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ALTERNATIVE OR COMPLEMENTARY SOURCES OF EDUCATIONAL PLANS:
A STUDY OF THE DIFFERENTIAL INFLUENCE OF
MODELS AND DEFINERS

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

by
Shirley Ann Scritchfield, B.S., M.A.

**************
The Ohio State University
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Approved by
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Department of Sociology
To My Parents
Erma McConnell Scritchfield and D. Dale Scritchfield
Two of My Most Significant Others
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CHAPTER I

INTRODUCTION

Since its inception, the field of sociology has taken as one of its primary concerns the specification of the nature and meaning of social stratification for societies and their members. Within the broad rubric of social stratification, considerable attention has been focused upon the movement of individuals within the stratification system, commonly referred to as social mobility. Until World War II, consideration of the process was generally speculative. Since that time, the study of social mobility has been characterized by systematic, empirical analysis. However, until recently,1 this analysis was characterized by a preoccupation with mobility as a self-contained entity without relating it to any other phenomena. The principal emphasis was on the analysis of mobility tables in which the son's occupation was cross-classified by the father's occupation with summary measures of the extent of mobility being calculated (see for e.g., Rogoff, 1953; Glass, 1954).2 Thus, the end product of this type of analysis was generally a mere description of
population movements up and/or down the stratification ladder. While this research was quite useful in describing the extent and direction of population movements in various societies, it failed to decompose the movement between statuses into component parts. Thus, it did very little to explain the processes involved in social mobility or how this mobility is affected by individual and structural characteristics and conditions.

In 1967, this situation was changed greatly by the work of Blau and Duncan in their analysis of the movement of Americans within the occupational structure. This work represented a reformulation of the social mobility process both conceptually and methodologically. Suggesting that an individual's life cycle might be thought of "as a sequence in time that can be described, . . . , by a set of classificatory or quantitative measurements taken at successive stages" (Blau and Duncan, 1967:164), they centered their attention on two major questions:

(1) How and to what extent does the status of origin affect subsequent attainment; and

(2) How do attainments at one stage in the life cycle affect later attainments?

On the basis of these questions, they formulated a causal model of the process focusing on five key variables: father's education, father's occupation, son's educational attainment, son's first job, and son's present job (Blau and Duncan, 1967:165). They suggested that background circumstances, father's educational and occupational
attainment, affected the son's educational achievement. In turn, much of the influence of the background variables on the son's own occupation was then mediated by the son's educational attainment. Further, they posited that the status of the current job was primarily influenced by the status of the first job and educational level achieved. This basic model is represented in Figure 1. Utilizing path analytic techniques to examine data on 20,700 males, Blau and Duncan (1967: 170) found that the status of origin most strongly affects the eventual occupational attainment of the son indirectly through the son's educational attainment.

The Blau-Duncan model, as it has come to be called, represented a major breakthrough in the study of social mobility. However, perhaps its major significance has been that it laid the groundwork for an even finer specification of the mechanisms operative in the process by which individuals attain status in our society. Since its presentation, there has been a proliferation of causal modeling which has focused upon a further specification of the status attainment process. In particular, there has been a movement toward a concern with interpersonal mechanisms which mediate between the status of origin and that of attainment.

This further specification is exemplified by the development of what has come to be termed the "Wisconsin Model" of status attainment (Haller and Portes, 1973).
Figure 1: Blau-Duncan Model of Status Attainment
particular, Sewell, Haller, and Portes, 1969; Sewell, Haller, and Ohlendorf, 1970; Woelfel and Haller, 1971), while differing in specific methodologies employed, are unified by their emphasis on the mediation of the effects of parental status on eventual status attainment by certain social psychological processes. In contrast to the one-step transmission process represented by the Blau-Duncan model, the Wisconsin Model delineates a three-step process. In particular, this model argues that:

. . . predetermined social structural and psychological factors, i.e., socioeconomic performance and mental ability, affect the youth's academic performance and the influence of significant others have on him; that the influence of significant others and possibly his ability affect his levels of educational and occupational aspiration; and that levels of aspiration affect educational and occupational attainment (Sewell, Haller, and Ohlendorf, 1970: 1015).

The model may be represented pictorially by the diagram in Figure 2.

It is evident from the verbal and graphic depiction of the model that the social psychological variables suggested as key interveners between status of origin and that of attainment are: (1) the influence of significant others and (2) educational and occupational aspirations. In fact, research has shown that significant other influence substantially affects the formation of educational and occupational aspirations and that aspirations have an important effect on attainment (Sewell, Haller, and Portes, 1969; Sewell, Haller, and Ohlendorf, 1970). Thus, when consideration is
Figure 2: Diagramatic Version of Wisconsin Model
given to these phenomena, a more complete specification of
the process of status attainment has been achieved.

The Wisconsin Model serves as the point of departure
for the research reported herein. In particular, this
study examines the process whereby the educational aspira-
tions of white male youth are formed. It is characterized
by two major concerns: (1) an attempt at further clarifica-
tion of the influence of significant others as it affects
the educational aspirations of young people and (2) a further
delineation of the socio-cultural circumstances of the youth
that affect that influence. These concerns are based upon
the observation that while work utilizing the Wisconsin
Model has certainly been fruitful to date, it suffers from
two limitations which need to be dealt with: (1) ambiguous
conceptualization of the determinants and consequences of
certain posited types of significant other influence and (2)
a subsequent lack of empirical validation of these. Al-
though these concerns will be discussed in greater detail
in the next chapter, a brief explanation is called for at
this time.

**Significant Other Influence: The Need for Clarification of Consequences**

Significant others have been defined as "those
people who exert an important influence on the attitudes of
an individual" (Haller and Woelfel, with Fink, 1969: 30).
Drawing particularly upon the conceptualization of norma-
tive and comparative reference groups by Kelley (1952),
proponents of the Wisconsin Model have suggested that a significant other may influence an individual by (1) holding actual expectations for him and communicating these to him and or (2) by serving as a basis for emulation or comparison. The former type of significant other has come to be termed a definer, while the latter has been termed a model.

At the conceptual level, proponents of this model have adhered to the importance of distinguishing between these two modes of influence. The distinction, however, has not involved clear and consistent delineations of the nature of the influence exercised by either definers or models, with the latter being so loosely specified as to make its functions almost totally illusive. In addition, the manner in which this distinction has been dealt with empirically has been somewhat muddled and has varied substantially.

Sewell and his associates (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970) specify a priori the categories of persons who will be significant others and further, they specify which categories of persons will serve as definers, and which as models. These assumptions are problematic in that (1) they do not allow for the possibility that significant other may not come from the prespecified groups and (2) they do not allow for the possibility that modes of influence (definer or model) may not be group specific. Further, they consider the expectations of definers and the examples furnished by
models to reflect the same conceptual dimension and thus, they combine them into one index which they label significant other influence. They justify this by the following statement (Sewell, Haller and Portes, 1969: 87):

These variables, all emphasizing education, were combined because they reflect the same conceptual dimension, and that dimension is more theoretically relevant than any of its component parts. That the three components do in fact measure the same dimension is attested to by the positive correlations among them and a subsequent factor analysis.

Thus, even though they originally distinguish between modes of influence, they choose to treat the summation of these variables as one, giving only slight comment to how this relates to those distinctions.

The work of Haller and Woelfel (Haller and Woelfel, with Fink, 1969; Woelfel and Haller, 1971; Haller and Woelfel, 1972) is congruent with that of Sewell and his associates insofar as they accept the crucial importance of significant other influence as a determinant of educational and occupational aspirations. However, they attempt to deal with the inadequacies of assuming a priori categories by constructing an instrument designed to identify the definers and models who have influenced a youth's goals and to question significant others themselves regarding their expectations for the youth (definers) or their own beliefs and attitudes for themselves (models). Yet, when they incorporated these refined measurements into the previously assumed model, they utilized only the expectations of
definers as the measure of significant other influence, excluding any consideration of the effect of models.

Thus, while models and definers both have been identified as important in influencing the career aspirations of youth, there has been no empirical delineation of the former. Either models have been limited to peer group members and included as part of a general significant other influence index or they have not been evaluated at all. Further, neither type of influence has been adequately delimited theoretically. There is a very definite need for a clear conceptual explication of the functions performed by these significant others and a careful empirical evaluation of these specifications. Such a formulation and evaluation should provide the grounds for a preliminary assessment of their roles and of the utility of maintaining the distinction between them.

**Significant Other Influence: The Question of Determinants**

As noted briefly in the previous outline of the Wisconsin Model, social structural factors are taken to be determinants of significant other influence. In attempting to assess these factors, all proponents of the model have utilized socioeconomic status as the exclusive indicator of these factors. The assumption is that socioeconomic status indexes the structural position of the youth; and, it is further assumed that "different locations in the
social structure differentially expose their incumbents to various kinds of significant others who take the structural location of ego into account when setting their expectations for him (Woelfel and Haller, 1971: 79–80)." Such an assumption clearly is not necessarily meant to apply to models. Additionally, it may be questioned whether position in the structure is totally indicative of the cultural characteristics of community and family background that are likely to affect not only the expectations of significant others who serve as definers, but also the characteristics of persons chosen as models. To assume that socioeconomic position indexes cultural influences is to assume that there is no cultural variability within groups or that there are no similarities between groups. As is discussed in the next chapter, this is likely to be an unwarranted assumption.

At this point, it is sufficient to point out that the idea of a person's position in society being a crucial variable in explaining significant other relationships and influence is not being questioned. What is being questioned is the assessment of this position via the one variable, socioeconomic status. Position in society is position within a sociocultural system; that entails both position in the social structure and position in a cultural complex. The two obviously are related but they are not necessarily synonymous.
The Focus of the Study

The research reported herein attempts to remedy the problems which have been identified. Concern is directed primarily toward the construction of a more precise theoretical formulation. In particular, attention is focused upon two major questions:

1. What are the consequences of influence by models and/or definers for a youth's educational aspirations? Are the consequences similar or differing? In other words, are models and definers functional alternatives or are they complementary?

2. What are the determinants of model influence? What are the determinants of definer influence? Are they similar or differing? Does the influence of one type act as a determinant of the other?

The ultimate purpose of this endeavor is to clarify more fully the process of aspiration formation by assessing the theoretical, empirical, and pragmatic grounds for maintaining the distinction between models and definers as differential sources of influence and exploring the antecedent factors which serve to elicit this influence. On the basis of these assessments, suggestions for modification of the Wisconsin Model are made.

Outline of the Study

This dissertation consists of five chapters. In this chapter, an overview of the general area of study under investigation has been presented. Chapter II provides a review of the theoretical and empirical literature relevant to the problems under consideration and culminates in
specific propositions to be evaluated. The methodological procedures and statistical techniques employed in the study are detailed in Chapter III. Chapter IV contains the presentation of findings. Finally, Chapter V provides a summary and interpretation of the findings. Additionally, directions for future theoretical and empirical inquiry are suggested.
Chapter I Footnotes

1. The work done by Blau and Duncan (1967) marked the movement away from preoccupation with mobility as an end in itself.

2. This phenomenon is commonly referred to as inter-generational mobility.

3. The model will be discussed in greater detail in the following chapter.

CHAPTER II

THEORETICAL ORIENTATION

Introduction

In 1973, Haller and Portes made the following statement regarding the Wisconsin model of status attainment (Haller and Portes, 1973: 68):

... it does not contain any radically new conceptions but rather summarizes in a systematic fashion well-established notions in social psychology and stratification research as they impinge on the process of status attainment.

Indeed, the Wisconsin model is firmly grounded in the previous theoretical and empirical work of the discipline of sociology. In particular, its emphasis on the impact of the influence of significant others on the educational and occupational aspirations of young people is essentially a situationally-specific use of a long-standing tradition in sociological theory, that of the important role played by others in affecting the attitudes and behavior of a person. Yet, while it is firmly grounded in previous writings, the model has tended to obscure or ignore some of the major points found in that literature. Thus, it has incorporated the concept of significant other
influence without adequate concern for all of the complexities inherent in that concept.

The purpose of this chapter is to explore the theoretical underpinnings of the incorporation of significant other influence into the process of aspiration formation and to attempt a more adequate specification of the relationships entailed. In so doing, the discussion is organized in the following manner:

1. Initially, consideration is given to a thorough description of the various works subsumed under the rubric of "Wisconsin Model of Status Attainment," with particular attention being given to the theoretical and methodological treatment of the role of significant other influence and the problems inherent therein.

2. Attention is then directed to the basic conceptualizations of interpersonal influence found in the literature.

3. The discussion then moves to a delineation of the consequences of significant other influence which may be reasonably expected to operate in the formation of aspirations.

4. From there, potential determinants of significant other influence are discussed.

5. Lastly, an attempt is made to incorporate all the observations and factors discussed into a specific model for testing.

The Wisconsin Model of Status Attainment

The basic structure of the Wisconsin Model was discussed briefly in Chapter I. In this section, the model is explained in detail. However, prior to such an elaboration, a brief consideration of the empirical underpinnings of the role of "others" in the formation of career plans is
presented. Then, the basic model is outlined and the conceptual and methodological treatments of significant other influence are examined with problematic aspects being delineated. Subsequently, the works which have built upon the Wisconsin model are briefly considered with attention being directed to interpreting these in light of the problems specified.

The Empirical Underpinnings

The Wisconsin model is built upon years of research on the problem of aspiration formation and social mobility in general. It is beyond the scope of the work presented here to detail all of the historical antecedents of this model. However, a number of excellent bibliographies and reviews of the literature have been published in recent years. Kuvlesky and Reynolds (1970a, 1970b, 1970c) recently have compiled a major list of work in the general area of career decision-making and career attainment, numbering over 800 citations. Cosby, et al. (1974) provides an annotated bibliographic study of studies done on rural southern youth. Goldstein's (1967) review of studies on urban poverty youth also provides several sources of relevance. In addition, there is at least one other source worthy of mention. This is a review of the literature related to all facets of the process of career decision-making and attainment done by Picou, Curry, and Hotchkiss (1976). This latter work represents one of the most comprehensive treatments of the historical background of this line of research.
For purposes of this study, there are several studies which are of particular interest in that they have focused upon some aspect of the importance of interpersonal influence in the process of aspiration formation. In this sub-section, attention is directed to a brief elaboration of these.

One of the major expectations of the Wisconsin model is that a youth's aspirations generally will be congruent with the desires of his significant others or with their example of appropriate attainment-related behavior. As might be expected, the works preceding have been fairly consistent with the subsequent division of significant others into definers and models, although few of these works have actually used the terminology. Most works have dealt with what are now termed definers or some consideration of both definers and models.

Perhaps one of the first works examining the impact of definers was done by Bordua (1960). This study examined, among other things, the role of parental emphasis on college as a determinant of the educational aspirations of 1,529 ninth through twelfth graders as it related to socioeconomic status of origin. The findings confirmed that the impact of social status on college plans was largely, but not entirely, mediated by parents' desires for their children. Thus, the findings are somewhat consistent with the model posited; however, only one group of definers is examined—parents.
Another study which focused upon the importance of interpersonal influence on educational aspirations is Herriott (1963). The key focus of this work was to attempt to specify the social forces which might intervene between the socioeconomic and personal situation of an adolescent and his educational plans. Drawing upon conceptions of comparative (Hyman, 1942) and normative (Gross, et al., 1958) reference groups, it was posited that (Herriott, 1963: 165):

1. The higher the level of self-assessment relative to others, the higher the level of educational aspirations of adolescents;

2. The higher the level of expectation perceived from significant others, the higher the level of educational aspirations of adolescents; and,

3. Holding constant level of self-assessment relative to others, the more an expectation perceived from a significant other is valued, the stronger the association between level of expectations perceived from significant others and level of educational aspiration.

The findings, based on a sample of 1489 high school students, supported the hypothesized relationships. It is interesting to note that Herriott is one of the few researchers to have dealt empirically with the distinction of comparative and normative reference groups as it relates to the formation of educational aspirations, or what have now been termed models and definers, without specifying peers as the sole source of modeling influence. However, it is not possible to assess which persons are serving as comparison points in that the measurements used neither specify nor measure this aspect.
The work of Alexander and Campbell (1964) dealt with the influence of peer behavior on the educational aspirations and attainments of high school seniors. Using a sociometric choice methodology, the work attempts to assess the influence of the educational plans of a friend on an adolescent's own educationally oriented behavior. The results indicate that the educational plans of important peers do indeed affect college plans and attendance. Thus, in this study, the idea of a peer group as a reference group is upheld. Yet, it is unclear in the presentation whether the influence of peers is assumed to be normative or comparative. Furthermore, from this study, the relative impact of peers vis-a-vis that of parents is not known.

In another study by the same persons and based upon the same data (Campbell and Alexander, 1965), the effect of school status on the educational plans of high school seniors was examined while controlling for the impact of high school friends. It was found that the interpersonal influence of peer plans mediated between status of school and plans. Again, this is consonant with the projections of the Wisconsin model. Yet, there is no specification of the referential function of peers other than that they are influential.

In 1967, Rehberg and Westby, in a study of 6000 high school sophomores, attempted to assess the relative importance of and interrelationships among various determinants of adolescent educational expectations. It was
the intention of the study to determine whether father's occupation, father's educational achievement, parental encouragement for college attendance, and family size were independent or artifactual determinants of educational plans. All were found to be independent determinants and the findings led to the specification of a causal model not totally unlike the Wisconsin model.

Sewell and Shah (1968) also examined the importance of parental encouragement upon the educational aspirations of Wisconsin high school seniors. This work was one of the first to use a path model. These authors found that parental encouragement did indeed have a strong effect on educational expectations. Further, they found that when parental encouragement and youth intelligence were controlled, the impact of socio-economic status was negligible.

Another of the pre-Wisconsin models was that presented by Duncan, Haller, and Portes (1968). However, rather than only examining parental or peer influence, they examined both simultaneously. Although the interpretation of this work is somewhat problematic in that the authors are attempting to assess several different possible models, the findings definitely confirm that as an intervening variable, significant other influence is of crucial importance in explaining educational aspirations. Furthermore, both parents and peers were found to exert independent effects.
In 1969, Kandel and Lesser also reported the findings of an investigation of the relative influence of peers and parents. They found that when an adolescent's educational plans were the issue, parents tended to exercise more influence. However, they did not find what would be termed a zero-sum game. In other words, increasing the influence of one did not decrease the influence of the other. Rather, the data suggested that parents and peers tended to concur in this specific situation and thus, consistent with Duncan, Haller, and Portes (1968), both were influential.

**Summary:** It should be obvious from the preceding discussion that the role of significant other influence in the aspiration formation process posited by the Wisconsin model was a direct outgrowth of years of research which dealt with various aspects of this process. However, as will become clear in the following sections, many of the weaknesses in the model are also traceable to these and related studies.

The Basic Model

The Wisconsin Model may be characterized basically as "an attempt to clarify the process by which status aspirations are formed and the manner in which they influence subsequent attainment-oriented behavior" (Haller and Portes, 1973: 68). As such, the model centers around two major propositions (Haller and Portes, 1973: 68-69):
A. Status aspirations are complex forms of attitudes whose translation into attainment levels is affected by the context in which the individuals attempt to enact them; and,

B. Attitudes— including levels of aspiration— are formed and altered through two basic mechanisms: interpersonal influence, including reflexive adjustment of others' expectations, and including self-reflexion.

The first proposition revolves around a concern for the relative importance of status aspirations for future status attainment. This concern is tempered by the explicit realization that certain factors in the youth's sociocultural environment are exceedingly relevant to this enactment process. In particular, the Wisconsin model suggests that the status attainment of others as well as their expectations for the youth are crucial components of the context which enhances or limits not only his aspirations but his attainment as well.

The second proposition centers around the role played by significant others in the formation of aspirations. It reflects not only a concern for the effect of significant other influence but also a concern with the manner in which the relevant characteristics of significant others are affected by the characteristics of the youth and his situation. For example, significant others who hold actual expectations for a youth are likely to base their expectations upon some assessment of his background and capabilities. Additionally, this latter proposition
suggests that the aspirations which a youth has are affected by his own assessment of his abilities.

From these two propositions, it is apparent that the Wisconsin model is organized around two major concerns: (1) the process of enactment of educational and occupational aspirations into actual attainment and (2) the process of aspiration formation as it involves both significant other influence and self-assessment. These concerns are joined together into one model taken to represent the entire process of status attainment. This model may be pictorially represented as in Figure 3.

This figure summarizes the relationships which have been posited by proponents of the Wisconsin model. What is it saying about the process of status attainment? Working backwards from occupational attainment, it is suggested that the major determinants of occupational attainment are educational attainment and occupational aspirations. In turn, educational attainment is represented as affected by educational aspirations, the youth's academic performance, and significant other influence. Both educational and occupational aspirations are posited as being determined by significant other influence and the youth's academic performance. Significant other influence is based upon the effects of the youth's academic performance, his mental ability, and his socioeconomic background. The major determinant of academic performance is
Figure 3: Wisconsin Model of Status Attainment
mental ability. Socioeconomic background and mental ability are taken as given situational circumstances.

In short, the model suggests that the status attained by a person is generally a function of his aspirations and to a lesser degree the influence of significant others. His aspirations are determined by his self-assessment of abilities, as indexed by his academic performance, and the impact of significant others. The characteristics of significant others are affected by the abilities of the youth and his socioeconomic background. For simplicity, the essential ideas of this model may be schematically shown in the following causal chain model (Figure 4):

| Structural and Personal Situation of Youth | Significant Other Influence | Youth's Status Aspirations | Status Attainment |

Figure 4: Chain Model of Attainment Process

Obviously, Figure 4 is oversimplified as it relates to the previous discussion. Yet, it does convey major aspects of the model. The link from structural and personal characteristics of the youth through significant other influence to his aspirations represents the concern with the process of the formation of aspirations. The concern for the enactment of aspirations into attainment is somewhat analogous to the last half of this chain. However, in the case of the latter, full explication requires the entire causal chain.
Conceptualizations of Significant Other Influence: Identification of Problems

It is apparent from the preceding discussion that the influence of significant others is of crucial importance to the model of status attainment. Significant others are conceived of as key mediating mechanisms between the background situation of a youth and his subsequent aspirations. Yet, as briefly discussed in Chapter I, while the concept is considered extremely relevant to explaining the process, the manner with which it has been dealt is somewhat problematic. In specifying the problems which adhere to this usage of the concept, it is necessary that the specific manner in which the concept has been used be discussed. Thus, in this sub-section, attention is directed to an elaboration of the specific theoretical and methodological treatments employed in incorporating this crucial component into the model and the problems which arise therein. In so doing, two major versions of the Wisconsin Model are examined: (1) the work of Sewell and his associates (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970) and (2) the revised version of the model by Haller and Woelfel (Haller and Woelfel, with Fink, 1969; Woelfel and Haller, 1971; Haller and Woelfel, 1972).

