of ParEnc also. This suggests that both the parents and the boy use knowledge of his ability and previous performance in setting goals for his future.

The third approach to the role of parental influence, that based on the nature of the parent-child relationship, was less successful. Although parental concern for the boy's performance contributed in a limited way to an explanation of the boy's educational expectations, it did not alter the model appreciably. Even less successful was the use of ParInt as a conditioning variable, based on the view that parental influence should be more apparent in families in which the boy and his parents are emotionally close.

The two most noteworthy outcomes are thus the finding that the labor force status of the mother is an important conditioning variable for the basic model and the demonstrated strength of the intellective measures (IQ and Grade) even when a powerful variable like ParEnc is included. The fact that these variables (mother working, IQ and Grade) are all

objective measures, basically determined by factors outside the research activity itself, makes their effects even more significant. There can be no suspicion that their association with EdExp is a function of a response characteristic of the boy. Such a suspicion is reasonable in the case of such measures as ParEnc, and the dubious value of such a measure is acknowledged. But the very fact that the inclusion of such a variable does not wash out the effects of IQ and Grade adds to the meaningfulness of their contribution.

CHAPTER SEVEN

PEER INFLUENCES

A second potentially potent source of influence on the boy's expectation about his future is the peer group in which he spends much of his time. The influence of peers is presumably more important in the U.S. than some other societies. This seems to be true for a number of reasons. First, the continuation of formal education well into adolescence and even early adulthood places the individual in an age-graded social context in which a strong sense of collective identity is certain to develop. Second, the American ideology calls for a high degree of independence in adulthood which makes it clear to the young person that he must disengage himself from the intimate ties with his family. The peer group constitutes a kind of half-way-house in this process, providing him with both social support and the need to fend for himself in a competitive, achievement-oriented setting. Finally, rapid social change and the strong emphasis on the desirability of improvement of both the system and one's place in it make adults less capable than in other societies of providing guidance for the young. They must find their own way.

There are two ways in which peer influence may be viewed in such an investigation as this. The first is to focus on the few friends who are most significant to the individual and seek evidence of their influence on him. The second is to consider the whole peer group in which the individual is found as the source of influence. In a sense, both of these are based on the same logic, but the first implies a greater concern with interpersonal mechanisims while the latter is more concerned with the limitations of the wider social context. It is possible in this study to look at both, but most of our attention will be directed to the first. The in-school boys were asked to name the three boys who were best friends in their grade in their school. They were also asked if these boys were their best friends overall (whether in their grade and school or not), and they were asked to name their three best friends in their grade and school three years earlier. The graduates were asked the first of these questions with reference to the time they were in the twelfth grade, and they were asked if those named were still among their best friends. The responses to these questions form the basis of most of the analysis to be reported here. In addition, however, it is possible to analyze differences in the broader peer contexts. This will be done by viewing all of the boys in the same grade in the school as the peer group and seeing whether some of the differences at the interpersonal level can be attributed to variations in such contexts.

The more delimited view of peer influence sources will be considered first. There are three kinds of questions to be dealt with. First, there is the basic question of whether boys who are friends are actually more similar in significant respects than boys who are not friends. Second, we will want to look closely at the interpretation of similarity as being a function of some kind of influence process. Finally, we will ask whether information about the boys' friends helps in explaining their expectations of the future. The next three sections will deal with these three issues.

Peer Similarity

The underlying assumption that directs one's attention to peers as a source of influence is that those who are good friends are more similar than those who are not. That is, if there is no greater similarity between friends than between any two randomly selected individuals from the same population, it is meaningless to refer to peer influences. Thus, our first task is to insure that friends are actually more similar than non-friends.

In the population studied there is, of course, considerable variation among the boys on a number of dimensions. The dimensions most directly relevant to the analysis here, however, are concerned with the boys' views of the future. As a basic index of similarity, therefore, the educational expectations of friends will be considered. Even using a single dimension, however, there are numerous ways to use the available data, as the later analysis will indicate. For the present purposes, though, a simple approach will be used. The degree of similarity will be indexed by the correlation between ego's EdExp and the educational expectations of the boys he mentions when asked to list his three best friends (FrExp).

These correlations are presented in Table 7.1 for the three in-school white cohorts. Two features of the findings are noteworthy. First, the size of the correlations diminishes as we move from the older to younger cohorts. Second, for the two older cohorts, the clearest agreement between ego and friend is found for the first-named friend. As a result of these two tendencies, the amount of agreement with first-named friend for twelfth graders is much higher than that for third-named friend for sixth graders. In fact, sixth graders show a very limited amount of agreement between ego and any of his friends. In that cohort at least, one is left with some doubt about whether one can comfortably assume that friends agree more than non-friends do. Although the coefficients are statistically significant, they are not very high.

Table 7.1

Correlations between Educational Expectations

of Friends, In-School Whites

	Order in Which Friend Was Named		
Grade	1	2	3
12th	.520 (816)	.472 (765)	.457 (731)
9th	.473 (390)	.421 (390)	.464 (361)
6th	.257 (313)	.311 (311)	.241 (304)

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It is not at all clear, in fact, whether one should use any usual definition of statistical significance in such a case. The issue is not really whether the amount of agreement between friends is greater than zero but whether it is greater than it would be if friendship and educational expectations were randomly linked. Since there is some variation in the socioeconomic make-up of the several schools involved, and since socioeconomic level is associated with EdExp, one might wonder how much of the similarity between in-school friends is a function of this school homogeniety. For instance, if a boy went to a school in which everyone had the same educational expectations he would have to name as a friend someone who agreed with him on EdExp. The greater the homogeniety within the school, the more such structural factors would influence the outcome.

To provide a point of comparison, therefore, the intraclass correlation coefficient (Haggard, 1958) was computed for each cohort. Basically, such a coefficient reports the degree of ageeement (in this case, agreement in EdExp) for all possible pairs of boys within each school, summed over all schools in a cohort. For this analysis, the black and white populations within each school were kept separate, in effect allowing for only intra-race selection.* This procedure produced coefficients of .080, .130, and .146 for the twelfth, ninth and sixth grade whites, respectively. At least for the two older cohorts, actual friends are clearly more similar (see Table 7.1) than random pairings. The sixth grade is different from the others in having both the lowest correlation for actual pairs and the highest correlation for random pairs. Both of these are consistent with expectation. The greater homogeniety by social status of the elementary school (and to a lesser extent the junior high school) understandably leads to greater agreement among random pairs, while the lower immediate significance of educational expectations may well reduce homogeniety of friendship pairs. In short, friendship pairs in the older cohorts are very much more similar than one could expect by chance, but the pattern is less clear in the sixth grade.

The fact that first-named friends seem to agree more than later-named friends suggests that perhaps those named in response to this question vary in their significance to the respondent. There are three other measures of closeness available in the data, and this suggestion may be pursued further using these measures. The three are: (a) whether the person named also named the respondent as a friend; (b) whether the person named was defined as one of the respondent's best friends overall; and (c) whether the respondent said this person was a school friend three years previously. All three measures are available on the two older in-school cohorts, but only the first two are available for the sixth graders. To determine whether such degrees of friendship affect the degree of agreement, a different kind of analysis was carried out. For each respondent, the friends he named were scanned and the first one he named who fell into one of the

*Given the sharp differences between whites and blacks reported in Chapter Three, this should provide a conservative (that is, higher) estimate of a random-pairs correlation. There should be more homogeniety within each race than within the total school population, and thus the coefficient produced should show more similarity among random pairs than would be the case if blacks and whites were both used in a single analysis.

relevant categories was used in that analysis. Thus, if he named first a friend who reciprocated his choice, only that friend would be used as part of the reciprocated friendship analysis, even though he may have named others who also reciprocated. Also, if he named some who reciprocated and some who did not, the first named in each category would be used in the respective analyses.

As a result of this procedure, the frequencies reported in Table 7.2 should be interpreted as follows: They represent the total numbers of boys in each cohort who had at least one friend in each category; if the boy had two or more friends in any category, only the first-named was counted.* Since not all respondents had friends in all categories, the number of respondents included in the several cells varies, but since most boys had more than one category of friends, the total frequencies reported for any cohort exceed the size of the cohort.

Table 7.2

Correlations between Educational Expectations of Friends

by Intensity of Friendship, In-School Whites

Category of Friendship	12th Grade	9th Grade	6th Grade
Best overall	.505 (775)	.455 (363)	.329 (313)
Not best overall	.427 (462)	.490 (200)	.283 (140)
Reciprocated	.512 (677)	.459 (307)	.372 (241)
Not reciprocated	.478 (671)	.469 (336)	.280 (285)
Friends 3 years ago	.506 (485)	.496 (200)	-
Not friends 3 years ago	.510 (802)	.467 (385)	-

Table 7.2 reports the results of this analysis. What is most striking about these results is that there are such limited differences between

*Technically, in this and all analysis in this chapter, the friend used in the analysis is the first codable friend named. Not all of the names the boys gave us could be found in the sample, and in some cases, although the boy was in the original sample, we had no questionnaire from him. Thus, if such a boy were listed in the first position, for instance, the respondent's record had to be treated as if he had listed no one in that position. As a result, even in the first-named position in Table 7.1, the frequency is less than the total sample size in each cohort.

the categories of friends within any of the cohorts. For the twelfth and ninth graders, in fact, some of the differences are the reverse of what one might expect. In those two cohorts, the only difference that is both sizeable and consistent with expectation is that between the agreement with the best and not-best friend among twelfth graders. Surprisingly, the most sizeable and consistent differences are found among the sixth graders where agreement is greater with both best and reciprocating friends. None of the differences are very large, however.*

Finally, an even more complex analysis was carried out. It was based on carrying the above reasoning into a multi-dimensional approach. It might be true, for instance that some combinations of these three measures of intensity of friendship are more significant than others. Perhaps one who is a reciprocating friend and a best friend overall and a friend for a long time is more similar to the respondent than others are. No clear pattern emerged from that analysis, and since it would take an undue amount of space to present here, the findings will not be reported. It seems likely, therefore, given the data in Table 7.2 and the more refined analysis, that degree of friendship is not as important a factor as first thought. At least so far as the measures used here are concerned, there is little basis to claim otherwise.

A similar analysis to that just described was carried out for the graduates, using EdAtt as the basis of comparison between the respondent and his friends. Different measures of intensity of friendship were used, however. Since all of those named were friends during the twelfth grade, the graduates were asked if those they named were still their friends. There was also no basis for determining how long the person named had been a friend prior to the twelfth grade. It was possible, however, to determine whether the choice was reciprocated. Thus, the measures of intensity are reciprocation and whether or not the person named is still a best friend.

The outcome of this analysis is presented in Table 7.3, and it is quite similar to that done with the in-school cohorts. Although reciprocated and still best friends are more similar to the respondents in educational attainment than are their opposites, the outcome with the order in which the friend was named is the opposite of what one might expect. More generally, however, none of the differences is large.

The one possible exception to this low differentiation, that between those who are and are not still friends, recalls our second original question: Can we view the similarity between friends as due to peer influence?

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*To insure against unwarranted conclusions based on the method used in this analysis, another approach was also taken. A similar analysis was carried out in which only boys who had both kinds of friends in each pair (e.g., both reciprocating and non-reciprocating friends) were used. Thus, it was possible to tell if the same boys were more similar to those who were closer friends than they were with those who were less close. The results are even less impressive when this is done. One of the sixth grade differences reverses, and all three ninth grade differences are the reverse of what one would expect.

Table 7.3

Correlations between Educational Attainments of Friends

by Order Mentioned and Intensity of Friendship

White Graduates

Order or Category of Friendship	Correlation Coefficient
First-named	.448 (333)
Second-named	.452 (295)
Third-named	.491 (241)
Still friend	.501 (196)
Not still friend	.415 (328)
Reciprocated	.478 (249)
Not reciprocated	.443 (303)

The difference in Table 7.3 between those who are and are not still friends is much larger than that between reciprocating and non-reciprocating friends.* Yet, clearly, a different interpretation must be given to the best-not-best contrast here than in the in-school cohorts. Although those who were close friends (by both their reports) in the senior year are not more likely than other friends to have similar levels of education, those who attained similar levels of education appear more likely to have remained friends. Thus, attainment seems to have influenced the continuity of the friendship rather than the reverse. This outcome will provide a beginning point for the analysis in the next section.

In this section it has generally been found that, although there is more agreement on educational plans between friends than between randomly selected pairs, there is little systematic variation in the degree of agreement between friends of varying degrees of friendship. Thus, it seems reasonable to refer to similarity between friends, but it does not

*In the more restricted analysis in which only respondents who had both kinds of friends in such paired categories were used, the difference is even more striking. For reciprocating friends the correlation is .40, and it is .41 for non-reciprocating friends. For those who are still best friends it is .47, and it is .32 for those who are not still best friends.

seem very useful to differentiate among degrees of friendship. As a way of simplifying the remaining analysis in this chapter, therefore, only the first-named friend will be considered.

Evidence of Peer Influence

The various studies which have previously dealt with the kinds of data used here have basically assumed that similarity between friends is an indication that some kind of influence process had operated to bring this similarity about. There has been little if any evidence provided in support of that assumption. This is unfortunate since it is quite possible to interpret the similarity between friends in a very different way. One might argue, for instance, that, far from the friendship influencing the similarity of two boys' expectations, their similarity of expectations actually influences the probability that they will become friends. These are not mutually exclusive assumptions, of course, but similarity between friends can certainly occur in either or both of these ways.

The only very satisfying means of determining the degree to which either process occurs is to follow a cohort of boys over a number of years, charting both their friendship patterns and their educational expectations (or whatever other measures seem appropriate). Such data are not available here or in most other studies of these issues. In the present study, however, there is some basis for charting longitudinal patterns, and it may be worth looking at the available data to see what can be learned.

It will be recalled that the in-school boys were asked who their best friends were at the time the data were collected and who their best friends were three years earlier. They were also asked both what their educational expectations were at the time and what they had been three years earlier. Although all the problems of retrospective data are encountered here, one may cautiously interpret these data as providing some indication of changing patterns over time. Due to the lower level of ego-friend agreement among the younger boys and the doubts one might have (based on earlier analysis) about the meaningfulness of these measures for the youngest cohort, the analysis will be restricted to the twelfth graders. In effect, we will be looking at the twelfth graders at two points in time, in the twelfth and the ninth grades, and we will be concerned with changes in the agreement between friends on educational expectations during that time. To simplify the analysis, only the first-named friend will be used.

Table 7.4 presents the results of an analysis using these two sets of questions. Basically, the analysis asks if there is any difference between long-term and short-term friendships so far as the degree to which the friends agree on educational expectations. A meaningful pattern is found which points to a positive effect of friendship on agreement. Looking at the short-term friend data first, it shows that the earlier expectations of boys who became best friends during the past three years was considerably lower than it is in the twelfth grade. If one looks only at those data, one might argue that the lower level of agreement at the earlier (pre-friendship) period is simply due to a greater amount of

Table 7.4

Agreement of Long-Term and Short-Term Friends

on Educational Expectations at Two Points

in Time, Twelfth Grade Whites

	Long-Term Friends (N=322)	Short-Term Friends (N=494)
Three Years Ago	.433	.344
Current	.510	.527

error in retrospective measures.* The long-term friend data are not consistent with that argument, however. Those who were already friends in the ninth grade seem to have agreed on expectations more then than did those who were not yet friends (compare .433 with .344), and such established friendships show less change in agreement over the intervening three years (from .344 to .527).

Thus, these data do provide some support for the idea that those who become friends move toward greater agreement. The evidence would be more convincing, of course, if these were actual longitudinal data rather than retrospective data. Also, the implicit assumption of the analysis is that the earlier point of reference (three years ago) was just before or at the time at which the boys became friends. This, of course, is not true in general, and we do not know how much of the change toward greater agreement might have occurred before the boys became friends. It seems unlikely, though, that only such pre-friendship change is involved.

To the extent that the correlations may be taken at face value, there is also evidence in Table 7.4 of friendship based on similarity of expectations. None of the coefficients is as low as the random pairing of the boys would produce.** Even those who later become friends are more

*It is worth noting that, whatever one's interpretation of the difference in level of agreement, there is little evidence of "retrospection falsification" to make the earlier expectation agree with the later one. The correlation between these two measures tends to be about .70 for both ego and friend.

**To save the influence argument in its strongest form, one might want to argue that the similarities between the early and later expectations are due to retrospective falsification while the differences are due to peer influence. It seems unnecessary, however, to strain one's credulity to that extent, since all that is intended here is to see if there is any evidence of influence and not to prove that all of the similarity is due to influence.

alike than randomly selected boys from their schools.

This same impression of selectivity due to similarity is suggested (though less clearly) by some data from the graduates. They were asked to name the boys who were their best friends when they were in the twelfth grade and to state whether these were still their best friends. Also, they were asked both about their educational attainment and about what level of education they expected to attain when they were in twelfth grade. The data derived from the use of these questions are reported in Table 7.5.

Table 7.5

Agreement of Previous and Current Friends on

Educational Expectations and Attainments,

Graduate Cohort

	Twelfth Grade Friends Who Are:	
	No Longer Friends	Still Friends
	(N=186)	(N=147)
12th Grade Expectations	.303	.273
Educational Attainment	.425	.475

It is clear from these findings that, if one takes the retrospective data as valid, one could not predict the continuity of friendship over the intervening six years from information about the friends' agreement on educational expectations at the earlier point. In fact, those who have continued to be friends had less similar expectations than those who did not continue to be friends (though the difference is not large). On the other hand, those who have remained friends have more similar educational attainment than those who have not remained friends (though again the difference is not very large). Thus, the continuity of friendship is more easily understood by reference to what has happened in the intervening years than by reference to the level of agreement earlier. Rather than friendship at an earlier point leading to similarity of expectations and attainments, the data point to the effect of intervening events on friendship. Again, this is not an either-or matter, given the small differences involved and the absolute sizes of the coefficients, but the direction of change seems to be in the second rather than the first direction.

Thus, there is evidence of both sources of similarity in the data. Friendship does seem to increase the level of agreement on expectations over the time covered and especially for those whose friendship only spans that period or less. On the other hand, agreement between those who become friends is greater than would be expected by chance even at a point before they become friends. Similarly, the experiences of the

friends which make them more or less similar do seem to have an effect on their friendship. We must interpret all of these findings with restraint, but they do suggest that similarity between friends results from both interpersonal influence and selectivity in the choice of friends. There is no way, in the present study at least, to separate these two sources of similarity. The further analysis must therefore be carried out with the knowledge that either interpretation of similarity is probably both right and wrong. To refer, as most of the earlier studies have, to "peer influence" or to "significant other influence" is overly simplistic, but it will not be possible here to correct for this over simplification in the analysis. One can only do so in the interpretation of the findings.

The Effect of Peer Similarity

Some reservation was expressed in the previous chapter about using the measure of "parental encouragement" because it was based on the boy's view of the parents' wishes for his education. Thus, the relationship between what the boy expects and what he thinks the parents want, though very strong, may simply be a function of the fact that both measures were based on the boy's report. In the present case, this problem is not involved. Whatever relationship there is between a boy's EdExp and his friend's expectations cannot be attributed to such a source. As the previous section has made clear, it may still not be completely safe to refer to peer influence in this analysis, but at least the similarity involved is based on two independent measures.

Including the measure of peer similarity in the analysis again requires a decision about its position in the flow of influence represented by the model. The same logic seems appropriate here as with parental encouragement. One may reasonably expect that the characteristics of the friends a boy chooses, including their educational expectations, will be influenced by the boy's family background, his intelligence, and his academic performance. That is, there will be some tendency for boys from similar social levels, with similar abilities, and with similar previous performances to choose each other as friends. Thus, the measure of the friend's educational expectations (FrExp) is placed between Grade and EdExp in the model. Throughout, FrExp is based solely on the boy's first-named friend, such refinements as length of friendship, reciprocation of the friendship, and whether this is a best friend overall being ignored.*

The correlation matrices for the model using FrExp with the three white in-school cohorts are presented in Table 7.6 and the path coefficients for the model are reported in Table 7.7. The most important fact about Table 7.6 is that all of the other variables in the model are correlated with FrExp at levels that are only slightly lower than those of

*Of the first-named friends, over all, 59% were reciprocating friends, 82% were best friends overall, and 37% had been friends for at least three years (the last figure being based on ninth and twelfth graders only). In all cases, these percentages dropped for the second and third named friends.

Table 7.6

Correlation Matrix for Grade-Friend Models,

In-School Whites

12th Grade (N=709)	FaEd	IQ	Sib	Grade	FrExp	EdExp	OccExp	Mean	St.Dev.
FaOcc	.609	.238	-.109	.222	.325	.397	.318	46.89	23.15
FaEd		.282	-.161	.290	.362	.449	.291	4.36	2.19
IQ			-.113	.569	.336	.483	.327	110.42	11.53
Sib				-.121	-.125	-.216	-.166	2.95	1.97
Grade					.451	.587	.471	82.61	5.81
FrExp						.497	.416	3.19	1.34
EdExp							.665	3.18	1.34
OccExp								58.88	25.93

9th Grade (N=316)	FaEd	IQ	Sib	Grade	FrExp	EdExp	OccExp	Mean	St.Dev.
FaOcc	.658	.442	-.179	.477	.370	.443	.396	49.06	24.03
FaEd		.290	-.096	.401	.343	.432	.378	4.65	2.17
IQ			-.289	.590	.466	.489	.397	108.62	12.52
Sib				-.296	-.270	-.154	-.164	3.20	1.91
Grade					.539	.538	.419	83.80	5.96
FrExp						.514	.395	3.21	1.43
EdExp							.615	3.16	1.40
OccExp								59.72	27.56

6th Grade (N=244)	FaEd	IQ	Sib	Grade	FrExp	EdExp	OccExp	Mean	St.Dev.
FaOcc	.557	.446	-.270	.391	.260	.336	.325	48.13	25.14
FaEd		.289	-.232	.306	.204	.314	.140	5.07	2.25
IQ			-.303	.721	.188	.322	.319	106.97	13.90
Sib				-.279	-.265	-.204	-.237	3.36	2.23
Grade					.213	.323	.267	83.38	6.80
FrExp						.293	.143	3.62	1.25
EdExp							.334	3.66	1.21
OccExp								60.54	25.90

Table 7.7

Path Coefficients, Grade-Friend Models,

In-School Whites

Dependent Variables	Independent Variables: FaOcc	FaEd	IQ	Sib	Grade	FrExp	EdExp	Coeff. of Determination
12th Grade Grade	.016 (.0040)	.126* (.3340)	.525* (.2645)	-.039 (-.1153)	-	-	-	.344
FrExp	.135* (.0078)	.158* (.0969)	.065 (.0076)	-.037 (-.0253)	.334* (.0770)	-	-	.278
EdExp	.124* (.0072)	.151* (.0929)	.145* (.0169)	-.098* (-.0664)	.337* (.0779)	.189* (.1895)	-	.499
OccExp	.094* (.1058)	-.079* (-.9336)	-.052 (-.1162)	-.026 (-.3375)	.128* (.5733)	.092* (1.772)	.561* (10.84)	.466

Dependent Variables	Independent Variables: FaOcc	FaEd	IQ	Sib	Grade	FrExp	EdExp	Coeff. of Determination
9th Grade Grade	.155* (.0385)	.160* (.4391)	.439* (.2091)	-.127* (-.3953)	-	-	-	.434
FrExp	.065 (.0038)	.106 (.0700)	.186* (.0212)	-.098 (-.0732)	.?27* (.0784)	-	-	.350

Table 7.7 Continued

Dependent Variables	Independent Variables							Coeff. of Determination
	FaOcc	FaEd	IQ	Sib	Grade	FrExp	EdExp	
9th Grade								
EdExp	.056 (.0032)	.177* (.1137)	.190* (.0211)	.057 (.0416)	.215* (.0504)	.242* (.2364)	-	.425
OccExp	.070 (.0799)	.078 (.9985)	.065 (.1426)	-.033 (-.4752)	.026 (.1190)	.043 (.8280)	.478* (9.436)	.410

Dependent Variables	Independent Variables							Coeff. of Determination
	FaOcc	FaEd	IQ	Sib	Grade	FrExp	EdExp	
6th Grade								
Grade	.035 (.0095)	.082 (.2495)	.667* (.3267)	-.048 (-.1467)	-	-	-	.533
FrExp	.152 (.0075)	.051 (.0281)	-.028 (-.0025)	-.191* (-.1069)	.105 (.0193)	-	-	.118
EdExp	.108 (.0052)	.144* (.0774)	.109 (.0094)	-.029 (-.0156)	.111 (.0198)	.184* (.1785)	-	.212
OccExp	.222* (.0761)	-.123 (-1.422)	.139 (.2590)	-.118 (-1.367)	.014 (.0539)	-.017 (-.3540)	.230* (4.921)	.205

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

the correlations involving EdExp. That is, ego's friend's educational expectations are associated with ego's charactersitics almost as closely as are ego's own expectations. It is thus not surprising that there is also a close association between EdExp and FrExp. With the exception of Grade, there is no other independent variable so consistently highly related to EdExp as FrExp.

Turning to the models themselves, it is clear both that FrExp varies by the background and performance characteristics of ego and that FrExp helps explain the variation in EdExp, but these relationships vary by cohort. Only in the twelfth grade is there a significant direct effect of ego's background on FrExp. In the ninth grade this effect is mediated by Grade to the extent that the direct paths are not significant. In the sixth grade neither the direct nor the indirect paths are significant.* Although it is difficult to understand, only Sib has a significant effect in the sixth grade.** It is also worthy of note that these several variables do explain a sizeable amount of the variance in FrExp in the two older cohorts, over one-third in the case of the ninth graders.

In turn, FrExp is clearly a significant contributor to the explanation of EdExp in all three cohorts. It is, in fact, the only significant contributor in the sixth grade besides FaEd. In the twelfth grade, in contrast, all of the model variables make a direct contribution to EdExp in addition to some indirect effects through Grade and FrExp, and in the ninth grade only FaOcc and Sib fail to show a significant direct effect.

If the paths in this model are compared with those in the Grade model in Chapter Four, it is apparent that the inclusion of FrExp reduces the direct paths from all of the previous variables to EdExp in all three cohorts. The one most seriously affected, at least in the two older cohorts, is the EdExp-Grade path. In the twelfth grade that path is reduced from .407 (in the Grade model) to .337 (in this model), and the comparable coefficients for the ninth grade are .329 and .242. (That path is of insignificant size in both sixth grade models.) That the major contribution of FrExp is through the explication of the flow of influence rather than the addition of an independently effective source of explanation of EdExp is demonstrated by the fact that in none of the cohorts is the coefficient of determination of EdExp raised appreciably. In the two older cohorts it is increased by 1% and in the sixth grade by 3%. Finally, it may be noted that FrExp has only a minor effect on the model so far as OccExp is concerned. Only in the twelfth grade is the OccExp-FrExp path significant, its major role in the analysis being to lower the size of the OccExp-Grade path rather than increasing the coefficient of determination of OccExp.

Before commenting on these findings, it is instructive to examine the comparable model for the graduates. The relevant data are presented

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*A model was also computed omitting Grade. In it, FaOcc, FaEd and IQ all had significant effects on FrExp in both the twelfth and ninth grades, but none of them had a significant effect in the sixth grade.

**This is also the case when Grade is omitted.

in Tables 7.8 and 7.9. The logic of this model is somewhat different from that for the in-school cohorts. The conceptual place of peers is clearer in that the immediate dependent variable is EdAtt up to the time of data collection, and the peer measure refers to peers who were meaningful to ego at the time when the boys were in twelfth grade. The model thus poses the question of the extent to which a twelfth grade friend's subsequent educational attainment has an effect on the educational attainment of ego. The in-school analysis places FrExp where it is largely on conceptual grounds, while the graduate model has a temporal as well as a conceptual basis for the ordering.

Table 7.8

Correlation Matrix for Grade-Friend Model,

White Graduates
(N=252)

	FaEd	IQ	Grade	FrAtt	EdAtt	OccAtt	Mean	St.Dev.
FaOcc	.635	.297	.267	.324	.417	.398	47.71	23.46
FaEd		.291	.230	.257	.294	.285	3.86	2.37
IQ			.497	.258	.436	.379	108.04	11.17
Grade				.424	.527	.506	81.32	5.69
FrAtt					.393	.346	3.50	1.88
EdAtt						.661	3.16	1.79
OccAtt							44.69	25.01

Table 7.8 is similar to Table 7.6 in that friend's attainment (FrAtt) is consistently related to all of the other model variables. It has a somewhat weaker correlation with EdAtt, relative to the other variables, than FrExp does with EdExp in Table 7.6, but that relationship is still comparatively strong. In Table 7.9, FrAtt is significantly associated with ego's social background and academic performance. Also, FrAtt does make a significant contribution to the explanation of EdAtt, but this contribution, like that of FrExp in Table 7.7, does not increase the coefficient of determination of EdAtt beyond its level in the Grade model of Chapter Four. The major effect the addition of FrAtt has is to reduce the direct paths to EdAtt from the other variables but especially from IQ and Grade.

Given the explicating role of peer characteristics in the models of educational expectation and attainment, and given the earlier suggestion that ego-peer similarity is probably a function of both selection and influence, it is difficult to evaluate the findings presented in this section. Although we are not faced with the same problem of non-independence

Table 7.9

Path Coefficients, Grade-Friend Model,

White Graduates

Dependent Variables	Independent Variables FaOcc	FaEd	IQ	Grade	FrAtt	EdAtt	Coeff. of Determination
Grade	.117 (.0284)	.023 (.0553	.456* (.2320)	-	-	-	.263
Friend	.195* (.0156)	.049 (.0389)	.008 (.0014)	.357* (.1179)	-	-	.229
EdAtt	.251* (.0192)	-.025 (-.0187)	.174* (.0279)	.321* (.1009)	.137* (.1304)	-	.396
OccAtt	.126* (.1342)	.003 (.0366)	.028 (.0624)	.192* (.8434)	.026 (.3467)	.484* (6.761)	.487

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

of measures we encountered with parental encouragement, there is still some basis for reservation so far as imputing interpersonal influence is concerned. Although FrExp and FrAtt both reflect the social and performance characteristics of ego and help explain the expectations and attainments of ego, it is unclear how these relationships should be interpreted. The structure of the models suggests that ego chooses his friends, at least in part, according to the "fit" between his own background and performances on the one hand and the friends' characteristics (including EdExp and potential EdAtt) on the other and that, once chosen, the friends have an effect on ego's EdExp and EdAtt. This is, indeed, the way I would conceptualize the relationships involved. However, viewed in that way, it is not possible to say simply that FrExp is a measure of the friend's influence any more than it is to say that FrExp is a measure of ego's criteria of choice. Certainly FrExp helps us explain EdExp, but it seems itself to be both cause and effect of ego's characteristics. I will return to this general issue in the last part of this report.

The Peer Context

Earlier, the individual schools were used as the basis for generating a measure of agreement among all random pairs in a cohort. That analysis acknowledged that, according to the method used here, a boy could not identify any friends he may have had at another school; yet, the measure used of agreement between ego and friend is computed over all schools in a cohort. Two questions are raised by this procedure. First, does the level of agreement found for the full cohort exist also within each school in that cohort? Second, is a significant part of the cohort agreement effect due to the fact that the mean level of EdExp varies from one school to the next?

Table 7.10

Intra-School Correlations of EdExp and FrExp,

In-School Whites

School	EdExp-FrExp Correlation	EdExp Mean	EdExp St. Dev.
Elementary			
A	-.096 (40)*	3.43 (44)*	1.15
B	.273 (48)	3.72 (50)	1.37
C	.122 (26)	2.75 (28)	1.58
D	.433 (49)	3.33 (55)	1.20
G	-.209 (12)	2.61 (18)	1.58
H	.031 (20)	2.96 (25)	1.54
J	.262 (49)	3.38 (63)	1.42
K	.121 (64)	4.26 (74)	.62
Junior High			
M	.510 (112)	3.21 (123)	1.31
N	.464 (100)	2.53 (118)	1.50
O	.462 (21)	2.18 (28)	1.57
P	.595 (56)	2.52 (69)	1.56
Q	.114 (101)	3.62 (105)	1.16
Senior High			
V	.473 (167)	3.39 (210)	1.28
W	.462 (213)	2.98 (270)	1.33
X	.489 (163)	2.90 (189)	1.32
Y	.181 (40)	1.80 (51)	1.00
Z	.557 (233)	3.28 (271)	1.41

* Numbers in parentheses following correlations are the base frequencies for those coefficients; numbers following the means are the base frequencies for the means and standard deviations. In all cases, the former is smaller than the latter.

Table 7.10 reports the correlations between EdExp and FrExp for whites within each school in each cohort. Also reported are the means and standard deviations of EdExp for each school. Only schools in which there were more than ten whites in the relevant grade are reported, three elementary schools (with a total of eight white sixth grade boys) having been deleted for that reason.*

The most obvious thing about Table 7.10 is the wide variation in correlation coefficients. They range all the way from -.209 to +.595. The variation is greatest in the sixth grade, but there is one low correlation school in each of the two older cohorts. In general, therefore, the cohort level of ego-friend agreement is not found at all schools, though the deviations are not great in the two older cohorts. It should also be noted that the means and standard deviations vary a great deal. On a measure whose total range is 0 to 5, all three cohorts contain schools whose means differ by at least 1.4, and there are differences of at least .4 in the standard deviations. Thus, the distributions of possible FrExp are quite different in the several schools, and the correlations between EdExp and FrExp are far from uniform, especially in the sixth grade. This would seem to suggest, as others have suggested in the past, that at least some of the overall cohort correlations between EdExp and FrExp may be a function of the school characteristics (what kinds of possible friends there are in the school) rather than the kind of selectivity or interpersonal influence previously assumed.

To provide at least a crude test of the importance of the school context, the EdExp-FrExp correlations were recomputed, controlling for the school mean on EdExp. These partial correlations are .491, .429, and .162 for the twelfth, ninth and sixth grade cohorts, respectively. These may be compared with the zero order coefficients in Table 7.1. Again we find that the older cohorts exhibit much more similarity between friends than do the sixth graders. The partials for the older boys differ very little from the zero order coefficients (a difference of .03 in the twelfth and .04 in the ninth grade), while the partial for the sixth graders is considerably smaller than the zero order coefficient (a difference of .10). And this is a reduction from what was already the smallest cohort coefficient. Thus, once the school effect is removed, the remaining peer similarity in the sixth grade is very limited, the partial being only .16. In sharp contrast, the removal of the school effect does not alter peer similarity appreciably in the two older cohorts.

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*The code letters are the same as those used in Figure 2.1, and the interested reader may want to refer to that figure for further information about the sizes, proportions white, and "feeder" relationships of the schools. It may also be noted that there are two sets of frequencies reported in Table 7.10. One is for the base for the correlations, the other is for the base for the means and standard deviations. The former is smaller than the latter since not all boys for whom there were EdExp scores chose friends for whom we had FrExp scores.

Summary

This chapter has examined the role of peers in the explanation of EdExp and EdAtt. It was demonstrated that friends are more similar than random pairs of boys in the same schools, but that it does not seem to matter which category of friend (reciprocated, long-term, best friend overall, etc.) is considered. The data were also interpreted as indicating that there is evidence of two different bases of similarity: selection of friends who are like oneself and interpersonal influence between friends. FrExp serves as a source of explication in the model, but it does not add to an explanation in the variance of EdExp beyond the other variables in the model. The variation by schools does not provide a basis for explaining friend similarity, although there is considerable variation in level of similarity between friends in different schools.

None of these positive findings is very strong in the sixth grade. There is less friend similarity, in spite of the fact that more can be expected even from random pairings, and controlling for school effects reduces the coefficient appreciably. FrExp does not add much to the model in the sixth grade, either in explication or additional explained variance. It is suggested that the combined effects of greater homogeniety of social backgrounds in elementary schools and the lower salience of educational expectations for such young boys are the reasons for such an outcome.

Overall, therefore, similarity between friends seems to reflect both patterns of choice and interpersonal influence, and the characteristics of the friend help to explicate the flow of influence in the model being developed. This is true, however, only for the two older cohorts.

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PART III

TWO FURTHER FORMS OF ANALYSIS

All of the analysis in Part II has used only the white samples. This was done because of the limited results obtained with the basic model, as reported in Chapter Three. Also, to this point all of the analysis has used only the data available from the records and from the boys' questionnaires. The parent interview data have not been referred to. This limitation was used because of the complications of moving back and forth from one to another data source, because the questionnaire data are like most other data available on the topics studied, and because when the interview data are used there is a sizeable loss in sample size.

In this part of the report, limited analysis is presented from these two other sources. Chapter Eight presents a brief review of the intensive analysis carried out of the black sample in an effort to clarify some of the problems encountered in Chapter Three. A somewhat different basic model is described and several elaborations of it are reviewed. In Chapter Nine some of the parent interview data are analyzed within the perspective of the models discussed previously. Two purposes are central to that analysis. First, there is an interest in understanding the parent-child relationship as viewed from both sides, and comparisons between parent and child responses are discussed. Second, the level of agreement between parents and son is examined as well as the degree to which each is aware of what the other's goals are.

CHAPTER EIGHT

ON BLACK AMBITION

In Chapter Three it was shown that the basic model used in this study did not provide nearly as much information about the sources of expectations of the future among the black students as among the white. Even when the black data were compared with lower SES whites, the contrast was great. As a result of this outcome, all of the analysis in Part II has dealt only with the white samples. The problem of explaining black ambitions thus remains, and this chapter will report on the several attempts made to clarify the situation.

A basic problem encountered in the analysis of the black data is the limited sizes the black cohorts. As noted in Chapter Two, there were no usable data available on black graduates, and the in-school black samples for whom any data were available had only 75, 131, and 142 cases in the twelfth, ninth and sixth grades, respectively. In all cohorts there was naturally some sample loss due to incomplete data, but the loss in the case of the blacks was much greater than for the whites. This was due in part to a somewhat higher frequency of "no response" among the blacks, especially in the sixth grade. But there was another important source of loss among the blacks also. The basic model uses as exogenous variables FaEd and FaOcc, but only about three-fourths of the blacks reported having a father (or father-surrogate) in the home, compared with other ninety per cent of the whites. Finally, evidently as a result of residential instability, IQ were available for fewer blacks than whites. As a result of these sources of loss, therefore, the samples used to compute the basic models for blacks in Chapter Three were only 41, 63, and 69 for the twelfth, ninth and sixth grades, respectively. One of the aims in the further analysis, therefore, was to conserve the sample sizes as much as possible.

The basic model also presented a more subtle conceptual issue in the case of the blacks. The fact that many of the blacks did not have fathers in the home and that some who reported an adult male indicated he was a father-surrogate, brings to mind the frequent argument that the mother is a more salient figure in black families, especially lower status black families. An examination of the correlations between mother's education and the other variables in the basic model did not lend strong support to the notion that mother's characteristics are more highly related to the boy's ambition, although the MoEd-EdExp correlations are somewhat higher than the FaEd-EdExp correlations. Since one of the major sources of sample loss was the lack of father data for many of the blacks, therefore, mother's education (MoEd) was substituted in the model in place of FaEd and FaOcc as an index of social level of origin.

Finally, also in an effort to reduce sample loss, the analysis was carried out using only EdExp as the dependent variable rather than including both EdExp and OccExp. It will be recalled from Chapter Three that the OccExp-EdExp paths in the black models were almost as strong as in the white models. The troublesome part of the black models, therefore, was providing an explanation of EdExp. Since there was some loss in sample size in all cohorts due to failure to provide complete data on

OccExp, it thus seemed preferable in the analysis of the black data to delete that part of the model.

The Basic Model

The correlation matrices for the basic model are presented in Table 8.1, and the path coefficients are in Table 8.2. It will be noted that the various changes made did result in the retention of more of the three samples, the frequencies being 64, 109, and 118 in the twelfth, ninth and sixth grades, respectively. It is also worthy of note that the mean MoEd in Table 8.1 is higher than the mean FaEd reported in Tables 3.5. This is true in all three cohorts. MoEd makes a significant contribution to the explanation of EdExp in the twelfth and sixth grades, and IQ does also in the sixth, but none of the paths are significant in the ninth grade. There is some increase in the coefficient of determination in the twelfth and sixth grades, also, over the original basic model. There is still little explanation of EdExp provided by the model, however, although the coefficient of determination of EdExp is about twice the original size. The major advantage of this model over the original one, therefore, is that it permits the retention of more of the sample.

Table 8.1

Correlation Coefficients for New Basic Model,

In-School Blacks

12th Grade (N=88)	IQ	Sib	EdExp	Mean	St. Dev.
MoEd	.010	-.098	.358	3.00	1.84
IQ		-.072	.089	95.27	12.41
Sib			.081	5.41	2.99
EdExp				2.67	1.16

9th Grade (N=109)	IQ	Sib	EdExp	Mean	St. Dev.
MoEd	.118	-.077	.164	3.16	1.88
IQ		-.065	.191	91.77	11.66
Sib			-.191	5.28	2.71
EdExp			—	2.47	1.32

6th Grade (N=118)	IQ	Sib	EdExp	Mean	St. Dev.
MoEd	-.136	-.105	.189	3.34	2.18
IQ		-.061	.158	88.46	11.97
Sib			.002	5.00	2.83
EdExp				3.24	1.42

Table 8.2

Path Coefficients, New Basic Model,

In-School Blacks

Dependent Variable	Independent Variables MoEd	IQ	Sib	Coeff. of Determination
12th Grade, EdExp	.369* (.2313)	.094 (.0088)	.124 (.0479)	.150
9th Grade, EdExp	.131 (.0922)	.165 (.0187)	-.170 (-.0831)	.085
6th Grade, EdExp	.218* (.1429)	.190* (.0226)	.037 (.0185)	.071

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

Using this model, all of the analysis carried out in Chapters Four through Seven was repeated for the black samples. It is not possible to present all of the results here, but some of the more significant ones will be reported. In general, the findings again confirmed the limited significance of social or preceived personal characteristics of the parents as a basis of explanation of EdExp. They also demonstrate the relatively greater significance of the boy's own characteristics and of influences outside the home. These other factors do contribute significantly to an explanation of EdExp, but the exogenous variables provide little explanation of either EdExp or the intervening variables. Three of the models will be discussed, one representing each of the extra-familial factors discussed earlier - school experience, personality, and peer influence. In all of them, Grade is also included as an intervening variable.

School Experience

Given the limited sample sizes, it was not very meaningful to carry out the analysis of academic over- and under-performance in the same detail as with the whites. It was found, however, that the blacks were distributed in the three performance categories in roughly the same way as the whites, although the ranges of both IQ and Grade were clearly lower for the blacks. The distributions on some of the items which make up the Partic and Involv measures were also different, especially the Partic items. The blacks less often had jobs, more often took part in athletics, were more likely to be defined as a behavior problem, and were more likely to have missed ten or more days of school. As with the whites, Partic proved to be a better source of explanation of EdExp than Involve. Thus, Partic, together with Grade, was used in the model.

Tables 8.3 and 8.4 report the correlations and path coefficients for the Grade-Partic model. As was the case with the whites, Grade is more highly correlated with IQ in the sixth than in the older cohorts. But here the differences are much greater. There is a sharp drop in the correlation from .74 to .51 to .25 as we move from the youngest to the oldest boys. As a result, the exogenous variables do not contribute much to an explanation of Grade in the twelfth grade. Only IQ contributes significantly in any of the cohorts. Similarly, there is little explanation provided for Partic in any of the cohorts. The coefficient of determination of Partic was low in the white samples also, although it was higher than it is here.

Table 8.3

Correlation Coefficients for Grade-Partic Model,

In-School Blacks

12th Grade (N=63)	IQ	Sib	Grade	Partic	EdExp	Mean	St. Dev.
MoEd	.010	-.098	.116	-.019	.359	3.00	1.86
IQ		-.065	.248	-.098	.082	95.43	12.44
Sib			.140	-.023	.086	5.38	3.00
Grade				.237	.381	78.48	3.84
Partic					.306	2.96	1.35
EdExp						2.68	1.16

9th Grade (N=104)	IQ	Sib	Grade	Partic	EdExp	Mean	St. Dev.
MoEd	.138	-.102	.229	.029	.206	3.11	1.88
IQ		-.047	.507	.167	.154	92.15	11.60
Sib			-.111	-.144	-.194	5.25	2.71
Grade				.466	.235	76.11	4.63
Partic					.260	2.82	1.52
EdExp						2.55	1.30

6th Grade (N=111)	IQ	Sib	Grade	Partic	EdExp	Mean	St. Dev.
MoEd	-.155	-.083	-.195	-.010	.241	3.32	2.14
IQ		-.039	.739	.173	.137	88.90	12.09
Sib			-.085	.022	-.026	4.97	2.81
Grade				.232	.110	78.93	6.37
Partic					.175	3.42	1.44
EdExp						3.31	1.38

Table 8.4

Path Coefficients, Grade-Partic Model,

In-School Blacks

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Partic	Coeff. of Determination
12th Grade						
Grade	.130 (.2695)	.258* (.0796)	.169 (.2163)	-	-	.103
Partic	-.021 (-.0151)	-.100 (-.0108)	-.031 (-.0140)	-	-	.011
EdExp	.343* (.2142)	.047 (.0043	.093 (.0360)	.255* (.0773)	.259* (.2236)	.311

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Partic	Coeff. of Determination
9th Grade						
Grade	.155 (.3811)	.482* (.1922)	-.072 (-.1235)	-	-	.288
Partic	-.007 (-.0060)	.161 (.0212)	-.137 (-.0071)	-	-	.046
EdExp	.164 (.1132)	.063 (.0070)	-.139 (-.0666)	.058 (.0162)	.198 (.1684)	.135

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Partic	Coeff. of Determination
6th Grade						
Grade	-.089 (-.2645)	.722* (.3806)	-.064 (-.1449)	-	-	.556
Partic	.020 (.0133)	.177 (.0211)	.031 (.0156)	-	-	.031
EdExp	.269* (.1734)	.127 (.0145)	.001 (.0005)	.035 (.0075)	.148 (.1422)	.112

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized. Grade and Partic residuals are correlated .285, .450, and .163 in the 12th, 9th and 6th grade models, respectively.

The inclusion of Grade and Partic makes a sizeable difference in the model only for the twelfth grade blacks. In that cohort, Grade, Partic and MoEd all contribute significantly to EdExp and the coefficient of determination of EdExp is a very respectable .311. Although the inclusion of these variables does raise the coefficient of determination for the younger boys, the difference is not great, and neither path from Grade or Partic to EdExp is significant. The EdExp-Partic path is sizeable in the ninth grade, but it is not significant. The EdExp-MoEd path is significant in the sixth grade. The school experience is thus an important contributor to educational expectations for twelfth grade blacks, at least. Yet there is nothing in the model that does much to explain the experience, even IQ. And, again, the level of explanation of EdExp is considerably lower in the black than in the white samples, even the twelfth grade.

Personality

The same personality measures as discussed in Chapter Five were available for the blacks. The pattern of intercorrelations among those measures was similar for the blacks and whites, although the coefficients were somewhat lower and there was more inter-cohort variation among the blacks. The sixth grade black cohort, especially, showed little pattern in the coefficients. As with the whites, however, fatalism (Fate) showed the most significant associations with the variables in the model. It was thus used in the further analysis.*

Tables 8.5 and 8.6 report the relevant data. It will be noted that there is sizeable sample loss in the two younger cohorts due to incomplete responses on the Fate measure. Some of the items on this scale were near the end of the questionnaire, and it was particularly in the younger black cohorts that some of the students failed to finish the questionnaire. It may be that this was due to difficulty in reading and understanding the questions so far as the sixth graders were concerned, but in the case of the ninth graders it seems more likely that lack of motivation was the reason.

In Table 8.5, as in most tables of correlations for the black cohorts, most of the coefficients are smaller than the comparable ones for the whites. In all three cohorts, for both blacks and whites, there is a negative relationship between Fate and IQ, between Fate and MoEd (FaEd for the whites), and between Fate and EdExp, and there is a positive relationship between Sib and Fate. In all cases, these coefficients are smaller for the blacks than the whites, except for the Fate-EdExp coefficients which are uniformly larger for the blacks than for the whites. This is the only case in which the black correlations are consistently larger than the white. It is striking that for the whites Grade is more highly correlated with EdExp than is Fate, while for the blacks the opposite is true.

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*One minor change was made in the measure of fatalism to insure the maximum frequency size possible. Instead of using a simple summation of the six items in the scale, an average of the available items was used, so long as at least four items had been answered.

Table 8.5

Correlation Coefficients for Grade-Fatalism

Model, In-School Blacks

12th Grade (N=62)	IQ	Sib	Grade	Fate	EdExp	Mean	St. Dev.
MoEd	.026	-.095	.126	-.151	.353	2.98	1.87
IQ		-.080	.228	-.245	.118	95.77	12.24
Sib			.133	.017	.096	5.40	3.02
Grade				-.229	.407	78.54	3.84
Fate					-.445	1.84	0.52
EdExp						2.66	1.59

9th Grade (N=86)	IQ	Sib	Grade	Fate	EdExp	Mean	St. Dev.
MoEd	.087	-.130	.202	-.308	.158	3.13	1.85
IQ		-.091	.514	-.226	.137	92.79	11.61
Sib			-.100	.181	-.215	5.21	2.75
Grade				-.274	.187	76.33	4.66
Fate					-.404	1.64	0.42
EdExp						2.70	1.30

6th Grade (N=85)	IQ	Sib	Grade	Fate	EdExp	Mean	St. Dev.
MoEd	-.191	-.014	-.264	-.088	.210	3.41	2.20
IQ		-.089	.734	-.120	.063	88.76	11.97
Sib			-.085	.113	-.026	4.96	2.97
Grade				-.022	.066	78.86	6.45
Fate					-.179	1.50	0.50
EdExp						3.33	1.37

Table 8.6

Path Coefficients, Grade-Fatalism Model,

In-School Blacks

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Fate	Coeff. of Determination
12th Grade Grade	.136 (.2791)	.238 (.0746)	.165 (.2102)	-	-	.093
Fate	-.124 (-.0344)	-.202 (-.0086)	.012 (.0021)	-.169 (-.0229)	-	.107
EdExp	.273* (.1695)	-.033 (-.0031)	.087 (.0332)	.289* (.0871)	-.347* (-.7135)	.373

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Fate	Coeff. of Determination
9th Grade Grade	.155 (.3903)	.497* (.1997)	-.034 (-.0581)	-	-	.290
Fate	-.251* (-.0572)	-.115 (-.0041)	.123 (.0188)	-.153 (-.0138)	-	.167
EdExp	.017 (.0117)	.008 (.0009)	-.141 (-.0069)	.068 (.0189)	-.353* (-1.093)	.189

Dependent Variables	Independent Variables MoEd	IQ	Sib	Grade	Fate	Coeff. of Determination
6th Grade Grade	-.130 (-.3804)	.707* (.3812)	-.024 (-.0564)	-	-	.556
Fate	-.096 (-.0219)	-.220 (-.0092)	.103 (.0191)	.123 (.0096)	-	.044
EdExp	.229* (.1434)	-.005 (-.0006)	.006 (.0028)	.128 (.0272)	-.157 (-.4304)	.084

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

As in the other black models, neither of the intervening variables (Grade or Fate) is very fully explained by the preceding variables, with the exception of the effect of IQ on Grade in the sixth grade. Yet, again the intervening variables contribute significantly to an explanation of EdExp in the twelfth grade, and Fate does so in the ninth grade. In both the older cohorts the coefficient of determination is higher than it was in the Grade-Partic model, the twelfth grade model providing the best explanation of EdExp in any black model thus far. Although the ninth grade model is better than any other for that cohort, very little of the variance in EdExp is explained.

Peer Influence

The detailed analysis of ego's relations with his peers that was presented in Chapter Seven for whites suggested that it made little difference which friend was used as a reference point in assessing the importance of peer influence. In that analysis, the first named friend was used for convenience. The situation was rather different with the blacks. In this case, the difference between a friend who was defined as a "best friend overall" and other friends proved quite significant, there being much more agreement between ego and a best friend. This was particularly true in the twelfth grade. Since that distinction had originally been thought to be important for present purposes, it was used in the present analysis. Ego's "friend" here is the first boy he names as being one of his best friends overall. Since the questions about friends came at the end of the questionnaire, and since some of the boys said that none of their school friends were their best friends overall, the sample sizes drop noticeably in this analysis, although they are larger than those found in Chapter Three.

Tables 8.7 and 8.8 report the relevant data. As in the previous analyses, the intervening variables are not very meaningfully related to those preceding them. Only in the twelfth grade is any path from an exogenous variable or from Grade to FrExp significant. However, again the intervening variable does contribute significantly to an explanation of EdExp, at least in the two older cohorts. In the twelfth grade, in fact, the coefficient of determination of EdExp is the highest for any black analysis. Although only the EdExp-FrExp path is significant, both the EdExp-Grade and EdExp-MoEd coefficients are rather large.

Conclusion

Although the discussion in this chapter has been quite limited, few details being presented, it should be kept in mind that what is presented are the most significant results of a very comprehensive analysis. All of the analysis carried out for the whites was duplicated for the blacks. The portions chosen for presentation here not only represent the most significant results, they also point again to the limited utility of family background data in explaining the ambitions of black boys. Similarly, they suggest the much greater utility of data on the boy himself and on his experiences in school - including his choice of friends there.

Table 8.7

Correlation Coefficients for Grade-Peer Model,

In-School Blacks

12th Grade (N=44)	Sib	IQ	Grade	FrExp	EdExp	Mean	St. Dev.
MoEd	-.070	-.032	.145	.341	.394	2.93	1.72
Sib		-.068	.107	-.014	.065	4.82	2.94
IQ			.235	-.218	.096	93.82	12.84
Grade				.114	.338	78.34	3.41
FrExp					.515	2.50	1.13
EdExp						2.68	1.16

9th Grade (N=75)	Sib	IQ	Grade	FrExp	EdExp	Mean	St. Dev.
MoEd	.024	.232	.206	.083	.085	2.85	1.82
Sib		.043	-.101	-.175	-.154	5.45	2.95
IQ			.488	.130	.190	92.64	11.26
Grade				.195	.207	76.19	4.57
FrExp					.307	2.53	1.29
EdExp						2.47	2.77

6th Grade (N=78)	Sib	IQ	Grade	FrExp	EdExp	Mean	St. Dev.
MoEd	-.123	-.199	-.255	.203	.311	3.33	2.31
Sib		-.022	-.081	-.006	-.013	5.15	3.02
IQ			.783	-.126	.016	89.04	12.27
Grade				-.104	.056	79.00	6.51
FrExp					.073	3.17	1.38
EdExp						3.26	1.38

Table 8.8

Path Coefficients, Grade-Peer Model,

In-School Blacks

Dependent Variables	Independent Variables MoEd	Sib	IQ	Grade	FrExp	Coeff. of Determination
12th Grade Grade	.167 (.3322)	.135 (.1573)	.250 (.0664)	-	-	.098
FrExp	.313* (.2060)	-.022 (-.0084)	-.239 (-.0211)	.126 (.0417)	-	.173
EdExp	.219 (.1472)	.075 (.0295)	.158 (.0142)	.209 (.0708)	.452* (.4628)	.410

Dependent Variables	Independent Variables MoEd	Sib	IQ	Grade	FrExp	Coeff. of Determination
9th Grade Grade	.100 (.2522)	-.124 (-.1919)	.470* (.1908)	-	-	.263
FrExp	.044 (.0312)	-.164 (-.0715)	.058 (.0066)	.141 (.0398)	-	.067
EdExp	.023 (.0159	-.106 (-.0458)	.114 (.0129)	.086 (.0241)	.255* (.2528)	.136

Dependent Variables	Independent Variables MoEd	Sib	IQ	Grade	FrExp	Coeff. of Determination
6th Grade Grade	-.114 (-.3212)	-.078 (-.1688)	.759* (.4026)	-	-	.629
FrExp	.191 (.1145)	.018 (.0082)	-.118 (-.0133)	.038 (.0081)	-	.049
EdExp	.353* (.2113)	.046 (.0211)	-.075 (-.0084)	.209 (.0444)	.014 (.0138)	.121

Note: Main entries are the standardized path coefficients; those in parentheses are unstandardized.

Not only do the exogenous variables provide little explanatory power, but the other analysis of parental influence was equally limited in utility. It was true, as with the whites, that the measure of "parent encouragement" was strongly related to EdExp in all three black cohorts. Since that measure was obtained from the boys, however, little weight can be attributed to it. In contrast, when the measure of parental concern with the boy's school work (SchCon) was used in the black models, it made no significant contribution in any cohort. Thus, so far as the information gathered from the boy is concerned, we find very little evidence of parental influence on educational expectations. At least for the twelfth graders it was possible to explain a sizeable portion of the variance in EdExp through other variables, but family status and parental influence variables added little.