The Work of Sewell and Associates: The first study employing what has now been termed the Wisconsin Model was done by Sewell, Haller and Portes (1969) in their study
of a subsample of farm residents in the state of Wisconsin. The work done by Sewell, Haller and Ohlendorf (1970) is basically an extension of this work to other residential categories. The conceptions utilized by these two works are virtually identical and thus, the discussion, for all practical purposes, treats the two works as one.

In these works, significant others are conceived of as "the specific persons from whom the individual obtains his level of aspiration, either because they serve as models or because they communicate to him their expectations for his behavior" (Sewell, Haller and Portes, 1969: 84). Thus, two modes by which significant others may influence a youth are identified. However, the exact nature of these two modes of influence is not elaborated; all that is said is that they influence the youth's aspirations.

In spite of the lack of delineation of the nature of influence exercised, significant other influence is considered to be a central variable in the social psychological model of status attainment. As such, specific attention is directed in these works to the causal linkages which (1) determine significant other influence and (2) those by which it affects attainments. It is hypothesized that this influence is affected directly by the socio-economic status of the youth's parents and his ability as it is manifest in his academic performance. Further, it
is posited that the major impact of significant other influence on status attainment is through its effect on aspirations.

In the discussion of antecedents, socioeconomic status and academic performance, the former factor is posited to affect the influence exercised because (Sewell, Haller and Ohlendorf, 1970: 1015):

... the higher a person's socioeconomic status, the higher will be the socioeconomic status of those with whom he interacts and the more likely he will be to expect from them behavior signaling higher socioeconomic status.

The reasoning behind the second prediction is explained thusly (Sewell, Haller and Portes, 1969: 85):

... we expect that significant others with whom the youth interacts base their expectations for his educational and occupational attainments in part on his demonstrated abilities.

The rationale behind the use of the first antecedent is quite plausible, but it is also somewhat problematic. It suggests that the status of origin (i.e., some measure of parental status) serves two functions in determining the influence of significant others: (1) it serves as a conditioning factor which defines the pool of potential significant others available to the youth; and, (2) it provides a basis for the definition of significant other expectations. The first function implies that a youth's influence matrix of others will be characterized by status attainment characteristics congruent with that of his parents. The second function suggests that definers'
expectations are adjusted by their assessment of what is appropriate for someone of the youth's origins.

In assessing the merit of such a rationale, it may be suggested that such a conceptualization is too limited and is hampered by major problems. First, the emphasis upon parental status characteristics defining the available influence matrix suggests that all significant others must originate in the class of origin. Thus, it does not allow for "out-group" others assuming any importance to the youth. The second function implies (1) an emphasis upon the role of definers, to the exclusion of models and (2) it again posits a fairly static conception of the influence of significant others in that this influence conceptually is based upon the achievement of the youth's parents. This latter implication is partially attenuated by the fact that measures of the youth's ability (mental ability and academic performance) are incorporated into the model. However, as is apparent from the discussion of the operation of these factors, the emphasis is upon definers.

In general, then, it may be suggested that such exclusive reliance upon the factor of origin status does not adequately allow for the origin of upwardly mobile orientations nor does it provide an adequate rationale for the determinance of model influence. As will become apparent in later discussions, these problems are intimately related in view of the role which models are specified as playing.
The discussion of the effect of significant other influence on the attainment of youth is also somewhat superficial. It is suggested that significant others influence a youth's aspirations, which in turn predict his attainment. The distinction between types of significant others is maintained, but as discussed previously, there are no hypotheses regarding the differential operation of these modes of influence. In fact, it would seem that they are aspects of the same dimension as evidenced by the following statements (Sewell, Haller and Ohlendorf, 1970: 1015):

... significant others' influence consists primarily of the educational and occupational status expected of a youth or exhibited to him. ... We ... expect that a youth's levels of aspiration will be fairly consistent with the status levels expected of him or exhibited to him by his significant others.

The manner in which the conceptualization is dealt with methodologically is also problematic. The authors assume that three groups provide the relevant significant others: parents, teachers, and friends. Furthermore, Sewell and his associates assume that the mode of influence varies by the group. The former two groups are assumed to be influential via the expectations they hold for the youth. The latter group, friends, is expected to exercise influence by example. Thus, there is no allowance for the possibility that these predetermined sources of significant others may not be complete, nor is there any allowance for
the possibility that the type of influence exercised might vary within the pre-specified groups.

Finally, though Sewell and associates initially distinguish between two possible modes of influence by significant others and reflect these distinctions to a certain degree in their breakdown of significant others, they do not examine the effects of these different (if indeed they are different) modes separately. Rather, they suggest that all types of significant others represent aspects of the same conceptual dimension and thus, they combine them into a single index of significant other influence.

Although there are problems in this work, one should not assume that the entire endeavor was misdirected. In fact, this work has provided a good beginning for the modeling of the status attainment process. The results of the empirical evaluation of the model posited indicated that the hypothesized relationships were generally appropriate.

The work of Sewell and his associates did mark the beginning of the Wisconsin Model. However, many of the criticisms which have been leveled at their treatment of the variable of significant other influence are addressed in the subsequent work done by Haller and Woelfel (Haller and Woelfel, with Fink, 1969; Woelfel and Haller, 1971; Haller and Woelfel, 1972). Attention is now turned to an
explication of revisions to the model which comes out of their work.

The Work of Haller and Woelfel: The second major strand of research subsumed under the Wisconsin Model is represented by the work of Haller and Woelfel (Haller and Woelfel, with Fink, 1969; Woelfel and Haller, 1971; Haller and Woelfel, 1972). This endeavor is generally consistent with the causal linkages and variables specified by the work of Sewell and his associates except that it details the process only as far as aspirations. The formulation does differ in two important respects: (1) it tends to be more theoretically grounded and (2) it incorporates improved methodological procedures for measuring the crucial variable of significant other influence.

This work approaches the process of aspiration formation from the stance of what is termed an attitude formation theory. This theory leads to a conceptualization of the process which is outlined by Woelfel (1972: 87-88):

... a person's attitudes are his conceptions of relatedness between person and object, and that the modifications of definition either of object or of self will modify an attitude ... these definitions of self and object themselves depend upon the definitions of larger cognitive structures or "filter categories." ... interpersonal influence may be exercised by those persons who influence the definitions of self or object or the filter categories on which they depend, either by word (significant others of this type are called definers), or by example (significant others of this type are called models).
Thus, the formulation assumes that attitudes are either formed or changed through formation or modification of categories pertaining to object or self. Significant others become "significant" in that they exercise influence over the categories which the individual uses for self-identification and those which are used for object categorization. Further, those individuals who are significant others may be one of two types, definers or models. Definers influence attitudes by communicating information directly to the individual. This information may be about himself or about some object of his attention. Models, on the other hand, exercise influence by the example they set. Again, the example may be of a specific object (e.g., occupation) or some self-related category (e.g., people sharing certain characteristics). Ergo, there are four alternate models of influence posited by this formulation. These modes of influence are depicted in Figure 5.

One might ask, what does this have to do with the model under consideration? The answer is fairly simple. Aspirations are conceived of as situationally specific attitudes and are, therefore, subject to the same process of formation and modification. Furthermore, this work clearly is attempting to specify the mechanisms by which others become important to youth in the formation of their status aspirations. However, while it does add imagery to the conceptualization of significant other influence, it fails to comment upon the functions performed by these
different types of significant others. One is given a de­
lineation of the "how" without the "what." In other words,
do definers and models provide the same kind of information
and therefore, are they functionally equivalent? Or do
d they perform different functions in the process of attitude
(aspiration) formation; and, if so, what are those dif­
f erences? This formulation represents progress over that
of Sewell and his associates, but it does not go far enough.

Consistent with the theoretical imagery which is
constructed, Haller and Woelffel attempt to remedy some of
the methodological problems found in the previous work.
One of the problems which was attributed to the former work
was the inability to determine a youth's significant others
because of a priori assumptions as to the groups of persons
who would so function. Also, it was assumed that certain
groups would be definers and others models. Haller and Woelfel developed a set of instruments, known as the "Wisconsin Significant Other Battery" (Haller and Woelfel, with Fink, 1969), which serves to eradicate such a priori assumptions. This set of instruments may be used to detect who significant others are and the modes in which they operate. It should be noted that by utilizing this battery, the groups found to be sources of significant others differed somewhat from those specified by Sewell and associates. Furthermore, this battery of instruments not only was designed to elicit actual significant others, it also includes instruments for measuring the expectations for a youth held by his significant others (definers) or the significant others' own orientation toward the object of the youth's aspirations (models). These measurements are not taken from the young person, but rather, directly from his significant others.

These improved measurements yielded new data which was incorporated into a model similar to that previously discussed, excluding the link to attainment (Woelfel and Haller, 1971). The findings were consistent with the work of Sewell and associates; in fact, the variance explained in aspirations was higher. Yet, not all of the modes of influence were included in this analysis; only the expectations of definers were utilized. There was no assessment of the influence exercised by models.
Thus, while the work of Haller and Woelfel represents a major step forward in the specification of the role of interpersonal influence in the process of status aspiration formation, it also has problematic aspects. It does not explicate fully the nature of the influence exercised by the two modes of significant other influence delineated. One is still left with the question of exactly what functions are performed by each. Thus, the theoretical distinction still requires additional specification. Furthermore, they do not empirically evaluate the role played by models, and since there has been no empirical evaluation, one does not know whether the distinction made is either conceptually or empirically important. It may be that the influence exerted by these types of significant others is identical and therefore, an adequate delineation of the process of aspiration formation can be had without this distinction.

**Summary:** In this sub-section, the theoretical and methodological treatments of the role of significant other influence within the Wisconsin Model of status attainment have been discussed. It has been noted, that while two modes of influence have been delimited, the theoretical explications have not provided adequate imagery to allow one to posit the functions which might be performed by each type. Furthermore, there has been no empirical assessment of the role of models. As a result, there is no way
to evaluate this role nor the pragmatic utility of maintaining the distinction between the two modes.

Additionally, of equal import, particularly for a process model of this type, is the consideration of the determinants of the expectations and attainments characteristics of significant others. It has been suggested that the reliance of model proponents upon socio-economic status as the sole sociocultural determinant of significant other influence is problematic in that it does not adequately allow for significant others who provide influence to a status differing from that of parents.

In conclusion, then, work subsumed under the Wisconsin Model suffers from two major weaknesses: (1) a lack of theoretical delineation and empirical evaluation of the differential consequences of the two modes of significant other influence and (2) a need for further clarification of the sociocultural determinants of that influence. It is the purpose of this study to partially remedy this situation. Later in this chapter, attention is directed to elucidating these aspects of the aspiration formation process. However, at this point, consideration is given to work which has built upon the Wisconsin Model to see if any of these problems have been recognized and dealt with.

Subsequent Work Relating to the Wisconsin Model

A number of studies have appeared which either attempt to replicate the findings or explore some of the
relationships posited by the model. Despite slightly different methodologies these works generally have affirmed the model. However, it should be noted that with the exception of the last work to be discussed (Curry, et al., 1976), all of the studies used a measurement of significant other influence similar to that used by Sewell and associates insofar as they specified a priori the categories of significant others. This section is devoted to a brief elaboration of these efforts. Of particular interest, for purposes of this study, is the manner in which the determinants and consequences of significant other influence have been dealt with. In other words, have any of these subsequent works attempted to remedy any of the problems specified in the previous sub-section?

Hauser (1972) provides an interesting revision of the work of Sewell and associates based upon the same set of data. The intent of this work is to disaggregate the indices of socioeconomic status and significant other influence so as to examine more closely the processes being considered. In so doing, several interesting points emerge. The socioeconomic variables (father's occupation, father's education, mother's education, and parental income) taken separately were found to operate very similarly on all subsequent variables in the model. In the case of significant other variables, the different groups were found to be differentially affected by the antecedent variables. Parents' encouragement and peer plans depended
more heavily on the socioeconomic variables than did the influence of teachers. Teachers tended to rely more on academic performance than did the other two. Furthermore, the effects which each of them had on subsequent aspirations and attainments varied substantially in magnitude. In comparing the relative effects of the three groups, parents and peers were more influential than were teachers.

It is interesting to note that the disaggregation of effects which Hauser employs lead to very different conclusions. In the case of socioeconomic status, it made no difference; yet, in the case of significant other influence, the difference is quite important. Without disaggregation, one would not know whether the use of a composite obscures some within group variation.

Almost simultaneously with the appearance of the preceding work was the appearance of Sewell and Hauser's (1972) re-examination of the process of status attainment which followed the disaggregations suggested by Hauser (1972). The findings were generally consistent with those of the Wisconsin Model in terms of the role of significant others. However, they did find that the effect of background socioeconomic status on subsequent attainment was not entirely mediated by the social psychological variables. Rather, socioeconomic status exercised an independent effect on attainment over and above these interveners, suggesting that background status was to a certain degree inherited.
Another study of interest was conducted by Williams (1972) using a sample of Canadian youth. While this study was not directly an outgrowth of the Wisconsin Model, the relationships are of direct relevance. Like Hauser (1972) and Sewell and Hauser (1972), Williams examined the separate effects of parents, teachers, and peers. However, his work differed in two important respects. It did not attempt to explain attainments but was restricted to educational aspirations. Secondly, the study examined the process at two separate points in time, tenth and twelfth grade.

The findings of this study were somewhat different from those found by Hauser (1972). The determinants of the influence offered by the three groups were generally similar in the first panel. At the second point in time, the determinants of teachers' influence changed so that it was dependent upon parental expectations and student aspirations at the earlier stage. As to the effects of the various groups on educational aspirations, parents exerted the most influence, then teachers, and finally peers. The ranking persisted over time with parents increasing in importance. Thus, this study provided somewhat contradictory results as regards the influence of peers. Of course, this may be partially attributable to a somewhat different culture. Furthermore, this study provides
additional insight into the aspiration formation process in that it follows a set of relationships over time.

Another study which was more limited in scope but similar to Williams (1972) in type of analysis was that by Rehberg and Hotchkiss (1972). These authors specifically focused on one class of definers, that of school guidance counselors. Like Williams (1972), they utilized a panel design, focusing upon high school students at the end of their freshman and sophomore years. The findings for the influence of guidance counselors were quite similar to those found for teachers in the studies previously discussed. In other words, high school guidance counselors were found to base their expectations of a student upon his own aspirations for himself and his intellectual ability. In addition, counselors were found to have an effect over and above that of parents; however, this effect was relatively smaller.

The work of Kerckhoff and Huff (1974) is another example of a study which examined the importance of one class of definers, in this case parents. These authors assessed the influence of parents upon the educational goals of a group of ninth graders and a group of twelfth graders. One of their major interests was to determine whether the agreement between parents and children on educational goals was a spurious relationship. The findings strongly suggested that this was not the case but that parental influence intervened between background
and son's educational aspirations. Furthermore, their choice of antecedents were consistent with the Wisconsin Model.

A study which is particularly interesting given the focus of this report is that of Picou and Carter (1976). Recognizing that the modes of influence have tended to be considered in a group specific manner, these authors set out to evaluate the relative influence of peers as models and as definers vis-a-vis that of parents and teachers as definers. In other words, they assessed the merit of the assumption that peers influence only through the mode of being models. The model which they used in their analysis was similar to the Wisconsin Model but it did not include mental ability nor status attainments. Interestingly, the findings which they reported tend to support the theoretical assumptions which have been made to date.

Recently, there have been two replications of the Wisconsin Model, both using national samples of youth (Alexander, Eckland, and Griffin, 1975; Wilson and Portes, 1975). The findings of these studies were remarkably consistent with the conclusions of the Wisconsin Model, thus providing independent support for the basic structure of the model. However, like Sewell and Hauser (1972), the work of Wilson and Portes (1975) found that the effects of socioeconomic status and mental ability on educational attainments were not entirely mediated by the influence of significant others and aspirations. This finding suggests
that while background variables are important "settings" for social psychological development of aspirations, they are also important in setting the boundaries in which status attainment occurs.

The study by Curry, et al. (1976), from which the study reported herein derives, is probably one of the most unique of all works subsequent to the original specification in that it provides a comparison of the utility of the significant other index used by Sewell and associates and measures based upon a modified version of the Wisconsin Significant Other Battery (Haller and Woelfel, with Fink, 1969). Thus, there are in essence two tests of the model. The study itself focuses upon the process of aspiration formation among Blacks and Whites; however, for the purposes at hand, the findings with regards to Whites are most relevant. Also, it should be noted that while data was collected on both models and definers, the analysis included only definers.

The findings utilizing the Sewell perceived significant other influence index were generally consonant with those of other studies. Significant others were found to exert considerable influence on the educational and occupational plans of white males. Furthermore, this influence was found to be influenced by socioeconomic status and academic performance. However, slightly less than thirty percent of the variance in this influence was
accounted for by these two determinants. In addition, as found in other studies, the effect of socioeconomic status on occupational plans was not totally absorbed by its effect on significant other influence. These authors also examined the effect of these predetermined significant others in disaggregated form. In contrast to other work, they found that while parents and peers were influential, the contribution of teachers was negligible.

In the analysis using the more objective measure of significant other influence, it was found that the patterns were generally consistent with those found using the perceived measurement. However, the explanatory power, assessed in terms of explained variance, was substantially increased. In other words, the pattern of relationships were similar but the precision of prediction was increased when the significant others were specified by the student and these persons were asked to give their expectations for the youth.

Summary: The foregoing discussion has centered upon the major studies which have appeared since the initial formulation of the Wisconsin Model. They generally lend support for the relationships specified. They do raise questions about possibilities for further modification, particularly in terms of (1) the importance of, at least initially, disaggregating determinants of significant other influence and indices of that influence itself and (2) the need to more closely examine the effect of socioeconomic
background as it directly affects aspirations and attainments. However, in terms of the issues raised in the previous sub-section, they generally do not provide guidance but rather serve only to reaffirm the current model. None of these works, with the exception of Picou and Carter (1976), examined the role of models in any fashion other than that originally specified. In addition, there has been no questioning of the sufficiency, at least at the theoretical level, of assuming that socioeconomic status fully indexes position in the sociocultural system.

**Summary: The Wisconsin Model**

Up to this point, consideration has been given only to the empirical work preceding or subsequent to the Wisconsin Model. We have found that there have been no major modifications in the relationships specified in that model. This fact is understandable in that there has been no serious questioning of the theoretical adequacy upon which this formulation was built. In order to deal with the issues which have been raised, it is necessary to consider more closely the conceptual underpinnings upon which the model was built and those which have not been used but which are relevant. Thus, attention is now turned to a discussion of the basic conceptualizations of interpersonal influence found in the literature.
Basic Conceptualizations of Interpersonal Influence

The incorporation of significant other influence into the model of status aspiration and attainment derives from a long-standing sociological tradition which has emphasized the importance of the role of the "other" in influencing one's attitudes and self-conceptions. The major aspects and concepts of this tradition are discussed in this section. In particular, attention is directed to the two major concepts which have been utilized in consideration of interpersonal influence: significant others and reference groups. These terms have been treated in recent years as functionally equivalent even though they were derived from slightly different theoretical orientations. Thus, each of them will be considered separately, with elaboration being given to the rationale for considering them equivalent. However, prior to that consideration, attention is now turned to the initial writings of several early American sociologists which served as the basis for later elaborations.

The Symbolic Interactionist Tradition

Several early theoretical writings provide the point of departure for a theoretical perspective in sociology referred to as symbolic interactionism. This perspective is oriented around the principle that a person's attitudes, self-conceptions, and behavior are not self-generated but are formed in interaction with other
persons. Blumer (1969) has elucidated this perspective in suggesting that symbolic interactionism is based upon three major premises (Blumer, 1969: 2):

... The first premise is that human beings act toward things on the basis of the meanings that things have for them. ... The second premise is that the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows. ... The third premise is that these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters.

Thus, a person's view of himself and the world are viewed as originating in and perpetuated through his interaction with those persons who constitute his social environment. These principles are traceable to a number of early sociologists and philosophers (James, 1890; Baldwin, 1895; Cooley, 1902; Dewey, 1925; Thomas, 1931; Mead, 1934; and Faris, 1937). In particular, the writings of Cooley (1902) and Mead (1934) have been of prime importance.

Cooley's (1902) specification of the concept of the "looking-glass self" is illustrative of the importance assigned to the role of others. In using this concept, Cooley was concerned with the manner in which persons came to have a view of themselves. He suggested that the self-concept which a person holds is the product of a three-step, interactional process. First, the person in question imagines how he appears to others; then, he imagines how these others evaluate that appearance; and finally, the
person reflects what he perceives to be the others' judgment in some kind of self-appraisal (e.g., pride, shame, joy).

The writings of Mead (1934) further emphasize the crucial role of interaction with others as the source of self and world views. That such is the case is reflected in his detailed delineation of the "generalized other." This "other" is defined as the "organized community or social group which gives the individual his unity of self" (Mead, 1934: 154). His discussion of the development of the self-concept among children clearly reflects the centrality of the role played by this "other" (Mead, 1934: 158):

... there are two general stages in the development of the self. At the first of these stages, the individual's self is constituted simply by an organization of the particular attitudes of other individuals toward himself and toward one another in the specific acts in which he participates with them. But at the second stage, in the full development of the individual's self, the self is constituted not only by an organization of these particular individual attitudes, but also by an organization of the social attitudes of the generalized other or the social group to which he belongs... the self reaches its full development by organizing these individual others into the organized social or group attitudes, and by thus becoming an individual reflection of the general systematic pattern of social or group behavior in which it and the others are involved.

It should be noted that in specifying the influence of the generalized other, Mead was concerned with the manner by which a person develops an organized self-concept as
contrasted to specific aspects of that self-concept vis-a-vis some particular domain (e.g., career prospects).