It may be significant that it is only in the twelfth grade that the black data provide any explanation of EdExp. For the whites, both the twelfth and the ninth grade provide sizeable coefficients of determination of EdExp, although the former is larger than the latter. It may be that only blacks who go relatively far in school obtain a picture of the educational and occupational systems that is sufficiently orderly to permit them to give meaningful answers to the questions raised. Given the lack of relationship between their parents' levels of education and occupational attainment, blacks do not gain from their families any basis for seeing order in the attainment process. Perhaps only those who find some basis for survival in school can begin to see some kind of order. And that order is really not the same as seen by the whites. Although both Grade and Fate help explain EdExp for both whites and blacks, Fate does so more effectively for blacks and Grade does so more effectively for whites. There is thus evidence of greater faith in one's own powers of self-determination among whites, while blacks see more of the determination "out there." Most striking, however, is the limited utility of family characteristics in explaining any of the other variables in the model in any of the black cohorts.

The black-white contrast thus remains rather striking, and the flow of influence is much clearer for whites than for blacks. Before concluding that there is no evidence of family influence in the black cohorts, however, we need to look at the parent-child relationship from both sides. Fortunately, the parent interview data makes that dual view possible. Consideration of some of the data from that source is the purpose of Chapter Nine.

CHAPTER NINE

ON PARENT-CHILD RELATIONSHIPS

The parent interviews provide an additional perspective on the context within which the boys live and on the factors which presumably influence their ambitions. A perusal of the interview schedule in the Appendix makes it obvious that there is a wealth of information available, and a highly varied set of analyses is possible. The period of time covered by the grant was not sufficient to permit a full utilization of these data, and the space limitations of this report make it impossible to present even an adequate resumé of the analysis that was conducted. Given the outcomes from the previous analysis and the emphasis of this report on explicating the sources of the boys' ambition, I have chosen to limit the discussion in this chapter to an investigation of issues raised by the earlier analysis. The general issue has to do with the different outcomes for the black and white cohorts, and the specific matter to be dealt with is the failure of the previous analysis to find evidence of parental influence in the development of the black boys' expectations for the future.

The analysis will thus be directed toward an illumination of the differences between black and white parent-child relationships. This will be done in two ways. First, the characteristics of the parent-child relationship will be described in terms of the responses to questions given by both the boy and his parents. The basic goal will be to describe the relationship, but in so doing it will also become apparent that that relationship often looks rather different from the perspectives of the three people involved. Second, the outcomes of the parent-child relationship will be examined. To some extent, that is what has already been done in the earlier analysis, and it was found that the outcomes investigated (the boys' expectations) were more easily viewed as a function of the parent-child relationship among whites than blacks. It will be possible to go well beyond that analysis, however, and to investigate other kinds of outcomes.

Parent and Child: A Three-Sided View

In Chapter Six several measures of the parent-child relationship, as seen by the boys, were investigated. These were Respect, Parent Integration, and School Concern. The last of these is, of course, only indirectly a measure of the parent-child relationship. In addition, there were no items on this subject in the parent interview which were identical with those in the boy's questionnaire. Thus, it will not be considered here. The Respect measure consisted of five items which asked the boy about his relationship with his parents, special reference being made to how much responsibility they permit him, whether they encourage him to express his ideas, whether they respect his judgment, and so on. In the parents' inverviews there were two items (27 and 28) which were highly similar to two of these except for their reference (i.e., "do you" instead of "Do they"). A simple summation of these two items was used as a measure of the mother's and the father's respect for the boy. The boys' Parent Integration measure used in Chapter Six consisted of five pairs of

items, each pair consisting of identical items referring to the mother and father individually. These identical items were also included in the parent interview, the only difference again being their reference. Since the boys' questions also dealt with the individual parents, parent-specific measures will be used in the analysis.

There was one other measure in the parent interview that was analyzed rather fully and is relevant to this analysis, even though there is no counterpart in the boys' questionnaire. In several earlier studies Kohn (1969) used a parent value measure on the basis of which he developed the idea that one of the bases of differentiation of middle class and working class parents is the values they emphasize in their child-rearing. Kohn devised thirteen phrases which describe characteristics a parent might consider desirable in a child. (See item 43 in the parent interview in the Appendix.) The parents in the present study were asked to designate which three of these are the most desirable in a boy his son's age, then to say which of these three is most desirable of all, and finally to say which three are least important. In this way, a rough rank-ordering of the items was defined by the parent. Kohn has argued that middle class parents more frequently value items indicating self-determination (e.g., "Has self-control," "Is responsible," etc.) while working class parents more often value items indicating conformity ("Obeys his parents well," "Is neat and clean," and "Has good manners").

The responses given to these items by the Fort Wayne parents were studied from Kohn's perspective, and, although the class-related patterns he discussed were found, the conformity items more clearly differentiated working and middle class whites than did the self-determination items. Thus, for the purposes of the present analysis, a measure was devised using those three items. Weights were assigned to the parents' responses such that the item he ranked first got a score of 13, the other two he ranked among the top three got 11, the least important three got a score of 2, and all other items got a score of 7. The conformity score was then the sum of the scores assigned to the three conformity items. The possible range was from 6 to 35.

There are thus nine measures used here: mother's integration with son (MoInt), father's integration (FaInt), son's integration with mother and father (IntMo and IntFa), and mother's and father's respect for son (MoResp and FaResp), son's sense of being respected by his parents (Respt), and mother's and father's conformity (MoConf and FaConf). All except MoConf and FaConf are scored in such a way that a low score indicates more of the quality being measured.

The means and standard deviations of all nine measures for all six race-grade cohorts are presented in Table 9.1. None of the differences in the table is extremely large, but some of the patterns are worth noting. First, it is consistently the case that black parents value conformity more than white parents, and there are no particular variations by age of the child or sex of the parent. Second, both black parents describe their relationship with their son as being closer (more integrated) than do the white parents. Third, the sons generally seem to agree with this description in the case of the mother, but in the case of the father the oldest and youngest white boys report a closer relationship than the blacks do. In fact, the white boys report a closer relationship with

Table 9.1

Descriptions of the Parent-Child Relationship,

All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
MoConf	18.93(5.53)	23.42(10.04)	20.02(6.12)	25.42(5.39)	18.68(6.12)	25.76(4.90)
FaConf	20.88(5.53)	25.47(4.62)	19.97(6.37)	26.15(5.52)	19.26(5.72)	23.14(5.94)
FaInt	7.41(1.85)	6.19(1.33)	7.41(1.60)	6.96(2.17)	7.16(1.77)	6.68(1.83)
MoInt	7.25(1.65)	6.61(1.54)	7.09(1.36)	6.24(1.12)	7.08(1.65)	6.59(1.18)
IntMo	8.30(2.70)	7.41(2.48)	7.48(2.11)	6.24(2.50)	5.94(2.48)	5.58(2.52)
IntFa	7.84(3.64)	8.33(3.99)	6.81(3.01)	6.68(3.85)	5.42(4.04)	6.39(4.07)
Respt	6.52(4.11)	7.23(3.53)	7.21(3.65)	7.52(3.30)	7.28(3.60)	8.20(4.11)
FaResp	3.22(0.99)	4.09(1.36)	3.47(1.45)	4.25(1.33)	3.56(1.25)	3.70(1.39)
MoResp	3.16(1.03)	3.57(1.12)	3.35(1.24)	4.08(1.19)	3.43(1.03)	4.24(1.25)

with their fathers than with their mothers. Fourth, both the boys and the parents seem to agree that white parents respect their sons more than black parents do.* Finally, the younger boys of both races report a closer relationship than their parents do while the opposite is true for the older boys.

The picture that emerges from this analysis is a bit confusing. On the one hand it seems consistent that black parents, who stress conformity more, should have less respect for their sons' sense of responsibility and the value of what he says. Yet, it is odd that such parents also seem to have a closer relationthip with their sons. (In the case of the black fathers, of course, there is at least some doubt about just how close that relationship really is - at least as the boys see it.) One possibility that comes to mind as an explanation of this pattern is that the two racial groups have different verbal styles or different levels of "social desirability" emphasis, and thus the same answer does not mean the same thing. Although these are very real possibilities, they cannot be evaluated adequately within the context of this study.

Another way of looking at these same data, however, may be of even greater value for our purposes, and it avoids the effects of the possible cultural variability just suggested. This is to look at the degree to which the parents and sons actually agree on the descriptions of the relationship. Since only average scores have been examined thus far, we know nothing yet about the level of consensus in these descriptions of the parent-child relationship. Since both parent and child are presumably reporting on the same relationship, it is of some importance to know how closely their reports coincide. To give some indication of this, the parent and son reports were correlated, and the correlations are reported in Table 9.2

It is apparent from these correlations that the mean scores do not tell the whole story. The two most striking things about these correlations is their general low level and the fact that the black coefficients are, in the great majority of the cases, much smaller than the white. The The two major exceptions to the latter point are particularly surprising, given the stereotyped view of the role of the black father. In both the sixth and ninth grades, black fathers and sons are in greater agreement about the closeness of their relationship than are whites, and this is a much higher level of agreement than any of the black samples have with their mothers.** The more general outcome, however, is for black boys to

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*It should be kept in mind that the respect scores for the parents cannot be compared directly with that from the son since the latter is based on five items and the former on only two items each.

**This does not seem to be due to a consistently poor father-son relationship either, as the stereotype might suggest. See the mean values in Table 9.1

Table 9.2

Parent-Son Agreement in Describing Their Relationship,

All In-School Cohorts

	12th Grade		9th Grade		6th Grade	
	White	Black	White	Black	White	Black
FaInt & Son's FaInt	.361	.048	.279	.395	.190	.361
MoInt & Son's MoInt	.317	.221	.122	.075	.468	.012
FaResp & Son's ParResp	.074	.015	.227	.201	.290	-.023
MoResp & Son's ParResp	.224	.178	.246	.041	.310	-.080

agree with their parents much less than white boys do about the nature of the parent-child relationship.

Such a generally low level of consensus between parent and child on descriptions of their relationship raises a serious question about the validity of such data. At least it is extremely difficult to take the reports as descriptions of the "actual" relationship. At the same time, it is worth keeping in mind that it is parents who value conformity more who have the lower level of consensus. This result is at least consistent with the position taken by Kohn in that emphasis on conformity presumably leads to a more "external" kind of relationship between parent and child and reduces the possibility of sensitive communication and the resulting agreement on values and attitudes.* Such a result also directs our attention more sharply on what was defined earlier as the outcomes of the relationship rather than on the descriptions provided by the participants. This is the focus of the next section.

Agreement, Perceived Agreement, and Empathy

The basic question to which this chapter is addressed is the basis for the sharp black-white differences in parental influence on the boys' expectations of the future. The quality of the parent-child relationship, as described by the people involved does not seem to explain that difference, although the data on parental emphasis on conformity and degree of respect for the boy are suggestive. In Chapter Six it was shown that, at least from the boy's perspective, the white parents' goals for their son were very similar to his own. It was further noted in Chapter Eight that, although the similarity was not quite so strong, black boys also reported that their own goals and their parents' goals for them were very similar. Yet, this was the only place where there was any evidence

*The data of this study, of course, provide many possibilities for pursuing this line of reasoning. Such analysis is currently being conducted, and preliminary results appear to be consistent with this view.

of parental influence on the black boys. One could not help wondering how it came about that parents and their sons shared goals if there was little else to show parental influence. Given the parent interview data, it is possible to look more closely at this matter of shared goals. At the same time, other aspects of the parent-child relationship will become clarified.

There was a whole series of questions about views of the future included in both the boys' questionnaire and the parent interview. It is thus possible to examine the degree to which the boy and his parents agree on these matters. The means and standard deviations for these measures are reported in Table 9.3* So far as education is concerned, there is a tendency for the black expectations and aspirations to be somewhat lower than the white, an outcome that would be anticipated given the differences in SES of the two populations. Even more consistent than this, however, is the tendency for the parents' expectations and aspirations to exceed those of the boys and for the father's to be highest of all. The parent-child differences are most striking in the case of the older boys and especially with respect to aspirations. In fact, in most cases there is little difference between the boys' expectations and aspirations but very large differences for the parents.

The pattern with respect to expectations and wishes for the first job is very much the same except that there are not such great black-white differences in the levels of expectation or wish.** Finally, the expectations and levels of satisfactory jobs when the boy is thirty years old show somewhat the same parent-son pattern, although the differences are not so large. Overall, therefore, there is evidence of higher levels of aspiration and expectation on the part of parents than boys, and there is a sharper difference between expectation and aspiration for the parents than for the boys. There is also the expected difference between black

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*In the case of educational expectations and aspirations from the parent interviews, the actual means were reduced by 1.00 for comparability because the coding of the educational categories in the parent interview was from 1 to 6, but it was 0 to 5 in the boys' questionnaire.

**The questions used in this analysis of occupational expectations and aspirations are different from those used in the rest of the report. In the previous analysis the responses the boys gave to open-ended questions about their occupational expectations and aspirations were used. Here, the questions used present to the respondent a list of jobs and ask him to choose the one he thinks he can get or would like to have. The satisfaction at age 30 question provides a list of jobs and asks the respondent to indicate those he would be satisfied with. Such questions are used in this analysis because they were the only ones available in both the boys' questionnaire and the parent interview. They were not used previously because I do not consider them as good as the open-ended question. Some of the basis for that assessment is presented in the Appendix

Table 9.3

Parents' and Son's Educational and Occupational Expectations

and Aspirations, All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
Son's EdExp	3.11(1.34)	2.80(1.16)	3.17(1.39)	2.41(1.31)	3.39(1.38)	3.21(1.45)
Mother's EdExp	3.21(1.42)	2.92(1.19)	3.13(1.41)	2.36(1.52)	2.89(1.57)	2.26(1.58)
Father's EdExp	3.50(1.42)	3.03(1.34)	3.31(1.40)	2.67(1.56)	3.10(1.48)	3.15(1.51)
Son's EdAsp	3.04(1.50)	3.06(1.22)	3.18(1.48)	2.75(1.33)	3.48(1.41)	3.28(1.38)
Mother's EdAsp	3.95(1.21)	4.13(0.94)	3.86(1.15)	3.66(1.19)	3.88(1.20)	3.79(1.31)
Father's EdAsp	4.15(1.03)	3.88(1.12)	4.23(0.92)	3.98(1.12)	4.10(1.07)	3.98(1.00)
Son's First JobExp	58.99(27.22)	57.66(26.59)	53.93(29.38)	47.46(30.88)	51.88(30.52)	48.36(32.68)
Mother's First JobExp	59.14(23.99)	67.87(20.25)	61.95(24.99)	57.15(25.58)	61.13(26.16)	53.01(28.46)
Father's First JobExp	61.53(24.61)	61.26(24.21)	61.99(24.40)	58.00(24.37)	61.45(27.33)	58.09(25.34)
Son's First Job Wish	60.52(19.56)	54.14(19.76)	56.73(21.16)	50.79(22.96)	57.61(21.36)	57.25(19.44)
Mother's First Job Wish	65.61(20.05)	67.26(21.92)	67.35(19.41)	68.51(18.67)	66.96(20.25)	69.94(20.42)
Father's First Job Wish	68.01(18.78)	65.69(21.05)	67.44(20.59)	67.49(20.37)	68.11(19.09)	65.06(20.14)
Son's JobExp, Age 30	62.38(23.17)	66.26(20.99)	64.23(25.45)	60.39(25.83)	56.56(28.39)	55.93(29.84)
Mother's JobExp, Age 30	63.94(22.28)	69.68(19.32)	66.69(22.24)	66.64(22.74)	64.86(24.98)	63.19(26.11)
Father's JobExp, Age 30	64.11(22.92)	66.80(27.40)	63.04(25.07)	65.52(26.51)	63.59(25.42)	68.46(24.07)
Son's Job Satis, Age 30	57.95(17.72)	54.14(17.23)	52.80(17.20)	46.52(19.67)	46.05(19.60)	47.74(22.74)
Mother's JobSatis, Age 30	60.86(9.81)	59.90(6.51)	58.75(10.89)	58.40(9.43)	57.29(10.48)	55.47(8.73)
Father's JobSatis, Age 30	59.63(11.64)	61.24(8.16)	58.61(11.20)	59.39(7.61)	59.24(11.43)	57.50(9.15)

Table 9.4

Parent-Son Agreement on Expectations

and Aspirations, All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
Mother-Son EdExp	.841	.400	.693	.167	.437	.237
Father-Son EdExp	.734	.540	.650	.179	.471	.061
Mother-Son EdAsp	.500	.114	.389	.187	.312	.187
Father-Son EdAsp	.537	-.089	.281	.259	.389	.135
Mother-Son First JobExp	.723	.077	.521	.256	.400	.158
Father-Son First JobExp	.618	.387	.600	.098	.282	-.056
Mother-Son First Job Wish	.440	.161	.455	.063	.097	-.006
Father-Son First Job Wish	.553	-.006	.319	.207	.218	.020
Mother-Son JobExp, Age 30	.327	.356	.364	-.201	.234	.098
Father-Son JobExp, Age 30	.493	.236	.327	-.237	.231	.360
Mother-Son JobSatis, Age 30	.457	.297	.293	-.103	.144	-.053
Father-Son JobSatis, Age 30	.204	.128	.299	.162	.057	.154

and white educational goals but very little difference so far as occupational goals are concerned.

The consistent parent-child difference brings us back to the issue of the level of agreement between individual parents and their son with respect to expectations and aspirations. To permit a detailed examination of this issue, correlations were computed between those pairs of items which were worded exactly the same for the parents and for the boys. The resulting correlations are reported in Table 9.4. There are several very strong patterns in these results. First and foremost, the correlations for the blacks are very much lower than those for the whites. There are only three cases in which the black correlation is higher, and all of those deal with job expectations at age thirty. In the vast majority of cases, the white coefficients are much higher. Second, the coefficients tend to be higher in the case of the older boys, especially within the white population. Third, the coefficients drop in size as the point of reference is more distant and when it is aspirations rather than expectations that are being measured. Again, this is especially the case for the whites, the black coefficients being much more random. There is thus a much more meaningful order in the white data than the black, and the overwhelming impression gained is of very low levels of parent-child agreement among the blacks.

Table 9.5

Mother-Father Agreement on Educational & Occupational Goals

for the Son, All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
EdExp	.754	.641	.752	.340	.647	.126
EdAsp	.593	.177	.299	.332	.420	.250
First Job Exp	.732	.327	.487	.356	.490	.084
First Job Wish	.585	.228	.429	.103	.340	.028
JobExp, Age 30	.375	.097	.283	.392	.435	-.020
JobSatis, Age 30	.238	.329	.423	.126	.286	.028

These same data, of course, make it possible to determine the level of father-mother agreement also. The correlations between mother's and father's responses are presented in Table 9.5. Although the differences are not all as large as in Table 9.4, the same general black-white difference is found. There is generally less agreement between black than white mothers and fathers. Also, the agreement is again less when the boy is young or the point of reference is more distant or when it is aspirations rather than expectations being measured. In general, therefore, intra-familial agreement on goals is higher among whites.

The analysis in Chapter Six and that discussed in Chapter Eight which dealt with parental encouragement was not based on actual agreement, however, but on the son's perceived agreement. There it was reported that generally the boys saw their parents as having very much the same goals they had. Does this then mean, at least for blacks, that they are misperceiving the situation, that there is less actual agreement than they think there is? There are several measures of the boy's perception of agreement with his parents, and there are also two measures of the parents' perceived agreement with their son. In each case, the respondent was asked both about his own view and about how the other person saw the situation.

The correlations between these pairs of measures are reported in Table 9.6. Again we find the familiar pattern. With the exception of educational aspirations as reported by the sons, the black coefficients are consistently lower than the white. It would seem, therefore, that not only do black parents and their children agree less fully on the future goals for the son, but both the parents and the boys more frequently recognize it. At least that could be one interpretation of these findings. Fortunately, it is possible to go beyond that kind of inference, because further investigation suggests that it is wrong.

If the black parent-child differences were know to both parties, they

Table 9.6

Perceived Agreement between Parent and Son,

All In-School Cohorts

	12th Grade		9th Grade		6th Grade	
	White	Black	White	Black	White	Black
Son's View of own and Mother's EdAsp	.630	.285	.671	.373	.526	.589
Son's View of own and Father's EdAsp	.547	.458	.692	.320	.439	.471
Mother's view of own and Son's EdAsp	.673	.284	.474	.374	.628	.379
Father's View of own and Son's EdAsp	.690	.382	.506	.298	.598	.110
Son's View of own and Mother's JobSatis, Age 30	.576	.508	.518	.448	.474	.291
Son's View of own and Father's JobSatis, Age 30	.695	.267	.604	.264	.454	.338

would, of course, lead to reduced perceived agreement. If black parents and children were perceiving correctly, they would have lower perceived agreement than whites. However, if this were the case, it would also lead to a relatively strong agreement between what one party says the other believes and what the other actually believes. That is, there would be rather high parent-child empathy. The correlations reported in Table 9.7 clearly indicate that this is not the case. As before, the coefficients for blacks are much smaller than for whites. With the exception of the parents' accuracy in reporting their son's educational aspirations, in fact, the black coefficients suggest an almost random relationship between parent's and son's report. In contrast, almost all of the white coefficients are quite sizeable, especially in the older cohorts. The white empathy is clearly and consistently higher than the black.*

*A somewhat different but related form of analysis was also conducted in which the accuracy of the boys' reports on their parents' educational levels and their fathers' occupations was assessed. As is the case here, the blacks were consistently less accurate in reporting these characteristics of their parents (using the parent's own report as a valid one). Such race differences are greatly diminished by the twelfth grade, however, and the differences in the distributions of the characteristics being reported (i.e., blacks are generally lower SES) helps explain some of the race difference. This analysis is reported in Alan C. Kerckhoff, William M. Mason, and Sharon Poss, "On the Accuracy of Children's Reports of Family Social Status Measures," submitted for publication.

Table 9.7

Parent-Son Empathy, All In-School Cohorts

	12th Grade		9th Grade		6th Grade	
	White	Black	White	Black	White	Black
Son's accuracy re Mother's EdAsp	.682	.076	.446	.079	.279	.143
Son's accuracy re Father's EdAsp	.546	.148	.223	-.068	.171	.050
Mother's accuracy re Son's EdAsp	.583	.282	.587	.232	.285	.179
Father's accuracy re Son's EdAsp	.604	.345	.719	.243	.291	.044
Son's accuracy re Mother's JobSatis, Age 30	.349	.188	.160	.000	.259	.143
Son's accuracy re Father's JobSatis, Age 30	.176	.086	.424	.103	.173	-.019

If one looks back over Tables 9.4 through 9.7, it becomes apparent that the only place where rather consistently sizeable coefficients are found among the blacks is in Table 9.6, and these reflect perceived agreement. Although the black coefficients are also smaller than the white in that table, they are overall definitely larger than the black coefficients in the other tables. Thus, it seems that the black parents and sons think there is a reasonable amount of agreement on goals, but in fact there is very little. For the whites, actual agreement, perceived agreement and empathy are all relatively high. Whatever the descriptions the participants provide of the parent-child relationship, it seems to "work" better in the white families, at least so far as the sharing of goals for the boys is concerned.*

Conclusion

The present analysis is too limited to permit a confident assessment of the differences in parent-child relationships in the two races. Yet, there seems little doubt that the apparent lack of parental influence

*One possible source of difference in the size of the correlations for blacks and whites that might occur to the reader is a difference in the variances in the two race samples. A scanning of the standard deviations in Table 9.3 makes it clear that there are no real systematic differences between the races in this respect. The only place where large black-white differences in standard deviations occur is in the last two rows. Evidently black parents find a wider range of future occupations acceptable than do white parents. In spite of this, the correlations in the last two rows of Table 9.4 are still generally larger for whites than blacks.

reported in the earlier analysis of the black data has some basis in reality. It has not been possible to probe fully into the quality of the relationship in the two races, but it is quite clear that there is not only much less sharing of goals in black families, there is less awareness on the part of either parents or sons what the other thinks about such things. If we are looking for the sources of educational and occupational goals for the black boys, therefore, we cannot expect to find them in any simple transmission from parent to son. Of course, it may yet be found that the parents influence their sons in such a way that the sons' goals are affected. For instance, the way they relate to their sons may affect the personal qualities which the boys develop, and these in turn may affect the boys' views of their chances for the future.* Thus far, however, the analysis has only demonstrated low levels of agreement, perceived agreement and empathy among blacks. This suggests a very attenuated parent-child relationship having little meaning to either party, but much more needs to be done before such a conclusion can be stated with confidence.

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*Some analysis of this kind has been conducted, but without much success. For instance, there is a modest but consistent relationship in all three white cohorts between the parents' conformity scores and the son's degree of fatalism (high conformity emphasis being associated with a high level of fatalism), but the relationship among the blacks is very inconsistent.

PART IV

AN OVERVIEW

This section of the report consists of a single chapter. It has three purposes: First, it attempts to sketch the outlines of the results of the study as they have been presented in the earlier chapters. Second, it presents a new kind of model which links up data from three of the four cohorts studied. Third, it provides a substantive interpretation of the findings of the study.

CHAPTER TEN

SUMMARY, SYNTHESIS, AND INTERPRETATION

The earlier chapters have been devoted to the analysis of factors believed to be associated with varying levels of educational and occupational expectation and attainment. The point of departure was the basic model of Duncan. It was shown that data from the graduate cohort in the present study exhibited rather similar patterns of educational and occupational attainment as did Duncan's national sample of young men. In both, the level of occupational attainment is very largely a function of the level of educational attainment, although father's occupation also had some direct influence. Educational attainment in both cases was most strongly influenced by IQ but also by father's occupation and education. For the in-school cohorts, the basic ambition model had a very similar form. A boy's educational expectation was the most powerful source of explanation of his occupational expectation, although his father's occupation had some direct influence as well. The boy's educational expectation is also most strongly influenced by IQ, although the boy's family characteristics (and especially his father's education) have significant effects.

These basic ambition models differed by the age and race of the boys, however. The pattern just described was most clearly found in the older white cohorts, the sixth grade data showing only weak patterns of this kind. Similarly, the black models had very little of significance to them, and neither educational nor occupational expectations were explained to any appreciable degree by the model variables. It was also true that the ambition models were somewhat more effective in explaining higher status than lower status white boys' expectations, but the differences were not very large, and even the lower status white models were much more effective than those for blacks.

Overall, therefore, there was much greater initial success in explaining the ambitions of whites than blacks and of older than younger boys. This pattern continued throughout the study. So far as the younger boys are concerned, it seems most reasonable to conclude that the kinds of dependent variables are too distant and the means for the achievement of such goals too unfamiliar for the boys to provide meaningful answers to the questions raised. The problem there thus seems to lie in the appropriateness of the dependent measures themselves. For the blacks, however, the problem seemed to lie more clearly in the nature of the basic model. Predicated as it is on the assumption that the boy's origins and his abilities should influence his goals, that model appeared repeatedly inadequate. The origins of the blacks seemed especially irrelevant to the explanation of their goals. Throughout the study, therefore, it has been necessary to view the black and white cohorts as separate subject pools, and the analysis has consistently noted striking differences between them. In a very real sense, then, they seem to live in different worlds, and it will undoubtedly require very different modes of analysis and forms of interpretation in each.

Throughout the analysis also the finding from the basic model has been repeated so far as occupational expectations are concerned. In all of the elaborated models, educational expectations have been by far the strongest source of explanation of occupational expectations. In the

twelfth grade there was a consistent tendency for father's occupation and the boy's grades to have modest direct effects on occupational expectations, and in the ninth grade father's education had such an effect, but none of these was ever as much as one-fourth the size of the effect of educational expectations. Equally striking, in none of the elaborated models did the inclusion of additional variables appreciably alter the paths to OccExp in the basic model. The same general pattern was found for occupational attainment in the graduate cohort. The OccAtt-EdAtt path was by far the most powerful in the basic model, and neither it nor any of the other basic model paths to OccAtt was altered very much by the addition of other intervening variables. Finally, the coefficients of determination of OccExp and OccAtt in the basic models were not altered very much by the addition of other intervening variables.

Because of these several general outcomes of the previous analysis, this summary will concentrate on the two older in-school cohorts and the graduate cohort, it will be concerned solely with the findings relevant to educational expectations and attainment, and it will look at the black and white findings separately.

Perhaps Table 10.1 is the most effective way to summarize the findings relevant to the explanation of the educational expectations of white boys. The two panels of that table present the path coefficients and the coefficients of determination for the EdExp portions of the models from the ninth and twelfth grades.* Only the direct paths to EdExp are presented there; the paths to intervening variables are not reported. Such a summary makes it possible to see the degree to which the analysis has accomplished the goals of the report. The outcomes of the analysis can be viewed from two rather different perspectives. The first is concerned with the explanation of the variance of EdExp. The last row in each panel, which reports the coefficient of determination for each model, is most relevant to that concern. The second perspective, however, is more directly appropriate in a study using path analysis. It seeks to understand the relationship between the exogenous variables and the dependent variable, EdExp, through the introduction of intervening variables which reduce the direct paths from exogenous to dependent variables. The results from this perspective may be seen by scanning the rows associated with the several exogenous variables to see the degree to which the paths have been reduced as one moves from the basic model to any particular elaborated model.