It is clear that the premises outlined by Blumer as central to the symbolic interactionist perspective were prevalent in the thoughts of these two early sociologists. These writings have served as the bases for a number of theoretical expansions and a proliferation of empirical inquiries into the influence of others in attitude formation (see e.g., Kuhn and McPartland, 1954; Miyamoto and Dornbusch, 1966; Reeder, Donohue, and Biblarz, 1960; Kinch, 1963; Kuhn, 1964; Quarantelli and Cooper, 1966). Of particular import for the purposes of the work here is the fact that the early writers and some of the subsequent work in symbolic interactionism either developed directly into or anticipated and influenced the development of the concepts of significant other and reference group. Consideration is now given to that impact, with the role of significant others being discussed first.

**Significant Others: The Derivation of a Concept**

The first use of the term "significant other" has been attributed to Mead (Merton, 1957; Rose, 1962; Berger and Luckman, 1966); however, while it is implied in some of his discussions of the role of the "other," he did not make specific reference to the term. Rather, the actual term was coined by Sullivan (1940) to refer to those persons who are especially important in influencing the individual's social self. He suggested, in a manner very
consonant with Mead (1934) and Cooley (1902), that a person's view of self "may be said to be made up of reflected appraisals" (Sullivan, 1940: 22); and that these appraisals are reflected from the parents and other significant adults in one's immediate personal environment. It has been suggested by Cottrell and Foote (1952: 190-91) that the difference between the conception of Sullivan and that of Mead is traceable to the differential social worlds in which each lived and worked:

For Mead, whose life span came a generation before Sullivan's, the social world was a fairly whole-some web; the others from whom one took his conception of himself were in substantial agreement. Hence the "generalized other"... In Sullivan's time, ... the community has been fractured. The generalized other has broken down into clusters of significant others ...

In essence what Cottrell and Foote (1952) are saying is that Mead and Sullivan were really referring to the same basic relationship; however, the times in which each of them lived and wrote made different terms appropriate.

In much the same vein, Stryker (1967: 377) has characterized the use of the term "significant other" thusly:

In comparatively recent work, the concept of "significant other" has come into use. This concept represents the recognition that, in a fragmented and differentiated world, not all the persons with whom one interacts have identical or even compatible perspectives; and that, therefore, in order for action to proceed, the individual must give greater weight or priority to the perspectives of certain others. To speak, then, of significant others is to say that given others occupy high rank on an "importance" continuum for a given individual.
In a manner consonant with these discussions, Kuhn (1964) attempts to further refine the influence of "others." He coins the term "orientational other" which he characterizes as:

1. . . . the others to whom the individual is most fully, broadly, and basically committed, emotionally and psychologically;

2. it refers to the others who have provided him his general vocabulary, including his most basic and crucial concepts and categories;

3. it refers to the others who have provided and continue to provide him with his categories of self and other and with the meaningful roles to which such assignments refer:

4. it refers to the others in whom his self-conception is basically sustained and/or changed.

Kuhn purported to be refining the terminology and conceptual meaning of both Mead and Sullivan. However, it would seem that essentially what he did was to elaborate Sullivan's concept of significant other (White and Ericksen, 1976).

One further effort in this line of reasoning is worthy of consideration, that being Denzin's (1966) discussion of role-specific others. He defines these others as "those others who are significant for individuals in a highly role-specific sense" . . . (Denzin, 1966: 299). His work attempted to empirically distinguish between what he terms Sullivan's significant other (his role-specific other) and Kuhn's orientational other. However, that distinction is at least theoretically futile in that Sullivan's and Kuhn's others are essentially the same concept.
Yet, what Denzin does, perhaps inadvertently, is to point out what is likely to be a fairly useful distinction, that being two major types of significant others—those whose influence is broadly based and pervasive and those whose influence is situationally specific.

Regardless of these distinctions, however, the term significant other is generally taken to represent those individuals to whom the individual turns for his beliefs, values, norms, attitudes, and self-conceptions. The development of the term is summarized by Haller and Woelfel, with Fink (1969: 15) in the following manner:

From the symbolic interactionist posture arose the idea that people develop and support their self-conception through interaction with others. In a segmentalized world, one in which diverse values and attitudes can coexist, the particular shape of any individual's self-conception and attitudes depends upon the particular individuals with whom he develops them. These particular persons are, . . . , significant others . . . [which designates] those persons who are particularly influential in the formation, support, or modification of the self-conception (or attitudes) of an individual.

Just as the concept of significant other has definite historical ties with the symbolic interactionist perspective, the concept of reference group is very much related to that same perspective. Consideration is now given to the development of this orientation.

Reference Group Orientation: The Relationship to Symbolic Interactionism

The concept of reference group did not actually emerge out of the symbolic interactionist perspective;
however, that fact does not obviate its relationship to that orientation or the fact that its further explication has been fostered by proponents of that perspective. In reality, the reference group orientation had its origin in psychology, in which it emerged as the culmination of a long tradition of theoretical and empirical work in such areas as social facilitation (see: Allport, 1954), aspiration formation (e.g., Frank, 1935; Chapman and Volkman, 1939; Lewin, et al., 1944), and frame of reference (e.g., Asch, et al., 1938; Allport, 1940).

The person credited with the initial use of the actual concept is Hyman (1942) in his classic study of individuals' assessment of their status. The focus of his work was on "subjective status' which may be defined as a person's conception of his own position relative to other individuals" (Hyman, 1942: 5). These others to which a person compared himself to assess his position were termed reference groups.

Since the concept was first utilized, it has been defined and used in many diverse fashions. Newcomb (1947) utilizes the term as a group which serves as the source of norms. Further, he suggests that reference groups may be positive (the values of the group are pleasing to the individual and therefore accepted) or negative (the groups' standards are aversive to the individual). Merton and Rossi (1957: 233) suggest that reference groups may
be "any of the groups of which one is a member . . . , as well as groups of which one is not a member . . . [which] become points of reference for shaping one's attitudes, evaluations and behavior." To Kelley (1952: 410) a reference group is "any group to which a person relates his attitudes"; however, these groups may affect an individual's attitudes in one of two ways, either as a source and enforcement of norms or as a point of comparison against which the individual evaluates himself. Sherif (1953: 205) suggests that "reference groups can be characterized simply as those groups to which the individual relates himself as part of or to which he aspires to relate himself psychologically." For Lindesmith and Strauss (1956: 46) a reference group is "any group with which a person psychologically identifies himself or in relation to which he thinks of himself."

The list of alternative definitions and conceptual uses of the term could extend almost indefinitely; however, at this point, it is sufficient to note that reference groups have been delineated in a number of ways. Prime among these delineations are the suggestions that individuals may take as their reference groups either membership or non-membership groups, groups which serve as sources of norms or as comparison points, and groups which operate positively or negatively on the individual's attitudes. Regardless of these differential uses, there is a common thread of understanding which seems to pervade
all of the various applications of the concept. There is general consensus over the fundamental conception of reference groups as those aggregates which influence a person's attitudinal characteristics. The differences over the use of the term come over what these groups are and how they exert this influence, not what they do (Haller and Woelfel, with Fink, 1969: 11).

Given this basic agreement over what it is that reference groups do, it is apparent how this conceptualization may be viewed as closely related to the symbolic interactionism emphasis on the role of the other. Indeed, Schmitt (1972) suggests that symbolic interactionism both anticipated and influenced such ideas as normative and comparative reference groups. In particular, he suggests that (Schmitt, 1972: 17-19):

> It was the emphasis of the early school of symbolic interactionism upon the role of the other in the individual's self-appraisals that foreshadowed the comparative reference group concept. . . . Additionally Mead's concept of the "generalized other" was a precursor of what Kelley later referred to as a normative reference group.

Furthermore, he goes on to suggest that this influence was not only in terms of specific ideas but also, underlying assumptions (Schmitt, 1972: 20-21):

> Its [symbolic interactionism] assumptions regarding existing sociocultural situations emphasized the inevitability of individual-other relationships; its emphasis on the reality of symbolic others seems to have logically paved the way for the view that ego could be influenced by
nonmembership groups as well as by membership groups, and its very concern for the other drew attention to its significance.

Thus, Schmitt is convinced that they are intimately related even though the concept of reference group did not directly emerge from symbolic interactionism. Given that this relationship exists, it becomes feasible to consider the conceptual relationship which exists between the term significant other and reference group. Specifically, in the next sub-section, the rationale for considering these concepts functionally equivalent is suggested. This equivalence assumes great importance for the work reported here in that the focus is upon significant others; however, as will become apparent shortly, the most relevant work for specifying the nature of influence exerted is found under the rubric of reference group, not significant other.

The Functional Equivalency of Significant Others and Reference Groups

In 1963, in a study of the influence of reference groups upon political party affiliation, Brooks suggested that a person's political affiliation would generally be a function of the political affiliation of his reference group or his significant others. Thus, Brooks delineated reference groups to be functionally equivalent to significant others. His rationale for such a delineation was based upon ideas very similar to those espoused by Foote and Cottrell (1952) and Stryker (1967) in their statement regarding the move from "generalized other" to "significant
other. In other words, Brooks felt that the major factor affecting the influence rendered was not whether the influencing agent was a group or an individual, but rather, the "importance" attached to this agent by the person in question.

Using much the same logic, Haller and Woelfel with Fink (1969) suggest that examination of the literature focusing on either of these two concepts leads one to the conclusion that most of the distinctions which have been made concerning one concept have been likewise made with the other. They also maintain that the conceptual confusion which surrounds the use of the reference group concept also adheres to the utility of the concept significant other. In particular, they point out that there is no more consensus about who significant others are and how they influence than there is regarding these same questions for reference groups. Still, as in the case of reference group, there is agreement that significant others influence attitudes and self-conception.

If, indeed, these two concepts are functionally equivalent, then one may ask, "Is one term more fruitful in its implications for theoretical and methodological elaboration?" It has been suggested that the answer to this question is in the affirmative (Haller and Woelfel, with Fink, 1969). The reasoning behind such an answer is given in the following statement (Haller, and Woelfel, with Fink, 1969: 17):
Probably the only basic difference between the two is that the term reference group tends to call one's attention to clusters of persons while significant other has a singular connotation. It is with this singular connotation in mind that this research chooses to use the term significant other in preference to reference group. The assumption behind this judgment is that in many areas of life a person may be more likely to be influenced by specific other persons (e.g., my father, my best friend, my teacher, Mr. X., etc.) than by groups. Reference groups can be recaptured from clusters of significant others; but particular significant others are lost in reference groups.

It is obvious that these authors are pointing to two key reasons for using the term significant other rather than reference group: (1) there may be realms of interest in which the influencer is an individual rather than an entire group and (2) methodologically, it is possible to reconstruct the reference group from the significant others which an individual names, but it is impossible to decipher particular individuals if one has measured only entire reference groups. Thus, it is apparent that while reference groups and significant others may be conceived of as functionally equivalent it is advantageous to approach the delineation of the process of interpersonal influence from the idea of significant others.

**Summary: Basic Conceptualizations of Interpersonal Influence**

In this section, an attempt has been made to briefly elaborate the basic theoretical conceptualizations underlying the role of interpersonal influence assumed in the Wisconsin Model. It was suggested that the symbolic
interactionist perspective has served as the key to the conceptualization of this process, at least among sociologists. Further, the relationship of the key concepts of significant other and reference group to this underlying perspective was detailed briefly. Finally, a case was presented for considering these two concepts as functionally equivalent and a rationale for utilizing the term significant other was given. Having done this, attention may now be focused upon the consequences and determinants of this influence which are suggested in the literature and which, up to this point, have largely been ignored when attempting to ferret out the role of significant others in the process of aspiration formation.

Consequences of Significant Other Influence

It was indicated earlier that the Wisconsin Model incorporated the concept of significant other influence into the explanation of the status aspiration process without adequately delineating the manner in which these others exercised their influence. In particular, proponents of the model have maintained, at least at the conceptual level, a distinction between types of significant others which they have failed to sufficiently elaborate theoretically or empirically validate. This distinction is that made between models, significant others who influence by the example of their own behavior, and definers, those who
exert their influence by the expectations which they communicate to the youth.

The purpose of this section is to ferret out conceptualizations from the relevant literature on interpersonal influence which shed light upon the aforementioned problem. Specifically, attention is directed to certain key writings in the reference group orientation which are particularly relevant to the problem under consideration. Insofar as reference groups and significant others are considered as functionally equivalent sources of influence, such a focus is appropriate. It is further merited by the fact that this literature served as the source of the distinctions adhered to and is essentially the only arena in which these distinctions have been given much comment. Thus, those comments which are directed to theoretical conceptions of the impact of reference groups are likewise directed to the role of significant others.

Interpersonal Influence: Its Differential Sources and Consequences

The distinction which is drawn by proponents of the Wisconsin Model between the influence of models and definers derives from the distinction made in the reference group literature between normative and comparative reference groups. However, in turning to that literature, we find a great deal of conceptual confusion as to what it is that these two types of reference groups actually do, particularly what a comparative reference group is and does.
Thus, it is necessary that the points of juncture and disjuncture among the various discussions be considered.

The distinction between normative and comparative reference groups is generally attributed to Kelley (1952). In his work, Kelley suggested that a group may function as a source of standards for the individual and it may serve as a comparison point for the evaluation of standards. The former he termed a normative reference group; the latter was termed a comparative reference group. The functions were not delineated as having to be group specific. In other words, any one group might perform both functions.

Since this initial conceptualization of the differential roles of reference groups, there has been a proliferation of comment and elaboration. Throughout those works which have dealt with the normative function, there is a general concurrence, consistent with that of Kelley, as to this function (Newcomb, 1948; Kaplan, 1955; Brooks, 1963; Kemper, 1968; Schmitt, 1972). Kemper's (1968) definition of this role is probably the best description of that role (Kemper, 1968: 32):

The major identifying characteristic of a normative group is that the individual acts in reference to norms or values it has promulgated and which, in some way, it has brought to his attention.

Thus, a normative reference group is conceived of as one which provides the individual with a set of norms.
While there has been consensus over the role of the normative reference group, the opposite is generally true concerning the role of comparative groups. Since its inception, the characteristics of this type of group have been subject to conceptual confusion that makes deciphering its role somewhat problematic. The source of the confusion may be found to reside, at least in part, with its initial specification (Hyman, 1942; Kelley, 1952). A comparative reference group was specified as one which serves as (Kelley, 1952: 413): "a standard or comparison point against which the individual can evaluate himself and others." While at the time this specification represented a significant conceptual differentiation, it is nevertheless ambiguous. What does it mean that a group serves as a comparison point? Comparison of what to what? Comparison for what purposes? The fact that many of these questions were left open to interpretation is obvious in the work subsequent to the conceptualization.

Throughout the literature dealing theoretically with or empirically examining the role of comparative reference groups, the concept has assumed several different meanings and, indeed, functions (Patchen, 1958; Davis, 1961; Form and Geschwender, 1962; Shibutani, 1961; Merton, 1957; Turner, 1964; Strauss, 1968; Mauss, 1969; Simmons, 1969; Kemper, 1968). There are several attempts which generally tend to further clarify Kelley's (1952)
ambiguity. In other writings, the focus is changed; however, this does not nullify the relevance to the issues under consideration.

Particularly indicative of attempts at clarification are the writings of Turner (1964) and Kemper (1968). Turner (1964) elaborates the conception of Kelley by suggesting that the comparative reference group functions to further specify the standards set by the normative group. He speaks of these processes within the realm of ambition and it is easier to follow his meaning if attention is given to his discussion (Turner, 1964: 129):

Reference-group theory has suggested two important ways in which groups affect an individual's ambition. One way is in the determination and selection of goals, according to the objects which are valued by the reference group. Identification with the group . . . inclines the member toward adoption of the goals which are conspicuously held by them. [Normative reference group]

The other reference-group process has to do with the setting of standards rather than goals. Goals such as material, occupational, and educational success are continua. Two persons may value material success, but their conceptions of how much wealth constitutes success may be quite different. "Goal" refers to the direction of ambition; "standard" refers to the level of attainment which is regarded as success. Standards are set partly by the same processes . . . described. . . . But they are also set by a process of comparing oneself with others. The question, "How far is up?" is answered in relation to how far others are known to have ascended. [Comparative reference group]

Thus, Turner assigns the comparative reference group a very definite function, that of further specifying the details of the goals set by the normative reference group.
It is important to note that Turner is specifying a very definite interdependence between the influence of the normative group and that of the comparative.

The other major attempt at clarification of the function of comparative reference groups is that by Kemper (1968). In a manner consistent with Turner but more detailed in its specifications, Kemper suggests that comparison groups are (Kemper, 1968: 32):

. . . groups, collectivities, or persons that provide the actor with a frame of reference to facilitate judgments about any of several problematic issues . . .

In particular, Kemper suggests that comparative reference groups may function in four major ways. They may provide (Kemper, 1968: 33):

(1) an equity standard—giving the individual some basis for satisfaction with one's fate
(2) legitimation—legitimating actions or opinions
(3) role model—exemplifying how role should be played
(4) stimulus for action—giving the basis for accommodation to behavior of others

In other words, an individual may compare himself to an individual or group to determine the "fairness" of his position. This utilization of comparison is consistent with various work on phenomena such as relative deprivation (Stouffer, 1949) and social comparison of rewards (Patchen, 1958). The legitimation comparison is related to the former but is conceptually distinct. This comparison is one which is utilized by the individual to check the
appropriateness of past or contemplated behavior. The role model comparison differs from that of legitimation in that the problem at issue is not whether it is the right thing to do but how to do it. According to Kemper, the role model possesses skills which the individual may learn by observing and comparing that person's behavior to his own. In the fourth comparison, the individual uses the referent as a cue to appropriate behavior.

Beyond specifying several different comparative functions, Kemper adheres to a conceptualization of the relationship between normative and comparative reference groups which is consonant with Turner's reasoning. He suggests that while the normative group "can specify the roles and direct the individual's interest and attention to them" (Kemper, 1968: 35), it cannot guarantee adequate adoptions of those prescriptions. In particular, he maintains that a role model is needed to show how it is done. Further, he maintains that these role models may often be prescribed by the normative reference group. Thus, Kemper also views the relationship between normative and comparative reference groups as highly interdependent in that the normative group directs the individual's attention to a specific goal or behavior and the comparative group serves to further specify that goal.

The work of Merton (1957) exemplified a somewhat different approach to the elaboration of comparative reference groups. This particular strand of endeavor
tends to limit its focus to a type of reference utilized by the individual to foster his upward mobility. In other words, the primary emphasis is upon an individual's orientation to a group differing from his own, to which he aspires to gain membership. Merton refers to this group as a comparative reference group.

Anticipatory socialization is suggested as the major function of this kind of comparative reference. This type of socialization is defined as (Merton, 1957: 384): "the acquisition of values and orientations found in statuses and groups in which one is not yet engaged but which one is likely to enter." He suggests that this type of socialization is generally not didactic in nature but the result of a much more informal process. It takes place largely as a function of observation of the behavior of the groups' members.

This type of orientation to an "out-group" is said to have two functions for the individual: (1) it assists in his rise to the group by providing the individual with some of the norms and values of that group and, subsequently, (2) it serves to ease his adjustment to the group once he achieves membership. Of course, Merton is quick to point out that this type of orientation is functional only within a social system which allows for upward mobility. If such were not the case, then orientation to a group of higher status would only provide frustration and disenchantment.
Now, one might ask, what is the interface which exists among these three conceptions? Or, perhaps more appropriately, is there an interface, and if so, what? It is the contention of this author that there is indeed an interface and that this interface, with some modifications, provides the key to specifying the role of significant others within the process of aspiration formation.

If the conceptualizations of both Kemper and Turner are examined closely, it becomes apparent that they tend to focus upon the specific comparison to role models as the major function of comparative reference groups. In so doing, they seem to assume that the role model must necessarily exemplify the prescriptions offered by the normative group. Applying this assumption to Merton's conception of anticipatory socialization, the normative group would thus define upward mobility as a justifiable goal and prescribe orientation to a higher status group. This follows from the suggestion that normative reference groups serve to prescribe appropriate behavior, values, and attitudes; that these prescriptions are congruently detailed by the comparative reference group; and that the individual's attitudes and behavior are a function of this elaborated prescription.

While the above specification is somewhat feasible, it would seem to be too limited a conceptualization. If this were the total situation, the normative group would be the sole source of behavior and attitudes, be they
consistent with that group or not. That such is unlikely to be always the case is emphasized by Merton (1957: 266):

Although anticipatory socialization may be functional for the individual . . . , it is apparently dysfunctional for the solidarity of the group . . . to which he belongs. For allegiance to the contrasting mores of another group means defection from the mores of the in-group.

Furthermore, even if the normative group did prescribe goals which represented upward mobility, the individual might be inclined to question their appropriateness in application to himself. It would seem plausible that the individual might require legitimation of the behavior expected. In other words, the individual need not merely accept the prescriptions offered as the right thing to do. It could be that a role model (comparative reference group) does not merely provide reinforcement of the norms, but might also provide information as to the appropriateness of that norm for the individual given his abilities and circumstances.

Such a legitimizing role could be played by the role model (comparative reference group in question) if this person (persons) was taken to be indicative of the norms of the broader sociocultural system as it applied to the individual. In other words, a normative group presents the individual with goals or assessments of his ability which are deemed appropriate for him. However, to evaluate the "realism" of those prescriptions, the individual compares himself to others who have attained
the goal. Using them as standards, he asks questions such as, "Do I have what it takes?" Depending upon the similarities which he perceives between himself and these others (Festinger, 1954), he may accept the prescriptions, modify them, or ignore them. In the first case, then, the comparison would function to legitimize and reinforce the norms given by the normative group. In the latter instances, the comparison at least tempered the influence of that group, dependent upon the degree of legitimacy attributed to its prescriptions.

Obviously, the degree of rationalism inherent in the preceding discussion is probably over-emphasized; yet, the basic processes specified should apply. In addition, another point should be made about the nature of legitimation as a function of comparative reference groups. Up to this point, the role of comparative reference groups has been discussed as if it were always a matter of accepting or toning down the expectations of the normative group. However, there is nothing inherent in this role which dictates this to be the case. It is quite possible that the standards or norms presented to the individual might be questioned on the grounds that they were not "good enough" for him. In this case, the individual might seek additional input which justifies his goals for himself exceeding those specified as appropriate.