Turning to the ninth grade panel first, it may be seen that the elaborated models have characteristics that are significant from both perspectives. All of the elaborated models have coefficients of determination that are higher than that for the basic model. The improvement in explanation ranges from an increase of 4% in the Fate model to 7.5% in the Grade-Friend model. The alteration of direct paths is also quite apparent. This is especially true for the EdExp-IQ path which is reduced from .354 in the basic model to as low as .132 in the Grade-Fate model. All of the

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*At least one model is presented from each of the chapters of Part Two except Chapter Six, Parental Influences. Although the parental encouragement model from that chapter explained a great deal of variance in EdExp, the nature of the measure of encouragement (based on son's report) makes that outcome of dubious value.

Table 10.1

Summary of Models for EdExp, Ninth and Twelfth

Grade Whites

Independent Variable 9th Grade	Model Basic	Grade	Grade-Partic	Fate	Grade-Fate	Grade-Friend
IQ	.354	.213	.205	.238	.132	.190
Sib	-.028	.031	.045	-.019	.006	.057
FaEd	.264	.190	.198	.238	.190	.177
FaOcc	.115	.091	.065	.095	.056	.056
Grade		.329	.266		.269	.215
Partic			.135			
Fate				-.288	-.252	
FrExp						.242
Coeff. of Determination	.349	.416	.414	.390	.430	.425

Independent Variable 12th Grade	Model Basic	Grade	Grade-Partic	Fate	Grade-Fate	Grade-Friend
IQ	.370	.161	.159	.332	.129	.145
Sib	-.128	-.113	-.091	-.122	-.113	-.098
FaEd	.223	.180	.158	.199	.157	.151
FaOcc	.167	.147	.134	.163	.152	.124
Grade		.407	.332		.405	.337
Partic			.202			
Fate				-.167	-.128	
FrExp						.189
Coeff. of Determination	.378	.489	.515	.403	.510	.499

elaborated models, in fact, reduce that path by at least one-third. There are also reductions in the paths from father's education and occupation, although they are not so large.*

In the twelfth grade panel both of these results are also found.** In fact, in both cases the results are even stronger. The coefficient of determination is increased over the basic model from 2.5% (in the Fate model) to 13.7% (in the Grade-Partic model). The IQ path is also drastically reduced in this cohort as in the ninth grade cohort, all except the Fate model reducing it by at least one-half and the Grade-Fate model reducing it by almost two-thirds. And again the paths from FaOcc and FaEd are reduced in the elaborated models, the largest reduction being in the EdExp-FaEd path.

It is apparent that the most powerful intervening variable in both cohorts is Grade, although Partic, Fate, and FrExp all have additional independent effects on both the coefficient of determination and the sizes of the several paths. It is also true that in both cohorts the exogenous variable most strongly affected by the inclusion of the intervening variables is IQ. In the basic model in both cohorts, IQ is the most potent source of explanation of EdExp. The magnitude of the EdExp-IQ path is greatly reduced in both cohorts, especially by the inclusion of Grade. However, it is also true that in the basic model the EdExp-FaEd path is the next largest, and that the size of that path is considerably reduced in at least some of the elaborated models. In the case of that path also Grade is an important intervening variable, although Partic, Fate, and FrExp all provide further sources of reduction in the twelfth grade.

The analysis has thus been successful to a notable degree with respect to both goals. As much as one-half of the variance of EdExp is explained by the models, and the intervening variables do serve to explicate the relationship between the exogenous variables and EdExp. It is equally true and equally important to note, however, that none of the intervening variables serves to reduce the effect of the exogenous variables on EdExp below a statistically significant level in either cohort. (The EdExp-Sib and EdExp-FaOcc paths are not significant in the ninth grade elaborated models, but they are also non-significant in the basic model.) In the ninth grade model IQ and FaEd continue to have a direct effect on EdExp, and in the twelfth grade all four exogenous variables continue to have a direct effect. Thus, it cannot be claimed that the analysis has wholly explained the relationship between the exogenous variables and EdExp, although it has explained a considerable portion of that relationship.

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*It is at least questionable whether one should consider the relative sizes of the EdExp-FaOcc path in the several ninth grade models since none of the coefficients for that path is statistically significant. Thus, even though the coefficient for that path in the basic model is twice the size as in the Grade-Fate and Grade-Friend models, the meaning of that difference is unclear. It may also be noted that none of the EdExp-Sib paths is significant. All other paths are significant.

**All paths reported for the twelfth grade are statistically significant.

A similar summary of the analysis of the graduate cohort is presented in Table 10.2, the dependent variable being EdAtt rather than EdExp.* Here again we find evidence of both increased explanation of the variance in EdAtt and the explication of the effects of the exogenous variables. The coefficient of determination is increased by one-third in all of the elaborated models except the Fate model. Also similar to the EdExp analysis, the EdAtt-IQ path is most strongly affected by the introduction of intervening variables, and again the reduction is greatest in the Grade-Fate and Grade-Friend models. In fact, that is the only path that is appreciably altered by the intervening variables. The EdAtt-FaEd path is non-significant in all of the models, and the EdAtt-FaOcc path remains strong no matter what intervening variables are introduced.

Table 10.2

Summary of Models for EdAtt, White Graduates

	Model				
Independent Variable	Basic	Grade	Fate	Grade-Fate	Grade-Friend
IQ	.375	.224	.355	.206	.174
FaEd	.052	.028	.055	.034	-.025
FaOcc	.266	.228	.264	.226	.251
Grade		.363		.350	.321
Fate			-.136	-.121	
FrEd					.137
Coeff. of Determination	.294	.397	.317	.408	.396

The overall outcome of the combined analyses summarized here has thus been to move toward a clarification and specification of the factors involved in the educational attainment of young white males. All exogenous variables have been shown to be important in explaining the process, although FaEd appears to influence goal-setting more than attainment, and FaOcc seems to act in the reverse fashion. Given the lack of data on Sib for the graduates, it is difficult to comment with confidence on that variable, but the data in Table 10.1 together with Duncan's earlier findings with respect to EdAtt would lead one to believe that both expectations and attainments are influenced by family size. By far the most powerful exogenous variable, however, is IQ. Although its influence on EdExp and EdAtt is sharply reduced by the introduction of intervening variables, the direct paths involving IQ remain strong. In addition, the most powerful intervening variable is Grade, whether EdExp or EdAtt is used as a dependent

*All of the paths in the table are statistically significant except the EdAtt-FaEd paths, none of which is significant.

variable. Most simply put, IQ, Grade and FaEd are most effective in explaining EdExp, and IQ, Grade and FaOcc are most effective in explaining EdAtt. This pattern is most sharply found when the ninth grade and graduate data are reviewed, the twelfth grade being intermediat The boy's own abilities and performances thus clearly affect both his ambition and his attainment. The boy's father's social status characteristics also affect both, but the father's education seems to influence goal-setting more and father's occupation (presumably through the income it provides) is much more potent in influencing attainment.

On the basis of such findings, one can offer some general observations on the process of goal-setting and attainment. There is evidently a strong influence of the boy's intelligence on his ability to perform in school which, in turn influences both his goals and his ability to achieve them. The social origins of the boy also influence his goals and attainments, his father's educational level influencing his educational goals independent of his own ability and performance, and his father's occupation influencing his ability to accomplish his goals independent of all of these other factors. Thus, although it may be argued on the basis of these data that the major source of influence on a boy's ambition and attainment is his own ability as it becomes translated into academic performance, that is far from the whole picture. In the first place, the boy's IQ is not independent of his social origins, the other three exogenous variables all being significantly correlated with IQ. Second, the boy's academic performance (i.e., Grade) is not wholly dependent on his IQ, FaEd also making a significant contribution to an explanation of Grade in the twelfth and graduate cohorts, and all four exogenous variables doing so in the ninth grade. Finally, even when Grade is taken into account, the other exogenous variables significantly influence EdExp and EdAtt, as shown in Tables 10.1 and 10.2.

The pattern of relations shifts not only when we change our focus from expectations to attainments, but also within the analysis of expectations as the boys get older. The expectations of the sixth grade boys are not very fully explained by any of the variables used (although IQ and FaEd explain the most), whereas in the ninth grade more variables contribute, and in the twelfth even more. Thus, the models used are more effective the older the boys get, and this can be seen in both the coefficients of determination and the sizes of the path coefficients. There seems to be an increasing tendency for the boys to shift from a dependence on their fathers as models for setting educational goals to a greater dependence on their own abilities and performances and on the family's ability to support their educational desires.

Although such longitudinal patterns may be inferred from the data just reviewed, the present study does not contain data wholly appropriate for the purpose of longitudinal analysis. In the next section, however, a form of analysis is presented that takes us a bit beyond inference across cohorts.

A Synthetic Cohort Model

The previous discussion has indicated that, in addition to the exogenous variables, Grade is the most powerful source of explanation of both EdExp and EdAtt. It has also suggested that during the later years of

public school there is an increasing tendency for a boy to take his own ability and performance and his family's economic position into account in setting goals. This seems to be realistic in that ability performance, and economic position most fully influence his educational attainment. Such an interpretation assumes, in effect, that the younger cohorts used in this study represent a reasonable basis for estimating what the older cohorts were like in the past. That is, it assumes that the ninth and twelfth grade data are similar to the kind of data that would have been collected from the graduates six and nine years earlier. (Similarly, it assumes that the graduate data are like data that could be collected from the in-school cohorts six years after they graduate.) The previous discussion has thus treated the data from the three cohorts as if they were taken from a single cohort at three points in time. This section will make that assumption more explicit and use it to generate a longitudinal model of the process of educational attainment.

The basic theorem of path analysis (see Duncan, 1966) may be written:

$$r_{ij} = \sum_q P_{iq} \, r_{jq}$$

where i and j refer to two variables in the model and q refers to all variables from which direct paths lead to variable i. Thus, the correlations between all pairs of variables in the model may be expressed as a sum of the products of other correlations and paths. Conversely, all paths may be derived from a knowledge of the matrix of correlations among all variables in the model.* This means that all one needs to construct a model of the type used in this report is a matrix of the correlations of the relevant variables.

To the extent that the samples are comparable, therefore, it is possible to build models of the type we have been using from data taken from different samples. These are called "synthetic cohort" models. The basic problem with this approach, of course, is that it is usually quite difficult to demonstrate the comparability of the samples. Also, even if that can be done, the problems of sampling error remain. Thus, such models can be used only with care, and even then one must interpret the results with added caution. On the other hand, such models can be very useful in illuminating the implications of interpretations of partial data sets for a more extended analysis.

The model to be constructed here again is restricted to the white ninth, twelfth and graduate cohorts because of the differences between white and black findings and because of the weak outcome for the white sixth graders. The model must also be limited to those variables for which there are adequate data to complete the correlation matrix, or at least that part of the matrix representing the relationships which are to be included in the model. For instance, although fatalism was shown to be a meaningful source of influence on both expectations and attainments (see Tables 10.1 and 10.2), there is no basis for estimating the relationships

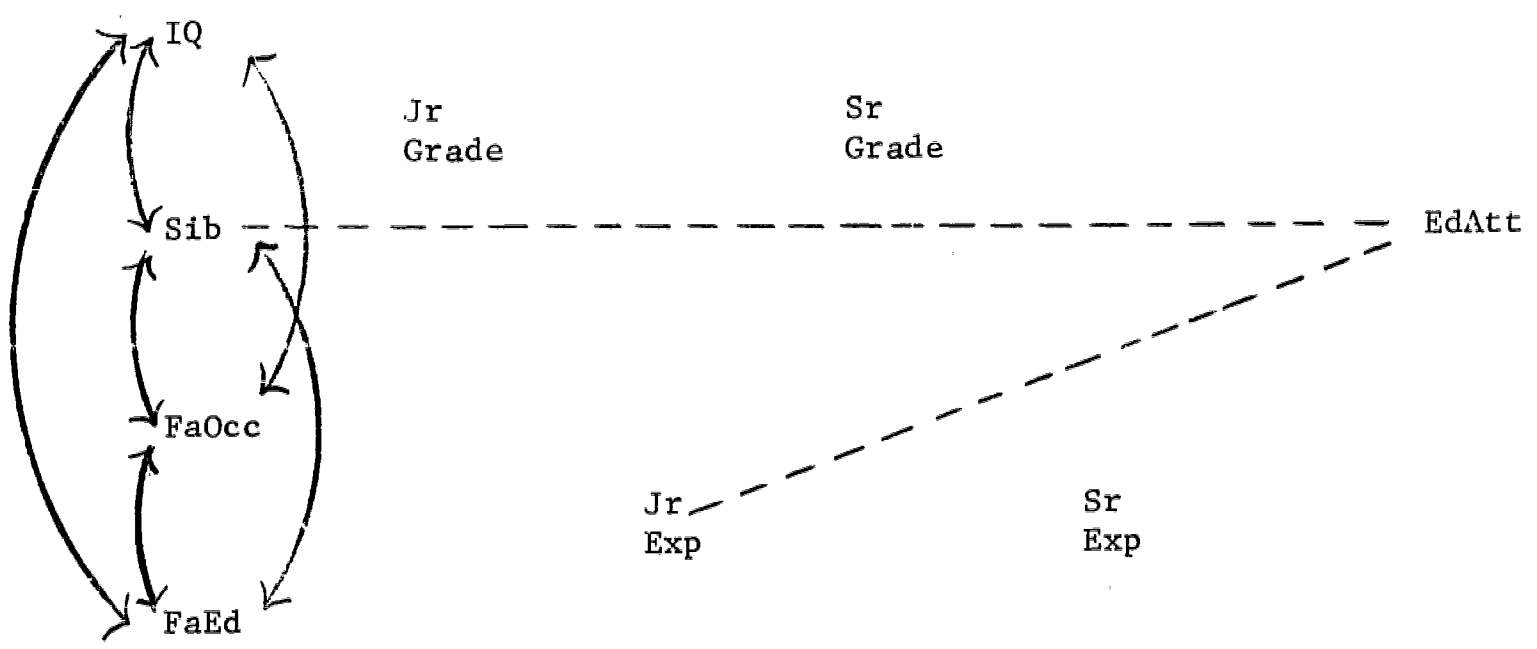
*Technically, this is true only of recursive models (those in which there is no allowance made for two-way influence between variables). Since such two-way models are not used in this report, however, the above statement is accurate for present purposes.

between Fate measured at one point in time and Fate measured at another point in time or between Fate and many other variables measured at another point in time. Fortunately for these purposes, however, most of the variables that have been shown to be most important in the single cohort models are amenable to the kind of analysis proposed here.

It will be easier to discuss the logic of construction of the model if the final structure is presented first and then the reasons for it stated. The basic structure of the model is shown in Figure 10.1. The network of paths is omitted from the figure for simplicity's sake, but two dotted lines are shown to represent missing paths. That is, The EdAtt-Sib and EdAtt-JrExp paths cannot be computed in the model to be presented, but all other paths can be. The model thus implies that a boy's grades in junior high school (JrGrade) depend on the four exogenous variables; his educational expectations in junior high (JrExp) depend on his grades and the exogenous variables; his senior high grades (SrGrade) depend on his junior high grades and expectations and the exogenous variables; his senior high expectations (SrExp) depend on all preceding variables; and his educational attainment depends on all preceding variables except Sib and JrExp. Although the latter exceptions are based on necessity (due to lack of data), they do not seem unreasonable since they imply that the effects of Sib and JrExp are built into the flow of influence prior to the last step in the model.

Figure 10.1

Structure of Synthetic Cohort Model



In order to compute the paths in such a model, it is necessary to obtain correlations between all pairs of variables in the model which are to be connected by straight or curved arrows (paths or correlations). Table 10.3 presents those correlations. It will be necessary to discuss the sources of those coefficients and the logic of their choice before presenting the resulting model.

Table 10.3

Correlation Matrix for Synthetic

Cohort Model

	Sib	FaOcc	FaEd	JrGrade	JrExp	SrGrade	SrExp	EdAtt
IQ	-.182	.301	.286	.596	.522	.569	.643	.490
Sib		-.160	-.146	-.290	-.221	-.103	-.218	*
FaOcc			.615	.452	.452	.216	.417	.408
FaEd				.409	.442	.246	.444	.375
JrGrade					.549	.824	.460	.424
JrExp						.497	.685	*
SrGrade							.521	.578
SrExp								.738

*No correlations available.

Turning first to the intercorrelations among exogenous variables, it will be recalled that these variables were measured on all of the in-school cohorts and all but Sib were measured on the graduates. It was thus necessary to decide on the most suitable source of the correlations for present purposes. Since only the three older cohorts were to be included in the model, the coefficients for these three cohorts were reviewed (see Tables 3.2 and 3.3). The FaEd-FaOcc coefficient was almost exactly the same for all three, but the relationship between those two variables and IQ varied for the three cohorts. In both cases, the relationship was stronger for the ninth graders. Similarly, the relationships between Sib on the one hand and IQ, FaEd, and FaOcc on the other differed for the ninth and twelfth grade cohorts. The sharpest difference was in the IQ-Sib coefficient, that for the ninth graders being more than twice the size of that for the twelfth graders. In light of that variability, it was decided to use some estimate that would be both more stable and more indicative of the overall population involved. Since the exogenous variables were viewed as functioning largely as sources of influence on the variables to the right in Figure 10.1, only data from the in-school cohorts were used. The correlations among the exogenous variables are thus based on the combined ninth and twelfth grade samples.

The other variables in Table 10.3 are in each case taken from a single cohort. In many cases, in fact, there is only one possible source of a coefficient. For instance, all correlations involving EdAtt can only be computed on the graduate cohort. Most of those coefficients have been used in previous analysis, but there are exceptions. The EdAtt-SrExp coefficient is based on the graduates' statements of their educational expectations when they were in the twelfth grades, and the EdAtt-JrGrade correlation is based on the graduates' grades in the ninth grade.

Correlations involving senior and junior high measures (columns 4 through 7) often have two or more possible sources. For instance, the JrGrade-JrExp correlation was actually computed from the ninth grade cohort data, but a similar measure was available from the twelfth grade data set. In the latter case it is a correlation between the seniors' recollections of their expectations when in the ninth grade and their ninth grade grades. The general rule followed was to use contemporary rather than retrospective replies and to use the most reliable measure possible.* As a result, in the case in point, the JrGrade-JrExp correlation from the ninth grade cohort was used instead of the one from the twelfth grade cohort. In some cases, however, it was necessary to use retrospective replies and to use one-year grade records rather than those based on two or more years. This was the case with the correlations of JrGrade with SrGrade, SrExp and EdAtt, of JrExp with SrGrade and SrExp, and of SrExp with EdAtt. Thus, those six correlations are the most questionable part of the matrix.**

Using the coefficients reported in Table 10.3, the path coefficients for the full model suggested in Figure 10.1 were computed. Those coefficients, together with the coefficients of determination, are reported in Table 10.4. In effect, the first two steps in the model (the paths to JrGrade and JrExp) are simply another version of the ninth grade cohort's Grade model for EdExp.*** From that point on, however, a more synthetic

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*In the great majority of cases where two sources were avilable, the one used produced a higher coefficient than the one(s) involving retrospective and/or a more limited measure. In some cases the difference was very sizeable. For instance, measures of the FaOcc-JrGrade and FaEd-JrGrade were available from both the senior and the graduate data sets. The coefficients not used ranged from .157 to .204 while the two used were .452 and .409. This does not seem to indicate a wholly inadequate JrGrade measure for seniors or graduates, however, since other correlations using that measure (e.g., the JrGrade-IQ correlations) were much closer to the correlations using the ninth grade cohort data.

**Although these coefficients are questionable for the reasons noted, there is also some basis for faith in them. Some of this is internal evidence in Table 10.3. For instance, the JrGrade-SrExp coefficient is smaller than the SrGrade-SrExp coefficient, as one would expect if both were valid and reliable measures. The same is true for the JrGrade-EdAtt and SrGrade-EdAtt coefficients, and the JrGrade-JrExp correlation is higher than the SrGrade-JrExp correlation. Other supportive evidence comes from other parts of the data sets not reported in Table 10.3. For instance, the graduates' SrExp measure, although a retrospective one, is correlated with several other variables in very much the same way as the seniors' SrExp. This is expecially true for IQ (.48 and .46) and SrGrade (.51 and .52). Also in reference to the graduates' SrExp measure, the reported SrExp-EdAtt correlation in Table 10.3 (.74) is very similar to the one reported by Sewell et al. (1970) for a true longitudinal analysis (.70).

***The outcome differs from that for the ninth grade model, however, because the correlations among the exogenous variables are based on the combined ninth and twelfth grade cohorts and because all of the correlations involved are based on all of the cases for whom the two measures are available rather than being limited to only those cases on whom all of the measures are available.

Table 10.4

Path Coefficients, Full Synthetic Cohort Model

Dependent Variable	Independent Variables IQ	Sib	FaOcc	FaEd	Jr Grade	JrExp	Sr Grade	SrExp	Coeff. of Determination
JrExp	.470	-.153	.211	.123	-	-	-	-	.470
JrGrade	.283	-.055	.153	.166	.277	-	-	-	.427
SrExp	.099	.150	-.208	-.034	.850	.121	-	-	.748
SrGrade	.069	-.131	.159	.156	-.451	.459	.539	-	.584
EdAtt	.144	-	.243	.029	-.491	-	.595	.473	.665

quality enters the model. Also, from that point on the model has some disturbing characteristics. The most disturbing outcome of all is the pair of strong negative paths involving JrGrade (SrExp-JrGrade and EdAtt-JrGrade). The problem in this case seems to be the high JrGrade-SrGrade correlation (.82). When two independent variables are so highly correlated, a multivariate solution in which they are used is very unstable, and the resulting coefficients are of highly questionable value. Less obvious but equally disturbing are some of the paths from the exogenous variables to SrGrade. In particular, the SrGrade-Sib and SrGrade-FaOcc paths, though seemingly of moderate size, have signs that are the reverse of what one would expect. Given the strong JrGrade-SrGrade correlation, and the very strong resulting SrGrade-JrGrade path, the meaning of the other coefficients of paths to SrGrade is at last questionable.

The basic difficulty with the model seems to be that it includes pairs of measures that are almost redundant. This is especially true for the two grade measures, but it is also true for the two expectations measures which are also highly intercorrelated (.685). The latter has not led to quite so obvious a problem because of the missing EdAtt-JrExp path, but the conceptual problem is the same. Thus, although the model appears to be very powerful, at least so far as the sizes of the coefficients of determination are concerned, its internal structure is not very meaningful.

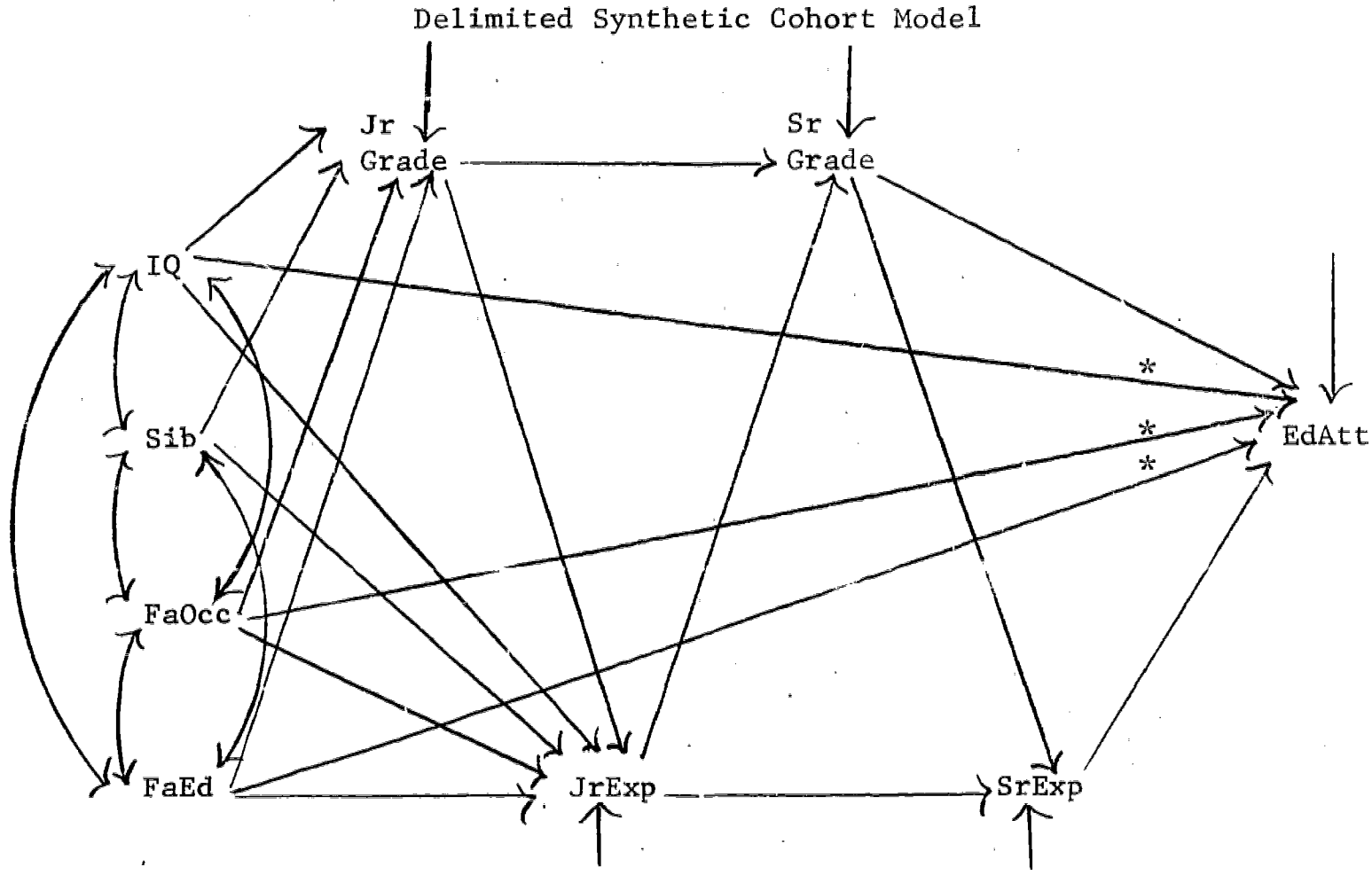
In order to gain greater clarity in the internal structure, two more delimited models were constructed, based on the same set of data. Both acknowledged the problems just noted by deleting a large number of paths within the core of the model. All paths from the exogenous variables to SrGrade and SrExp were deleted and the SrExp-JrGrade and EdAtt-JrGrade paths were also removed. In effect, this argues that, although JrGrade and JrExp are influenced directly by the exogenous variables, SrGrade is affected directly only by JrGrade and JrExp, and SrExp is directly influenced only by JrExp and JrGrade. (The effects of exogenous variables on SrGrade and JrGrade are thus seen as flowing <u>through</u> JrGrade and JrExp.) Also, the only effect of JrGrade and JrExp on EdAtt is seen as flowing through the intervening variables. The two models differ in their view of the sources

of EdAtt. The first, and more radical, model views EdAtt as wholly a function of the boy's characteristics - specifically, SrGrade and SrExp. The exogenous variables and JrGrade and JrExp are viewed as only indirectly affecting EdAtt. It assumes that the direct effects of the exogenous variables are limited to the early years of a boy's life. The second model views EdAtt as a function of both the boy's characteristics (SrGrade and SrExp) and the exogenous variables. In effect, it argues that, although the boy's characteristics as a senior may only be indirectly a function of his background, his ability to translate those characteristics into educational attainment depends on both his own qualities and his origins.* I will refer to these two models as A and B, respectively.

These two models are represented in Figure 10.2. The paths leading to JrGrade and JrExp are identical to those in the full model reported in Table 10.4, but from that point on there are differences. The two simplified models are the same so far as the paths to SrGrade and SrExp are concerned. They differ in that model A includes only the two paths to EdAtt while model B includes all five.

Figure 10.2

Delimited Synthetic Cohort Model



*These paths are not included in Model A

*This way of expressing the conceptualization either suggests that the EdAtt-IQ path should be left out of the model or it views IQ as part of the boy's "background." Although on further reflection I would probably choose to delete the EdAtt-IQ path, the model as presented was constructed with it left in.