Finally, one other point should be made regarding the universality of this conceptualization in its
application to the interdependency between the influence of normative and comparative reference groups. The pres-
scriptions of all normative groups to which the individual refers would not necessarily require legitimizing. The characteristics of the group serving as a normative group is likely to be a conditioning factor in this question. If the group is particularly important to the individual and/or he perceives them as knowing a great deal about him and the broader norms, then he is less likely to question or feel the need to evaluate their prescriptions (for example, groups such as parents, close friends). Thus, there are some groups which in essence serve as both normative and comparative groups in that they provide the norms and specify their appropriateness.

Summary: In this sub-section, the key conceptualization of the functions of normative and comparative reference groups have been delineated in an attempt to decipher their interrelationships and their consequences for the individual. It has been suggested that these conceptions may be amalgamated and, in so doing, the relationships previously suggested have been modified somewhat. In particular, it has been posited that the functions of normative and comparative groups are intimately related in terms of the impact which they have upon the individual. Specifically, it is posited that the prescriptions offered by normative groups undergo modification and/or reinforcement through comparison with
others either acting in accordance with or in contrast to those prescriptions. Furthermore, the degree and the direction of modification or reinforcement will be dependent upon the nature of the prescriptions and the nature of the relationship between the individual and the members of the normative group.

As was stated previously in this chapter, the distinction made by the Wisconsin Model between significant others who operate as definers and those who exert their influence as models derived from the differential functions attributed to reference groups. Thus, at this point it is necessary to consider the ramifications of the posited relationships for the role of these two types of significant others within the process of aspiration formation among adolescents.

The Role of Definers and Models: Complementary Sources of Influence

The foregoing discussion provides the basis for specifying the role played by definers and models in the process by which youth formulate their educational aspirations. It may be suggested that the role of definers in aspiration formation is analogous to that of a normative reference group. In other words, definers serve to prescribe educationally oriented behavior for a youth. They do this by suggesting to the youth the level of educational attainment they deem appropriate for him. Their
prescriptions are thus composed of dictates concerning what the youth can and should do educationally.

However, the mere prescription of an appropriate level of striving does not automatically insure that a youth will fully concur and his aspirations be totally congruent with these prescriptions. Depending on the persons serving as definers and the nature of their expectations, the youth may require further evidence that these prescriptions are indeed appropriate to him. It is at this point that models become important.

In that models are analogous to comparative reference groups in terms of their functions, models provide the basis for specifying the appropriateness of the expectations of definers. A youth may need additional information on which to base his receptivity, or lack thereof, to these expectations. Models, in representing the exemplification of a given level of status attainment, provide this additional input. A model who is perceived by the youth as similar to himself on characteristics perceived to be relevant and whose attainment is consistent with the level of expectations provided by definers provides reinforcement for those expectations. On the other hand, a model who is perceived as similar to the youth but whose attainment is not congruent with those expectations is likely to have a modifying influence upon the effect of those expectations. Likewise, a model whose attainment is congruent with the expectations of definers
but who is perceived as differing from the youth on characteristics relevant to that attainment may also exert a modifying influence.

The exact nature of the modification occurring will be dependent upon the direction of the incongruency. In other words, if in comparing himself to the model the youth's evaluation of self is favorable (i.e., he is better at certain things), then the youth's aspirations will be likely to be congruent with those expectations which specify a level of attainment similar to or higher than that of the model. If the expectations specify an attainment level below that of the model, the youth is likely to modify the expectations in an upward direction.

On the other hand, if in comparing himself to the model the youth's evaluation of self is unfavorable, then the youth is likely to question the definers' expectations of him and adjust his reception of these expectations accordingly. In other words, when a model's characteristics are congruent with the expectations of definers but they are unfavorably incongruent with the youth's perception of himself, then a youth must either discount the information provided by the model or adjust the expectations in a downward fashion.

It is apparent from this foregoing discussion that both definers and models are important influencers in the process of aspiration formation. Indeed, the goals which a youth ultimately establishes for himself are based
upon the input from both of these significant others. Considering one without the other would thus lead to erroneous conception of the influence process. Furthermore, the influence of models is at least partially dependent upon the prescriptions of definers. Definers may prescribe expectations which may elicit comparisons to certain models which, in turn, serves to define the expectations more specifically. In other words, to use a somewhat facetious analogy, definers specify the ball park and the game and models determine the score.

Summary: The Consequences of Significant Other Influence

In this section, attention has been directed to the specification of the original distinctions between normative and comparative reference groups which served as the basis of the demarcation between definers and models; and furthermore, as these distinctions provided the grounds for the elucidation of the influence exerted by these two types of significant others. From that specification, a rationale was derived for maintaining the distinction between these modes and an elaboration of their differential operation was posited. It was suggested that both models and definers are important sources of influence for the formation of aspirations and that, indeed, they were very much interrelated in their manner of operation.

However, the utilization of this posited conceptualization within the realm of specifying significant other influence as it relates to the process by which
youth formulate their educational and occupational aspirations is not merely a case of importation of the previous delineation. We are no longer talking about the abstract operation of two modes of influence; now, attention is focused upon a situationally-specific realm, characterized by several conditioning factors which impinge upon the process. In particular, the entire process of aspiration formation takes place within a very specific and complex sociocultural environment. In order to fully comprehend the dynamics of this process, then, it is necessary that relevant aspects of that environment be taken into account. Thus, attention needs to be directed to the other problem residing in the Wisconsin Model specification of the process, that being the matter of adequately accounting for the situational determinants which influence the occurrence of significant other influence.

Determinants of Significant Other Influence

Earlier in this chapter, it was pointed out that the Wisconsin Model identifies the social background of the individual as one of the major determinants of significant other influence. It was further suggested that proponents of this model have chosen to assess this background exclusively through the use of socioeconomic status of parents. This exclusive attention to status of origin was characterized as restricting the ability of the model to account both for the selection of significant others whose own status attainment is not congruent with that
of the youth's parents and the type of influence which might be forthcoming from both models and definers which is not based upon the original status of the youth in question.

The purpose of this section is to identify conceptual oversights which led to this restriction and to elaborate means by which this problem might be attenuated. In so doing, attention is focused upon the relationship between sociocultural structure and socialization as it impinges upon the process under consideration. In particular, an attempt is made to identify specific factors which should be incorporated into the model to clarify the determination of significant other influence.

Interpersonal Influence and Sociocultural Structure

The influence exerted by significant others within the realm of aspiration formation may be conceived of as a situationally specific socialization process. As such, it is confined and/or elaborated by essentially the same environmental factors as the more general process. Therefore, much of what has been identified as impinging upon the broader process "by which someone learns the ways of a given society or social group so that he can function within it" (Elkin and Handel, 1972: 4), is generally appropriate to a consideration of influence processes, within a specific realm. One of the key factors which has implications for the socialization process, including the
influence process under consideration, is the sociocultural structure in which the process occurs.

The manner in which socialization is related to the sociocultural structure is extremely complex. This complexity has been noted by Inkeles (1969: 615):

Social [cultural] structure impinges on, and in many ways determines socialization. In its turn, socialization may have substantial effect on social [cultural] structure. This relationship is not necessarily one of discrete interactions, but may take the form of cycles or other sequences prolonged over substantial periods of historical time. We do not deal here with exchange between two self-contained and more or less independent systems of action, but rather with a part-whole relationship . . .

Inkeles points to a relationship between sociocultural structure and socialization characterized by an extensive amount of interdependency, interaction, and feedback. This statement is extremely general and requires further clarification of the dynamics of this interrelationship. However, for purposes of the work considered here, the role of the sociocultural structure as a determinant of socialization is of immediate concern. Thus, emphasis is upon the decomposition of sociocultural structure into components which are particularly relevant to the process of interpersonal influence.

It may be suggested that the sociocultural structure is composed of two related, but not directly concomitant, dimensions which impinge upon the influence process: (1) the social structure and (2) the culture. Schmitt (1972: 76), in describing the importance of both
of these components in relationship to the interpersonal influence process, defines these components thusly:

1. **Social Structure:** Social structure is the system of positions and roles that characterizes a total society or some segment of that society. A position represents the place that an individual occupies in the social structure while a role is the set of expectations that accompanies the position.

2. **Culture:** Culture is the totality of norms, values, and beliefs that characterized a society or some segment of that society.

Schmitt maintains that in order to fully comprehend the mechanisms by which influence is elicited, it is imperative that consideration be given to both of these components. Such reasoning is consistent with a number of writings dealing with the impact of the wider social system upon the process by which others assume importance and exert their influence (see, e.g., Merton, 1957; Berger and Luckmann, 1966).

The importance of this decomposition is that it focuses attention upon the fact that significant other influence is affected by both the position of the individual in the social structure and the cultural values which exist in his social milieu. Such a distinction emphasizes the possibility that cultural values are not totally defined by position. In other words, if position is necessarily characterized by an invariant set of values, it is not useful or pragmatic to consider both aspects. However, position within the social structure, while obviously
related to the cultural values resident there, is not necessarily synonymous with a specified value set.

It is this crucial distinction which proponents of the Wisconsin Model have failed to consider in their approach to the assessment of social background. They have focused solely upon the role of position (of origin) as a determinant of significant other influence. Such an emphasis is not totally erroneous; however, it does ignore the other half (or at least a portion) of the coin. By assuming that status indexes background, they have restricted the explanation of significant other influence to a role characterized by reinforcement of the status quo. Thus, it is imperative that consideration be given to both of these factors to evaluate the impact of the sociocultural structure. In that the role of cultural values is the factor which has generally been ignored, attention is now focused upon that particular factor.

The Impact of Cultural Values: The Role of Parents

Within the context of a work such as this, it is not plausible to consider all of the interactions which are likely to occur between the cultural values of a youth's social milieu and the selection and influence of his significant others. However, there is one strand of emphasis which is particularly relevant. This is the branch of sociological literature which has focused upon the importance of family values for orientations toward upward mobility. Given that the family is one of the most
crucial groups for the assessment, formulation, and transmission of values, focusing upon the manner in which families interpret cultural values and transmit these interpretations to their younger members is of key importance.

In particular, within the realm of status aspirations, parents and family relationships have been identified as the origin of most major orientations to mobility. Rogoff (1961: 242) has characterized this importance in the following manner:

Some families, valuing achievement . . . encourage their children to do as well as possible in school . . . More determining than ability is the family's attitude toward education--and the distribution of favorable attitudes toward education . . . cuts across the class structure to some degree. The educational and ultimately, the social-class achievement of youngsters represent family aspirations come true . . . The real locus of social mobility is in the living room, not the classroom.

Thus, she suggests that family conceptions of the value of education provides the major impetus for social mobility. The crucial aspect of this relationship between family values regarding the utility of education and mobility orientations is that these values may or may not coincide with the status achievement of the parents fostering those values. Indeed, as Rogoff suggests, education as a valued commodity is an orientation which tends to cross socioeconomic boundaries.
The import of these parental values was initially considered by Kahl (1953) in his study of mobility orientations among "common man" boys. This study was intended to decipher the mechanisms by which young men from "lower" origins acquired the impetus to move up the status ladder. Kahl found that ambitions for upward mobility among these young men were tied to their parents' status achievement and their mobility orientation, which may or may not coincide with their achievement. To be more specific, he found that when mobility orientation exceeded actual achieved status level the former assumed greater importance in determining the aspirations which parents had for their children and subsequently, the aspirations which their children had for themselves.

Kahl's thesis and findings have been examined a number of times by other sociologists and in general, the findings have been supported. Cohen (1965) in her study of parental factors which influence educational mobility found that when parents were in some way dissatisfied with their status level they tended to have favorable attitudes toward educational achievement and thus, to encourage their children congruent with that attitude. Krauss's (1964) study of educational aspirations among working-class youth reached similar conclusions. Recently, Meier (1969) found that lower status parents who were dissatisfied with their position valued educational
achievement and explicitly attempted to influence their children in line with that value orientation.

Given this evidence that the values of parents are important to the origin of mobility orientations among their children, what can be said about the role of these values as determinants of significant other influence? In order to elucidate this role, it is first necessary that it be remembered that the determination of significant other influence is composed of two conceptually distinct dimensions: (1) the determination of who is or becomes a significant other and (2) the determination of the influence which is exerted by these significant others. Obviously, these dimensions are related; however, they are not necessarily synonymous. Proponents of the Wisconsin Model have recognized this fact in their elaboration of the role of status of origin as a determining factor of the selection of significant others and as a basis for the expectations held for the youth by these others. Thus, it is imperative that in considering the role of parental values as they impinge upon significant other influence that both dimensions be elucidated.

Parental Values: Partial Determinants of Significant Other Influence

The preceding discussion has tended to de-emphasize the role of socioeconomic status as a determinant of significant other influence. However, this de-emphasis upon that role and the emphasis on the function of parental
values should not be interpreted as an attempt to substitute the latter for the former. Rather, both parental status attainment and values are considered to be important determinants of significant other influence. Therefore, in the following discussions, parental values should not be thought of as the exclusive determinants of significant other influence, but rather as representing a group of determinants that should also be considered. Given this explicit delineation of the role intended, what might we expect the role of parental values to be in affecting the influence of others within the aspiration formation process?

In essence, it may be suggested that parental values affect both the selection of important others and the type of influence that is exerted by these others. This is particularly likely to be true in the case of models, and perhaps to a lesser degree in the situation of definers. However, consideration is first focused upon the influence which these values exert upon one class of definers, that of the expectations of parents themselves.

Meier's (1969: 29) comment regarding lower status parents is instructive in this matter:

... For those lower status parents who are relatively satisfied with their present social status, non-college alternatives [for their children] are apt to be acceptable. ... However, a significant segment of lower status parents, who are for one reason or another dissatisfied with their present social position, look to higher status reference groups for their
values and aspirational model; such parents are apt to exert strong mobility pressures on their offspring.

Thus, Meier points to the fact that parents' values do not necessarily emerge out of their own status level experience, but rather they are a function of the status levels of their reference groups. Further, he suggests that these values serve as the basis for parental expectations for their children. Thus, insofar as parents serve as definers for the educational plans of a youth, the values which they place upon education will determine their expectations for their child, particularly if those values are divergent from what they themselves have actually attained.

While Meier's comments are instructive with regards to the impact of parental values upon their own expectations for their child, they do not really speak to the determination of selecting other persons as significant others nor the bases upon which the significant others construct their expectations or exert their influence via exemplification. The literature at this point is only somewhat helpful. One fact which has been emphasized repeatedly is the manner in which the individual's current significant others or relevant reference groups serve to direct the individual's attention to other reference groups (Turner, 1956; Merton, 1957; Kemper, 1968; Schmitt, 1972). Thus, insofar as parents are significant others to the youth, and the evidence generally supports that contention, parents would be likely to define to the youth.
persons in his social environment which could serve as bases of information or as examples of relevant attainment characteristics. However, based upon the prior discussion in this section, it should be apparent that their definitions would tend to be consonant with their values and/or their own attainment. Furthermore, it must be noted that parents would not be the only sources of this kind of information; those others which they defined for the youth might also serve this function. In addition, others who assumed the role of significant other vis-a-vis the role relationship which they have with the youth, outside of the nuclear family, might also serve to identify relevant others.

The preceding discussion has focused upon the role of parental values vis-a-vis the selection of significant others. Parental values also may be posited as determinants of the influence that is offered by the significant others, either in the expectations which they voice to the youth or the example which they set. It may be suggested that parental values are likely to affect the expectations which a non-parental definer holds for the youth in accordance with the degree to which the definer is familiar with the emphasis of parents. In other words, definers who know the parents are likely to be somewhat aware of the values which they hold. Furthermore, such definers are likely to hold similar values if they interact to any degree with the members of the family, other than the child.
The rationale utilized in the foregoing comments is, of course, not appropriate to those significant others who are definers having no direct relationship with family members other than the youth himself. These definers are most likely to base their expectations for the child upon their assessment of his abilities and/or his status background. Indeed, even those definers having knowledge of the family are not likely to base their expectations of the youth totally on the parental values, but should tend to consider the other two factors also. However, the degree of dependence upon status of origin and ability might be lessened.

The relationship between parental values and the influence exerted by models is likely to be somewhat different. In that models exert their influence via the example of their own attainment, they themselves would not have to be aware of the values or position of the parents, or for that matter, the youth himself. Rather, the influence of models is contingent upon the youth's attention being drawn to them in the first place. In other words, the characteristics of models which elicit their identification as significant others are the same characteristics as those which are posited to exert influence. Thus, the discussion regarding the selection of significant others may be thought to apply to the determination of this mode of influence.
The values of parents may directly or indirectly define relevant examples for the youth. They may directly influence the youth in that the value milieu of his home, without explicit communication, may serve to orient him to certain kinds of models. On the other hand, parents, communicating to the child on the basis of their values, may define these people for him by suggesting that he be like them. Again, as stated before, parents are not necessarily the only ones which could define models for the youth; others of his definers might also do so. However, their definitions of models need not be based upon their values (although undoubtedly this probably happens to a certain degree) as has been posited with regard to parents; rather, it is feasible that the prescriptions which they offer might serve to elicit model influence. This elicitation might be explicitly given as part of the prescription or the prescription itself might serve to elicit attention to certain models in that the youth questions the expectations offered to him.

Thus, to summarize the foregoing discussion, it is posited that the role of parental values has definite impact upon the process of aspiration formation. This impact may be characterized as operating along three dimensions: (1) as the basis of the expectations which the parents themselves hold for their child, (2) as an identificatory factor in the selection of significant others, and (3) as an elicitor of the influence
characteristics of both definers and models. These values are thus conceived of as key conditioning factors in the youth's social milieu which serve to elicit much of the significant other influence impacting upon his career decisions.

Summary: Determinants of Significant Other Influence

In this section, attention has been focused upon the role of the sociocultural structure in determining the influence exerted by significant others within the aspiration formation process. It was suggested that the sociocultural structure impacted upon significant other influence both in terms of the structural position of the parents, indexed via their own status attainment, and in terms of the cultural values present in the youth's environment. The cultural values delineated as having the most relevant impact were those held by parents toward educational achievement. Furthermore, the values of parents were held to determine significant other influence both in terms of the selection of those who would become significant others and the influence offered by these significant others.

Although the emphasis in this section has been upon the effects of parental values as determinants of significant other influence to the exclusion of socio-economic status of origin, it is not intended that the latter be considered no longer relevant. In fact, the adequate delineation of the influence of significant others requires specific attention be given to both factors.
Indeed, both factors serve to identify significant others for the youth and to elicit the subsequent influence exerted. The prevalent operation of either of these factors is in all probability a function of their congruency or incongruency and the degree of familiarity of the significant others with the family situation of the youth. The point of this section has not been to preclude the consideration of the role of status of origin, but to expand consideration to include the role of values.

Given this specification, it is now appropriate to consider the entire process by which a youth formulates his career goals. Such a delineation entails the integration of the determinants and consequences of significant other influence into an organized process formulation. The next and final section of this chapter attempts to specify the manner in which this might be accomplished and considers this process as it is posited to be particularly operative in the formation of educational aspirations.

The Process of Educational Aspiration Formation: A Causal Model

Throughout this chapter, attention has focused upon the Wisconsin Model of Status Attainment as it provides the basis for a fuller explication of the processes by which significant others impact upon the career decisions of youth. In particular, it has been suggested that an adequate delineation of the influence process requires that
both the determinants and consequences of that influence be specified. In so doing, attention has been centered upon a fuller elaboration of the determinants and the differential modes of influence as they are likely to manifest themselves in consequences. The purpose of this section is to synthesize the conceptions which have been outlined into an integrated causal model posited as indicative of the process by which youth formulate their educational plans.

In order to accomplish this objective, it is helpful to consider the most simplified version of the underlying model. This model posits that the structural and personal characteristics of a youth elicits or determines the influence of significant others. Significant other influence, in turn, is the primary determinant of a youth's aspirations. This conception is pictorially presented in Figure 6.

![Figure 6: Simplified Model of Aspiration Formation Process](image)

From the discussion focusing upon the determinants of significant other influence, it has been posited that the Wisconsin model's specification of the structural and personal characteristics relevant as socioeconomic status of origin and ability measures should be expanded to include
some assessment of cultural values impinging upon the life situation of the youth. In particular, it was suggested that the value orientation that parents hold toward educational achievements was specifically relevant to the processes under consideration here. Thus, the background characteristics of the youth determining significant other influence is broken down into three major components: (1) socioeconomic status of parents, (2) parental value orientation to educational achievement, and (3) the youth's ability. Consonant with the causal linkages posited by the Wisconsin Model, these three factors may be incorporated into the preceding pictorial model and represented as in Figure 7.

The relationships portrayed in Figure 7 require some comment. First of all, it is apparent that the ability component of background characteristics has been subdivided into mental ability and academic performance. Such a specification is directly comparable to that used in the Wisconsin Model and thus, is retained. Secondly, it will be noted that the educational values of parents are depicted as affecting not only significant other influence, but also, the youth's academic performance. Such a depiction is not unreasonable in that if parents value educational achievement they are likely to emphasize doing well in school as a means to facilitate further advancement. Thus, this depiction suggests that both parental values and
Educational Aspirations

Significant Other Influence

Socioeconomic Status of Parents

Educational Values of Parents

Academic Performance of the Youth

Mental Ability of the Youth

Educational Aspirations

Figure 7: Expansion of Determinants of Significant Other Influence
socioeconomic status affect significant other influence directly and indirectly through their impact upon the youth's performance in school.

Finally, there is one other implication of this depiction which requires explication, the conception of socioeconomic status and parental values existing simultaneously in time. This conception might be questioned on the grounds that it is likely that the status of parents affects their values in an antecedent fashion. Such a point is indeed likely to be somewhat valid; however, for the purposes of this specification that reasoning is rejected on two grounds: (1) while status of parents is likely to affect their values, it is not a complete determinant, and (2) this interrelationship is not the primary focus of this study, and therefore, they may be assumed to exist concurrently.

Given this specification of determinants, the components of significant other influence can be addressed and the model presented in Figure 7 expanded accordingly. In the section focusing upon the consequences of significant other influence, it was suggested that the roles played by models and definers in exerting influence upon the aspirations of youth may be conceived of as analogous to the functions performed by comparative and normative reference groups. Thus, definers were delineated as sources of prescriptions as to the level of educational attainment appropriate for the youth; and the function of
further specifying the appropriateness of these expectations and thus conditioning the effect of the prescribed expectations upon the aspirations which the youth adopted was attributed to models. The question now becomes how should the posited influence of definers and models be incorporated into the model at hand? Figure 8 presents the suggested incorporation.

Given that the posited relationships depicted in Figure 8 may be somewhat surprising to the reader, several explanatory comments are merited. First of all, as might be expected both the expectations of definers and the attainment of models are posited to have a direct impact upon a youth's educational aspirations. That specification is clearly appropriate in light of previous discussions. Secondly, the expectations of definers are posited to influence the attainment characteristics of model, thus having an indirect effect upon aspirations through their impact on models. The impact of the expectations of definers is posited to affect the influence characteristics of models in that the prescriptions of definers may call the youth's attention to levels of attainment for which he requires comparison with a model either to reaffirm or to adjust these expectations. Thus, these expectations serve to partially elicit their own conditioning factors. Then, why is the effect of definer expectations not totally directed through the influence of models? Given that some definers present expectations which the youth
Figure 8: Educational Aspiration Formation: The Differential Roles of Models and Definers
"automatically" perceives as appropriate, because he feels that these persons understand him and the socioeconomic system, certain expectations may be posited to have a direct effect upon aspirations.

Finally, the rationale underlying the relationship posited to exist between the determinants, socioeconomic status of parents, parental values, and the ability of the youth, and the influence characteristics of both types of significant other influence are fairly apparent. The expectations of definers are likely to be affected by each of these; however, the degree of dependency upon each of these factors will vary according to the knowledge which the definer has about the youth and his family. The influence models are likewise suggested as related to all of these determinants; however, the mechanisms of this relationship are somewhat different. All three of these determinants are likely to elicit models consonant with the realm each of them indexes. In other words, socioeconomic status and parental values serve to condition those persons whom the youth might not be aware of so as to be able to utilize them as models. However, where parental values are directed to a level of educational attainment above their own, values should have a greater effect. The case of academic performance is similar. Academic performance may serve to direct a youth's attention to models congruent with that appraisal of his ability. In
other words, this measure of his potential may serve as a self-reflective elicitor of models whose attainment he would like to emulate.

The model presented in Figure 8 represents the major thrust of the work presented in this study. As such, it is analyzed accordingly and that analysis and its interpretations are provided in Chapters IV and V. However, there is one further modification in the model which is analyzed also and there, requires brief comment. This model is represented in Figure 9.

In Figure 9, the expectations of parental and non-parental definers are specified separately. Such disaggregation allows us to consider the differential operation of a key group of definers, parents, as compared to the influence offered by non-parental definers. As may be seen from examining Figure 9, a definite difference is posited in the mechanisms by which the expectations specified affect a youth's aspirations. Non-parents are posited as exerting their influence indirectly through the conditioning impact of models. Parents, on the other hand, are posited to exercise their influence directly. This differential process is posited on the grounds that parents, as a group, represent one class of definers which their sons are likely to trust and value and therefore not be as likely to check the prescriptions of these definers through comparisons with models. Non-parents taken as an
Figure 9: Educational Aspiration Formation: The Disaggregation of Definer Influence
aggregate are not likely to enjoy such attribution of confidence in their specifications.

Thus, the model presented in Figure 9 will also be analyzed in an attempt to further specify the process of significant other influence as it affects aspiration formation.

Summary: The Process of Educational Aspiration Formation

In this section, an attempt has been made to integrate the conceptualizations presented earlier into formulations posited to elucidate more fully the determinants and consequences of significant other influence within the process of aspiration formation. Attention has been focused upon the rationale for the relationships posited, particularly those which represent major modifications in previous specifications. The discussion has led to the specification of two causal models which are evaluated in analysis to be reported in subsequent chapters.

Summary of the Chapter

This chapter has detailed the emergence of a model of the process by which status aspirations of youth are formed, that being the Wisconsin Model of Status Attainment. The model was described and critiqued, providing the groundwork for a further specification of the process. Then, attention was given to relevant theoretical and empirical work which served as the basis for a series of more appropriate delineations of the mechanisms operative. Finally,
these delineations were integrated into two causal models to be analyzed within the confines of this endeavor. At this point, it becomes appropriate to consider the methodological and statistical orientations and procedures which are utilized to evaluate the empirical validity of these models. These orientations and procedures are detailed in Chapter III, to which attention is now directed.
Chapter II Footnotes

1 The work of Sewell and his associates (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970) is taken as the first work falling under this rubric. However, this label was not applied until the work of Haller and Portes (1973).

2 This figure is based upon a similar configuration done by Woelfel (1972).

3 Sewell and his associates (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970) never used this terminology; however, their discussion of significant other influence is consistent with these terms.

4 See pages 50-51 for this discussion.

5 Merton's conceptualizations of reference groups allows for both normative and comparative groups. In particular, he specifies two types of comparative groups; however, his emphasis is upon that discussed.

6 These characteristics of normative groups suggested as conditioning factors may be related to French and Raven's (1959) conception of the bases of power. However, to focus upon these aspects in detail is not within the primary focus of the work reported here.

7 The exact manner in which these comparative others are defined for the individual is exceedingly relevant to this process and is taken up in detail in the section on determinants of significant other influence.

8 This distinction is one which is supported by a number of writings in the area of social stratification and values as they relate to the processes of mobility (see, e.g., Kahl, 1953; Rogoff, 1961; Turner, 1962, 1964; Kerckhoff, 1972).
This chain model is essentially the same as the one presented in Figure 4; however, the link to career attainments has been omitted.

It was suggested earlier that this was so; if this were not the case, there would be no point to the consideration of parental values.
CHAPTER III

METHODOLOGICAL ORIENTATION AND PROCEDURES

Introduction

This chapter presents a discussion of the methodological procedures utilized in this study. In detailing these procedures, attention must be drawn to the fact that the endeavor under consideration in this report derives from a much larger, federally funded research project (Curry, et al., 1976) of which the author was a part for two years. This fact has two implications for the discussion in this chapter (1) many of the methodological procedures described were those dictated by the overall focus of the larger study and (2) much of the following discussion is heavily reliant upon a similar chapter in the report of the larger study (Chapter III, of Curry, et al., 1976). The following discussion is divided into four major topics:

1. The development and drawing of the sample
2. Rationale and procedures of operationalization
3. The procedures utilized in data collection
4. A detailing of the analytic techniques used to assess the relationships which have been posited
The Sample

Given that the focus of the larger study was upon a comparison between black and white high school sophomore males, the sampling procedures employed were chosen to yield a balanced sample by race. In order to facilitate such a sample, each of the 12 public high schools participating in the study was treated as a strata and subsamples were randomly selected from within each racial group in a school. This procedure was followed in eight of the twelve schools in that three of the participating schools had too few Blacks to justify sampling and one school had too few Whites.

At the time when the sample was being selected, public high schools were not allowed to identify the race of individual youth in the school records. Thus, it was necessary to follow a somewhat circuitous route to obtain a balanced sample. The first step that was taken was to identify a list of all sophomore males within each of the high schools. Then, a random number table was generated based on the number of sophomore males in each school. The appropriate random number table was used to select a subsample, of approximately twice the number of students required, from each school with each student being assigned a number in accordance with the order of selection.

Once a list of potential respondents was completed for each school, the race of the youth involved was identified through consultation with school personnel. Upon
completion of identification, the race subsamples were chosen utilizing youth first encountered in the original school subsample listing. When the primary samples from each school were identified, it was necessary to secure parental consent for their child's participation. This was accomplished by mailing consent forms along with explanatory letters to the parents. If parents granted their consent, the youth was confirmed as a sample member. If, on the other hand, parents refused consent for their child's participation, subjects remaining on the original sample lists were employed as a back-up. This process was continued until the sample size approximated the target number of 300 subjects for the total sample: 150 Blacks and 150 Whites.

In that these procedures led to questions concerning the likelihood of the sampling procedure distorting the findings, tests were done to determine the representativeness of the sample. The examinations, which are reported in Appendix C of Curry, et al. (1976), suggested that there had been no systematic bias introduced into samples and that the subsamples of black and white youth were likely to be much like any other sample drawn in a similar manner.

**Instrumentation and Operationalization**

The variables included in the study were selected from among those which have been delineated in sociological literature as those which might impinge upon the
career decision-making process. Likewise, instrumentation utilized to assess these variables was derived from the better operationalizations reported in the literature.

Prior to any type of data collection, pilot studies or the study itself, the instrumentation developed was subject to a two part review within The Center for Vocational Education: 1) a technical clearance of instrumentation and, following completion of that, 2) a Protection of Human Subjects review. After the instrumentation had been screened by these reviews, the instruments were prepared for piloting. However, prior to actual piloting, the wording of these instruments was further reviewed by staff members within The Center for Vocational Education to insure appropriateness to high school sophomores; and revisions were made accordingly.

Upon completion of all revisions, a preliminary pilot study was undertaken utilizing twenty students, 12 Blacks and 8 Whites, from one public high school. During this study, subjects were extensively questioned as to their responses to the questionnaires. Inquiries were made as to the understandability of items and whether they "made sense." Furthermore, the administration of the pilot study was conducted in such a way as to approximate the projected interview situation.

The results of the first pilot suggested that the instrument utilized to elicit the significant others of a youth (the Wisconsin Significant Other Battery)
required substantial modification. Thus, the instrument was reworked in an attempt to achieve clarification and the elimination of unnecessary repetition. Once the revisions were completed, a second pilot study was initiated. The results of the second pilot indicated that the instrument was ready for actual data collection.

The operationalizations of the key variables utilized in this report are presented in the following discussion. The portions of the questionnaire most relevant are reproduced in Appendix A.

The variables utilized in this study, shown with their mnemonics, were operationalized in the following manner:

**Father's Occupation (FO)** - Determined by assigning Duncan's (1961) socioeconomic index score to the occupation that the father indicated he held in October, 1972. If the father was unemployed at the time of the study, the last job held was elicited.

**Father's Education (FE)**: Determined by asking the father to indicate how much education he completed from an exhaustive categorical list of years of schooling completed.

**Mother's Education (ME)**: Determined by asking the mother to indicate how much education she completed from an exhaustive categorical list of years of schooling completed.

**Father's Educational Expectation for Self (FEE)**: Determined by asking the father to indicate how much education he felt he could achieve if he were a high school student from an exhaustive categorical list of years of schooling.

**Mother's Educational Expectations for Self (MEE)**: Determined by asking the mother to indicate how much education she felt she could achieve if she were a high school student from an exhaustive categorical list of years of schooling.
Mental Ability of Youth (MA): Determined by responses to the Henman-Nelson Test of Mental Ability, Revised Edition, Form A for grades 9-12 administered as part of the study. This is a 30 minute, times, standardized test published by Houghton-Mifflin Company, Boston. It consists of 90 items arranged in order of increasing difficulty (Henman and Nelson, 1942).

Academic Performance of Youth (AP): Determined by grade point average calculated directly from school transcripts for each student. Only grades from academic coursework were included.

Parental Education Expectation for Son (PE): Determined by an average of the responses of the mother and the father to an item eliciting their realistic educational expectations for their son (Haller and Woelfel, with Fink, 1969).11

Non-parental Significant Other's Educational Expectations for the Youth (NPE): Determined by an average of the responses of non-parental definers to an item eliciting their realistic educational expectations for the youth.12

Aggregated Educational Expectations of Definers (EED): Determined by an average of three items: (1) father's indication of his educational expectations for his son, (2) mother's indication of her educational expectations of her son, and (3) an aggregated measure of the educational expectations for all other definers for the youth. The aggregated measure is the average response of non-parental definers named by a given subject to the item eliciting their educational expectations for the youth.13

Educational Attainment of Models (EAM): Determined by an average of the youth's responses to an open-ended question as to the level of education achieved by persons he had named as models.14

Educational goals of youth were measured by three different, conceptually distinct (Picou, 1971) measurements representing differing degrees of realistic orientations:

1) Youth's Educational Fantasy Choice (EF): Determined by the youth's response to an item gauging ideal educational achievement, utilizing an exhaustive categorical list of years of schooling. (Kuvlesky and Bealer, 1966).15
2) **Youth's Educational Aspiration (EA):** Determined by the youth's response to an item gauging the projection of educational achievement he will try to gain, utilizing an exhaustive, categorical list of years of schooling (Picou, 1971).

3) **Youth's Educational Expectation (EE):** Determined by the youth's response to an item gauging the level of educational attainment he realistically expects to achieve. This item is an exhaustive, categorical list of years of schooling (Kuvlesky and Bealer, 1966).

**Relationship of Significant Other to the Youth:** Determined by the youth's response to items eliciting role relationship of the definers or models to the youth naming them as influential.

**Youth's Acquaintance with Educational Model:** Determined by the youth's response to item eliciting whether or not he personally knows the model named.

---

**Data Collection**

The study required three phases of data collection:

1) collection of data from the youth in the primary sample,
2) collection of data from the youth's parents, and (3) collection of data from those persons who had been identified by the youth as having been influential in their career decisions. Since the former was necessarily prior to the latter two, it will be discussed first.

In the first stage of data collection, those students who were sampled in a given school were surveyed as a group in two, four hour sessions conducted on consecutive days. While students were surveyed as a group, the conditions of instrument administration were such that the procedures were termed "quasi-interviews." The use of this terminology underlines the fact that an interview team was in constant interaction with the youth to monitor
responses and answer all questions regarding items. Two exceptions to that procedure occurred to accommodate the administration of the Henman-Nelson Mental Ability Test and the Edwards Personal Preference Schedule, both of which are standardized instruments requiring unassisted responses.

Throughout the interviews, special care was taken to insure honest and reliable responses: (1) subjects were paid for their participation, (2) the racial composition of the group of students being interviewed was matched by a similar composition of the interview team to promote rapport between the groups, (3) the members of the interview team rotated in roles of leadership in the conduct of interviews, and (4) conducting an introductory briefing at the beginning of each administration to inform the subjects of the purposes of the research, the importance of their honest responses, and the potential impact their assistance might have for education. To get a feel for the success of these measures, at the end of the second session, students were encouraged to ask questions and to express their feelings about the survey. Generally, the students expressed favorable feelings about the process and content. The only major complaint was the length of some of the questionnaires.

The second phase of data collection was that directed to gaining data from the participating youths' parents. This collection procedure entailed sending
questionnaires for mothers and fathers home with the students at the end of the first day of interviewing. Parents were encouraged to return their completed questionnaires with their children the following day. For those parents who were unable to complete the questionnaires during that time, it was suggested that they return the completed form in the stamped, self-addressed envelope included for that purpose. Lastly, for those parents who did not respond within two weeks, personal interviewers were dispatched in a final attempt to gain completion. This multiplicity of techniques resulted in a fairly respectable response rate as reported for the parents of white students in Table 1.

Table 1
Response Rates of Parents

<table>
<thead>
<tr>
<th></th>
<th>Fathers</th>
<th>Mothers</th>
<th>Total Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>85.8%</td>
<td>95.5%</td>
<td>90.6%</td>
</tr>
</tbody>
</table>

The third and final stage of data collection was the contacting of those persons named as significant others influencing the youth's educational and/or occupational goals. A total of 2503 significant others were named, 1784 were known to the youth and were therefore contacted by mail indicating they had been identified as influential and enclosing a questionnaire appropriate to their mode of influence. Those individuals who did not
respond within two weeks were contacted by telephone and interviewed over the telephone. This procedure resulted in a large increase of responses. Finally, in a procedure consistent with that utilized on parents, personal interviewers were utilized. The combination of these approaches resulted in a response rate of 81% among those significant others known personally by the students.

Among the significant others who were not contacted, the vast majority were educational and/or occupational models. For the majority of these persons, basic demographic data was easily obtainable in that they were well known public figures. Thus, for these persons named, a certain amount of information was derived from secondary sources.

Methods of Data Analysis

Most scientific analyses of data are probably either implicitly or explicitly concerned with the discovery of "cause." Yet, the search for causal relationships is an inherently difficult problem. The difficulty has its origins in the gap between theoretical thinking and research capabilities. While scientists think in terms of causes, in the sense of "forcing" or "producing," they can test only in terms of covariations. Thus, causal relationships can never be proven; rather, they can only be inferred from empirical findings (Blalock, 1964, 1968).

Certain criteria are generally regarded as essential conditions for inferring causality among variables.
First, the inference of causation requires that the dependent variable is related to or covaries with the independent variables. Secondly, an asymmetric relationship among variables is necessary. The specification of asymmetry requires the ability to specify causal order among the variables and to eliminate all other possible "causes."

In the case of the former, the ordering may be obvious given the variables included or it may be based upon logical arguments derived from theory. The latter requirement of elimination of other "causes" is directed at the ever-present possibility that an observed association between two variables occurs because they are both affected or "caused" by a common antecedent or collection of antecedents.

Since in social research experimental control of potentially "confounding" variables is virtually impossible, it is necessary to employ statistical "control" by considering several variables simultaneously. However, it is unlikely, even with the institution of such controls, that all possible confounding variables have been eliminated. Therefore, it is necessary to postulate something about unknown factors which also influence the "dependent" variable of interest. Typically, one assumes that these variables are large in number, each with a small impact on the dependent variable, so that the overall effects tend to balance out in such a way that the omitted variables as a group may be treated as random error.
In meeting these criteria, several differing procedures and methods of analysis may be employed. In this study the major technique utilized is path analysis which is discussed in the following subsection. Additionally, some presentations are offered in tabular form. However, the tabular presentations are not intended to be utilized to ferret out potential causal relationships, but rather serves the purpose of identifying the characteristics of persons named as significant others and some of the relationships between these characteristics. Thus, the tabular presentations play an important, but somewhat peripheral role, in the analysis reported in Chapter IV. This is particularly true in that the observations reported are not independent of each other since significant others were selected by members of the primary sample rather than at random; thus, routine statistical tests are precluded.

The Method of Path Analysis

Anytime scientific interest centers on situations or variables not amenable to experimental control or manipulation, the problems of valid inference are greatly multiplied. Without experimental control, causal inference from an analysis of pairs of variables is, at best, questionable. In such cases, causal inferences are warranted only when complete systems of a large number of variables
are considered. The method of path analysis is explicitly designed to promote assessment of such causal systems of interrelated variables.

The "basic theorem of path analysis" (Duncan, 1966: 5) has been expressed as:

$$ r_{ij} = p_{ij} + \sum_q p_{iq} r_{qj} $$

where $r$ = correlation coefficient

$p$ = path coefficient

$i$ = the number of the dependent variable

$j$ = the number of the independent variable

$q$ = an index of all variables between $j$ and $i$, excluding $j$

This equation states that the zero-order correlation between a dependent and independent variable ($r_{ij}$) can be decomposed into the direct effect of $j$ on $i$ ($p_{ij}$) and the part due to the correlations between $j$ and other variables which affect $i$ (the $q$'s).

Figure 10 displays a diagram for a hypothetical model to which the theorem may be applied.

Figure 10: Hypothetical Path Diagram
In a path diagram such as this, the arrows represent the postulated presence and direction of effects. For example, the arrow pointing to $X_2$ from $X_1$ indicates that $X_1$ is postulated to affect $X_2$ but $X_2$ does not affect $X_1$. Note that there are actually eight variables, rather than four, for which relationships are postulated. The variables designated by the $u$'s are unobserved and called "disturbances" or "residuals." These terms indicate that one should not expect any of the variables in the model to be completely determined by other measured variables included in the model.

The paths (arrows) are designated by $p$'s, termed path coefficients. The numerical value of each path is sometimes placed alongside the appropriate arrow. This numerical value (path coefficient) represents the difference, in standard deviation units, between two observations of the dependent variable and equivalence on all other variables in the equation, including the "residual" term.

The relationships among variables represented in Figure 10 may be expressed by the following set of structured equations.

\[
\begin{align*}
X_1 &= P_{1u} u_1 \\
X_2 &= P_{21} X_1 + P_{2u} u_2 \\
X_3 &= P_{31} X_1 + P_{32} X_2 + P_{3u} u_3 \\
X_4 &= P_{41} X_1 + P_{42} X_2 + P_{43} X_3 + P_{4u} u_4
\end{align*}
\]
This set of equations indicates the form of the posited relationships. However, these equations cannot be used directly to calculate the numerical values of the path coefficients. In order to calculate these coefficients the structural equations must be transformed by algebraic manipulation into a set of estimating equations derived from the path theorem and based upon regression analysis.23

The assumption underlying the use of the path analytical procedure are numerous (see, e.g., Nygreen, 1971; Land, 1969). For purposes of this presentation, only those necessary for a conceptual understanding of the technique are outlined. First, the assumption is made that the posited relationships can be represented without gross distortion in a linear, additive equation. Secondly, it is assumed that the unobserved variables (U's) affect, at most, only one variable specified in the model (X's). Thirdly, the assumption is made that no two variables are connected by more than one path, i.e., no reciprocal causation. Fourthly, independent variables included in each equation must be uncorrelated with the residual variables in the equation. Finally, one must have at least approximations of interval scales before the algebraic expressions may be properly interpreted.

Path analysis is characterized by two major advantages. First, the utilization of this technique compels
the researcher to be precise in the formulation of the causal relationships within the model. This advantage is discussed by Duncan (1966: 7) when he posits:

> The great merit of the path scheme, then, is that it makes the assumptions explicit and tends to force the discussion to be at least internally consistent, so that mutually incompatible assumptions are not introduced surrepticiously into different parts of an argument extended over scores of pages.

Second, path analysis allows the researcher to separate the zero-order correlation between two variables into direct and indirect or mediated effects.

The causal validity of a model is not specifically tested by path analysis; rather it can only be supported on theoretical and substantive grounds. However, the technique does allow one to evaluate the plausibility of a theoretical formulation by revealing empirical inadequacies and contradictions. Thus, the technique of path analysis provides a useful method of analyzing causal inferences which forces consideration of the ambiguities existent in the conceptualizations of social scientists.

One other comment should be made regarding path analysis as it particularly relates to the analysis done for this report. It will be noted that in the previous chapter there were several "path" models specified and that these models did not include all paths that could be posited. Rather, several paths of possible influences were left out. While these causal models do exemplify the
position taken by the author, the models are not tested in that format. Rather, they are examined in the just-identified form, meaning that all effects of antecedent variables are assumed to be of importance for all variables occurring after them. In other words, all one-way effects are considered. This version of the model is exemplified in Figure 11.

\[ X_1 = \text{Socioeconomic Status of Parents} \]
\[ X_2 = \text{Parental Values} \]
\[ X_3 = \text{Mental Ability} \]
\[ X_4 = \text{Academic Performance} \]
\[ X_5 = \text{Educational Expectations of Definers} \]
\[ X_6 = \text{Educational Attainment of Models} \]
\[ X_7 = \text{Youth's Educational Projections} \]

Figure 11: Just Identified Model of Educational Aspiration Formation Process

This approach to the analysis is grounded in the rationale that all possible effects should be calculated in order to validate the logic represented in the model. In other words, it is the contention of this author that the empirical findings of just-identified models serve to indicate what causal relationships are validly upheld and thus should be retained and examined in future empirical studies. Given that the work reported herein represents
an original elaboration of a model, such an approach is merited.