Table 10.5

Path Coefficients, Delimited Synthetic Cohort Models

Dependent Variables	Independent Variables								Coeff. of Determination
	IQ	Sib	FaOcc	FaEd	Jr Grade	JrExp	Sr Grade	SrExp	
JrGrade	.470	-.153	.211	.123	-	-	-	-	.470
JrExp	.283	-.055	.153	.166	.277	-	-	-	.427
SrGrade	-	-	-	-	.789	.064	-	-	.682
SrExp	-	-	-	-	-	.566	.240	-	.513
EdAtt(A)	-	-	-	-	-	-	.266	.600	.596
EdAtt(B)	.077	-	.121	-.018	-	-	.231	.539	.612

Table 10.5 reports the path coefficients and the coefficients of determination for these two delimited models. The first two rows of the table are exactly the same as those in Table 10.4, but the others are quite different. The third and fourth rows apply to both the delimited models. The third row suggests that within the context of the models SrGrade is almost wholly a function of JrGrade with a minor contribution from JrExp. Early expectations thus seem to have little effect on later performance. Row four reports a very strong effect of JrExp on SrExp with a moderate additional effect from SrGrade. Later performance thus evidently helps explain changes in expectations. The fifth row represents the paths in model A. In it, EdAtt is seen as a function of a strong influence from SrExp and a moderate effect of SrGrade. In spite of the strong SrExp-EdAtt correlation (.74), grades still influence attainment. The sixth row, which shows the explanation of EdAtt in model B, is highly similar so far as the EdAtt-SrExp and EdAtt-SrGrade paths are concerned. Although their coefficients are smaller than in model A, the differences are not large. So far as the additional paths are concerned, the only one of notable size is the EdAtt-FaOcc path, which suggests that the status of the family does contribute to the boy's ability to accomplish educational goals independent of his own ambitions and performance. As a result of these limited differences, the two EdAtt coefficients of determination are not very different, model B explaining only 1.6% more variance in EdAtt.

How do these models compare with the one in Table 10.4? How much information is lost? Where do the most serious distortions come in? There are several ways to approach these questions. First, one may simply compare the coefficients of determination in Tables 10.4 and 10.5. In all of the altered rows the coefficient is smaller in Table 10.5 than in the original full model. The differences are not as great as might have been expected, however. In each case there is a loss of from 5% to 7% of explained variance.* Whether this is considered a serious loss will depend

*Another way to view this loss is in terms of the original power of

on one's purpose, but it is surprisingly small in light of the simplicity of the models. And the models still explain from one-half to two-thirds of the variance of the three final dependent variables. A more refined approach to a comparison among the models may be taken by computing the correlations implied by the delimited models and comparing them with the observed correlations. Similarly, one can compute the correlations between pairs of residuals or between residuals and exogenous variables that are implied by these differences. The results of such computations are reported in Table 10.6. The first two sets of results (those involving SrGrade and SrExp) are applicable to both of the delimited models. The last set of results (involving EdAtt) is applicable only to model A, with one exception. The one computable path in that last set which was deleted in both delimited models is the EdAtt-JrGrade path, but its implied value (and thus the implied correlation of residuals) is different in models A and B, as noted.

Table 10.6

Implied Correlations and Correlations of

Residuals of Delimited Models

Relationship	Observed r	Implied r	r of Residuals
SrGrade-IQ	.569	.504	.115
SrGrade-Sib	-.103	-.243	.248
SrGrade-FaOcc	.216	.385	-.300
SrGrade-FaEd	.246	.351	-.186
SrExp-IQ	.463	.432	.044
SrExp-Sib	-.218	-.150	-.097
SrExp-FaOcc	.471	.308	.156
SrExp-FaEd	.444	.309	.193
SrExp-JrGrade	.460	.508	-.094
EdAtt-IQ	.490	.429	.096
EdAtt-FaOcc	.408	.307	.159
EdAtt-FaEd	.375	.332	.068
EdAtt-JrGrade (A)	.424	.495	-.153
EdAtt-JrGrade (B)	.424	.532	-.238

the model to explain these three variables, power being measured by the coefficient of determination. From this perspective, there is a loss of from 8.0% to 12.2% of the original power of the model.

It is apparent that many of the differences are quite large, and a number of the correlations between the residuals are also rather large. One cannot very effectively reproduce the correlation matrix from either delimited model.* In general, however, the fit between the original model and the two delimited models is better when the dependent variable is SrExp than when it is SrGrade, and in model A the fit for EdAtt is also clearly better than that for SrGrade. Thus, in general, the sizes of the differences between implied and observed correlations and the sizes of the correlations of residuals are smaller as one moves down the table. The single implied correlation involving EdAtt (that for EdAtt-JrGrade) in both delimited models is more in error in model B than in model A. The correlation between the residuals is thus also greater. From this perspective, therefore, both A and B contain error, but B is more in error than A at the one point where a direct comparison can be made.

Finally, one may want to consider the "interior" of the model rather than either its power or its ability to reproduce the observed correlations. That is, one may prefer to judge the adequacy of the models in terms of the reasonableness or interpretability of the paths. As noted earlier, the full model produces paths which are quite difficult to interpret. As the coefficients in Table 10.4 suggest, the complexities of multivariate analysis are more often complexities of interpretation than computation. In contrast, both of the delimited models produce paths which are easily interpreted and are consistent with the conceptualization of the process of attainment which informs this analysis.

Thus, the three means of comparing the models do not come to the same conclusion. In terms of explanation of variance, the full model is clearly best, although the differences are not massive. The difference between models A and B is miniscule in this respect. So far as the ability to reproduce the correlation matrix from which the models were derived, the full model is by definition the best, and models A and B are about the same although they are not wholly comparable. In terms of the interpretability or meaningfulness of the models' internal structure, A and B are clearly preferable to the full model with B being somewhat more informative without being more powerful.

A choice among the three thus depends to some extent on one's criteria. To the extent that the purpose of this research has been to explicate the attainment process, A and B are preferable. If one's aim is to explain variance in educational attainment, however, the full model is better.** If driven to a choice, I would probably choose model B simply because it

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*Due to the synthetic nature of the model, there is no acceptable way to determine the statistical significance of these differences or coefficients, but it seems safe to consider many of them as "significant" in the substantive sense. This would certainly be true of any coefficient above about .15.

**Another basis for preferring the delimited models might be that they are less dependent on the kinds of correlations described earlier as being most questionable. Neither the JrGrade-SrExp nor the JrGrade-EdAtt correlations are used.

includes some information about the effects of one's family's social status on educational attainment.

It is too easy to take such models at face value, however, and to engage in a detailed analysis that cannot be wholly justified. As noted at the outset, many of the correlations on which the models are based are at least questionable. This is not only the case with those involving single year grade records and retrospection. The fact that the correlations among the exogenous variables are different for the several cohorts is grounds for doubt about the stability of the patterns observed in the models. This variability of correlation is at least potentially a result of both sample variation and actual changes during the life cycle. It may very well be the case that IQ is more strongly correlated with family size during junior high than during senior high. If that is the case, using a single coefficient for that relationship for the full period covered by these models will introduce a distortion.* It may well be that the inadequacy of the delimited models to explain SrGrade is at least in part a function of the pooling of ninth and twelfth grade data to generate the correlations among the exogenous variables. It is also true that the models assume that the "same kinds" of boys are included in the samples at the three time points in the model. Given the attrition of low SES and low performance boys during high school, this seems quite doubtful. One can only speculate on the effects of such attrition on the outcome reported here.

The models are worth the effort of construction, however. They point up the general flow of influence process implied in the earlier discussion, while at the same time providing a source of restraint against over-interpretation of the earlier results. A large proportion of variance of all of the dependent variables in the models is explained, and, at least in the delimited models, a sensible interpretation of the sources of much of that variance is possible. Some of the inadequacies of the models suggest the importance of careful conceptualization rather than mechanical multivariate computation. Other outcomes (such as the difference between models A and B) highlight the difference between explaining variance and specifying the sources of variance explained. Finally, the problems posed by the kind of analysis summarized in Table 10.6 pose questions for further analysis. Not only does synthetic cohort analysis fail to serve as a wholly adequate substitute for longitudinal analysis, but even within synthetic cohort analysis a careful reevaluation of each of the elements of the analysis may lead to a better fit between conceptualization and empirical evidence. Such reevaluation will continue with the present data.

A Look Ahead

As the previous sentence suggests, the analysis of the data of this project is far from complete. It has become increasingly apparent that the time period of the grant was not sufficient to produce the kinds of results that will ultimately be possible. To some extent this was due to budgetary cut-backs suffered during the grant period, but that was a relatively small part of it. Much more important is the fact that the

*Ideally, I would have preferred to include at least two IQ measures in the models, one as an exogenous variable and one as an intervening variable. The available data did not permit this construction, however.

analysis of a complex data set like this requires time to think as well as time to compute and write, and thinking time was all too limited. Even the rather straightforward kinds of analysis presented in this report required numerous careful decisions along the line before a model could be constructed - what items should be included in scales, what is the most defensible ordering of variables, are expectations or aspirations the better dependent variables, should FaOcc and FaEd be viewed as separate variables or an SES index constructed, and so on. In several cases, parallel analyses were conducted to test out the implications of the decisions made, although only one set of outcomes is presented here.

In short, the pressure of time has led to two kinds of limitations in the outcome to date. The first has been an inability to pursue to a satisfying extent some forms of analysis originally planned. This has been particularly true in the case of the parent interview data and with respect to the data for the blacks. The second limitation is the crudity of some of the analysis. This is most apparent, perhaps, in the synthetic models just reviewed. A full step-by-step reevaluation of those models will lead, I am sure, to a recomputation using slightly different coefficients and somewhat different structures. In fact, it will require a hole set of careful tests of the implications of various changes. (I am more appreciative now than at the outset of the "art" of model building.)

Yet, the analysis to date has provided the basis for expecting that further analysis of these data should be fruitful. Numerous examples of findings which raise further questions come to mind. For instance, there is evidence throughout the analysis that the dynamics of goal-setting are different for younger than older boys. The role of the father as a model, though found throughout, diminishes in relative importance as the boys get older, their own abilities and performances and the family's socio-economic status assuming greater importance. Further internal analysis of the data on parent-child relations, along with the data relevant to the boys' views of the outside world should add further light on these changes over time. Similarly, although the findings relevant to the significance of parental influence are not the strongest in the study, they suggest that the influence of the mother may vary according to her labor force status and the social status level of the family. In the more intensive review of the data on the parent-child relationship that will be done in the future, this suggestion should be worth pursuing.

The data on friends reviewed in Chapter Seven seem to show that both selectivity and influence are involved in friend-friend similarity and that these factors are more significant as the boys get older. The availability of information on the boys' friendship patterns in the past, together with both retrospective and recorded data on their characteristics at that time, should make it possible to clarify the ways in which friendships are made and how they influence the boys' own characteristics. Finally, the findings for the black boys, though very frustrating so far as the utility of the models developed here are concerned, pose questions that are both puzzling and promising. The main thrust of the analysis thus far suggests that, once the intervening variables are taken into consideration, blacks and whites are not wholly different, but the exogenous variables do very little to explain either the black boys' goals or the

intervening variables.* If neither family characteristics nor IQ does very much to explain a black high school boy's academic performance but that performance does strongly affect his educational goals, it is important to find the sources of that performance. The data suggest that we look outside the family, at his friendships, his views of the opportunity structure, and his relations with his academic environment.

This means that the further analysis will be largely concerned with specific issues rather than broad patterns. It will involve a more microscopic look at some of the parts of the larger pattern sketched out in this report. Yet, the results of these more delimited investigations will almost certainly feed back in o a fuller understanding of that larger pattern. They will probably also lead to changes in the view of that pattern presented here. In short, there is still much to be learned from the study.

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*Although the search for clues within the black family will continue, the findings to date are consistent with the view expressed by Grier and Cobb (1968, p. 72):

". . . may not the family say to its young:
It is a terrible place you come to;
I'm not sure I can hearten you in any way,
Although I would like to.
I can only say I have survived --
I honestly don't know how --
And you must also survive.
. . . The family is in fact saying that it has no skills of mastery to pass on, that it has found no way to reliably 'make it' in society."

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APPENDIX

Expectations and Aspirations

Throughout this report, expectations rather than aspirations have been used as the dependent variables. As noted in Chapter Three, this was done because aspirations were considered too detached from reality to use them as the basis for defining the boys' levels of ambition. Ambition, in short, should be seen as tied to what the boy thinks he really will be able to do, what he thinks he has a chance of accomplishing.

It is interesting to review the relationship between expectations and aspirations, however, and the difference between the two can help in understanding the views boys have of their surroundings, especially the degree to which they see it as providing or thwarting access to desirable goals.

Several detailed analyses of the nature of the expectations and aspirations of the different groups of boys were conducted.* Here, only a brief outline of the findings can be presented. Two issues will be considered. First, are there differences in level of expectation and aspiration in the several race and grade cohorts? Second, are expectations and aspirations related in the same way in all of these cohorts? Throughout, only the boys' questionnaire data are considered, and only one question relevant to each dimension is used.**

An indication of the kinds of differences in expectation and aspiration found in the several cohorts can be gained from Table A.1. Four things are particularly noteworthy. First, although the whites have higher EdExp scores than blacks, there is a much smaller difference in the sixth grade than in either of the older cohorts. In fact, both whites and blacks in the sixth grade have very high EdExp scores. Evidently boys that young have not yet sensed the limitations within the system, whereas the older boys have. Second, the difference between EdExp and EdAsp tends to be greater in the black than the white cohorts. Again, this is less true in the sixth grade. Strangely enough, for the white twelfth graders, the average EdExp is actually higher than the average EdAsp. Third, although there are similar differences between black and white and between younger and older cohorts with respect to OccExp and OccAsp, the size of the differences is generally smaller and less consistent. In fact, there are several reversals of the pattern found with the education questions. Evidently the more immediate educational goal is more "real" in that the

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* One of them was carried out by Pamela Barry as a Sociology Honors Thesis entitled "Social Class Differences in Occupational Aspirations and Expectations."

**For both expectations and aspirations for occupational placement, questions were included referring to both the first full-time job and the job to be held at age thirty. Only the former is considered here. Also for occupational placement, both an open-ended and an occupation listing form of question were used. Only the former is used here and in the body of the report. A comparison between the open-ended and listing forms is presented in the nex section of this Appendix. In this section, data are presented from the sub-samples of boys whose parents were interviewed.

Table A.1

Means and Standard Deviations of Measures of Expectation and Aspiration,

All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
EdExp	3.11(1.34)	2.80(1.16)	3.17(1.39)	2.41(1.31)	3.39(1.38)	3.21(1.45)
EdAsp	3.04(1.50)	3.06(1.22)	3.18(1.48)	2.75(1.33)	3.48(1.41)	3.28(1.38)
OccExp	57.41(28.11)	55.66(23.33)	59.46(27.18)	54.52(29.11)	55.09(27.51)	53.96(24.70)
OccAsp	59.40(26.67)	59.23(24.83)	59.72(25.87)	50.64(26.66)	56.07(24.98)	49.47(25.59)

Table A.2

Correlations between Expectations and Aspirations,

All In-School Cohorts

	Twelfth Grade		Ninth Grade		Sixth Grade	
	White	Black	White	Black	White	Black
EdExp-EdAsp	.700	.733	.768	.648	.724	.842
OccExp-OccAsp	.532	.576	.716	.598	.619	.562

boys can differentiate better between what is likely to happen and what they would like to happen. Finally, even though there are some notable differences in the means, the standard deviations of these distributions are very similar.

The further question is whether expectations and aspirations are similarly associated within the six cohorts. We have already seen that the differences between the average expectation and aspiration are not the same, but this would not preclude the possibility that all boys within each cohort adjust their aspirations in the same way in reference to their expectations (e.g., they add X years of schooling or Y levels of occupational prestige). The correlations between expectations and aspirations were thus computed. These are reported in Table A.2. The EdExp-EdAsp correlations are uniformly high with no discernible difference by grade or race. The same is true for the OccExp-OccAsp correlations, although they are generally somewhat lower.*

This relatively consistent relationship between expectations and aspirations suggests that the mean differences reported in Table A.1 are found rather consistently throughout the several cohorts. Thus, evidently there is a general pattern of greater expectation-aspiration difference among blacks than whites, although it is more apparent regarding educational than occupational goals.

Measures of Occupational Expectation and Aspiration

The study was originally designed in such a way that almost no open-ended questions would be asked of the in-school students. In keeping with this aim, the occupational aspiration scale designed by Haller and Miller (1963) was included in the student questionnaire. To insure some degree of comparability of the present data with other data collected by Duncan and others who have studied adult mobility patterns, however, it was finally decided to include a pair of open-ended questions about occupational expectations and aspirations also. It was fortunate that this was done, because I now have doubt about the utility of the Haller-Miller scale. A brief indication of the empirical basis of that doubt will be presented here. In addition to the data reported here, however, the volunteered reports of pre-test respondents concerning their difficulty in answering the Haller-Miller questions also contributed to this doubt.

The questions involved here are numbers 14, 15, 18A, 18B, 19A and 19B of the in-school questionnaire. The first two are open-ended questions related to the boy's expectations and wishes about his first job. The others are two questions each of which contains a list of ten occupations from which the boy is to choose either "the best job you think you

*It may be worth noting that the situation is somewhat different for the parents. The EdExp-EdAsp and OccExp-OccAsp correlations for white parents are very similar to those for the white boys, but those for the black parents are considerably lower than those for either the white boys or the black boys or the white parents. Evidently black parents, more clearly than any of the others, sense that their dreams are unrealistic.

can get" (in number 18) or the one" you would choose . . . if you could choose any of them you wished" (in number 19). Thus, there are three questions concerned with expectations and three concerned with aspirations. In the Haller-Miller method, the boy's expectations or aspirations are measured by taking the average of the Duncan scores associated with the two occupations the boy chooses (one from each list). The open-ended responses were also scored on the Duncan system.

Table A.3 reports the means and standard deviations of the scores on these several measures.* It will be noted that there is little in the way of systematic differences between the means or the standard deviations obtained from the two methods. It appears as if the two provide the same outcome.

Table A.3

Means and Standard Deviations of Open-Ended and Listing Measures

of Occupational Expectations and Aspirations,

In-School Cohorts

	Twelfth Grade	Ninth Grade	Sixth Grade
Exp-Open-Ended	56.83(26.54)	57.21(28.10)	54.54(26.13)
Exp-List A	57.77(22.63)	55.93(24.76)	51.86(24.11)
Exp-List B	58.57(26.94)	50.86(30.19)	50.23(31.51)
Exp-List Sum	116.44(41.67)	106.46(45.05)	101.93(40.63)
Asp-Open-Ended	59.34(29.98)	55.53(26.56)	52.84(25.43)
Asp-List A	61.10(24.28)	57.87(26.76)	55.42(27.59)
Asp-List B	58.45(19.79)	53.87(22.19)	57.44(20.40)
Asp-List Sum	120.16(34.18)	111.91(38.70)	112.88(37.73)

A very different picture is obtained if one looks at the relationships between the responses given by boys to the different kinds of questions. These correlations are reported in Table A.4. In none of the cohorts are the coefficients very high, and some of them are very low indeed. It is questionable whether one can say that the open-ended and the listing questions are measuring the "same thing" when the correlations between the responses are only about .30 or .40. Even more disturbing is the fact that the correlations between the two lists in the same question are equally low and in several cases much lower than the open-list correlations.

*The data in Tables A.3 and A.4 are based on the responses of that subsample of boys whose parents were interviewed. Although there is some variation in the frequencies used to compute each statistic, there are at least 137, 172, and 172 cases in the twelfth, ninth, and sixth grade samples, respectively.

Table A.4

Correlations between Open-Ended and Listing Measures

of Occupational Expectations and Aspirations,

In-School Cohorts

		Twelfth Grade	Ninth Grade	Sixth Grade
Exp:	Open & List A	.383	.328	.181
	Open & List B	.381	.479	.289
	Open & List Sum	.455	.504	.369
	List A & List B	.411	.337	.038
Asp:	Open & List A	.323	.272	.371
	Open & List B	.244	.366	.275
	Open & List Sum	.329	.398	.426
	List A & List B	.210	.247	.201

The difficulty that the pre-test boys reported was that they did not find <u>any</u> of the jobs on the list to be what they wanted. It was not that there were no jobs on the list which were of the status level they aspired to, though. It was the fact that they thought in terms of specific jobs, not just level of job. Thus, if they planned to be a lawyer, only one of the four lists made sense to them, because only one contained the word lawyer. We can only guess that when boys are faced with such a problem their responses are less than "sensible" by the standards of the researcher. One anecdote may be noted here in that regard. One of the pre-test boys said he wanted to be a doctor. Since none of these lists contained that profession (though another one, number 22A did), he had checked "medical or dental technician" in one list because "that was the closest to what I want to do." It <u>was</u>, of course, close in one sense, but if status level of expectations and aspirations is one's interest (as it is here), that is not very close at all.

For these reasons, therefore, it was decided not to use the responses to questions 18 and 19, although there was some loss in sample size experienced by using the open-ended questions.*

*The loss was not as large as might be suspected, however. Overall only about 5% of those who answered other questions in that part of the questionnaire failed to provide codable responses to those questions about occupations.

Scale Construction

In the body of the report, several scales have been used which were either derived from or at least checked for internal consistency by means of factor analysis. These scales have been used in the analyses reported in Chapters Five, Six and Nine. They have been viewed as measures of personality and of the quality of the parent-child relationship.

Six personality measures were discussed in Chapter Five. They were Control of Environment (ConEnv), Self Esteem (SelfEst), Acceptance of Authority (Auth), Group Loyalty (Loyal), Planning (Plan), and Fatalism (Fate). In each case, the items from which the scale was constructed had been factor analyzed, and, on the basis of the results, the decision was made to use a simple summation score in the analysis. The latter was done for convenience, the factor loadings having been judged to be sufficiently similar for the several items in a scale to make this a reasonable method. This judgment was more clearly justified in some cases than others. The results of the factor analysis are presented here so the reader may decide if serious distortion may have resulted from using such a simple method. The first three measures (ConEnv, SelfEst, and Auth) were constructed in the simplest fashion and will be discussed first. In all cases, the factor analysis was done using all in-school boys' responses.

Control of Environment. This measure is based on the work of Coleman, Campbell, et al. (1966) and consists of three items (numbers 25A, 25H, and 79Q of the boys' questionnaire). The first factor from the analysis of these items explained 46% of the total variance and had an eigenvalue of 1.38. No other factor had an eigenvalue over 1.00. The factor loadings on the first factor are .628, .666, and .736 for the three items in the order noted above.

Self Esteem. The items in this scale come from Rosenberg (1965). They are numbered 25D, 25F, 25I, 25L, 25Q, 79B, 79E, 79I, and 79L, of the boys' questionnaire. The first factor explained 28% of the total variance and had an eigenvalue of 2.52. The second factor had an eigenvalue of 1.28, but no other eigenvalue exceeded 1.00. The first factor loadings for the items in the order listed above were .547, .537, -.569, .667, .546, .587, -.378, -.504, and -.357. In each case, the negative loading is consistent with the direction of wording of the item. The second factor produced the largest loadings (greater than .400) on items 25F, 79E, and 79L, but overall the loadings ranged from -.018 to .632.

Acceptance of Authority. The six items of this scale were original. They are numbers 25N, 25P, 68, 83E, 83G, and 83J of the boys' questionnaire. The first factor explained 40% of the total variance, and the eigenvalue was 2.42. The second factor had an eigenvalue of 1.13, the only other one to exceed 1.00. The loadings were .681, .661, .632, .686, .597, and -.538. The negative loading is consistent with the wording of the item. The second factor had loadings over .400 on all items except 68 and 83G, all loadings being positive except on items 83E and 83G.

The other three personality scales resulted from a multiple-step analysis of fifteen items all of which had been viewed by previous researchers as measures of "achievement orientation" (see Kahl, 1965).

The original factor analysis of these fifteen items produced three factors with eigenvalues over 1.00. Three items had loadings on the first factor of less than .400, and when a three-factor rotated solution was used eight items had such relatively low loadings on the first factor. The four items with the lowest first factor loadings were set aside, and the analysis was rerun. This time only one had a first factor loading less than .400 on the unrotated solution, but five had such a relatively low loading on a two-factor rotated solution. Through inspection of these several analyses, the fifteen items were separated into three clusters which seemed to be most closely related to each other, although the three clusters were intercorrelated also. When there was doubt about which cluster an item "belonged" in, the manifest content was used to decide. These clusters produced the measures of Group Loyalty, Planning, and Fatalism.

Group Loyalty. There were five items in this cluster (25G, 25M, 79C, 79H, and 79K of the boys' questionnaire). The first factor explained 38% of the total variance, and its eigenvalue was 1.91, the only one over 1.00. The loadings on the first factor for the items in the order listed were: .695, .432, .671, .510, and .729.

Planning. The four items in this cluster were 25J, 25K, 25R, and 79M. The first factor explained 41% of the total variance, and it had an eigenvalue of 1.63, the only one over 1.00. The loadings on the first factor for the items in the order listed above were: -.444, .802, .731, and -.513. The negative loadings were consistent with the wording of the items.

Fatalism. The six items in this cluster were 25B, 25C, 79A, 79D, 79F, and 79J. The first factor explained 40% of the total variance, and the eigenvalue was 2.38, the only one over 1.00. The loadings on the first factor for the items in the order listed were: .607, .544, .571, .708, .601, and .729.

In Chapter Six three measures of the quality of the parent-child relationship were used, and some of these were also used in Chapter Nine. These were also factor analyzed, and in each case a simple summation was used as the measure in the substantive analysis.

Parental Concern with School Work. This started out as a seven-item scale based on items borrowed from Rosenberg (1965) who viewed it as a measure of parental interest in the child. It consisted of items 33, 40A, 40B, 48, 55A, 55B, and 58 of the boys' questionnaire. All but the last of these referred to either the mother or the father, the last referring to the parents. When the items were factor analyzed, items 33, 48, and 58 had loadings less than .400. The first two asked about whether the mother and father knew many of the boy's friends, the last asked about how much interest the parents showed in what the boy had to say. The other four items asked about the parents' interest in the boy's report card. Their loadings were all above .600, the first factor eigenvalue was 1.92 (the only one over 1.00), and the first factor explained 27% of the total variance. Only these four items were used in the analysis, and the measure thus became wholly relevant to parental concern with school work.

Respect. There were nine items originally in this scale, the items having been borrowed from Psathas (1957) who viewed tham as a measure of "independence." The items were 60, 61, 66, 67, 69A, 69B, 69C, 69D, and 69E. In the original factor analysis, 60, 66, and 69D had first factor loadings of less than .400. Although 69B had a first factor loading of -.44, it was also dropped in the further analysis because its content was not consistent with the other remaining items. In the reanalysis, therefore, only 61, 67, 69A, 69C, and 69E were used. The first factor in that analysis explained 51% of the total variance, and it had an eigenvalue of 2.54, the only one over 1.00. The first factor loadings for the five items in that order were: .570, .709, .702, .806, and .758.

Parental Integration. Originally, seven items referring to the mother and seven referring to the father were used in this analysis, the items having been borrowed from Rushing (1964). When each set of seven was analyzed separately, the same two items had low first factor loadings in the two analyses (40D and 40F for mother and 55D and 55F for father). These were dropped and the analyses repeated. With reference to the mother, items 38, 39, 40C, 40E, and 40G were used. The first factor explained 56% of the total variance, and it had an eigenvalue of 2.78, the only one above 1.00. The loadings were .790, .718, .701, .765, and 751, respectively. For the father, items 53, 54, 55C, 55E, and 55G were used. The first factor explained 62% of the total variance, and the eigenvalue was 3.11, the only one above 1.00. The loadings were .835, .754, .757, .807, and .785, respectively. An analysis was also carried out combining the ten items. The first factor explained 45% of the total variance, and it had an eigenvalue of 4.45. However, the second factor had an eigenvalue of 1.47, it being the only other one over 1.00. All items had loadings on the first factor of between .581 and .752, but the second factor clearly differentiated between the mother and father (one having positive loadings, the other negative), and all loadings were between .239 and 443. As noted in Chapter Six, however, the mother scores and the father scores, based on simple summations, were correlated at .85 or better in all three cohorts.

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Student Questionnaire, Graduate Questionnaire,

and Parent Interview

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CONFIDENTIAL

A STUDENT QUESTIONNAIRE

Instructions

Please read before you begin.

1. Your answers to these questions will be used for research only. No one at your school or home will know your answer to any question.

2. Answer every question unless the directions say that a certain question is not for you.

3. When answering questions with a limited number of choices, please choose the answer that comes closest to the right answer for you, even if it does not fit perfectly.