**Summary: Methodological Procedures**

In this chapter, the methodological procedures employed in this study have been outlined. Specifically, the sampling procedures were detailed; the process of instrumentation and operationalization were elaborated upon and the variables utilized in this study defined; the stages involved in data collection and the procedures used were described; and finally, the method of path analysis, as it is the major analytical technique utilized may be directed to the description of results found in analysis of the data.
Chapter III Footnotes

1Inasmuch as the author of the report being de- tailed here had major input to the chapter in question in the larger report, such a reliance is not unjustified.

2Data was collected in the fall of 1972.

3This occurred in relatively few cases.

4This number is that which existed in the sample prior to initiation of data collection. Obviously, the final number of respondents was reduced somewhat after that point in time through dropouts, etc. Thus, the final samples were composed of 130 Whites and 117 Blacks.

5For a more complete discussion of the revisions entailed, see Curry, et al. (1976), Chapter III.

6See Appendix A, question 1.

7See Appendix A, question 2.

8See Appendix A, question 2.

9See Appendix A, question 3.

10See Appendix A, question 3.

11See Appendix A, question 4.

12See Appendix A, question 5.

13See Appendix A, questions 4 and 5.

14See Appendix A, question 6.

15See Appendix A, question 7.
See Appendix A, question 8.

17 See Appendix A, question 9.

18 See Appendix A, question 10.

19 See Appendix A, question 11.

20 It is beyond the scope of the work being detailed here to give a detailed review of the controversy surrounding the concept of "cause." The interested reader is referred to any number of sources dealing with the meaning of cause, e.g., Cohen and Nagel (1934); Simon (1957); Bunge (1959); Nagel (1961), Blalock (1964).

21 Rosenberg (1968) presents a very readable discussion of asymmetric relationships.

22 It is beyond the scope of this report to fully explicate path analysis techniques. The interested reader is referred to Wright (1934; 1960); Li (1955), Duncan (1966), Land (1969), Heise (1969), Boyle (1970), Lyons and Carter (1971), Blalock (1971), Boudon (1965).

23 These procedures are detailed by Duncan (1966) and Land (1969).
CHAPTER IV

ANALYSIS OF DATA

Introduction

The objective of this chapter is to describe the empirical analyses which serve as bases for the evaluation of the conceptualizations posited previously. The presentation is generally couched in terms of descriptions of causal systems. Throughout the discussion, the analysis is presented as a series of modifications in a most basic reduced form model. In other words, the explication of the causal analysis begins with the consideration of the most simple models and progresses through models of increasing complexity, culminating with discussion of the most complex. The variables which are utilized in modifications are those which were detailed in Chapter II. However, prior to focusing upon the causal model analysis, some consideration must be given to a delineation of persons who were chosen as significant others for educational decisions.

Description of Significant Others

Many of the characteristics of persons named as significant others by the youth participating in this study
have been detailed elsewhere (See: Curry, et al., 1976, Chapter IV.). However, for purposes of the work reported here, it is necessary to consider a few particularly relevant questions. In particular, how many significant others were named and what was the mode of influence in which they were named? Secondly, what persons from a youth's interpersonal matrix are chosen as definers and which as models? Thirdly, do many persons function as both models and definers? Finally, are those named as models persons the youths know personally and if not, what proportion do those with whom they are not acquainted constitute of the total named?

Examination of the data regarding numbers of educational significant others reveals that several persons constitute the influence network affecting the youth's educational decisions. Table 2 reveals that there were 937 significant others identified as influencing educational decisions. Thus, the mean number of significant others was found to be 7.21. This calculation includes all significant others for educational decisions (including any multiple inclusion of persons identified in both modes of influence). There were 580 definers or an average of 4.46 per youth named and 357 models or an average of 2.75 per youth.

Table 3 provides an answer to the second question regarding who these people are. In this table, educational definers and models are identified according to the role
<table>
<thead>
<tr>
<th>Mode of Influence</th>
<th>N</th>
<th>$\bar{x}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Educational Significant Others</td>
<td>937</td>
<td>7.21</td>
</tr>
<tr>
<td>Definers</td>
<td>580</td>
<td>4.46</td>
</tr>
<tr>
<td>Models</td>
<td>357</td>
<td>2.75</td>
</tr>
<tr>
<td>Relationship of Significant Other to Youth</td>
<td>Definer (N = 577)</td>
<td>Model (N = 240)</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Father</td>
<td>18.2% (105)</td>
<td>13.8% (33)</td>
</tr>
<tr>
<td>Mother</td>
<td>19.4% (112)</td>
<td>4.2% (10)</td>
</tr>
<tr>
<td>Brother</td>
<td>7.1% (41)</td>
<td>9.2% (22)</td>
</tr>
<tr>
<td>Sister</td>
<td>4.5% (26)</td>
<td>2.5% (6)</td>
</tr>
<tr>
<td>Grandfather</td>
<td>3.1% (18)</td>
<td>1.6% (4)</td>
</tr>
<tr>
<td>Grandmother</td>
<td>5.4% (31)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>Uncle</td>
<td>4.5% (26)</td>
<td>5.4% (13)</td>
</tr>
<tr>
<td>Aunt</td>
<td>4.7% (27)</td>
<td>4.4% (1)</td>
</tr>
<tr>
<td>Other Relative</td>
<td>2.4% (14)</td>
<td>3.3% (8)</td>
</tr>
<tr>
<td>Peer Friend Same Sex</td>
<td>7.5% (43)</td>
<td>3.3% (8)</td>
</tr>
<tr>
<td>Peer Friend Opposite Sex</td>
<td>1.9% (11)</td>
<td>.4% (1)</td>
</tr>
<tr>
<td>Teacher</td>
<td>6.9% (40)</td>
<td>16.7% (40)</td>
</tr>
<tr>
<td>Guidance Counselor</td>
<td>6.1% (35)</td>
<td>2.5% (6)</td>
</tr>
<tr>
<td>Adult Friend or Acquaintance</td>
<td>5.9% (34)</td>
<td>27.1% (65)</td>
</tr>
<tr>
<td>Friend Unspecified</td>
<td>2.4% (14)</td>
<td>9.1% (23)</td>
</tr>
</tbody>
</table>
relationships they have with the youths. Examination of this table reveals that the dominant source of definers is the family. In fact, slightly over sixty-nine percent of all the definers are related familially to the youths. Of those, parents appear to have been the most important group of definers, constituting 37 percent of all definers listed by relationship and slightly over 54 percent of all family members named.

The case of models is seemingly quite different. The majority of educational models are drawn from sources outside the family network (59.6 percent). In particular, adult friends/acquaintances and teachers seem to be the most important sources. Family members still provide a significant proportion of this type of influence (40.4 percent); however, they are not as dominant as in the case of definers.

The data identifying the role relationships suggest that there is a little overlap among persons who serve as definers and those who serve as models. In other words, it seems that a person is unlikely to serve as both a model and a definer. Table 4 presents a breakdown which provides direct evaluation of the amount of overlap.

Examination of this table supports the trend suggested by findings reported from Table 2. Of the 850 significant others named as influencing educational plans, only 87 (or 10.2 percent) exert their influence as both models and definers. This overlap constitutes slightly
over 24 percent of all models named and 15 percent of all definers named. Thus, it would seem that persons providing these modes of influence are drawn from largely different pools.

TABLE 4
Overlap of Persons Influencing by Being Both Models and Definers

<table>
<thead>
<tr>
<th></th>
<th>Model Only</th>
<th>Model and Definer</th>
<th>Definer Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>270</td>
<td>87</td>
<td>493</td>
</tr>
</tbody>
</table>

One other question which is of relevance has to do with the youths' acquaintance with the persons they name as models. Unlike definers, models would not necessarily have to be personally interacting with the youth to be influential. Thus, this may be an important consideration. In Table 5, the models named are divided into those which the youths said they knew personally and those they did not.

TABLE 5
Youths' Acquaintance with Models

<table>
<thead>
<tr>
<th></th>
<th>Knows</th>
<th>Does Not Know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>249 (70%)</td>
<td>106 (30%)</td>
<td></td>
<td>335 (100%)</td>
</tr>
</tbody>
</table>
This categorization reveals that while some models are persons the youths did not know, most were persons from their interactional environment. Seventy percent of all models identified were specified as knowing the youth, with only thirty percent identified as not known. Still, almost one-third is a sizable proportion and would seem to require further consideration. However, it is not feasible to consider these models further given that there was very little data gathered to clarify their relationships to the youth.³

Causal Model Analysis

It was suggested in Chapter II that the basic model underlying the process by which educational aspirations are formed may be simplistically represented as a chain model (Figure 12).

![Figure 12: Chain Model of Educational Aspiration Formation](image)

The analysis of data to be presented in this section follows a series of steps corresponding to the elaboration of this model. Initially, a series of reduced models containing only the relationship between background variables and educational aspirations, omitting the link through significant other influences, is examined. The models presented represent varying positions as to which variables
adequately index the background circumstances of the youth. As the data analysis progresses, the impact of significant other influence will be incorporated into the model through a similar series of modified models. Of particular interest is the effect of this influence as an intervening variable and as a dependent variable in and of itself. Attention will shortly be focused upon the first series of analyses—the reduced models. However, prior to that consideration a comment should be made about the ultimate dependent variables utilized in this report.

**A Note on the Dependent Variables:** There are three variables utilized in this report to measure educational plans: (1) educational *fantasy* choices, which represent youths' unrestricted dreams with regards to educational achievement, (2) educational *aspirations*, representing youths' assessment of the amount of education they will try to achieve, and (3) educational *expectations*, reflecting youths' realistic estimates of what they will attain. Obviously, these three variables represent differing degrees of reality grounding with regards to educational plans. The decision to examine all of these as ultimate dependent variables is predicated on the idea that such inclusion may provide additional grounds upon which to assess the influence exerted by models and definers. In other words, it may be that the modes of influence differentially affect these various levels of plans, and if this is so, it is important to consider.
Thus, through the discussion of analysis, three ultimate dependent variables will be presented. However, for purposes of diagraming the models under examination, they are presented as educational goals in total.

The Reduced Models

The first model to be considered is that represented in Figure 13.

This model represents the most basic set of relationships which may be posited as existing between background circumstances and youths' educational goals. It posits socioeconomic status of parents, taken as an aggregate, as the sole indicator of social background. Thus, this model represents a logical beginning for the evaluation of the utility of that stance.

The path coefficients (standardized regression coefficients) corresponding to this reduced model are presented in Table 6. This tabulation also includes the zero order correlations in parentheses under each coefficient. Inspection of the data in Table 6 reveals several interesting patterns. First of all, socioeconomic
TABLE 6
Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Basic Reduced Form Model

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>AP</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>-.009</td>
<td>.046</td>
<td>.108</td>
<td>.184*</td>
</tr>
<tr>
<td></td>
<td>(.154)</td>
<td>(.208)</td>
<td>(.269)</td>
<td>(.336)</td>
</tr>
<tr>
<td>MA</td>
<td>.485*</td>
<td>.367*</td>
<td>.387*</td>
<td>.370*</td>
</tr>
<tr>
<td></td>
<td>(.529)</td>
<td>(.504)</td>
<td>(.521)</td>
<td>(.520)</td>
</tr>
<tr>
<td>AP</td>
<td></td>
<td>.251*</td>
<td>.203*</td>
<td>.184*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.435)</td>
<td>(.406)</td>
<td>(.391)</td>
</tr>
<tr>
<td>R</td>
<td>.482</td>
<td>.551</td>
<td>.560</td>
<td>.571</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.232</td>
<td>.304</td>
<td>.313</td>
<td>.326</td>
</tr>
<tr>
<td>Residual</td>
<td>.768</td>
<td>.696</td>
<td>.687</td>
<td>.674</td>
</tr>
</tbody>
</table>

*Significant at $p(\alpha) < .05$
status of parents exhibits very little impact upon any of the variables subsequent to it. It does have an effect upon educational expectations, but its effect is somewhat small in comparison with the effect of mental ability. In fact, mental ability appears to exert the most influence, being the dominant predictor of all dependent variables. Academic performance also appears to be an important predictor, impacting upon all three measures of educational goals. It appears, then, that socioeconomic status does not have the dominant influence that might have been expected.

However, it should be noted that all of the components of socioeconomic status may not be contributing equally to the effect of status on educational goals. If this is so, the effect may be somewhat obscured by aggregation into one index. As Hauser (1972) has pointed out, it may be useful to disaggregate this index and examine separate effects. To assess the relative effects of the components of status, attention is now directed to the analysis of the model depicted in Figure 14.

The only difference between the model depicted in Figure 13 and that depicted in Figure 14 is that in the latter the three variables composing the socioeconomic status index are presented in disaggregated form.

The coefficients corresponding to this model are presented in Table 7. The disaggregation has provided some divergencies from the previous analysis. Examination of the data reveals that the father's occupational status
is the most important component of the effect of status. It exercises a significant influence on both educational aspirations and expectations. The other two components are shown to have no substantial effect. Mental ability is still the dominant effect; however, in the case of expectations, father's occupational status is of almost equal importance.

Figure 14: Reduced Model, Socioeconomic Status Disaggregated

Treating the three components of socioeconomic status separately has revealed an interesting specification regarding the manner in which status affects educational goals. Thus, it would seem more appropriate to maintain the disaggregated form of the model for a basis for further expansion and elaboration. However, prior to this elaboration, it is necessary to consider another reduced model. This is the reduced model corresponding
TABLE 7
Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Dis-aggregated Reduced Form Model

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>AP</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO</td>
<td>-0.104 (.139)</td>
<td>0.174 (.303)</td>
<td>0.201* (.407)</td>
<td>0.270* (.449)</td>
<td></td>
</tr>
<tr>
<td>FE</td>
<td>0.003 (.206)</td>
<td>0.012 (.269)</td>
<td>0.132 (.406)</td>
<td>0.144 (.423)</td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>0.171 (.279)</td>
<td>-0.066 (.208)</td>
<td>-0.017 (.304)</td>
<td>-0.085 (.271)</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>0.460* (.482)</td>
<td>0.332* (.504)</td>
<td>0.303* (.521)</td>
<td>0.300* (.520)</td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>0.268* (.435)</td>
<td>0.209* (.406)</td>
<td>0.203* (.391)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0.505</td>
<td>0.571</td>
<td>0.611</td>
<td>0.628</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.255</td>
<td>0.326</td>
<td>0.373</td>
<td>0.394</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>0.745</td>
<td>0.674</td>
<td>0.627</td>
<td>0.606</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at $p(\alpha) < .05$
to the suggestion that parental value orientation to education should have an impact upon their childrens' educational goals.

In order to fully appraise this posited impact, a reduced model including only measures of parental values as indices of background is considered initially. The variables taken to assess the values of parents are expressions of parental evaluation of what they could achieve educationally if they were high school students now. The model representing the impact of these "new" variables is depicted in Figure 15.

![Figure 15: Reduced Model, The Impact of Parental Self-Expectations](image)

It is obvious in viewing this model that the relationships posited are similar to those discussed before; the only difference is the reliance upon different variables to assess social background.
The data corresponding to this model are presented in Table 8. Examination of the coefficients presented in this table reveals some interesting parallels and divergencies with the findings relating to the role of socio-economic status. Mental ability is the dominant determinant of educational goals whether status or values is utilized to index social background. However, unlike the influence of the status variables in which father's occupational status was the most important, in the case of values, the mother's role is accentuated. Mother's educational expectations for herself has an effect on both the educational aspirations and expectations. Father's expectations do not totally drop out of the picture, having some influence on educational expectations. Neither of these determinants outrank the effects of mental ability; however, they do appear to be important and they are somewhat more important than academic performance in affecting educational goals.

From this analysis, it would seem that parental values, as measured here, do impact upon the formation of educational goals. Of course, the specific nature of this impact should become clearer when the role of significant others is examined. However, before incorporating significant other influence into the model, there is one other reduced model which merits consideration. The model is that which incorporates both measures of status and of values as related indices of social background as shown.
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>AP</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEE</td>
<td>-.044</td>
<td>.072</td>
<td>.114</td>
<td>.198*</td>
</tr>
<tr>
<td></td>
<td>(.122)</td>
<td>(.226)</td>
<td>(.319)</td>
<td>(.396)</td>
</tr>
<tr>
<td>MEE</td>
<td>.118</td>
<td>.089</td>
<td>.221*</td>
<td>.214*</td>
</tr>
<tr>
<td></td>
<td>(.208)</td>
<td>(.254)</td>
<td>(.391)</td>
<td>(.415)</td>
</tr>
<tr>
<td>MA</td>
<td>.465*</td>
<td>.350*</td>
<td>.357*</td>
<td>.346*</td>
</tr>
<tr>
<td></td>
<td>(.482)</td>
<td>(.504)</td>
<td>(.521)</td>
<td>(.520)</td>
</tr>
<tr>
<td>AP</td>
<td></td>
<td>.240*</td>
<td>.174*</td>
<td>.155</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.435)</td>
<td>(.406)</td>
<td>(.391)</td>
</tr>
<tr>
<td>R</td>
<td>.493</td>
<td>.565</td>
<td>.616</td>
<td>.639</td>
</tr>
<tr>
<td>R²</td>
<td>.243</td>
<td>.319</td>
<td>.380</td>
<td>.408</td>
</tr>
<tr>
<td>Residual</td>
<td>.757</td>
<td>.681</td>
<td>.620</td>
<td>.592</td>
</tr>
</tbody>
</table>

*Significant at p (α) < .05
in Figure 16. By analyzing their simultaneous effects, upon educational goals, it should be possible to achieve a better comprehension of the manner in which these factors operate.

The analysis specified by this model is presented in Table 9. Examination of the coefficients shown there reveals several interesting points. The first point that becomes obvious is that the two classes of background variables tend to cancel each other out in the effects rendered upon educational goals. The only exception to this is mother's educational expectations which sustains its effect upon educational aspirations and expectations. The finding that the other background variables which had exhibited effects when considered separately (father's occupational status and father's educational expectations) no longer do so when considered simultaneously suggests a high degree of relationship between them. Thus, when one is controlled, the effect is decreased so as not to provide significant impact. The fact that mother's educational expectations maintain their effect suggests that the value orientation of mothers is not as intimately tied to the status characteristics of the family. This is not to suggest that they are totally unrelated but that the degree of relationship is somewhat diminished. As one should expect, the operation of mental ability and academic performance revealed in this analysis is consistent with that found previously.
Figure 16: Reduced Model, Expanded Exogenous Variables
**TABLE 9**
Path Coefficients, Zero-Order Correlations, and Coefficients of Determination ($R^2$) for Expanded Exogenous Reduced Form Model

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>AP</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO</td>
<td>-.124 (0.139)</td>
<td>.130 (0.303)</td>
<td>.120 (0.407)</td>
<td>.148 (0.449)</td>
<td></td>
</tr>
<tr>
<td>FE</td>
<td>.014 (0.206)</td>
<td>.011 (0.269)</td>
<td>.139 (0.406)</td>
<td>.135 (0.423)</td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>.145 (0.279)</td>
<td>-.097 (0.208)</td>
<td>-.081 (0.304)</td>
<td>-.168 (0.281)</td>
<td></td>
</tr>
<tr>
<td>FEE</td>
<td>-.033 (0.122)</td>
<td>.038 (0.226)</td>
<td>.033 (0.319)</td>
<td>.129 (0.396)</td>
<td></td>
</tr>
<tr>
<td>MEE</td>
<td>.103 (0.208)</td>
<td>.086 (0.254)</td>
<td>.206* (0.391)</td>
<td>.217* (0.415)</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>.454* (0.482)</td>
<td>.339* (0.504)</td>
<td>.303* (0.521)</td>
<td>.300* (0.520)</td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>.260* (0.435)</td>
<td>.190* (0.406)</td>
<td>.183* (0.391)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>.512</td>
<td>.577</td>
<td>.638</td>
<td>.669</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.263</td>
<td>.333</td>
<td>.407</td>
<td>.447</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>.737</td>
<td>.667</td>
<td>.593</td>
<td>.553</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at $p(\alpha) < .05$
At this point in the presentation of analyses, it is appropriate to focus attention upon the incorporation of significant other influence into the models. In so doing, several strategies are employed which should be made explicit at this time. First of all, models utilizing only status variables as exogenous indices of social background will be compared to those utilizing the expanded set of exogenous variables as determinants of significant other influence. Secondly, in incorporating the influence of these others into the models, a two-step process is followed. Initially, the influence of definers is brought into the model by itself. Then, once that step has been elaborated, the influence of models is included. This procedure allows one the ability to evaluate the degree to which model influence intervenes between the expectations of definers and youths' educational goals. Finally, one other analysis will be discussed and that is the disaggregation of definers' expectations into parental and nonparental expectations. At that point, attention is focused upon the differential relationship posited to exist between the two classes of definers and the influence exerted by models.

**Model Expansions: The Incorporation of Significant Other Influence**

**The Inclusion of Definers:** The first model to be considered in this section is depicted in Figure 17. As is easily seen, this model incorporates the expectations
of definers into a causal system which utilizes only status variables as exogeneous indicators of social background.