4. For most questions, answer simply by putting a circle around the number next to the answer you choose. For example:

   Do you have a job?

   Yes. . . . . (0) | 23/y

   No 1

5. The code numbers are necessary for processing the answers you and others give to the questions. The numbers in the margin to the far right (such as 23/y above) should be ignored.

6. Feel free to add comments to your answers to any question, but do not forget to circle the answer that comes closest to the answer that is right for you.

7. Whenever you have to fill in an answer, please print.

THANK YOU VERY MUCH FOR YOUR HELP

Print Your Name _____

The name of your school _____

What grade are you in? _____

SOME GENERAL INFORMATION

1. How old are you? (Circle your age.)

10	11	12	13	14	15	16	17	18	19	20 (or older)	6-7/yy

2. Are you one of twins, triplets, etc? 8/y

No 0

Yes, twins. 1

Yes, triplets 2

Yes, quads (or more). 3

3. How many brothers or sisters do you have? (Count stepbrothers and stepsisters and any children adopted by your parents.)

Older Brothers:	0	1	2	3	4	5	6 (or more)	9/y
Older Sisters:	0	1	2	3	4	5	6 (or more)	10/y
Younger Brothers:	0	1	2	3	4	5	6 (or more)	11/y
Younger Sisters:	0	1	2	3	4	5	6 (or more)	12/y

4. Where were you born?

United States . . . . . 0 (Name state: _____) 13/y

Elsewhere . . . . . 1 (Name country: _____)

5. Do you now live with both your mother and your father? 14/y

Yes. 0

No 1

6. Did you live with both your mother and your father three years ago? 15/y

Yes. 0

No 1

7. Did you live with both your mother and your father when you went to first grade? 16/y

Yes. 0

No 1

8. Do you now have a job? If so, how many hours a week do you usually work?

No, I do not have a job 0 17/y

Yes, I usually work less than 15 hours a week 1

Yes, I usually work from 15 to 24 hours a week. 2

Yes, I usually work from 25 to 34 hours a week. 3

Yes, I usually work 35 hours or more a week 4

9. TWELFTH GRADERS ONLY. OTHERS SKIP TO QUESTION # 10. What course of study are you taking in school? (Circle only one answer.)

General. 0 18/y

Fine Arts. 1

Business (Commercial). 2

Practical Arts (Industrial Arts) . . . 3

College Preparatory. 4

ABOUT YOUR FUTURE

10. How much more schooling do you really expect to get? (Circle only one answer. If you are not sure, mark what you will most likely do.)

I'll quit high school before graduating. 0 19/y

I'll graduate from high school but not go beyond that. 1

I'll graduate from high school and then go to a vocational, business, or technical school. 2

I'll go to a community or junior college 3

I'll go to a four-year college or university 4

I'll go to graduate or professional school after college. 5

11. Often we expect things that are different from what we want to happen. So now, think of what you would do about school if you could do what you really want to do. (Circle only one answer.)

I'd quit high school before graduating 0 20/y

I'd graduate from high school but not go beyond that 1

I'd graduate from high school and then go to a vocational, business, or technical school. 2

I'd go to a community or junior college. 3

I'd go to a four-year college or university. 4

I'd go to graduate or professional school after college. 5

---

12. NINTH AND TWELFTH GRADERS ONLY. OTHERS SKIP TO QUESTION #14. Now, try to think back to three years ago. How much schooling did you really expect to get at that time?

I expected to quit high school before graduating 0 21/y

I expected to graduate from high school but not go beyond that 1

I expected to graduate from high school and then go to a vocational, business, or technical school. 2

I expected to go to a community or junior college. 3

I expected to go to a four-year college or university. 4

I expected to go to graduate or professional school after college. . . 5

---

13. Still thinking about three years ago, try to remember what you wanted to do about schooling then. How much schooling did you want to get three years ago?

I wanted to quit high school before graduating 0 22/y

I wanted to graduate from high school but not go beyond that 1

I wanted to graduate from high school and then go to a vocational, business or technical school 2

I wanted to go to a community or junior college. 3

I wanted to go to a four-year college or university. 4

I wanted to go to graduate or professional school after college. . . . 5

---

14. After you complete your schooling, what kind of work do you expect to do on your first full-time job? (Do not include military service unless you expect to make a career in the service.)

What kind of work do you expect to do? (For example: High school teacher, paint sprayer, repair radio sets, grocery checker, civil engineer, etc.) Print your answer.

_____ 23-24/yy

What kind of business or industry do you expect to work in? (For example: City high school, auto assembly plant, radio service, retail supermarket, road construction, etc.)

_____

15. Again, if you could do what you really wanted to do, what kind of work would you really like to do on your first full-time job? Print your answer.

What kind of work would you like to do?

_____ 25-26/yy

What kind of business or industry would you want to work in?

_____

16. When you have a really important decision to make about yourself or your future, do you make it on your own, or do you like to get help on it?

I'd rather let someone else decide for me. 0 27/y

I depend a lot upon other people's advice. 1

I like to get some help. 2

I get others' ideas, then make up my own mind. 3

I make up my own mind without any help 4

17. How sure are you that your own ideas and opinions about what you should do and believe are right and best for you?

I'm not at all sure	0
I'm not very sure	1
I'm a little sure	2
I'm quite sure.	3
I'm completely sure	4

28/y

In these next questions, there are lists of different kinds of jobs. You are to choose one job from each list according to the directions. Of course, not all possible jobs are included in these lists. But you are to make your choice as if the jobs listed were the only ones available.

18. Here are two lists of jobs. In each list, circle the number next to the best job you think you can get as your first full-time job when you have finished your schooling. (Be sure to choose only one job from each list.)

List A:	Department head in a department store	0
	Painter for a construction company.	1
	Draftsman (draws plans of buildings or machines).	2
	Apprentice printing press operator.	3
	Medical or dental technician.	4
	Heavy equipment operator (bulldozer, etc.).	5
	Architect	6
	Janitor in an apartment building.	7
	Airline ticket agent.	8
	Milk deliveryman.	9

29-30/yy

List B:	Automobile mechanic	0
	Lawyer.	1
	Laborer in a steel mill	2
	Electronics technician.	3
	Millwright (repairs machinery in a factory)	4
	Accountant.	5
	Waiter in a restaurant.	6
	Insurance salesman.	7
	Apprentice tool and die maker	8
	Mail carrier.	9

31-32/yy

19. Here are two more lists of jobs. Circle the number of the one job in each list which you would choose as your first full-time job, if you could choose any of them you wished, when you finished your schooling. (Be sure to choose only one job from each list.)

LIST A:	Airport traffic controller	0	33-34/yy
	Railroad inspector (checks & tests equipment)	1	
	Bookkeeper	2	
	Crane operator	3	
	Electrical engineer	4	
	Laborer on a railroad	5	
	Self-employed wholesale auto parts dealer	6	
	Plumber	7	
	Purchasing agent for a factory	8	
	Truck driver	9	
LIST B:	Hotel porter	0	35-36/yy
	Television cameraman	1	
	Machinist	2	
	Chemist	3	
	Roofer	4	
	Salaried manager of a five and dime store	5	
	Sales clerk in a department store	6	
	Airplane mechanic	7	
	Theater usher	8	
	College teacher	9	

20. This question is a bit different. Here is another list of jobs. But this time you are to say whether you would be satisfied with each of these jobs if you were working in them when you are 30 years old. So, this time, you are to circle an answer for each job to show if you would be satisfied. (Remember, circle the number for every job you would be satisfied with.)

	Circle if Satisfied	
Owner of a clothing store	0	37/y
Sales clerk in a department store	1	40/y
Medical or dental technician	2	43/y
Heavy equipment operator (bulldozer, etc.)	3	46/y
College teacher	4	49/y
Laborer in a steel mill	5	52/y
Foreman in a machine shop	6	55/y
Machinist	7	58/y
Accountant	8	61/y
Truck driver	9	64/y

21. Has your mother talked about the first full-time job that you will get after you finish your schooling?

She has named one particular kind of job and has strongly urged me to work in it. 0 67/y
She has talked favorably about one kind of job, but she doesn't urge me to work in it 1
She has called my attention to a kind of job, but she said I should make up my own mind. 2
She has talked about different kinds of jobs, but she didn't suggest any special one. 3
She has never talked with me about kinds of jobs 4

---

22. Now think ahead to when you will be 30 years old. In each of these two lists, check the one job which is the best one you think you can have by the time you are 30 years old. (Remember, choose only one job in each list.)

LIST A: Hospital attendant (orderly). 0 68-69/yy
Factory manager 1
Sheet-metal worker. 2
Labor union official. 3
Garage laborer and car-washer 4
Physician (doctor). 5
Plasterer 6
Pressman (operator of a printing press) 7
Foreman for a construction company. 8
Tax collector for state government. 9

LIST B: Personnel director for a factory. 0 70-71/yy
Shipping and receiving clerk. 1
Tool and die maker. 2
Electrician 3
Foreman in a truck factory. 4
Cook in a restaurant. 5
Credit manager of a department store. 6
Owner of a gasoline station 7
Postmaster. 8
Machine Operator in a furniture factory 9

---

23. Has your father talked about the first full-time job that you will get after you finish your schooling?

He has named one particular kind of job and has strongly urged me to work in it. 0 72/y
He has talked favorably about one kind of job, but he doesn't urge me to work in it 1
He has called my attention to a kind of job, but he said I should make up my own mind. 2
He has talked about different kinds of jobs, but he didn't suggest any special one. 3
He has never talked with me about kinds of jobs. 4

---

24. Again, think ahead to when you will be 30 years old. Which one job in each of these two lists would you choose to have if you could choose any of them you wished when you are 30 years old? (Again, choose only one job from each list.)

LIST A: Foreman in a machine shop 0 73-74/yy
Operator of a weaving machine in a textile mill. 1
Manager of a branch bank. 2
Bartender 3
Building contractor 4
City policeman. 5
Owner of a clothing store 6
Machine operatory in a laundry. 7
Manager of an electric power station. 8
Butcher in a supermarket. 9

LIST B: Owner and operator of a restaurant 0 75-76/yy
Director of a youth center. 1
Deck hand on a ship 2
Owner of a real estate agency 3
Apartment building superintendent 4
Salaried manager of a construction company. 5
Laborer in a cement factory 6
Editor or reporter for a newspaper. 7
Bus driver. 8
Floor manager in a department store 9

WHAT DO YOU THINK ABOUT IT?

Here are some statements about people, jobs, and a number of other things. Simply mark the answer next to each statement which tells what you think about the statement. There are no right or wrong answers here. It's all a matter of how you feel about it. In all cases, you can show that you "Strongly Agree," "Agree," "Disagree," or "Strongly Disagree" with the statement. Simply put a circle around the number that shows what you think.

Do You Agree That:	Strongly Agree	Agree	Disagree	Strongly Disagree	
Good luck is more important than hard work for success	0	1	2	3	77/y
Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself	0	1	2	3	78/y
All I want out of life in the way of a career is a secure, not too difficult job, with enough pay to afford a nice car and eventually a home of my own. .	0	1	2	3	79/y
I feel that I am a person of worth, at least on an equal plane with others. .	0	1	2	3	80 /y
					CARD TWO
This country would be better off if we had fewer laws	0	1	2	3	6 /y
I am able to do things as well as most other people	0	1	2	3	7/y
Nothing in life is worth the sacrifice of moving away from your parents. . . .	0	1	2	3	8/y
Every time I try to get ahead, something or somebody stops me	0	1	2	3	9/y
All in all, I am inclined to feel that I am a failure	0	1	2	3	10/y
It is very important to me to know clearly what my plans are for the future . .	0	1	2	3	11 /y

Do You Agree That:	Strongly Agree	Agree	Disagree	Strongly Disagree	
Planning only makes a person unhappy since your plans hardly ever work out anyway	0	1	2	3	12/y
I take a positive attitude toward myself	0	1	2	3	13/y
It's silly for a teenager to put money into a car when the money could be used to get started in business or for an education	0	1	2	3	14/y
Most parents know what is best for their children	0	1	2	3	15/y
Maybe some people would make trouble for themselves if there were fewer laws, but I would get along fine	0	1	2	3	16/y
Most adults know what is best for young people	0	1	2	3	17/y
On the whole, I am satisfied with myself	0	1	2	3	18/y
Making plans only brings unhappiness because the plans are hard to fulfill.	0	1	2	3	19/y

If you live in the same house as both your mother and your father, put a check mark here, and skip to question #27 . . . . . _____

If you do not live with both of your parents, it may be that someone else takes the place of one or both of them. So, when we ask questions about your mother, if you are living with someone who takes the place of your mother (such as a stepmother, aunt, etc.), simply answer the questions about your mother as if they were about that woman. If you are not living with your mother, and there is no one who takes the place of your mother, you do not have to answer the questions about your mother. Simply answer questions #25 and #26.

25. Do you live in the same house as your mother? (Check the right answer.)

____ Yes (Skip to question #27) 20/y

____ No (Answer question #26)

26. ANSWER ONLY IF YOU DO NOT LIVE WITH YOUR MOTHER: Is there anyone who takes the place of your mother? (Check the right answer.)

____ No, I do not live with my mother, and no one takes her place. (Skip to page 15, question #41)

____ I live with my grandmother

____ I live with my stepmother

____ I live with my aunt

____ I live with some other woman

Answer all questions about "your mother" as if they were about this woman.

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27. Does your mother work either part-time or full-time?

No, she does not work. 0
Yes, she works part-time 1
Yes, she works full-time 2

21/y

---

28. ANSWER ONLY IF YOUR MOTHER WORKS: What kind of job does your mother have? (Print your answer.)

What kind of work does she do? (For example: High school teacher, waitress, grocery checker, secretary.)

22-23/yy

_____

What kind of business or industry does she work in? (For example: City high school, restaurant, retail supermarket, insurance office.)

_____

---

29. What was the highest grade in school your mother completed? (If you are not sure, please give your best guess.)

8th grade or less. 0
9th grade. 1
10th grade 2
11th grade 3
Graduated from high school 4
Went to business or technical school after high school 5
Completed one to three years of college. 6
Graduated from college 7
Went to graduate or professional school after college. 8

24/y

---

30. As far as you know, how much schooling does your mother want you to get?

She wants me to quit high school without graduating. . . . . 0 — 25/y
She wants me to graduate from high school and stop there 1
She wants me to graduate from high school and then go to vocational, business or technical school for 1 to 3 years. 2
She wants me to go to a community or junior college. 3
She wants me to go to a four-year college or university. 4
She wants me to go to graduate or professional school after going to a four-year college or university. 5

31. How important is it to your mother than you get this much education?

Not important - she doesn't really care at all . . . . . 0 — 26/y
Not very important 1
Somewhat important 2
Very important 3
It is one of the most important things in her life 4

32. Here is a list of jobs. Imagine that you were working in each of these jobs when you were 30 years old. Do you think your mother would be satisfied or not? Circle the number for each job she would be satisfied for you to have. (If you are not sure about how your mother would feel, mark it as you think she would feel about each job.)

	Circle if she would be Satisfied	
Owner of a clothing store	0	27/y
Sales clerk in a department store	1	30/y
Medical or dental technician.	2	33/y
Heavy equipment operator (bulldozer, etc.).	3	36/y
College teacher	4	39/y
Laborer in a steel mill	5	42/y
Foreman in a machine shop	6	45/y
Machinist	7	48/y
Accountant.	8	51/y
Truck driver.	9	54/y

33. How many of your friends does your mother know?

Nearly all of them . . . . . 0 — 57/y
Most of them 1
Some of them 2
None, or almost none of them 3

34. Are the rules that your mother has about your life (where you go, what you do, etc.) basically the same as you would have if she didn't have any rules for you?

No, I would live completely differently. 0 58/y
No, I would live differently in some important ways. 1
I would change some things, but keep many of her ideas 2
Yes, I would only change a few small things. 3
Yes, I think her rules are very good ones to follow. 4
She doesn't have any rules for me. 9

---

35. When you think that it would be good to do something that your mother probably wouldn't like if she knew about it, which of the following comes closest to what you usually end up doing?

I never want to do things that she wouldn't like 0 59/y
I don't do it and don't even ask if I think she wouldn't like it . 1
I ask her, and if she doesn't want me to do it, I don't. 2
I ask her, but do it anyway even if she doesn't want me to 3
I do it, but usually I tell her later. 4
I just do it, and I don't say anything about it to her 5

---

36. When you don't know why your mother makes a particular decision or has certain rules for you to follow, will she explain the reason?

Never 0 60/y
Seldom 1
Sometimes 2
Usually 3
Always. 4

---

37. In general, how are most decisions made between you and your mother?

My mother just tells me what to do 0 61/y
I usually can make my own decisions, but she has the final word. . . . 1
I can make my own decisions, but she likes me to consider her opinion. 2
I can do what I want regardless of what my mother things 3
My mother doesn't care what I do 4

---

38. How close would you say you are to your mother?

Very close. 0 62/y
Fairly close. . . . 1
Not very close. . . 2
Not close at all. . 3

---

39. Compared with other boys your age and their relationships with their mothers, how close do you feel you are to your mother?

Much closer than most boys 0		63/y
Somewhat closer than most boys 1		
About the same as most boys. 2		
Somewhat less close than most boys 3		
Much less close than most boys 4		

40. These statements are about the relationship between a boy and his mother. In each case, circle the answer that is most correct for you.

My mother doesn't seem to care when I bring home a rep card with high grades.	Strongly Agree. . . 0 Agree . . . . . 1 Disagree. . . . . 2 Strongly Disagree . 3	64/y
My mother doesn't seem to care when I bring home a report card with low grades.	Strongly Agree. . . 0 Agree . . . . . 1 Disagree. . . . . 2 Strongly Disagree . 3	65/y
It helps me just to talk with my mother when I am upset.	Strongly Agree. . . 0 Agree . . . . . 1 Disagree. . . . . 2 Strongly Disagree . 3	66/y
I can't express my feelings when I am around my mother.	Strongly Agree. . . 0 Agree . . . . . 1 Disagree. . . . . 2 Strongly Disagree . 3	67/y
My mother tries to understand my problems.	Always. . . . . 0 Most of the time. . 1 Sometimes . . . . . 2 Not very often. . . 3 Never 4	68/y
Talking with my mother makes me tense and nervous.	Always. . . . . 0 Most of the time. . 1 Sometimes . . . . . 2 Not very often. . . 3 Never 4	69/y
My mother lets me know that she loves me.	Always. . . . . 0 Most of the time. . 1 Sometimes . . . . . 2 Not very often. . . 3 Never 4	70/y

These next questions refer to your father. If you do not live with your father, it may be that someone else takes the place of your father, like a stepfather, an uncle, or someone. This first question, then, will help you decide how to answer the rest of the questions.

41. Do you live in the same house as your father? (Check the right answer.)

____ Yes (Skip to question #43.)

____ No (Answer question #42.)

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42. ANSWER ONLY IF YOU DO NOT LIVE WITH YOUR FATHER: Is there anyone who takes the place of your father? (Check the right answer.)

____ No, I do not live with my father, and no one takes his place. (Skip to page 19, question #56.) 71/y

____ I live with my grandfather
____ I live with my stepfather
____ I live with my uncle
____ I live with some other man

Answer all questions about "your father" as if they were about this man.

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43. What kind of job does your father have? (If he is retired or unemployed, write that on the first line, but also describe the last job he had.) Print your answer.

What kind of work does he do? (For example: High school teacher, paint sprayer, repairs radio sets, grocery checker, civil engineer.)

_____ 72-73/yy

What kind of business or industry does he work in? (For example: City high school, auto assembly plant, radio service shop, retail supermarket, road construction.)

_____

---

44. What was the highest grade in school your father completed? (If you are not sure, please give your best guess.)

8th grade or less. 0 74/y
9th grade. 1
10th grade 2
11th grade 3
Graduated from high school 4
Went to business or technical school after high school 5
Completed one to three years of college. 6
Graduated from college 7
Went to graduate or professional school after college. 8

---

45. As far as you know, how much schooling does your father want you to get?

He wants me to quit high school without graduating	0	75/y
He wants me to graduate from high school and stop there	1	
He wants me to graduate from high school and then go to vocational, business or technical school for 1 to 3 years	2	
He wants me to go to a community or junior college	3	
He wants me to go to a four-year college or university	4	
He wants me to go to graduate or professional school after going to a four-year college or university	5	

46. How important is it to your father that you get this much education?

Not important - he doesn't really care at all	0	76/y
Not very important	1	
Somewhat important	2	
Very important	3	
It is one of the most important things in his life	4	

47. Here is a list of jobs. Imagine that you were working in each of these jobs when you were 30 years old. Do you think your father would be satisfied or not? Circle the number for each job he would be satisfied for you to have. (If you are not sure about how your father would feel, mark it as you think he would feel about each job.)

CARD THREE

	Circle if he would be Satisfied	
Owner of a clothing store	0	6/y
Sales clerk in a department store	1	9/y
Medical or dental technician	2	12/y
Heavy equipment operator (bulldozer, etc.)	3	15/y
College teacher	4	18/y
Laborer in a steel mill	5	21/y
Foreman in a machine shop	6	24/y
Machinist	7	27/y
Accountant	8	30/y
Truck driver	9	33/y

48. How many of your friends does your father know?

Nearly all of them	0	36/y
Most of them	1	
Some of them	2	
None, or almost none of them	3	

49. Are the rules that your father has about your life (where you go, what you do, etc.) basically the same as you would have if he didn't have any rules for you?

No, I would live completely differently. 0 37/y
No, I would live differently in some important ways. 1
I would change some things, but keep many of his ideas 2
Yes, I would only change a few small things. 3
Yes, I think his rules are very good ones to follow. 4
He doesn't have any rules for me 9

---

50. When you think that it would be good to do something that your father probably wouldn't like if he knew about it, which of the following comes closest to what you usually end up doing?

I never want to do things he wouldn't like 0 38/y
I don't do it and don't ask him if I think he wouldn't like it . . 1
I ask him, and if he doesn't want me to do it, I don't 2
I ask him, but do it anyway even if he doesn't want me to. 3
I do it, but usually I tell him later. 4
I just do it, and I don't say anything about it to him 5

---

51. When you don't know why your father makes a particular decision or has certain rules for you to follow, will he explain the reason?

Never 0 39/y
Seldom. 1
Sometimes 2
Usually 3
Always. 4

---

52. In general, how are most decisions made between you and your father?

My father just tells me what to do 0 40/y
I usually can make my own decisions, but he has the final word 1
I can make my own decisions, but he likes me to consider his opinion . 2
I can do what I want regardless of what my father thinks 3
My father doesn't care what I do 4

---

53. How close would you say you are to your father?

Very close. 0 41/y
Fairly close. . . . 1
Not very close. . . 2
Not close at all. . 3

---

54. Compared with other boys your age and their relationships with their fathers, how close do you feel you are to your father?

Much closer than most boys	0	42/y
Somewhat closer than most boys	1	
About the same as most boys.	2	
Somewhat less close than most boys	3	
Much less close than most boys	4	

55. These statements are about the relationship between a boy and his father. In each case, circle the answer that is most correct for you.

My father doesn't seem to care when I bring home a report card with high grades.	Strongly Agree. . .	0	43/y
	Agree	1	
	Disagree.	2	
	Strongly Disagree .	3	
My father doesn't seem to care when I bring home a report card with low grades.	Strongly Agree. . .	0	44/y
	Agree	1	
	Disagree.	2	
	Strongly Disagree .	3	
It helps me just to talk with my father when I am upset.	Strongly Agree. . .	0	45/y
	Agree	1	
	Disagree.	2	
	Strongly Disagree .	3	
I can't express my feelings when I am around my father.	Strongly Agree. . .	0	46/y
	Agree	1	
	Disagree.	2	
	Strongly Disagree .	3	
My father tries to understand my problems.	Always.	0	47/y
	Most of the time. .	1	
	Sometimes	2	
	Not very often. . .	3	
	Never	4	
Talking with my father makes me tense and nervous.	Always.	0	48/y
	Most of the time. .	1	
	Sometimes	2	
	Not very often. . .	3	
	Never	4	
My father lets me know that he loves me.	Always.	0	49/y
	Most of the time. .	1	
	Sometimes	2	
	Not very often. . .	3	
	Never	4	

These next questions refer to your parents. If you do not live with both parents, simply answer these questions as if they were about the people who take the place of your mother or father. If there is only one such person, answer the questions as if they were about that person.

56. Some boys talk with their parents about the things they are interested in almost every day. Other boys only talk with their parents every once in a while, and then they only make small talk. How often do you talk with one or both of your parents about the things that really interest you?

Nearly every day 0 50/y
Every couple of days . . . 1
About once a week. 2
Only rarely. 3
Never 4

57. Here is a list of things which boys sometimes do with their parents. Mark how many times during the past four weeks you have done each of these things with one or both of your parents.

	Have Not Done	Once	More Than Once	
Went to a movie, play, or meeting	0	1	2	51/y
Went to a ballgame or other sports event.	0	1	2	52/y
Watched TV together	0	1	2	53/y
Played some kind of game (cards, checkers, etc.).	0	1	2	54/y
Worked on a job or project around home together	0	1	2	55/y

58. As far as you can tell, how interested are your parents in what you have to say?

Very interested. 0 56/y
Fairly interested. 1
Not very interested. . . . 2
Not interested at all. . . 3

59. If your parents were to object strongly to some of the friends you had, what would you do?

Stop going with them . . . 0 57/y
See them less. 1
See them secretly. 2
Keep seeing them openly. . 3

60. Do you have to tell your parents how you spend your money? 58/y

Not at all 0
For some spending. 1
For almost all spending. . 2

61. Do your parents give you a chance to share responsibilities? 59/y

As much as I like 0
Almost as much as I like. 1
Yes, but not as much as I'd like. 2
Yes, more than I'd like 3
No, only rarely 4
No, never 5

62. If there were no other way for you to go to school beyond high school, what do you think is the largest amount of money your parents would be willing to borrow to pay for your education? 60/y

They wouldn't borrow for education . . . 0
Up to $1,000 1
Up to $2,000 2
Up to $3,000 3
Up to $4,000 4
More than $4,000 5

63. Should your parents have the right to control what you do? 61/y

No 0
I don't know 1
Yes, because they support me with their money. 2
Yes, because I owe them a lot for taking care of me when I was younger 3
Yes, because they know more about how to live than I do. 4
Yes, because they are my parents 5

64. In the last year, have you done anything you decided not to tell one or both of your parents about because you knew they wouldn't like it? 62/y

Yes, many times. 0
Yes, a few times 1
Yes, once or twice 2
No 3

65. If you had the chance, would you do these things again?

Yes, and I wouldn't tell them about it this time either . 0 63/y
Yes, but I would tell my parents this time. 1
No, because I didn't enjoy them 2
No, because I know my parent's wouldn't want me to. . . . 3
I never did such things 4

---

66. Who makes the final decision on buying your clothes?

I do myself. 0 64/y
I do with my parents' advice 1
My parents do with my advice 2
My parents do without my advice. 3

---

67. In family discussions, do your parents encourage you to say what you think?

Always 0 65/y
Usually. 1
Sometimes. 2
Seldom 3
Never. 4

---

68. My parents know what is best for me, and when we disagree, I nearly always see later that I was wrong.

Strongly Agree 0 66/y
Agree. 1
Disagree 2
Strongly Disagree. 3

---

69. Here are some statements about a boy's relationship with his parents. Circle the answer which is most true for you.

	Always	Usually	Half the time	Seldom	Never	
When they want me to do something, my parents explain the reason	0	1	2	3	4	67/y
My parents complain about my friends.	0	1	2	3	4	68/y
In family discussions, my parents take my opinion seriously. .	0	1	2	3	4	69/y
My parents complain about where I go in the evening.	0	1	2	3	4	70/y
My parents respect my judgment .	0	1	2	3	4	71/y

YOU AND YOUR FRIENDS

70. We all make many friends, and some of them are closer than others. Some are friends we meet in school, and others we meet other places. So that you can think about a particular group of friends in the following questions, think now of the three boys in your grade in this school who are your best friends.

Print their names here:

CARD FOUR

FIRST NAME	LAST NAME		
_____	_____	☐	6-10/y
_____	_____	☐	11-15/y
_____	_____	☐	16-20/y

Now, if you were asked to name the three boys who are your very best friends, no matter who they are, or what grade they are in, or where (or if) they go to school, would you still name these same three boys? If not, put an "X" in the box next to the name of any of these three boys if you would not name him as one of your very best friends. 21-35/y

71. We don't always agree on everything with even our very best friends. How often do you agree on these things with the tree boys you named in question #70? (Be sure to circle an answer for each topic.)

Do you agree on:	Always Agree	Usually Agree	Sometimes Disagree	Often Disagree	Don't Discuss	
What to do in your spare time	0	1	2	3	9	36/y
Girls.	0	1	2	3	9	37/y
How to dress	0	1	2	3	9	38
What's good and bad about school	0	1	2	3	9	39/y
Sports	0	1	2	3	9	40/y
Politics	0	1	2	3	9	41/y
What's a good job.	0	1	2	3	9	42/y
Music.	0	1	2	3	9	43/y
Whether to go to college . . .	0	1	2	3	9	44/y
What's good and bad about parents	0	1	2	3	9	45/y

72. How important is it to you that these three boys agree with you on most things? 46/y

It's very important - I don't like it when we disagree. 0
It's important, but I don't mind if we disagree now and then. 1
It's not too important to me if we disagree 2
It's not important at all if we disagree. 3

73. How much of your free time do you spend with one or all of these three boys? 47/y

Just about all the time 0
A lot of time, but I also spend a lot of time with other boys or by myself. 1
Some time, but I spend even more time with other boys or by myself. . . . 2
Not very much time - I only see them now and then 3

74. How do you and your friends rate socially in this school? 48/y

At the top 0
Near the top 1
Above the middle 2
Below the middle 3
Near the bottom. 4
At the bottom. 5

75. Here are three stories about boys like your friends. They are trying to make decisions, but they aren't sure what to do. Read each story carefully and mark which one of the two things the boy in the story is more likely to do. Do not mark what the boy should do, but what you think he really will do.

Joe wants a part-time job to earn his own spending money. He has been offered one in a drug store where many of his friends go after school. But when he tells his parents about his idea they say they know of another job with the same pay in the small grocery store near his home. Joe's parents say they would like him to take the job near his home, but that he can make up his own mind. Which job do you think he will take?

The grocery near home 0 49/y
The drug store where his friends go . 1

Pete is trying to decide about a subject to take in school next year. Most of his friends are taking course A, but Pete's parents think course B would be better. Both subjects take the same amount of time and work. Which course will he take?

Course A. 0 50/y
Course B. 1

Many of Sam's friends have let their hair grow. Sam's parents think long hair looks silly and don't like it at all. Sam's hair is starting to get quite long, and some girls in his class have said that they like it that way. Sam's parents say it's time for him to get a short haircut. He goes to the barber shop and the barber asks him if he just wants a little hair trimmed off, or does he want it cut short. What do you think he will tell the barber?

"Cut it pretty short" 0 51/y
"Just trim it a little" . . . 1

---

76. FOR NINTH AND TWELFTH GRADERS ONLY. OTHERS SKIP TO QUESTION #79. Were you living in Fort Wayne three years ago?

Yes 0 52/y
No (Skip to question #79.). 1

---

77. What was the name of the school you attended three years ago?

PLEASE PRINT: _____ 53-54/yy

---

78. Still thinking of three years ago, who were the three boys who were your three best friends in your grade in your school three years ago?

PRINT their names here:

FIRST NAME	LAST NAME	
_____	_____	55-59/y
_____	_____	60-64/y
_____	_____	65-69/y

DO YOU AGREE WITH THIS?

79. Here again are some statements about a number of different things. As before, there are no right or wrong answers.. The important thing is what you think about the statement. Simply put a circle around the answer that best expresses your opinion. Be sure to give an answer for each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	
It doesn't make much difference if the people elect one or another candidate, for nothing will change anyway. . . .	0	1	2	3	70/y
I feel that I have a number of good qualities	0	1	2	3	71/y
When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job opportunity	0	1	2	3	72/y
When a man is born, the success he is going to have is already in the cards, so he might as well accept it and not fight against it.	0	1	2	3	73/y
I wish I could have more respect for myself	0	1	2	3	74/y
The secret of happiness is not to expect too much out of life, and being content with what comes your way.	0	1	2	3	75/y

	Strongly Agree	Agree	Disagree	Strongly Disagree	
People like me don't have much of a chance to be successful in life. . . .	0	1	2	3	76/y
The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit.	0	1	2	3	77/y
I feel I do not have much to be proud of .	0	1	2	3	78/y
With things as they are today, an intelligent person ought to think about the present, without worrying about what is going to happen tomorrow.	0	1	2	3	79/y
Even when teen-agers get married, their main loyalty still belongs to their mothers and fathers.	0	1	2	3	80/y
					CARD FIVE
I certainly feel useless at times.	0	1	2	3	6/y
It is important to make plans for one's life and not just accept what comes. .	0	1	2	3	7/y

ABOUT SCHOOL

80. If something happened and you could not graduate from high school, how would you feel? 8/y

Very happy - I'd like to quit. 0
I wouldn't care one way or the other . . . 1
I would be disappointed. 2
I'd try hard to continue 3
I'd do almost anything to stay in school . 4

81. How many school athletic teams have you been on this year, including both intramural and interscholastic teams?

CIRCLE THE NUMBER OF TEAMS: 0 1 2 3 4 5 6 or more 9/y

82. Have you been an active member this year of any school clubs or other organizations besides athletic teams? (For example: Student Council, science club, the yearbook staff, and so on.)

CIRCLE THE NUMBER OF MEMBERSHIPS: 0 1 2 3 4 5 6 or more 10/y

83. Do you think that:

	Strongly Agree	Agree	Disagree	Strongly Disagree	
Most of the good times I have with my friends happen in school or in school-related activities.	0	1	2	3	11/y
Success in life depends on ability and effort, not how much education you have	0	1	2	3	12/y
I very much enjoy making friends and meeting friends at school.	0	1	2	3	13/y
The only good reason to go to school once you're 16 is that it will help you get and keep a better job when you get out of school.	0	1	2	3	14/y
Most of the rules at our school make good sense to me	0	1	2	3	15/y
I really enjoy going to most of my classes	0	1	2	3	16/y
High school teachers and principals have the right to tell students what to do about things like smoking, driving cars, clothing and so on when students are in or near school	0	1	2	3	17/y
I often get uncomfortable and nervous when I am near a teacher, even if he or she she is not paying much attention to me	0	1	2	3	18/y
I very much enjoy the organized social events (dances, sports, etc.) at school	0	1	2	3	19/y

Do you think that:	Strongly Agree	Agree	Disagree	Strongly Disagree	
I would like school a lot more if there weren't so many rules.	0	1	2	3	20/y
I would enjoy school more if there were more chances for independent study for students who wanted it	0	1	2	3	21/y

84. How often do you feel like this?

	Almost Always	Most of the Time	Half the Time	Not Very Often	Never	
In class, I can't seem to keep my mind on what the teacher is saying.	4	3	2	1	0	22/y
My grades in school show my ability accurately	4	3	2	1	0	23/y
I feel that I am taking courses that will not help me much in a job after I leave school .	4	3	2	1	0	24/y
I wish there were more chances for serious discussions of interesting topics in school. . . .	4	3	2	1	0	25/y

* * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * *

That is all of the questions. We hope you have enjoyed doing this, and we appreciate your time and attention. Now, if there are any comments or additional information you would like to add, we'd be happy to have them. Feel free to write anything, here or on the back of the page, which you would like to tell us.

A QUESTIONNAIRE FOR MEN WHO WERE IN THE

FORT WAYNE SCHOOLS CLASS OF 1963

Instructions

Please read before you begin.

1. Your answers to these questions will be used for research only. No one but the research workers will know your answer to any question. The number at the top will only be used to keep track of the responses.

2. Please answer every question unless the directions say that a certain question is not for you.

3. When answering questions with a limited number of choices, please choose the answer that comes closest to the right answer for you even if it does not fit perfectly.

4. For most questions, you may answer simply by putting a circle around the number next to the answer you choose. For example:

   Do you have a job?

   Yes . . . . . (0) | 23/y
   No 1

5. The numbers used as answers are necessary for processing the replies you and others give to the questions. The numbers in the margin to the far right (such as 23/y) should be ignored.

6. Feel free to add comments to your answers to any question, but do not forget to circle the answer that comes closest to the answer that is right for you.

7. Whenever you have to fill in an answer, please print.

THANK YOU VERY MUCH FOR YOUR HELP

/SOME GENERAL QUESTIONS/

1. What is the highest grade of school you have completed up to this time?

I quit high school before graduating 0 6/y

I graduated from high school but didn't go beyond that 1

I graduated from high school and then went to a vocational, business, or technical school 2

I went to a community or junior college. 3

I went to a four-year college or university but I have not graduated. 4

I graduated from a four-year college or university 5

I went to a graduate or professional school after college. 6

---

2. Please think of the first full-time job you had after you finished the schooling you checked in question #1. (Do not count part-time jobs or jobs during school vacation. Do not count military service unless you have made a career of the service.) (Please print your answer.)

a. How old were you when you began this job? _____ 7-8/yy

b. What kind of work were you doing? (For example: High school teacher, paint sprayer, repaired radio sets, grocery checker, civil engineer.)

_____

c. What kind of business or industry did you work in? (For example: City high school, auto assembly plant, radio service, retail supermarket, road construction.) 9-10/yy

_____

3. If the job you have now is the same as your first full-time job, check here ☐ and skip to question number 4.

If you are not still working on your first job, please tell us about your present job. (Please print your answer.)

a. What kind of work are you doing? (For example: High school teacher, paint sprayer, repair radio sets, grocery checker, civil engineer.)

_____ 11-12/yy

b. What kind of business or industry do you work in? (For example: City high school, auto assembly plant, radio service, retail supermarket, road construction.)

_____

---

4. How much more schooling do you really expect to get? (Circle only one answer. If you are not sure, mark what you will most likely do.)

No more than I have now. 0 13/y
I'll graduate from high school but not go beyond that. 1
I'll go to a vocational, business, or technical school 2
I'll go to a two-year community or junior college. 3
I'll go to a four-year college or university 4
I'll go to graduate or professional school after college 5

---

5. Often we expect things that are different from what we want to happen. So now, think of what you would do about school if you could do what you really want to do. (Circle only one answer.)

I wouldn't get any more schooling than I have now. 0 14/y
I'd graduate from high school but not go beyond that 1
I'd go to a vocational, business, or technical school. 2
I'd go to a two-year community or junior college 3
I'd go to a four-year college or university. 4
I'd go to graduate or professional school after college. 5

---

6. Now, try to think back to when you were in the twelfth grade. How much schooling did you really expect to get at that time?

I expected to quit high school before graduating . . . . . 0 — 15/y

I expected to graduate from high school but not go beyond that . . . 1

I expected to graduate from high school and then go to a vocational, business, or technical school. 2

I expected to go to a two-year community or junior college 3

I expected to go to a four-year college or university. 4

I expected to go to graduate or professional school after college. . 5

---

7. Still thinking about when you were in the twelfth grade, try to remember what you wanted to do about schooling then. How much schooling did you want to get at that time?

I wanted to quit high school before graduating . . . . . 0 — 16/y

I wanted to graduate from high school but not go beyond that 1

I wanted to graduate from high school and then go to a vocational, business, or technical school. 2

I wanted to go to a two-year community or junior college 3

I wanted to go to a four-year college or university. 4

I wanted to go to a graduate or professional school after college. . 5

---

8. Have you ever been married?

No - (Skip to question 17) . 0 — 17/y

Yes. 1

---

9. How old were you when you first got married? ____ — 18-19/yy

---

10. Are you now married?

Yes. . . . . 0 — 20/y

No - (Skip to question 17) . 1

---

11. What kind of work did the head of your wife's family do when you got married? If her father was not the head of her family at that time, please check here ☐ and answer for the person who was the head of her family at that time. (Please print your answer.)

a. What kind of work was he doing? (For example: High school teacher, paint sprayer, repaired radio sets, grocery clerk, civil engineer.)

_____ 21-22/yy

b. What business or industry was he working in? (For example: City high school, auto assembly plant, radio service, retail supermarket, road construction.)

_____

12. What is the highest grade of school your wife's father (or the person checked in # 11) completed? 23/y

8th grade or less. 0
9th grade. 1
10th grade 2
11th grade 3
Graduated from high school 4
Went to business or technical school after high school 5
Completed one to three years of college. 6
Graduated from college 7
Went to graduate or professional school after college. 8

13. Has your wife had a job in the past year? 24/y

No -(Skip to question 15). . 0
Yes, a part-time job 1
Yes, a full-time job 2

14. If you answered YES to question # 13, please tell us what kind of work your wife does. (For example: High school teacher, waitress, grocery checker, secretary.) 25-26/yy

_____

What kind of business or industry does she work in? (For example: City high school, restaurant, retail supermarket, insurance office.)

_____

15. How many children do you have? (Circle the number.) 27/y

0 1 2 3 4 5 or more

16. What is the age of your oldest child? 28/y

I have no children . . 0

Years ____

17. Now think ahead to when you will be 30 years old. Here is a list of jobs. You are to say whether you would be satisfied with each of these jobs if you were working in them when you are 30 years old. So, you are to circle the answer for each job you would be satisfied to have then. (Remember, circle the number for every job you would be satisfied with.)

Owner of a clothing store. 0	29/y
Sales clerk in a department store. 1	30/y
Medical or dental technician 2	31/y
Heavy equipment operator (bulldozer, etc.) . 3	32/y
College teacher. 4	33/y
Laborer in a steel mill. 5	34/y
Foreman in a machine shop. 6	35/y
Machinist. 7	36/y
Accountant 8	37/y
Truck driver 9	38/y

18. In each of these two lists, check the one job which is the best one you think you can have by the time you are 30 years old. Make your choice as if the jobs listed were the only ones available. (Remember, choose only one job in each list.)

LIST A:
- Hospital attendant (orderly) 0
- Factory manager 1
- Sheet-metal worker 2
- Labor union official 3
- Garage laborer and car washer 4
- Physician (doctor) 5
- Plasterer 6
- Pressman (operator of a printing press) . . 7
- Foreman for a construction company 8
- Tax collector for state government 9

39-40/yy

LIST B:
- Personnel director for a factory 0
- Shipping and receiving clerk 1
- Tool and die maker 2
- Electrician 3
- Foreman in a truck factory 4
- Cook in a restaurant 5
- Credit manager of a department store 6
- Owner of a gasoline station 7
- Postmaster 8
- Machine operator in a furniture factory . . 9

41-42/yy

/THE NEXT QUESTIONS ARE ABOUT YOUR MOTHER/

19. Did you live in the same house as your mother when you were in the twelfth grade?

___ Yes

___ No - but I lived with another woman who took the place of my mother such as an aunt, stepmother, etc. - ANSWER ALL THE QUESTIONS ABOUT YOUR "MOTHER" AS IF THEY WERE ABOUT THIS WOMAN.

___ No - and no other woman took her place (skip to question #24)

43/y

20. Did your mother work either part-time or full-time when you were in the twelfth grade?

No, she did not work 0 44/y

Yes, she worked part-time. . 1

Yes, she worked full-time. . 2

---

21. ANSWER ONLY IF YOUR MOTHER WORKED: What kind of job did your mother have then? (Please print your answer.)

What kind of work did she do? (For example: High school teacher, waitress, grocery checker, secretary.) 45-46 yy

_____

What kind of business or industry did she work in? (For example: City high school, restaurant, retail supermarket, insurance office.)

_____

---

22. What was the highest grade in school your mother completed? (If you are not sure, please give your best guess.)

8th grade or less. 0 47/y

9th grade. 1

10th grade 2

11th grade 3

Graduated from high school 4

Went to business or technical school after high school 5

Completed one to three years of college. 6

Graduated from college 7

Went to graduate or professional school after college. 8

---

23. Here is a list of jobs. Imagine that you were working in each of these jobs when you were 30 years old. Do you think your mother would be satisfied or not? Circle the number for each job she would be satisfied for you to have. (If you are not sure about how your mother would feel, mark it as you think she would feel about each job.)

	Circle if she would be Satisfied	
Owner of a clothing store	0	48/y
Sales clerk in a department store	1	49/y
Medical or dental technician.	2	50/y
Heavy equipment operator (bulldozer, etc.). . .	3	51/y
College teacher	4	52/y
Laborer in a steel mill	5	53/y
Foreman in a machine shop	6	54/y
Machinist	7	55/y
Accountant.	8	56/y
Truck driver.	9	57/y

/THE NEXT QUESTIONS ARE ABOUT YOUR FATHER/

24. Did you live in the same house as your father when you were in the twelfth grade?

___ Yes 58/y

___ No - but I lived with another man who took the place of my father, such as an uncle, stepfather, etc. - ANSWER ALL QUESTIONS ABOUT YOUR "FATHER" AS IF THEY WERE ABOUT THIS MAN.

___ No - and no other man took his place (skip to question #28)

25. What kind of job did your father have then? If he was retired or unemployed then, write that on the first line, but also say what was the last job that he had. (Please print your answer.)

What kind of work did he do? (For example: High school teacher, paint sprayer, repaired radio sets, grocery clerk, civil engineer.) 59-60/yy

_____

What kind of business or industry was he working in? (For example: City high school, auto assembly plant, radio service, retail supermarket, road construction.)

_____

26. What was the highest grade in school your father completed? (If you are not sure, please give your best guess.)

8th grade or less. 0 61/y

9th grade. 1

10th grade 2

11th grade 3

Graduated from high school 4

Went to business or technical school after high school 5

Completed one to three years of college. 6

Graduated from college 7

Went to graduate or professional school after college. 8

27. Here is a list of jobs. Imagine that you were working in each of these jobs when you were 30 years old. Do you think your father would be satisfied or not? Circle the number for each job he would be satisfied for you to have. (If you are not sure about how your father would feel, mark it as you think he would feel about each job.)

	Circle if he would be Satisfied	
Owner of a clothing store	0	62/y
Sales clerk in a department store	1	63/y
Medical or dental technician.	2	64/y
Heavy equipment operator (bulldozer, etc.). . .	3	65/y
College Teacher	4	66/y
Laborer in a steel mill	5	67/y
Foreman in a machine shop	6	68/y
Machinist	7	69/y
Accountant.	8	70/y
Truck Driver.	9	71/y

/YOU AND YOUR FRIENDS/

28. We all make many friends. Over the years we lose touch with some of them, and others remain close and important to us for a long time.

Please try to think of the boys who were in the twelfth grade with you in your school. Which twelfth grade boys were your three best friends in your school? Please print their names here:

CARD TWO

FIRST NAME	LAST NAME	
_____	_____	6-10/y
_____	_____	11-15/y
_____	_____	16-20/y

Now think of the three men who are your best friends today. Put an "X" next to the name of any of the three boys if they are still one of your three best friends now. 21-35/y

29. How many school athletic teams were you on in the twelfth grade, including both intramural and interscholastic teams?

CIRCLE THE NUMBER OF TEAMS: 0 1 2 3 4 5 6 or more 36/y

---

30. Were you an active member of any school clubs or other organizations besides athletic teams in the twelfth grade? (For example: student council, science club, the yearbook staff, and so on.)

CIRCLE THE NUMBER OF MEMBERSHIPS: 0 1 2 3 4 5 6 or more 37/y

---

31. When you have a really important decision to make about yourself or your future, do you make it on your own, or do you like to get help on it?

I'd rather let someone else decide for me. 0 38/y

I depend a lot upon other people's advice. 1

I like to get some help. 2

I get others' ideas, then make up my own mind. 3

I make up my own mind without any help 4

---

32. How sure are you that your own ideas and opinions about what you should do and believe are right and best for you?

I'm not at all sure . . 0 39/y

I'm not very sure . . . 1

I'm a little sure . . . 2

I'm quite sure. 3

I'm completely sure . . 4

/WHAT DO YOU THINK ABOUT IT?/

Here are some statements about people, jobs, and a number of other things. Simply mark the answer next to each statement which tells what you think about it. There are no right or wrong answers here. It's all a matter of how you feel about it. In all cases, you can show that you "Strongly Agree," "Agree," "Disagree," or "Strongly Disagree" with the idea in the statement. Simply put a circle around the number that shows what you think.

Do You Agree That:	Strongly Agree	Agree	Disagree	Strongly Disagree	
Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself.	0	1	2	3	40/y
All I want out of life in the way of a career is a secure, not too difficult job, with enough pay to afford a nice car and eventually a home of my own.	0	1	2	3	41/y
Planning only makes a person unhappy since your plans hardly ever work out anyway.	0	1	2	3	42/y
It's silly for a teenager to put money into a car when the money could be used to get started in business or for an education.	0	1	2	3	43/y
Maybe some people would make trouble for themselves if there were fewer laws, but I would get along fine.	0	1	2	3	44/y

Do You Agree That:	Strongly Agree	Agree	Disagree	Strongly Disagree	
When a man is born, the success he is going to have is already in the cards, so he might as well accept it and not fight against it .	0	1	2	3	45/y
I often get uncomfortable and nervous when I am near a policeman, even if he is not paying much attention to me.	0	1	2	3	46/y
The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit . .	0	1	2	3	47/y
With things as they are today, an intelligent person ought to think about the present, without worrying about what is going to happen tomorrow.	0	1	2	3	48/y
Even when teenagers get married, their main loyalty still belongs to their mothers and fathers	0	1	2	3	49/y
This country would be better off if we had fewer laws.	0	1	2	3	50/y

* * * * * * * * * * * * *

That is all of the questions. We hope you have enjoyed doing this, and we appreciate your time and attention. Now, if there are any comments or additional information you would like to add, we'd be happy to have them. Feel free to write anything on the next page which you would like to tell us.

Confidential
4071 (Father)
3/69

National Opinion Research Center
University of Chicago

CASE NUMBER: _____

SURVEY OF FORT WAYNE MALE YOUTHS

TIME BEGAN: _____ AM / PM

INTERVIEWER: _____

The mother and father interviews were substantially the same. The father's interview is reproduced here with the exception of those pages on which the two were not the same, in which case both sets of pages are used. Pages 1-13 were identical, pages 14-16 were different and both are presented, and pages 17-25 were the same except for some item identifications.

1. How are you related to (name)--are you his father or his stepfather (or his guardian, or what)?

Father 0
Stepfather 1
Grandfather 2
Uncle 3
Brother 4
Guardian (non-relative) . . 5
Guardian (relative) 6

2. Has (name) lived with you all his life?

Yes 00

IF NO: Specify at what age he began living with you.

IF NO MOTHER, ASK Q. 3; IF MOTHER PRESENT, GO TO Q. 4

3. Altogether, how many people live here in this household?

A. Number: _____

PROBE AND FILL IN THE FOLLOWING UNTIL YOU HAVE ACCOUNTED FOR ALL MEMBERS OF HOUSEHOLD.

Spouse of respondent:	B.	Yes 1
		No 2
Children (including (/name/)	C.	Number: _____
Other relatives	D.	Number: _____
Non-relatives	E.	Number: _____

4. Now I'd like to talk a bit about what (name) does and what you may do with him. For instance, on a normal weekend during the school year, about how much of his time does he spend at home--would you say almost all the time, about half the time, is he away more than he's here, or is he almost never here?

Almost all the time at home . 1

About half the time 2

Away more than he's here . . 3

Almost never here 4

---

5. How do you feel about this? Do you wish he spent more time at home, less time at home than he does, or is it all right as it is?

More time at home . . 1

Less time at home . . 3

All right as it is . 2

---

6. A. On most week days do you and he eat breakfast together?

Yes 1

No 2

Other (SPECIFY) . . . 3

B. And how about supper--do you eat together on most week days?

Yes 4

No 5

Other (SPECIFY) . . . 6

---

7. When you do have meals together, do you usually talk with him about things you're both interested in, do you sometimes do this, or do you seldom talk about things?

Usually talk 1

Sometimes talk 2

Seldom talk about things . . 3

---

8. How about at other times--do you and he have serious discussions about his interests or about things you're both interested in often, sometimes, or seldom?

Often 4

Sometimes 5

Seldom 6

9. In the past couple of weeks, have you and (name) talked about . . .

	Yes	No
A. Sports?	1	2
B. Politics?	1	2
C. The war in Vietnam or the peace talks? .	1	2
D. Things that happened in his school? . .	1	2
E. Things that happened to you during the day?	1	2
F. His friends?	1	2
G. Television programs or movies?	1	2
H. Things that you or he have read about? .	1	2
I. His hobbies or things he likes to do? .	1	2

10. How do you feel about this? Do you wish you had more discussion with him, or fewer discussions, or is it all right as it is?

Wish we had more . . 1

Wish we had fewer . . 3

All right as it is . 2

11. Are there any particular things which you and he do together that both of you seem to enjoy?

Yes . (ASK A) . . . 1

No . .(GO TO Q.12). . 2

A. IF YES: What?

12. In the last month, have you and he done any of the following things?

		IF YES, PROBE: Was that once or more than once?	
	No	Yes, once	Yes, more than once
A. Gone to a movie, a play, or a meeting	0	1	2
B. Watched TV	0	1	2
C. Gone to a ballgame or other sports event . .	0	1	2
D. Played some kind of game (a card game, checkers, etc.)	0	1	2
E. Worked on a job or project around home	0	1	2

13. Here are some statements about a parent and a son. Please tell me whether or not they are true for you and (name).

	True	Not True
A. He seems to think that I don't really try to understand his problems	1	2
B. Talking with me seems to make him tense and nervous.	1	2
C. I try hard to understand his problems	1	2
D. I don't think he can express his real feelings when he is around me	1	2
E. It seems to help him just to talk with me when he is upset about something	1	2
F. I think he knows how much I love him	1	2

14. How close would you say you are to him--would you say very close, fairly close, not very close, or are you not close at all?

Very close 1
Fairly close 2
Not very close 3
Not close at all . . . 4

15. Compared with other boys his age and their relationship with their fathers, how close do you feel (name) is to you--would you say he is much closer, somewhat closer, about the same as most boys, somewhat less close than most, or much less close than most?

Much closer than most boys 1
Somewhat closer than most boys 2
About the same as most boys 3
Somewhat less close than most boys . . 4
Much less close than most boys . . . 5

16. How often is (name) allowed out in the evenings, between supper and bed time--almost every evening, about half of the time, weekends only, or less often than that?

Almost every evening . . . 1
About half of the time . . 2
Weekends only 3
Less often than that . . . 4
Never (VOLUNTEERED) . . . 5

17. How many of your son's friends do you know--all, most, some, or almost none of them?

All of them 1
Most of them 2
Some of them 3
Almost none of them . . . 4

18. Do you ask him to tell you how he spends his money--almost always, sometimes, or not at all?

Almost always 1
Sometimes 2
Not at all 3

---

19. How regularly do you find out whether or not he has done his homework--almost always, about half of the time, seldom, or never?

Almost always . . . 1
Half of the time . . 2
Seldom 3
Never 4

---

20. Have you helped him with his homework at all during this year?

Yes . . . (ASK A) 5
No . (GO TO Q. 21) 6
He doesn't have homework (SKIP TO Q. 22) 7

A. IF YES: How often have you helped--a few times during the year, about once a month, about once a week, or more often than that?

A few times during the year . . 1
About once a month 2
About once a week 3
More often than that 4

---

21. Do you think he would like more help from you on his homework than he gets or less help, or what?

More help 1
Less help 3
He gets about as much as he wants . . 2
Don't know 4

---

22. Did you see (name)'s report card the last time he brought one home?

Yes 1
No 2
He didn't bring it home (VOLUNTEERED) . . 3

---

23. What sort of grades did he get--mostly A's and B's, mostly B's and C's or mostly C's or below?

Mostly A's and B's 4
Mostly B's and C's 5
Mostly C's or below 6
Don't know (SKIP TO Q. 25) . . . 7

24. Were his grades what you had expected them to be, or were they better or poorer than you had expected?

About what I had expected . . 2
Better than I expected . . . 1
Poorer than I expected . . . 3
I don't know 4

---

25. A. Did you do anything or say anything to him about his report card?

Yes 5
No . . (GO TO Q.26) 6

IF YES: What did you do or say? (Anything else?) (RECORD VERBATIM AND FIELD CODE.)

		No	Yes
B.	Gave material reward (money, goods, privileges, etc.)	0	1
C.	Gave psychological reward (praise, a hug, etc.)	0	1
D.	Gave material punishment (restrictions, cut allowance, etc.).	0	1
E.	Gave physical punishment (spanking, hit him, etc.)	0	1
F.	Gave psychological punishment (yelled at him, silence, etc.).	0	1
G.	Gave advice, offered help, discussed ways to improve	0	1
H.	Other (SPECITY)	0	1

---

26. Has (name)'s school had any PTA meetings this year?

Yes . . . (ASK A & B) . . . 1
No . . . . . (ASK B) 2
Don't know (GO TO Q. 27) . . 3

IF YES:
A. Have you gone to almost all of them, about half, a few, or none of them?

Almost all 1
About half 2
A few 3
None 4

IF YES OR NO:
B. Are you an officer in the PTA or on a committee of it?

Yes 5
No 6

Now I have some more questions about (name).