FO – father's occupational status
FE – father's education
ME – mother's education
MA – mental ability
AP – academic performance
EED – educational expectations of definers
EG – educational goals

Figure 17: Expanded Model: The Inclusion of Aggregated Definers' Expectations with Socioeconomic Status as Exogenous

The path coefficients corresponding to this model are found in Table 10. Upon consideration of these coefficients, it is apparent that the educational expectations of definers are influenced by most of the antecedent variables and in turn, they definitely impact upon the educational goals of youth. Of all the variables posited as determinants of definer influence, only father's education does not have a "significant" impact. Academic performance manifests the most substantial
### TABLE 10
Path Coefficients, Zero-Order Correlations and Coefficients of Determination for Aggregated Definers' Expectations Model

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>AP</th>
<th>EED</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FO</strong></td>
<td>-.104</td>
<td>.191*</td>
<td>.106</td>
<td>.102</td>
<td>.164*</td>
</tr>
<tr>
<td></td>
<td>(.139)</td>
<td>(.455)</td>
<td>(.303)</td>
<td>(.407)</td>
<td>(.449)</td>
</tr>
<tr>
<td><strong>FE</strong></td>
<td>.003</td>
<td>.112</td>
<td>-.028</td>
<td>.074</td>
<td>.082</td>
</tr>
<tr>
<td></td>
<td>(.206)</td>
<td>(.458)</td>
<td>(.269)</td>
<td>(.406)</td>
<td>(.423)</td>
</tr>
<tr>
<td><strong>ME</strong></td>
<td>.171</td>
<td>.159*</td>
<td>-.123</td>
<td>-.099</td>
<td>-.173*</td>
</tr>
<tr>
<td></td>
<td>(.279)</td>
<td>(.470)</td>
<td>(.208)</td>
<td>(.304)</td>
<td>(.271)</td>
</tr>
<tr>
<td><strong>MA</strong></td>
<td>.460*</td>
<td>.221*</td>
<td>.253*</td>
<td>.189*</td>
<td>.174*</td>
</tr>
<tr>
<td></td>
<td>(.482)</td>
<td>(.544)</td>
<td>(.504)</td>
<td>(.521)</td>
<td>(.520)</td>
</tr>
<tr>
<td><strong>AP</strong></td>
<td>.328*</td>
<td>.150</td>
<td>.039</td>
<td>.020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.529)</td>
<td>(.435)</td>
<td>(.406)</td>
<td>(.391)</td>
<td></td>
</tr>
<tr>
<td><strong>EED</strong></td>
<td>.356*</td>
<td>.518*</td>
<td>.557*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.551)</td>
<td>(.675)</td>
<td>(.692)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>.505</td>
<td>.712</td>
<td>.623</td>
<td>.711</td>
<td>.740</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>.255</td>
<td>.507</td>
<td>.388</td>
<td>.506</td>
<td>.547</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
<td>.745</td>
<td>.493</td>
<td>.612</td>
<td>.494</td>
<td>.453</td>
</tr>
</tbody>
</table>

*Significant at p(α) < .05
effects upon these expectations, with mental ability being second in level of impact. However, both father's occupational status and mother's education also operate as bases for the setting of definers' expectations.

In examining the effects of each of these variables upon educational expectations the impact of definers is immediately apparent. These expectations are definitely the most dominant determinants of educational goals, especially aspirations and expectations. In fact, in its influence upon educational expectations, the coefficient representing this variable's influence is approximately three times as large as any other significant effect. Besides its apparent predominance in affecting educational goals, another aspect of the effect of definers' expectations merits comment. It would seem, in considering the magnitude of its effects upon the three ultimate dependent variables, that the expectations of definers are fairly in tune with the youths' perceptions of reality. This is evidenced by the increasing magnitude of effects as the dependent variable being examined is supposed to be more grounded in reality.

In addition to the influence of definers, the effects (or lack thereof) of two other variables require comment. Mother's education manifests a somewhat anomalous effect on educational expectations in that the
effect, which is statistically significant, is an inverse one. This suggests that as the level of education completed by the mother increases, the educational expectations of her son decline; or, conversely, as the mother's educational attainment declines, her son's expectations increase. This is indeed a strange finding and one which requires discussion at a later point.

The other variable requiring further comment is academic performance. It appears that the key role of academic performance is not as a direct determinant of educational goals but as an elicitor of definers' expectations. This is evidenced by the lack of effect upon educational goals and the pronounced effect upon the expectations of definers. The effects of all other variables having a significant impact upon educational suggest that these variables tend to maintain at least part of their influence in a direct manner. However, to fully evaluate the degree to which the educational expectations of definers act as interveners in this process, a comparison should be made between the effects found when examining reduced models and those found when the influence of definers is incorporated. Such a comparison is presented in Table 11.

In this table, column headed "Without Intervening Variable" contains coefficients calculated for the reduced model where only status indicators, mental ability, and academic performance were taken as estimators of
TABLE 11

Effects of Exogenous Variables on Educational Goals With and Without Definer Expectations as Intervener

<table>
<thead>
<tr>
<th></th>
<th>Without Intervener</th>
<th>With Intervener</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EF</td>
<td>EA</td>
</tr>
<tr>
<td>FO</td>
<td>.174</td>
<td>.201*</td>
</tr>
<tr>
<td>FE</td>
<td>.012</td>
<td>.132</td>
</tr>
<tr>
<td>ME</td>
<td>-.066</td>
<td>-.017</td>
</tr>
<tr>
<td>MA</td>
<td>.332*</td>
<td>.303*</td>
</tr>
<tr>
<td>AP</td>
<td>.268*</td>
<td>.209*</td>
</tr>
<tr>
<td>R</td>
<td>.571</td>
<td>.611</td>
</tr>
<tr>
<td>R²</td>
<td>.326</td>
<td>.373</td>
</tr>
<tr>
<td>Residual</td>
<td>.674</td>
<td>.627</td>
</tr>
</tbody>
</table>

*Significant at p(α) < .05
educational goals. The column headed "With Intervening Variable" presents estimates of the direct effects of these background variables on each level of the educational goals once the influence of definers has been partialled out. Comparison of these separate sets of effects reveals that the effects of father's occupation, mental ability, and academic performance are all reduced with inclusion of definers' expectations. However, the degree of reduction varies for each of these variables. The effect of father's occupation upon educational aspirations is reduced to a negligible effect, with the effect on educational expectations being reduced less dramatically. The influence of mental ability on educational goals is reduced in a similar fashion, with the greatest difference occurring in its effect on educational expectations where the resulting direct effect is approximately three-fifths the size of that found previously. Finally, as alluded to previously, the effect of academic performance is totally absorbed by the educational expectations of definers. This is evidenced by the finding that the influence of academic performance, after controlling for the impact of definers, is no longer significantly different from zero.

Of course, the anomalous effect of mother's expectations is particularly pointed out by this presentation. It is apparent that when the expectations of definers are controlled, mothers' education not only becomes significant,
but in an inverse fashion. As mentioned before, this is indeed a puzzling finding needing further comment. However, discussion of this finding will be postponed until the next chapter.

One other point should be noted at this time, that being the increase in the accuracy of estimation found in the expanded as compared to the reduced model. In the present version of the model, educational goals are much more accurately estimated than in the reduced model. This is particularly evident in the case of educational expectations in which the variance explained increases from .394 to .547. It is interesting to note that as the ultimate dependent variables are considered in order of increasing realism, the accuracy of estimate increases. This observation suggests that the model, at least as thus far examined, is best designed to accommodate the formation of realistic plans.

Having considered the incorporation of definers' expectations into the model relying upon status indices of social background, attention is now directed to examination of a similar model including the measures of parental values. This model is depicted in Figure 18.

Table 12 contains the coefficients concomitant with this model. Examination of these coefficients reveals a pattern not totally unlike that found in Table 10. However, there are some important divergencies which deserve comment. First of all, in the model including only status
Figure 18: Expanded Model, The Inclusion of Aggregated Definers' Expectations with Expanded Exogenous

FO - father's occupation
FE - father's education
ME - mother's education
FEE - father's educational expectations for self
MEE - mother's educational expectations for self
MA - mental ability
AP - academic performance
EED - educational expectations of definers
EG - educational goals
### TABLE 12
Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Aggregated Definers' Expectations Model with Expanded Exogenous

<table>
<thead>
<tr>
<th></th>
<th>AP</th>
<th>EED</th>
<th>EF</th>
<th>EA</th>
<th>EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO</td>
<td>-.124</td>
<td>.016</td>
<td>.124</td>
<td>.112</td>
<td>.140</td>
</tr>
<tr>
<td></td>
<td>(.139)</td>
<td>(.455)</td>
<td>(.303)</td>
<td>(.407)</td>
<td>(.449)</td>
</tr>
<tr>
<td>FE</td>
<td>.014</td>
<td>.096</td>
<td>-.026</td>
<td>.089</td>
<td>.085</td>
</tr>
<tr>
<td></td>
<td>(.206)</td>
<td>(.458)</td>
<td>(.269)</td>
<td>(.406)</td>
<td>(.423)</td>
</tr>
<tr>
<td>ME</td>
<td>.145</td>
<td>.042</td>
<td>-.113</td>
<td>-.102</td>
<td>-.189*</td>
</tr>
<tr>
<td></td>
<td>(.279)</td>
<td>(.470)</td>
<td>(.208)</td>
<td>(.304)</td>
<td>(.271)</td>
</tr>
<tr>
<td>FEE</td>
<td>-.033</td>
<td>.197*</td>
<td>-.038</td>
<td>-.069</td>
<td>.027</td>
</tr>
<tr>
<td></td>
<td>(.122)</td>
<td>(.491)</td>
<td>(.226)</td>
<td>(.319)</td>
<td>(.396)</td>
</tr>
<tr>
<td>MEE</td>
<td>.103</td>
<td>.297*</td>
<td>-.028</td>
<td>.053</td>
<td>.063</td>
</tr>
<tr>
<td></td>
<td>(.208)</td>
<td>(.553)</td>
<td>(.254)</td>
<td>(.391)</td>
<td>(.415)</td>
</tr>
<tr>
<td>MA</td>
<td>.454*</td>
<td>.222*</td>
<td>.247*</td>
<td>.188*</td>
<td>.186*</td>
</tr>
<tr>
<td></td>
<td>(.482)</td>
<td>(.544)</td>
<td>(.504)</td>
<td>(.521)</td>
<td>(.520)</td>
</tr>
<tr>
<td>AP</td>
<td>.302*</td>
<td>.144</td>
<td>.034</td>
<td>.027</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.529)</td>
<td>(.435)</td>
<td>(.406)</td>
<td>(.391)</td>
<td></td>
</tr>
<tr>
<td>EED</td>
<td>.383*</td>
<td>.516*</td>
<td>.516*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.551)</td>
<td>(.675)</td>
<td>(.694)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>.512</td>
<td>.793</td>
<td>.624</td>
<td>.714</td>
<td>.742</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.263</td>
<td>.613</td>
<td>.390</td>
<td>.510</td>
<td>.551</td>
</tr>
<tr>
<td>Residual</td>
<td>.737</td>
<td>.387</td>
<td>.610</td>
<td>.490</td>
<td>.449</td>
</tr>
</tbody>
</table>

*Significant at $p(\alpha) < .05$
variables, both father's occupation and mother's education were operative as determinants of the educational expectations of definers. With the inclusion of fathers' and mothers' educational expectations for themselves, these effects become negligible and the value orientations of the parents assume importance. Such a finding suggests that the values of parents prevail over their status characteristics in eliciting definers' expectations. The magnitude of the other determinants of these expectations are quite similar to those found in the previous analysis presented. However, unlike the importance of academic performance relative to the parents' status measures found in the previous analysis, academic performance and mothers' educational expectations for herself are essentially equivalent in their impact upon the expectations of definers.

Certain divergencies in the patterns are also apparent in terms of the effects of the antecedents upon educational goals. With the exception of the remaining anomaly of mother's education, none of the social background variables maintain direct effects upon any of the dependent variables once the effect of definers' expectations is partialed out. Mother's education is again found to have a direct, inverse effect upon son's educational expectations after controlling for the influence of definers. The effects of mental ability and academic performance are quite similar to those found previously.
There is one other finding which deserves consideration. Upon comparing the accuracy of estimation of the educational expectations of definers in the current model with that previously considered, it becomes apparent that the current model fares better. This conclusion is supported by the differences found in the amount of variance explained in this variable by each model. The current model achieves an explained variance of .613 compared to .507. Such a finding is consistent with the conceptual arguments presented in Chapter II regarding the importance of parental values as determinants of significant other influence.

Turning back to our concern with the role of definers' expectations in the current model, a comparison is again made between the effects found when examining the reduced model and those found in the current expanded version. Such a comparison is warranted also on the grounds of further assessing the merit of including parental values as exogenous variables. Table 13 presents the comparison in a format similar to that employed in Table 11.

As is easily seen, the pattern of effects found once educational expectations of definers is accounted for is quite consistent with that found previously. Of those variables having exhibited a significant effect upon educational goals prior to incorporating the influence of definers, only mental ability is still found
### TABLE 13

Effects of Expanded Exogenous on Educational Goals With and Without Definer Expectations as Intervener

<table>
<thead>
<tr>
<th></th>
<th>Without Intervener</th>
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</tr>
<tr>
<td>FO</td>
<td>.130</td>
<td>.120</td>
<td>.148</td>
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<tr>
<td>FE</td>
<td>.011</td>
<td>.139</td>
<td>.135</td>
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<tr>
<td>ME</td>
<td>-.097</td>
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<tr>
<td>FEE</td>
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<td>.033</td>
<td>.129</td>
<td>-.038</td>
</tr>
<tr>
<td>MEE</td>
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<td>.217*</td>
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</tr>
<tr>
<td>MA</td>
<td>.332*</td>
<td>.303*</td>
<td>.300*</td>
<td>.247*</td>
</tr>
<tr>
<td>AP</td>
<td>.260*</td>
<td>.190*</td>
<td>.183*</td>
<td>.144</td>
</tr>
<tr>
<td>R</td>
<td>.577</td>
<td>.638</td>
<td>.669</td>
<td>.624</td>
</tr>
<tr>
<td>R²</td>
<td>.333</td>
<td>.407</td>
<td>.447</td>
<td>.390</td>
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<tr>
<td>Residual</td>
<td>.667</td>
<td>.593</td>
<td>.553</td>
<td>.610</td>
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</tbody>
</table>

* Significant at p(α) .05
to exert a direct effect and this effect is reduced by a magnitude similar to that in the previous analysis. Also, it is again found that mother's education behaves in a puzzling fashion.

Up to this point, only the role of definers' expectations has been considered. Attention is now directed to the inclusion of models. In incorporating the influence of this second mode of significant other, two causal systems are examined. The first system presented includes only status variables as measures of social background. The second model to be considered includes the entire expanded set of exogenous variables. In both cases, the influence of models is considered without the effect of definers being included. This approach allows initial evaluation of the effect of the different background variables as determinants of model characteristics. Furthermore, the educational attainment of models may be examined in terms of its function as an intervening variable between social and personal background characteristics and educational goals.

The Inclusion of Models: The first causal system to be analyzed is depicted in Figure 19. It is obvious upon examining this model that it is similar in structure to that examining the role of definers' expectations while utilizing the original indicators of social background.
The only difference is that the educational attainment of models replaces the expectations of definers as the mechanism of interpersonal influence.

The path coefficients associated with this model are reported in Table 14. Upon examination of the findings in this table, it becomes immediately apparent that the attainment characteristics of models do not function in the same fashion as definers' expectations. Where all of the antecedent variables except father's education served as predictors of definers' expectations, father's education is the only variable having a significant impact upon the educational attainment of models. This
### TABLE 14
Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Model Including Models' Attainment

<table>
<thead>
<tr>
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<td>(.303)</td>
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<td>(.449)</td>
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<td>.240*</td>
<td>.247*</td>
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<td>(.504)</td>
<td>(.521)</td>
<td>(.520)</td>
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<td></td>
</tr>
<tr>
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<td>.727</td>
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<tr>
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<td>.911</td>
<td>.591</td>
<td>.471</td>
<td>.496</td>
</tr>
</tbody>
</table>

Significant at $p(a) < .05$
differential pattern of effects is also reflected in the impact of the antecedent variables after controlling for the influence of models. Father's occupational status exercises a direct effect upon all of the ultimate dependent variables. In a similar manner, both mental ability and academic performance maintain direct effects. Thus, it appears that the characteristics of models do not serve in a major intervening capacity at all.

The educational attainment of models does serve as a major determinant of educational goals, however. In fact, it tends to be the dominant predictor of all of the dependent variables, with the exception of its effect upon educational fantasy choice. The magnitude of its relationship to these variables follows a divergent pattern from that of definers' expectations. The coefficients are consistently lower than that associated with the educational expectations of definers. Additionally, whereas definers had a progressively greater impact as the realism of choice increased, the impact of models does not operate in that fashion. Models appear to have greatest effect upon aspirations, with their effect upon expectations being somewhat smaller and the impact upon fantasy choice being even smaller. This pattern of effects would seem to suggest that (1) models are not as pervasive in their impact upon educational goals and (2) the influence which they render is not as realistically based.
In order to fully explicate the role of models as an intervener and to allow a more adequate comparison of that role with that of definers, a comparison of the effects of antecedent variables without interveners, with the expectations of definers, and with the attainment of models is presented in Table 15. This format followed in this table is similar to those presented before; however, it is expanded to facilitate a three-way comparison.

Presenting the data in this form makes it quite obvious that the attainment characteristics of models do not serve as well as definers' expectations in the capacity of intervener. Partialing out the educational expectations of definers reduces or essentially eliminates the direct effects of all antecedent variables, with the exception of mother's education. Controlling for the educational attainment of models, on the other hand, has very little effect as an intervener. There is some slight reduction in the effect of mental ability evidenced; however, the effects of all other antecedent variables maintain a constant level or, if anything, tend to be inflated.

Having considered the operation of the attainment characteristics of models within the model employing status indices of social background, concern is now turned to assessment of a similar model including the measures of parental values. The model being focused upon is presented in Figure 20.
TABLE 15

Effects of Exogenous Variables on Educational Goals With and Without Either Definers' Expectations or Models' Attainment as Intervener

<table>
<thead>
<tr>
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<th>Without Interveners</th>
<th>With Definers</th>
<th>With Models</th>
</tr>
</thead>
<tbody>
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<td>EE</td>
</tr>
<tr>
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<td>0.132</td>
<td>0.144</td>
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<td>-0.066</td>
<td>-0.017</td>
<td>-0.085</td>
</tr>
<tr>
<td>MA</td>
<td>0.332*</td>
<td>0.303*</td>
<td>0.300*</td>
</tr>
<tr>
<td>AP</td>
<td>0.268*</td>
<td>0.209*</td>
<td>0.203*</td>
</tr>
<tr>
<td>R</td>
<td>0.571</td>
<td>0.611</td>
<td>0.628</td>
</tr>
<tr>
<td>R²</td>
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</tr>
<tr>
<td>Residual</td>
<td>0.674</td>
<td>0.627</td>
<td>0.606</td>
</tr>
</tbody>
</table>

*Significant at p(α) < .05
Figure 20: Expanded Model, The Inclusion of Models' Attainment with Expanded Exogenous
Table 16 reveals the path coefficients corresponding to the model presented in Figure 20. It is apparent upon examination of these findings that again the attainment characteristics of models function in a manner divergent from the operation of definers' expectations. However, several interesting points deserve comment. In terms of determinants of model influence, it is found that most of the antecedent variables do not exert any impact. However, as found in the model previously considered, father's education does have an eliciting effect upon these characteristics. Furthermore, mother's educational expectations for herself have a very definite impact upon model characteristics. In fact, this variable appears to contribute the greatest portion of variance which is explained in models' attainment.\textsuperscript{7}

In examining the direct effects of the antecedent variables, after controlling for the attainment of models, it is found that those variables exerting impact prior to such control maintain their influence.\textsuperscript{8} In addition, father's occupational status and father's educational expectations for himself are now found to exert an impact upon educational expectations of the son. The impact of the educational attainment of models upon the three dependent variables follows the same pattern as described previously.
### TABLE 16

Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Model Including Models' Attainment with Expanded Exogenous

<table>
<thead>
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<th>EE</th>
</tr>
</thead>
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<td>(.303)</td>
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<td>(.449)</td>
</tr>
<tr>
<td><strong>FE</strong></td>
<td>.014</td>
<td>.313*</td>
<td>-.091</td>
<td>.010</td>
<td>.028</td>
</tr>
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<td>(.270)</td>
<td>(.269)</td>
<td>(.406)</td>
<td>(.423)</td>
</tr>
<tr>
<td><strong>ME</strong></td>
<td>.145</td>
<td>-.101</td>
<td>-.064</td>
<td>-.040</td>
<td>-.133</td>
</tr>
<tr>
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<td>(.123)</td>
<td>(.304)</td>
<td>(.271)</td>
<td></td>
</tr>
<tr>
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<td>-.205</td>
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<td>.117</td>
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<td>(.319)</td>
<td>(.396)</td>
</tr>
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<td>(.391)</td>
<td>(.415)</td>
</tr>
<tr>
<td><strong>MA</strong></td>
<td>.454*</td>
<td>.150</td>
<td>.283*</td>
<td>.242*</td>
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<tr>
<td></td>
<td>(.482)</td>
<td>(.204)</td>
<td>(.504)</td>
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<tr>
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<td>.232*</td>
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<td></td>
<td>(.054)</td>
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<td><strong>EAM</strong></td>
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<td>.411</td>
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<td>(.379)</td>
<td>(.513)</td>
<td>(.457)</td>
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</tr>
<tr>
<td><strong>R</strong></td>
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<td>.464</td>
<td>.645</td>
<td>.735</td>
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<tr>
<td><strong>R^2</strong></td>
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<td>.416</td>
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<td>.737</td>
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<td>.584</td>
<td>.460</td>
<td>.469</td>
</tr>
</tbody>
</table>

* Significant at $p(\alpha) < .05$
Again, in an effort to facilitate comparison of the roles of definers' expectations and models' attainment characteristics, a summary of the effects of their intervention is presented in Table 17. As found before, the expectations of definers absorb more of the effects of the antecedents. However, both definers' expectations and attainment of models do intervene between mother's educational expectations for herself and the dependent variables. In both cases, this antecedent variable does not exert a direct effect after the interpersonal influence variable is partialed out. It appears that in both situations, the expectations which mothers have for themselves serve primarily an influence elicitor function. Furthermore, controlling for these influence variables, in each case it is found that a variable (or variables) assumes an impact which it did not manifest before. In controlling for definers' expectations, mother's education manifests an inverse relationship to her son's expectations. When the attainment characteristics of models are taken into account, both father's occupational status and father's educational expectations for himself exhibit an impact upon son's educational expectations.