27. When he gives an opinion on something, do you find that it is worth taking seriously--almost always, usually, sometimes, seldom, or never?

Almost always	1
Usually	2
Sometimes	3
Seldom	4
Never	5
He never gives an opinion (VOLUNTEERED)	6

---

28. How about responsibilities in the family? Do you think (name) takes as much responsibility as he ought to, is responsibile sometimes but not often enough, or never takes responsibility?

As much responsibility as he ought to	1
Responsible sometimes but not often enough	2
Never takes responsibility	3

---

29. Who makes the final decision when he buys clothes? Would you say . . . READ CATEGORIES.

He does himself	4
He does with advice from parents	5
Parents do with his advice	6
Parents do without his advice	7

---

30. When he doesn't seem to know why you make a particular decision or why you have a particular rule, do you explain it to him always, usually, sometimes, occasionally, or never?

Always	1
Usually	2
Sometimes	3
Occasionally	4
Never	5

---

31. HAND RESPONDENT CARD 1. Which statement on this card best describes what usually happens when (name) has to make a fairly important decision?

He does what he wants no matter what I say	1
He makes the decision, but I ask him to consider my opinion	2
He can give me his opinion, but I make the decision	3
I just tell him what to do	4
Other (SPECIFY)	5

32. HAND RESPONDENT CARD 2. When he has a very important decision to make, is he likely to make it on his own, or does he like to get help on it? Which of these statements comes closest?

He'd rather let someone else decide for him	1
He depends a lot on other's advice	2
He likes to get some help	3
He gets others' ideas and then makes up his own mind	4
He makes up his own mind without any help	5

---

33. Do you think he is <u>too</u> independent, that he doesn't make <u>enough</u> decisions on his own, or is it all right the way it is?

Is too independent	1
Doesn't make enough decisions on his own . .	3
All right the way it is	2

---

34. Of course, any boy (<u>name</u>)'s age does a lot of things and makes a lot of <u>everyday decisions</u> without checking with his parents. When he makes these kinds of decisions, do you feel that he seriously considers your wishes and your advice all the time, usually, sometimes, seldom, or never?

All the time	1
Usually	2
Sometimes	3
Seldom	4
Never	5

---

35. Boys of his age differ a lot in how confident they are that their own ideas and opinions are right. How confident would you say he is--would you say . . . READ CATEGORIES.

Not at all confident	1
Not very confident	2
A little confident	3
Quite confident	4
Completely confident	5

---

36. How do you feel about this? Do you wish he were more confident, less sure of himself, or is it all right as it is?

Wish he were more confident	1
Wish he were less sure of himself . .	3
All right as it is	2

IF ANY BROTHERS OR SISTERS, ASK Q. 37:

37. Does he ever fight with his brothers or sisters?

A. Yes 1
No . . . (GO TO Q. 38) 2

IF YES:
What does (name) usually do when he fights with them--does he physically hit them, does he shout and argue with them, or does he whine and verbally pick on them? (CODE ALL MENTIONED.)

		No	Yes
B.	Physically hit them	0	1
C.	Shout and argue with them . . .	0	1
D.	Whine and verbally pick on them.	0	1

HAND RESPONDENT CARD 3. Which of these things do you generally do when he acts this way? (Anything else?) (CODE ALL MENTIONED)

E.	Nothing (ignore him)	0	1
F.	Scold him or tell him to stop .	0	1
G.	Separate him from the others or divert his attention . . .	0	1
H.	Physically punish him	0	1
I.	Isolate him	0	1
J.	Punish him by restricting his privileges	0	1
K.	Other (SPECIFY)	0	1

38. Does (name) ever really lose his temper?

A. Yes 1
No . . . (GO TO Q. 39) 2
Don't know (GO TO Q. 39) 3

IF YES:
What does he do when he loses his temper? Does he . . .READ A-E AND CODE YES OR NO FOR EACH.

		Yes	No
B.	Pout or sulk	1	2
C.	Yell or verbally attack someone	1	2
D.	Throw or break things	1	2
E.	Physically attack someone	1	2
F.	Leave the house or go to his room for a time	1	2

HAND RESPONDENT CARD 3. What do you generally do when he loses his temper? (Anything else?) CODE ALL MENTIONED.

		Yes	No
G.	Nothing (ignore him)	0	1
H.	Scold him or tell him to stop	0	1
I.	Separate him from the others or divert his attention	0	1
J.	Physically punish him	0	1
K.	Isolate him.	0	1
L.	Punish him by restricting his privileges . .	0	1
M.	Other (SPECIFY)	0	1

---

39. Does he ever refuse to do what you tell him to do?

A. Yes 1
No . . (GO TO Q. 40) 2
Don't know (GO TO Q. 40) . . 3

IF YES:
What does he do? Does he say he won't do it, does he argue without stopping but not actually refuse, or does he say nothing but just not do what you said?

B. Say he won't do it 4
Argue without stopping but not actually refuse . . 5
Say nothing but just not do what you said 6

IF YES:
HAND RESPONDENT CARD 3. What do you generally do when that happens? (Anything else?) CODE ALL MENTIONED.

		Yes	No
C.	Nothing (ignore him)	0	1
D.	Scold him or tell him to stop	0	1
E.	Separate him from the others or divert his attention	0	1
F.	Physically punish him	0	1
G.	Isolate him	0	1
H.	Punish him by restricting his privileges	0	1
I.	Other (SPECIFY)	0	1

40. When you scold him, is it mainly because of what he has actually done, or because of what he was thinking about and intending to do?

What he has done 1
Intending to do 2
Both equally (VOLUNTEERED) 3
Other (SPECIFY) 4

Don't know 5

---

41. How often during the past week did you scold (name) or show him you were angry at him?

times: _____

---

42. Is that more or less often that usually happens?

More 1
Less 3
Same (VOLUNTEERED) . . 2

---

43. HAND RESPONDENT CARD 4.

	A. Which 3 qualities listed on this card would you say are the most desirable for a boy of (name)'s age to have?	B. Which one of those 3 is the most desirable of all? (READ THE 3 HE CHOSE.)	C. All of these may be desirable, but could you tell me which 3 you consider least important?
A. Has good manners	3	1	8
B. Tries hard to succeed	3	1	8
C. Is honest	3	1	8
D. Is neat and clean	3	1	8
E. Has good sense and sound judgment	3	1	8
F. Has self-control	3	1	8
G. Acts like a boy	3	1	8
H. Gets along well with other children	3	1	8
I. Obeys his parents well	3	1	8
J. Is responsible	3	1	8
K. Is considerate of others	3	1	8
L. Is interested in how and why things happen	3	1	8
M. Is a good student	3	1	8

CODE 1, 3, 8, OR LEAVE BLANK IF NOT CHOSEN

44. How is (name) as far as ambition is concerned? Would you say that he has a lot of "drive" and "push," is about average, or does he tend to let things go?

He has a lot of drive	1
Is about average	2
Lets things go	3
Never gets things done (VOLUNTEERED) . . .	4

---

45. How do you feel about this? Do you wish he had more ambition, do you think he pushes too much, or is it all right as it is?

Wish he had more ambition	1
He pushes too much	3
All right as it is	2

---

46. Does he seem to look ahead and try to plan for the future, or does he seem to pay attention only to what's going on right now?

Plans ahead for future	4
Seems to pay attention only to what's going on right now	5
Other (SPECIFY)	6

---

47. How do you feel about this? Do you wish he would plan ahead more, does he do it too much, or is it all right the way it is?

I wish he'd plan ahead more	1
I wish he would do less planning	3
All right the way it is	2

---

48. How is he about working for something he wants that takes a long time to do? Does he stick to something and work at it a long time, or does he try for a while and then give up, or does he give up before he really tries?

He sticks to something and works at it a long time	1
He tries for a while and then gives up	2
Gives up before he really tries	3
Other (SPECIFY)	4

Now I have a few questions about you.

How old were you on your last birthday? _____ (Age)

---

50. Where were you born?

_____ (City) _____ (State)

(OR, IF NOT U.S.) _____ (Country)

---

51. HAND RESPONDENT CARD 5. Which of the statements on this card shows the last year of school you completed?

(1) Quit high school without graduating 1
(2) Graduated from high school 2
(3) Graduated from high school and then went to 1-to-3-year vocational, business or trade school 3
(4) Attended a community or junior college or 1 to 3 years of 4-year college 4
(5) Graduated from a four-year college or university . . . 5
(6) Got a graduate or professional degree after attending a 4-year college 6

---

52. Who is the main wage earner in your household?

Respondent 1
Respondent's spouse 2
Other male relative (SPECIFY) 3
Other female relative (SPECIFY) 4
Other (SPECIFY) 5
Welfare 6

Pages 14-16 differed in the two parents' interviews. Both sets of pages are presented. Fathers' pages 14-16 follow: Mothers' pages 14 through 17 replace fathers' pages 14-16 and are presented at the end of this questionnaire.

Now I would like to ask you some questions about your job.

53. Are you currently employed, unemployed, or retired?

Employed	(ASK A-C)	1
Unemployed . . .	(ASK D-F)	2
Retired	(ASK D-F)	3

IF CURRENTLY EMPLOYED:

a. What is your occupation? What sort of work do you do? (For example, school teacher, paint sprayer, repair radio sets, grocery checker, civil engineer.)

OCCUPATION: _____

B. What kind of business or industry is that in? (For example, city high school, auto assembly plant, radio service, retail supermarket, road construction, etc.)

INDUSTRY: _____

C. Do you work for yourself or someone else?

Self	1
Someone else	2

IF UNEMPLOYED OR RETIRED:

D. What kind of work did you do on your last job?

OCCUPATION: _____

E. What kind of business or industry was that in?

INDUSTRY: _____

F. Did you work for yourself or someone else?

Self	1
Someone else	2

---

54. Now, think back to the work you were doing when (nam) started first grade.

A. What kind of work did you do?
OCCUPATION: _____

B. What kind of business or industry was it in?
INDUSTRY: _____

C. Did you wo for yourself, or someone else?

Self	1
Someone else	2

55. Now, try to think about your future. Ten years from now, what kind of job do you expect you will have?

A. What kind of work will you be doing? (SPECIFY JOB TITLE OR "RETIRED." IF RETIRED, SKIP B AND C.)
OCCUPATION: _____

B. What kind of business or industry will you be working in?
INDUSTRY: _____

C. Will you be self-employed or working for someone else?
Self-employed 1
Someone else 2

56. Now I will read some statements about which people have different feelings. Please answer for each one of them whether or not you agree with it. There are no right or wrong answers. It's just a question of whether you agree with the statement. You can just answer "Yes" or "No" to each one, depending on whether or not it is true for you.

IF CURRENTLY EMPLOYED, ASK A-T. IF NOT WORKING, START WITH K.

		Yes (Agree)	No (Disagree)
A.	I would be satisfied if a son of mine, when he reaches my age, is in the same kind of work that I am in now.	1	2
B.	My work is more satisfying to me than the time I spend around the house.	1	2
C.	If I inherited so much money that I didn't have to work, I would still continue to work at the same thing I am now doing.	1	2
D.	I am pretty well satisfied with the chances for getting ahead in my present work.	1	2
E.	Some of my main interests and pleasures in life are connected with my work.	1	2
F.	I have sometimes regretted going into the kind of work I am now in.	1	2
G.	The work I do is one of the most satisfying parts of my life.	1	2
H.	I enjoy my spare-time activities much more than my work.	1	2
I.	To me, my work is just a way of making money.	1	2
J.	I would much rather relax around the house all day than go to work.	1	2

56. (Continued)

	Yes (Agree)	No (Disagree)
K. I would be satisfied if my son receives the same amount of education as I have.	1	2
L. Most people will repay your kindness with ingratitude.	1	2
M. More than anything else, it is work that makes life worthwhile.	1	2
N. People help persons who have helped them not so much because it is right, but because it is good business.	1	2
O. There are many times when I have to deny myself and my family things we would like because of our income.	1	2
P. Most people are fair and do not try to get away with something.	1	2
Q. I would be satisfied if my children, when they reach my age, have the same income and live the same way as I do.	1	2
R. It's silly for a teenager to put money into a car when the money could be used to get started in business or for an education	1	2
S. On the whole, my financial future looks very good.	1	2
T. It is not good to let your relatives know everything about your life, for they might take advantage of you.	1	2

Now, I'd like for us to talk a bit about (name)'s education and his future.

57. HAND RESPONDENT CARD 5. Which category on this card shows how much schooling you expect him to get? (If you are not sure, please say what you think he will most likely do.)

(1) Quit high school without graduating 1

(2) Graduate from high school 2

(3) Graduate from high school and then go to a 1-to-3-year vocational, business or trade school 3

(4) Attend a community or junior college or 1 to 3 years of 4-year college 4

(5) Graduate from a 4-year college or university 5

(6) Get a graduate or professional degree after attending a 4-year college 6

---

58. You just said what you expected him to do. Now please think of what you would want him to do about school if he did what you really want him to do.

(1) Quit high school without graduating 1

(2) Graduate from high school 2

(3) Graduate from high school and then go to a 1-to-3-year vocational, business or trade school 3

(4) Attend a community or junior college or 1 to 3 years of 4-year college 4

(5) Graduate from a 4-year college or university 5

(6) Get a graduate or professional degree after attending a 4-year college 6

59. Have you talked with (name) about this?

Yes 7
No 8

---

60. Parents have many different reasons for wanting their sons to get a certain amount of schooling. I'll read you some of the reasons people have given. Please say if each of these reasons is very important, somewhat important, or not important in your thinking about how much education you want (name) to get.

	Very important	Somewhat important	Not important
A. It will help him get a better-paying job.	1	2	3
B. It will help him understand himself and things around him better.	1	2	3
C. People respect a man more the more education he has.	1	2	3
D. Education makes a person more able to contribute to the community.	1	2	3
E. You can meet nicer girls by going to school.	1	2	3
F. A young man wouldn't have anything to do if he didn't go to school.	1	2	3
G. If a boy goes to school long enough, it can help keep him out of the army.	1	2	3
H. Studying is an interesting thing to do.	1	2	3

---

61. What do you think he would do if he had his way? That is, how far in school would he go if he could do what he really wants to do?

(1) Quit high school without graduating 1

(2) Graduate from high school 2

(3) Graduate from high school and then go to a 1-to-3-year vocational, business or trade school 3

(4) Attend a community or junior college or 1 to 3 years of 4-year college 4

(5) Graduate from a 4-year college or university . . . 5

(6) Get a graduate or professional degree after attending a 4-year college 6

62. The next few questions involve looking at different lists of jobs and deciding about them. (HAND RESPONDENT CARD 6.) For instance, here is a list of jobs. I'd like you to read them over and then pick out the best one you are really sure (name) can get if it is available when he is finished with his schooling.

A. Automobile mechanic 19

B. Lawyer 93

C. Laborer in a steel mill 09

D. Electronics technician 62

E. Millwright (repairs machinery in a factory) 31

F. Accountant 78

G. Waiter in a restaurant 16

H. Insurance salesman 66

I. Apprentice tool and die maker 41

J. Mail carrier 53

---

63. HAND RESPONDENT CARD 7. Of the jobs listed on this card, which one would you want him to choose if he were free to choose any of them he wished for his first full-time job when his schooling is over?

A. Hotel porter 04

B. Television cameraman 62

C. Machinist 33

D. Chemist 79

E. Roofer 15

F. Salaried manager of a five and dime store 68

G. Sales clerk in a department store 39

H. Airplane mechanic 48

I. Theater usher 25

J. College teacher 84

64. HAND RESPONDENT CARD 8. In this question, think ahead to when (name) is 30 years old. Of the jobs listed on this card, which one is the best one you are really sure he could have by the time he is 30 years old?

A. Hospital attendant (orderly) 13

B. Factory Manager 79

C. Sheet-metal worker 33

D. Labor union official 58

E. Garage laborer and car-washer 08

F. Physician (doctor) 92

G. Plasterer 25

H. Pressman (operator of a printing press) 49

I. Foreman for a construction company 40

J. Tax collector for state government 66

---

65. HAND RESPONDENT CARD 9. Of the jobs listed on this card, which one would you want him to choose if he were free to choose any of them he wished when he was 30 years old?

A. Foreman in a machine shop 60

B. Operator of a weaving machine in a textile mill 06

C. Manager of a branch bank 85

D. Bartender 19

E. Building contractor 51

F. City policeman 40

G. Owner of a clothing store 65

H. Machine operator in a laundry 15

I. Manager of an electric power station 76

J. Butcher in a supermarket 29

66. HAND RESPONDENT CARD 10. Here is a final list of jobs. This time, I will read you the name of a job, and you can tell me if you would be satisfied or not satisfied if he were working in each of these jobs when he is 30 years old.

	CODE FOR OFFICE USE ONLY	Satisfied	Not satisfied
A. Owner of a clothing store	65	1	0
B. Sales clerk in a department store	39	1	0
C. Medical or dental technician . .	48	1	0
D. Heavy equipment operator (bulldozer, etc.)	24	1	0
E. College teacher	84	1	0
F. Laborer in a steel mill	09	1	0
G. Foreman in a machine shop	60	1	0
H. Machinist	33	1	0
I. Accountant	78	1	0
J. Truck driver	15	1	0

67. How do you think (name) feels about these things? What kind of work do you think (name) would most like to do as his first full-time job after he completes his education, if he could get the full-time job he really wanted? (DO NOT INCLUDE MILITARY SERVICE UNLESS YOU THINK HE WANTS TO HAVE A CAREER IN THE SERVICE.)

A. What kind of work do you think he would like to do?

OCCUPATION: _____

B. What kind of business or industry to you think he would like to work in?

INDUSTRY: _____

C. Would he be self-employed or working for someone else?

Self-employed 1
Someone else? 2

68. Have you ever talked with him about this?

Yes 1
No 2

69. Do you think the two of you agree on what kind of job he should try to get?

Yes 1
No . (ASK A) . . 2

A. IF NO: What do you disagree about?

70. Would you say that you try to influence your son's choice of an occupation a great deal, a little bit, or not at all?

A great deal	1
A little bit	2
Not at all	3

71. I have a few more statements; please answer "yes" or "no" to each one depending on whether or not it's true for you. /Items B and H were omitted from mother's interview, and item identification letters were adjusted accordingly, her list going from A through S./

	Yes (agree)	No (Disagree)
A. Planning only makes a person unhappy since your plans hardly ever work out anyhow	1	2
B. I feel that the most important thing about work is the chance it offers to get ahead	1	2
C. Nothing in life is worth the sacrifice of moving away from your parents	1	2
D. I feel that my present financial situation is very good	1	2
E. When a man is born, the success he's going to have is already in the cards, so he might as well accept it and not fight against it	1	2
F. It is important to me to own material things, such as a home, car, or clothing, which are at least as good as those of my neighbors and friends	1	2
G. When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job opportunity	1	2
H. The most important qualities of a real man are determination and ambition	1	2
I. Getting money and material things out of life is very important to me	1	2
J. Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself	1	2
K. I am very anxious to get much further ahead	1	2
L. The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit	1	2
M. I spend a lot of time thinking about how to improve my chances for getting ahead	1	2
N. Even when teen-agers get married, their main loyalty still belong to their fathers and mothers	1	2
O. Getting ahead is one of the most important things in life to me	1	2

71. (Continued)

ASK P IF CURRENTLY MARRIED:	Yes (Agree)	No (Disagree)
P. I feel that we have had very good financial breaks since we have been married	1	2
Q. In our present financial situation, I have to worry about bills or debts	1	2
R. It is not good to let your friends know everything about your life, for they might take advantage of you	1	2
S. It is extremely important to me to have a higher income	1	2
T. I worry sometimes about the possibility of a large cut in income or being out of work a while	1	2
U. You can only trust people whom you know well	1	2

ASK Q'S 72-77 IF CURRENTLY MARRIED. IF NOT, SKIP TO PAGE 25.

72. In some families the father makes the main decision about the children; in others, the mother does this. When it's about (name), who has the most say in your family, you or your wife?

Mother does 3
Father does 5
Both, equally (VOLUNTEERED) . . . 4
Other (SPECIFY) 6

73. Which of you has the most say about how to spend the family income?

Mother does 1
Father does 3
Both, equally (VOLUNTEERED) . . . 2
Other (SPECIFY) 4

74. Which of you has the most say about running the house?

Mother does 5
Father does 7
Both, equally (VOLUNTEERED) . . . 6
Other SPECIFY) 8

70. Would you say that you try to influence your son's choice of an occupation a great deal, a little bit, or not at all?

A great deal	1
A little bit	2
Not at all	3

71. I have a few more statements; please answer "yes" or "no" to each one depending on whether or not it's true for you. /Items B and H were omitted from mother's interview, and item identification letters were adjusted accordingly, her list going from A through S./

	Yes (agree)	No (Disagree)
A. Planning only makes a person unhappy since your plans hardly ever work out anyhow	1	2
B. I feel that the most important thing about work is the chance it offers to get ahead	1	2
C. Nothing in life is worth the sacrifice of moving away from your parents	1	2
D. I feel that my present financial situation is very good	1	2
E. When a man is born, the success he's going to have is already in the cards, so he might as well accept it and not fight against it	1	2
F. It is important to me to own material things, such as a home, car, or clothing, which are at least as good as those of my neighbors and friends	1	2
G. When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job opportunity	1	2
H. The most important qualities of a real man are determination and ambition	1	2
I. Getting money and material things out of life is very important to me	1	2
J. Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself	1	2
K. I am very anxious to get much further ahead	1	2
L. The best kind of job to have is one where you are part of an organization all working together even if you don't get individual credit	1	2
M. I spend a lot of time thinking about how to improve my chances for getting ahead	1	2
N. Even when teen-agers get married, their main loyalty still belong to their fathers and mothers	1	2
O. Getting ahead is one of the most important things in life to me	1	2

71. (Continued)

ASK P IF CURRENTLY MARRIED:

		Yes (Agree)	No (Disagree)
P.	I feel that we have had very good financial breaks since we have been married	1	2
Q.	In our present financial situation, I have to worry about bills or debts	1	2
R.	It is not good to let your friends know everything about your life, for they might take advantage of you	1	2
S.	It is extremely important to me to have a higher income	1	2
T.	I worry sometimes about the possibility of a large cut in income or being out of work a while	1	2
U.	You can only trust people whom you know well	1	2

ASK Q'S 72-77 IF CURRENTLY MARRIED. IF NOT, SKIP TO PAGE 25.

72. In some families the father makes the main decision about the children; in others, the mother does this. When it's about (name), who has the most say in your family, you or your wife?

Mother does 3
Father does 5
Both, equally (VOLUNTEERED) . . . 4
Other (SPECIFY) 6

73. Which of you has the most say about how to spend the family income?

Mother does 1
Father does 3
Both, equally (VOLUNTEERED) . . . 2
Other (SPECIFY) 4

74. Which of you has the most say about running the house?

Mother does 5
Father does 7
Both, equally (VOLUNTEERED) . . . 6
Other SPECIFY) 8

75. Is (name) more likely to feel he can talk things over with you or with his mother?

Mother	1
Father	3
Both, equally (VOLUNTEERED) .	2
Other (SPECIFY)	4
Don't know	5

76. To whom does he turn when troubled or unhappy?

Mother	1
Father	3
Both, equally (VOLUNTEERED) .	2
Other (SPECIFY)	4

77.

	Respondent more	Spouse more	Both equally	Neither	Don't Know
A. Would you say that you or your wife is stricter toward him, that you are both equally strict or that neither is strict?	1	3	2	4	5
B. Which of you is more warm and loving, or are you both equally, or is neither of you warm and loving?	1	3	2	4	5
C. Which of you is more likely to restrict (name)'s freedom, or are you both equally likely to, or is neither of you?	1	3	2	4	5
D. Which of you is quicker to praise him for the things he does well, or are you equally quick to, or is neither of you quick to praise him?	1	3	2	4	5
E. Which of you is more likely to lay down the law when he misbehaves, or are you both equally, or is neither of you likely to lay down the law?	1	3	2	4	5
F. Which of you is more likely to dominate him, or are you equally likely to, or do neither of you dominate him?	1	3	2	4	5

Thank you very much for your time and cooperation. (You have been very helpful.)

FILL IN THE ITEMS BELOW IMMEDIATELY AFTER LEAVING RESPONDENT.

Time Interview Ended: _____ AM PM

A. Respondent's name: _____

B. Respondent's sex:

Male 1
Female 2

C. Respondent's race:

White 1
Negro 2
Oriental 3
Other (SPECIFY) 4

_____

D. Total length of interview: _____

E. Date of interview: _____

F. Interviewer's signature: _____

53. Are you currently employed, keeping house, or what?

Employed . . (ASK A-D). 1
Keeping house (ASK E) 2
Other (SPECIFY AND ASK E) . . . 3

IF CURRENTLY EMPLOYED:

A. What is your occupation? What sort of work do you do? (For example, school teacher, grocery checker, secretary.)

OCCUPATION: _____

B. What kind of business or industry is that in? (For example, city high school, retail supermarket, insurance office.)

INDUSTRY: _____

C. How many hours do you work a week?

Less than 20 1
20-34 2
35 or more 3

D. Do you work for yourself or someone else?

Self 1
Someone else 2

IF NOT EMPLOYED:

E. Have you ever worked for as long as a year?

Yes . . (ASK F-I) . . 1
No . (SKIP TO Q. 55) . 2

IF YES TO E:

F. What kind of work did you do on your last job?

OCCUPATION: _____

G. What kind of business or industry was that in?

INDUSTRY: _____

H. How many hours a week did you work?

Less than 20 1
20-34 2
35 or more 3

I. Did you work for yourself or someone else?

Self 1
Someone else 2

54. Were you working when (name) started first grade?

Yes . . . (ASK A-D) . . . 1
No . (GO TO Q. 55) . . . 2

IF YES:

A. What kind of work did you do?

OCCUPATION: _____

B. What kind of business or industry was it in?

INDUSTRY: _____

C. How many hours did you work a week?

Less than 20? 1
20-34 2
35 or more 3

D. Did you work for yourself, or someone else?

Self 1
Someone else 2

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55. Now think about your future plans. Do you expect to be working ten years from now?

Yes . . . . (ASK A-D) 1
No (GO TO INSTRUCTION ABOVE E.) . 2

IF YES:

A. What kind of work will you be doing? (SPECIFY JOB TITLE OR "RETIRED." IF RETIRED, SKIP B-D)

OCCUPATION: _____

B. What kind of business or industry will you be working in?

INDUSTRY: _____

C. How many hours do you expect to work a week?

Less than 20 1
20-34 2
35 or more 3

D. Will you be self-employed or working for someone else?

Self employed 1
Someone else 2

55. (Continued)

IF CURRENTLY MARRIED, ASK 55E:

E. What do you think your husband will be doing ten years from now?

F. What kind of job will he have? (SPECIFY JOB TITLE OR "RETIRED" IF RETIRED, SKIP G AND H.)

OCCUPATION: _____

G. In what kind of business or industry?

INDUSTRY: _____

H. Will he be self-employed or working for someone else?

Self-employed 1
Someone else 2

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56. A. We all have our own picture of the kind of life we would really like to lead and the things we would really like to do in life. Whatever your picture, how well would you say you feel you are doing toward reaching that kind of life? Would you say very well, pretty well, or not too well?

Very well 1
Pretty well 2
Not too well 3

B. What do you think the chances are of living the kind of life you'd like to have? Do you think they are very good, good, fair, or not too good?

Very good 4
Good 5
Fair 6
Not too good 7

C. Some people feel they can make pretty definite plans for their lives for the next few years, while others feel they are not in a position to plan ahead. How about you? Do you feel you are able to plan ahead or not?

Able to plan ahead 1
Not able to plan ahead . . 2

D. Do you feel you now know the kind of life you will have ten years from now?

Yes . . (ASK E) 3
No .(GO TO Q. 56 F-L) . . 4

E. IF YES: Do you look forward to it?

Yes 5
No 6

56. Now I will read some statements about which people have different feelings. Please answer for each one of them whether or not you agree with it. There are no right or wrong answers. It's just a question of whether you agree with the statement. You can just answer "Yes" or "No" to each one, depending on whether or not it is true for you.

	Yes (Agree)	No (Disagree)
F. Most people will repay your kindness with ingratitude.	1	2
G. People help persons who have helped them not so much because it is right, but because it is good business.	1	2
H. There are many times when I have to deny myself and my family things we would like because of our income.	1	2
I. Most people are fair and do not try to get away with something.	1	2
J. It's silly for a teenager to put money into a car when the money could be used to get started in business or for an education.	1	2
K. On the whole, our financial future looks very good.	1	2
L. It is not good to let your relatives know everything about your life, for they might take advantage of you.	1	2