Up to this juncture in the discussion, the role of models and the role definers have been considered separately. It has been found that the attainment characteristics of models do not intervene in a manner
TABLE 17

Effects of Expanded Exogenous Variables on Educational Goals With and Without Either Definers' Expectations or Models' Attainment as Intervener

<table>
<thead>
<tr>
<th></th>
<th>Without Interveners</th>
<th>With Definers</th>
<th>With Models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>EA</td>
<td>EE</td>
</tr>
<tr>
<td>FO</td>
<td>.130</td>
<td>.120</td>
<td>.148</td>
</tr>
<tr>
<td>FE</td>
<td>.011</td>
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<tr>
<td>ME</td>
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<td>-.081</td>
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</tr>
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</tr>
<tr>
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<td>MA</td>
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<td>.303*</td>
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<td>R</td>
<td>.577</td>
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<tr>
<td>Residual</td>
<td>.667</td>
<td>.593</td>
<td>.553</td>
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</tbody>
</table>

♦Significant at p(α) < .05
consonant with the functioning of the educational expectations of definers. This is not an entirely surprising finding in that models were not posited as functionally equivalent to definers, but rather were posited as complementary forces. In particular, it was suggested that models were partially elicited by the educational expectations of definers and served as conditioning factors vis-a-vis those expectations. Thus, in order to adequately appraise this position, attention is now directed to the elaboration of the joint operation of these two modes of influence within a causal system. In so doing, the expanded array of exogenous variables is employed to indicate social background. Such a stance is merited at this point given that it has been shown that parental values appear to serve an important function as elicitors of both modes of influence.

The Inclusion of Both Definers and Models: The incorporation of the educational expectations of definers and the educational attainment of models into a causal system posited as reflective of the process of educational goal formation is depicted in Figure 21. It should be noted that consonant with the prior conceptualization of the interrelationship between definers and models, definers' expectations and models' attainment characteristics are not depicted as occurring simultaneously but rather the influence of models occurs after that of definers in a manner indicating some degree of intervention.
Figure 21: Expanded Model, The Inclusion of Definers' Expectations and Models' Attainment.
The analysis coinciding with the relationships posited in this figure is presented in Table 18. Examination of the coefficients provides several interesting findings. Of most immediate interest is the patterning which takes place in the determinants of attainment characteristics of models when definers' expectations are included as determinants. Father's education and mother's educational expectations for herself remain significant in their impact upon these attainment characteristics. However, whereas prior to inclusion of the influence of definers neither father's educational expectations for himself and academic performance exhibited significant effects, after such inclusion both are revealed to have somewhat substantial inverse effects. Thus, in controlling for the impact of definers' expectations, the data suggests that the higher father's educational expectations for himself the lower the level of educational attainment exhibited by models; or put conversely, the lower father's educational expectations for himself the higher the level of models' achievement. A similar situation prevails in the impact of academic performance once definers' expectations are taken into account. Thus, the lower a youth's academic performance is, the higher the level of educational attainment of his models. Conversely, a higher level of academic performance elicits a lower level of achievement exemplified by the models.
TABLE 18

Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Model Including Definers' Expectations and Models' Attainment

<table>
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<td>(.423)</td>
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<td>-.284*</td>
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<td>(.396)</td>
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<td>.230*</td>
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<td>.401</td>
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</table>

*Significant at $p(\alpha) < .05$
To say the least, these findings are somewhat surprising. Furthermore, it is particularly puzzling that father's educational expectations operate in such a manner given the positive impact of father's education. Yet, if one looks back to the initial inclusion of models into this system, it is found that this trend began prior to the partialing out of definers' expectations. This suggests that there is something about the bivariate relationship between father's education and his self expectation which elicits such a seemingly anomalous finding. It may well be that in considering the impact of these two variables that positing their impact in a linear additive manner distorts their effects. However, at this point, it is not feasible to consider this matter further. An attempt is made in the next chapter to explicate this matter more fully.

The impact of academic performance upon the attainment characteristics of models is also quite paradoxical. However, again when the prior model including the influence of educational models is examined, the trend is seen to originate prior to the inclusion of definers' expectations. Thus, this anomalous finding does not totally originate with the controlling of definers' influence. Yet to know that does not really clarify the situation. It is obvious that this finding requires further consideration in the next chapter.
Before examining the relationships of the influence variables to the ultimate dependent variables, the inter-relationship between the expectations of definers and models' characteristics requires elaboration. It was posited that definers' expectations serve as determinants of the influence of models. As can be seen from Table 18, the coefficient between these variables is consistent with that contention. Indeed, the educational expectations of definers is the dominant antecedent variable among those considered. However, it should be pointed out that the accuracy with which the educational attainment of models is estimated is far less than that achieved in estimating the expectation of definers. This observation does not necessarily obviate the impact of the determinants delineated; however, it does suggest that the process by which model influence is elicited is substantially divergent from the elicitation pattern of definers' expectations.

Turning to the findings dealing with the effects upon the ultimate dependent variables, it is found that father's occupation has a significant impact upon educational expectations and mother's education maintains its negative effect upon the same variable. Mental ability's impact is somewhat reduced but still has a significant effect upon all three measures of educational goals. On the other hand, the only dependent variable upon which academic performance is found to impact is educational fantasy choice.
Perhaps, of most interest at this point is the influence rendered by the two types of significant others when both are considered simultaneously. Consistent with expectations, both modes of influence exhibit significant impacts upon the three dependent variables. Indeed, in comparison with the other variables considered, it is clear that these influence variables are the dominant predictors of educational goals. However, as one might also expect, the effects observed are not of the same magnitude for all of the dependent variables. Their effects upon level of fantasy choice and aspiration are very similar but the expectations of definers clearly have a greater impact upon the more realistic educational expectations (.413 vs. .259). Again, as observed previously, the expectations of definers exert progressively greater impacts upon the more realistic goals, while the attainment characteristics of models exert the greatest impact upon aspirations.

There is one other relationship which requires comment in light of the posited formulation. It was suggested that a portion of the effect of definers' expectations upon educational goals would be mediated by the effect of these expectations upon the attainment characteristics of models. In order to evaluate this position, Table 19 presents a comparison of the impact of definers' expectations before and after the inclusion of the educational attainment of models. It is apparent
upon examination of the coefficients presented in this table, that this position seems warranted. The impact of the educational expectations of definers on the three measures of educational goals is reduced substantially in all cases when the impact of models is taken into account.

TABLE 19
Impact of Definers' Expectations upon Educational Goals With and Without Models' Attainment as Intervener

<table>
<thead>
<tr>
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<th>Without Models</th>
<th>With Models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>R^2</td>
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<td>.510</td>
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</table>

*Significant at p(α) < .05

Upon consideration of this interrelationship between models and definers, it should be noted that this intervention of models' attainment between the expectations of definers and educational goals was not posited as a universalistic phenomenon irrespective of definers' role relationships to the youths. In fact, it was suggested in Chapter II that the expectations which parents held for their children were likely to manifest only direct effects upon educational goals. Therefore, at this time it is appropriate that the expectations of parents and
nonparents both be considered. Furthermore, such a disaggrega
gation is appropriate in order to further specify the im-
pact of determinants of influence. In order to adequately
specify the differential impact of these two groups of
definers in relationship to the impact of models, it is
necessary that attention initially be given to an elabora-
tion of their impact without having taken into account
models' attainment. Thus, attention is currently focused
upon the causal system depicted in Figure 22.

The path coefficients consonant with the relation-
ships posited in this model are presented in Table 20.
Upon consideration of these coefficients, the relationships
found point up a few divergencies in both the determinants
and consequences of the expectations of these two classes
of definers. Both are affected by mother's educational
expectations for herself, mental ability, and academic
performance. However, the magnitude of effect for the
first and third of these variables on the expectations
of parents as contrasted to the nonparental expectations
differs somewhat. While mother's expectations for herself
tend to be predominant in the case of parents, academic
performance renders the greatest influence on nonparents.
The latter finding is consistent with other findings
looking at the role of certain nonparental definers
(Hauser, 1972; Williams, 1972). There is one other
variable which exhibits an impact upon parental expecta-
tions alone and that is father's educational expectations
Figure 22: The Differential Role of Parental and Non-parental Definers' Expectations.
TABLE 20
Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Model With Definers' Expectations Disaggregated

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*Significant at $p(\alpha) < .05$
for himself. It would seem that, congruent with one's expectations, parents' expectations for themselves (i.e., value orientations toward educational achievement) are key determinants of the expectations which these parents hold for their children.

Of equal importance is the differential influence of the two groups' expectations on the youths' educational goals. Parents' expectations appear to be the dominant variable affecting educational expectations. Nonparents do have an effect but it is only about two-thirds as large as that of parents. Furthermore, nonparental expectations exhibit an impact upon aspirations while parental expectations do not. Neither of the two classes of expectations have a significant effect upon educational fantasy choice.

Having briefly considered the differential impact of parental and nonparental expectations upon educational goals without concern for the influence of models, attention may now be directed to the patterns which are found when this latter mode of influence is incorporated. The model corresponding to the analysis which is presented is depicted in Figure 23.

Table 21 reports the coefficients which correspond to the specified relationships presented in this model. Examination of the data reveals that the patterning of determinants of models' attainments is altered somewhat by the disaggregation of definers. The effects of father's educational expectations for himself and academic
FO - father's occupational status
FE - father's education
ME - mother's education
FEE - father's educational expectations for self
MEE - mother's educational expectations for self
MA - mental ability
AP - academic performance
PE - parental expectations
NPE - nonparental expectations
EAM - educational attainment of goals
EG - educational goals

Figure 23: Total Expanded Model, Disaggregated Definers' Expectations and Models' Attainment.
### TABLE 21

Path Coefficients, Zero-Order Correlations and Coefficients of Determination ($R^2$) for Model with Parental Expectations, Nonparental Expectations and Models' Attainment

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*Significant at $p(\alpha) < .05$
performance are still negative, however they are no longer significant. Additionally, other changes become apparent. Mother's educational expectations for herself have increased in magnitude and relative importance of impact upon the educational attainment of models. This antecedent variable appears to be the dominant influence as compared to the others included in the analysis.

It is particularly interesting to note the differential influence of parental and nonparental expectations as determinants of model influence. It was suggested previously the effect of parental expectations upon educational goals was less likely to be mediated by the impact of models' attainment than was the impact of parental expectations. This position is generally congruent with the finding that parental expectations exhibit no effect upon model characteristics, but nonparental expectations do have an impact upon these attainment levels.

That this pattern of relationship is likely is further supported when the effects upon the ultimate dependent variables are examined. Non-parental expectations are found to have essentially no impact upon any of the dependent variables once the educational attainment of models is taken into account. On the other hand, the effect of parental expectations upon the educational expectations of their sons is not reduced and it is now found to have a significant impact upon aspirations as well. Models' attainment maintains its effects upon all
of the dependent variables and in fact, these effects appear to increase somewhat. With the exception of mental ability and academic performance all other antecedents fail to exhibit any impact. The fact that mental ability affects each of the dependent variables is consistent with its operation through all of the causal models examined. Likewise, the effect of academic performance on educational fantasy choice is consistent with its behavior whenever the attainment characteristics of models have been included in the system under analysis. Thus, it is apparent that the significant other variables taken as a group do a fairly adequate job of intervening between the background variables and the ultimate dependent variables.11

One other point should be made about this final model. Focusing upon the accuracy of estimation of the various variables examined in a dependent capacity, including interveners and ultimate dependent variables, it becomes apparent that in general this model is fairly successful in estimating most of the variables included in the causal system. Of the seven dependent variables considered in the model, the variance explained in four of them exceeds fifty percent (parental expectation, non-parental expectations, educational aspirations, and educational expectations). Even those variables which are not predicted as well as these mentioned are fairly adequate given the present level of estimation currently achieved in most sociological work.
Summary of the Chapter

This chapter has focused upon a series of analyses intended to assess the merits of the conceptualizations posited in the first sections of this report. In presenting the relevant sets of analysis, the discussion has centered upon the role of the various modes of influence as intervening variables in the process by which social and personal background is translated and/or modified into youths' educational plans. This approach allowed assessment of both the posited determinants and consequences of the two modes of significant other influence.

In general, most of the posited relationships were found to be supported. Yet, none of the causal systems explored can be considered completely satisfactory. However, the findings do suggest that the models are worthy of further consideration and elaboration. Attention is now directed to the fifth and final chapter of this report in which the key findings of this analysis are summarized and elaborated upon. In addition, discussion centers upon the interpretations and implications which derive from these findings.
Footnotes for Chapter IV

1 This proportion is computed by summing the percentage of definers residing in each category of nuclear and extended familial role relationship.

2 This latter proportion is computed by dividing the number of definers who are parents by the total number of familial definers.

3 Given the fact that the analysis of models' impact upon educational goals relies upon an aggregate measure of the average attainment level all of a youth's models and the distribution of the small proportion of models that the youth are not acquainted with, it is not feasible to consider the impact of these two types of models separately.

4 This interpretation is somewhat substantiated by examination of the zero-order correlations presented in Appendix A.

5 See Table 10, p. 145, for the effects of antecedents upon the educational expectations of definers.

6 See Table 10, p. 145.

7 Land (1969: 10) has pointed out that the squared path coefficient measures the amount of variance in the dependent variable for which the determinant is directly responsible. Thus, mother's educational expectations for herself accounts for 17.2 percent of the variance in educational attainment of models.

8 See Table 9, p. 142, for the effects of mental ability and academic performance upon educational goals.

9 See Table 16, p. 164.
See Table 16, p. 164.

11 This finding is so readily apparent in Table 20 that it is unnecessary to provide the reader with a table comparing coefficients before and after inclusion of intervening variables.
CHAPTER V
SUMMARY AND CONCLUSIONS

Introduction

This fifth and final chapter represents an attempt to summarize the findings and to assess the utility of the work which has been presented in this study. To facilitate such a presentation, the chapter is organized in terms of five major topics: (1) a summary of the major findings of this endeavor, (2) an elaboration of the implications which these findings have for the conceptualization posited in Chapter II, (3) a discussion of the major limitations inherent in this study, (4) a delineation of potential lines of development for future conceptual and empirical work in the area of status aspiration formation, and (5) a discussion of the pragmatic implications of this research for the "real world" in which youth form their educational plans.

Summary of Findings

The study reported in this dissertation had two major objectives. The first objective was to assess the consequences of the influence of definers vis-a-vis the
influence of models within the context of the process of educational aspiration formation. Such an assessment was intended to evaluate the utility of maintaining the distinction between these two modes of influence. The second objective was to evaluate the adequacy of modifying the previously assumed determinants of significant other influence to include consideration of the cultural values which also impinge upon that influence. Given the fact that these objectives were not isolated concerns but were part of a more general aim to further clarify the process by which youth formulate their educational goals, the concomitant analysis focused upon a series of causal models taken to be increasingly indicative of that process.

The following narrative provides a rather detailed summary of the findings provided by this series of analyses. This summary is intended to serve as a review of the major points covered in the analyses and to provide a basis for the inferences and conclusions which follow. To minimize the confusion likely to ensue with the complexities inherent in this type of analysis, this section is divided into three major parts: (1) a description of the two types of significant others, (2) a discussion of the findings regarding determinants of the differential modes of influence, and (3) a detailing of the findings regarding the consequences of the influence rendered by the two types
of significant others upon each other and upon the educational goals of the respondents.

**Description of Significant Others**

In the first part of Chapter IV, attention was directed to a brief descriptive analysis of the two types of significant others. This analysis yielded the following results:

1. There were a total of 937 educational significant others named by the youth in this study; of this total, over three-fifths were named as definers and the remainder named as models.

2. The primary source of definers was found to be either the nuclear or extended family, with parents collectively constituting the modal source of definers; among models, sources external to the family network provide the majority of persons named.

3. Closer examination of the overlap of personnel between the two modes of influence revealed that relatively few persons exerted influence as both a model and a definer.

4. The great majority of models were found to be persons with whom the youths were personally acquainted; however, thirty percent were persons they did not know.

**Findings: Determinants of Significant Other Influence**

The first phase of analysis examining the role of the various determinants of significant other influence sought to assess the relevance of these variables for the educational goals of youth without considering their impact upon or through the influence variables. Four reduced models, incorporating different indicators of social background, were analyzed. Two models are of major
relevance and are, therefore, considered at this point.
The first model of importance is that which included dis-aggregated measures of socioeconomic status, mental ability, and academic performance as the predictors of the three levels of educational goals. This analysis provided the following information:

1. Of the three measures of socioeconomic status, only father's education was found to be a significant predictor; it had a significant impact upon educational aspirations and expectations.

2. Mental ability is a significant predictor of all of the educational goal variables, tending to be the dominant predictor.

3. Academic performance, likewise, significantly affects all of the dependent variables, although to a lesser degree than mental ability.

When a second reduced model containing father's educational expectations for himself and mother's educational expectations for herself in addition to the variables included in the first model is examined, the following results obtain:

1. Of the five social background variables included, only mother's educational expectations for herself has a significant effect upon any of the variables indexing educational goals; her expectations serve as predictors of educational aspirations and expectations.

2. Mental ability has the dominant impact again and is a significant predictor of all of the dependent variables.

3. Academic performance, also, has significant effects on all of the goal variables and again, is not as strong in its effect as mental ability.
When the educational expectations of definers are incorporated into the first reduced model, that relying upon status variables as measured of social background, the following is found with regards to prediction of those expectations:

1. Of all the status variables posited as potential determinants of definers' expectations.

2. Mental ability has a significant impact upon those expectations and ranks second in importance as a predictor.

Expanding the exogenous variables to include father's educational for himself and mother's educational expectations for herself, the estimation of the educational expectations held by definers for the youth exhibited the following pattern of effects:

1. The parental expectation variables replace the status variables as predictors of definers' expectations; none of the status variables have an effect, while both parental self-expectations have significant impacts. In fact, mother's expectations serve as one of the major predictors.

2. Academic performance has a significant positive effect upon the educational expectations of definers and is equivalent in magnitude of effect to the effect of mother's educational expectations for herself.

3. Mental ability also has a significant impact upon the definers' expectations.

4. This expanded set of determinants also more adequately explains the expectations of definers than does the set of determinants including only status variables.

Replacing definers' expectations with the attainment characteristics of models in the causal system
utilizing only status variables as indicators of social background, the following pattern of determination of those characteristics is found:

1. In marked contrast to the results obtained in examining the determinants of the expectations of definers, the educational attainment of models is significantly affected by only father's education.

Examining the pattern of determinants found when the parental self-expectations are included as determinants of the attainment of models, the following results are revealed:

1. Father's education maintains its impact as a significant predictor of the educational attainment of models.

2. Mother's educational expectations for herself are found to be the prime determinant of the educational attainment of models.

3. This expanded set of determinants predicts the educational attainment of models more adequately than the set of determinants relying upon status variables as indices of social background.

After considering the pattern of determinants separately for models and definers, the two modes of influence were incorporated into model utilizing all of the measures of social background. This allowed for a further assessment of determinants of model characteristics in that (1) definers' expectations were posited as partial determinants of model characteristics and (2) controlling for definers' expectations affects the role of the other determinants. Thus, when both definers and models were included in the causal system, the following results obtain:
1. Father's education remains as a significant predictor of the attainment characteristics of models.

2. Mother's educational expectations for herself again manifest a significant effect upon the attainment of models.

3. Father's educational expectations for himself are found to have a significant negative effect upon the attainment of models.

4. Academic performance is also found to have a significant negative effect upon model characteristics.

5. The educational expectations of definers, in aggregate form, are found to be the dominant significant predictor of the educational attainment of models.

6. The adequacy of prediction of model characteristics is slightly increased by this model.

In that there were differential relationships posited to occur between parental definers and nonparental definers in their relationship to model characteristics, it was necessary to consider the effects of both of these classes of definers simultaneously. However, prior to examining their relationship to models, their differential roles were examined without such inclusion of models. This disaggregation revealed the following information regarding the determinants of the expectations of parents for their son as contrasted to nonparental expectations:

1. Father's educational expectations for himself was found to have a significant effect upon parental expectations, but not nonparental expectations.

2. Mother's educational expectations for herself exhibited a significant impact upon both parental and nonparental expectations; in the case of the former, it was the dominant predictor.
3. Mental ability was a significant predictor of both parental and nonparental expectations.

4. Academic performance was also found to have a significant effect upon both sets of definers' expectations; it was the dominant predictor of nonparental expectations.

Incorporating the educational attainment of models into the causal system including parental and nonparental expectations allowed a closer specification of the role of definers as determinants of model influence. Analysis of this causal model revealed the following pattern of determinants of models' attainment:

1. Father's education was found to have a significant effect upon the attainment of models.

2. Mother's educational expectations for herself was a significant predictor of models' attainment characteristics; in fact, it appears to be the dominant predictor among the determinants considered.

3. Nonparental expectations was found to have a significant impact upon attainment characteristics; however, as posited, parental expectations did not manifest a significant impact.

4. In contrast to the relationships observed when definers' expectations were employed in aggregate form, father's educational expectations for himself and academic performance did not manifest significant effects upon the educational attainment of models.

Findings: The Consequences of Significant Other Influences

In assessing the consequences of the two modes of significant other influence, two strategies were employed: (1) the impact of the influence variables themselves upon the three levels of educational goals was examined, and (2) the degree to which these variables served as
The first model examined was that which focused upon the effect of definers' expectations within a causal system employing status variables as the indices of social background. The analysis provided the following information:

1. The educational expectations of definers, in aggregate form, manifests a definite impact upon all three levels of educational goals; in fact, it clearly serves as the dominant predictor of these goals. Furthermore, the magnitude of effects increases as the educational goal becomes more realistic.

2. In examining the effect of definers' expectations as an intervening variable, it is found that the direct effects of father's education, mental ability, and academic performance are all reduced by the inclusion of these expectations. However, the degree of reduction varies substantially. Father's education remains as a significant predictor of educational expectations and mental ability remains as a significant determinant of all of the ultimate dependent variables. Only the effect of academic performance upon these educational goals is reduced to the point of non-significance.

3. Also, with the control of definers' expectations, mother's education manifests a significant negative effect upon son's educational expectations.

4. The incorporation of definers' expectations increases the amount of variance explained in the dependent variables substantially.
With the expansion of the exogenous variables to include parental self-expectations, the following patterning of effects obtain:

1. The educational expectations of definers exhibit the dominant impact upon all of the levels of educational goals.

2. By controlling for the effect of definers' expectations, the effects of mother's educational expectations for herself and academic performance upon son's educational aspirations and expectations are reduced to non-significance.

3. The effect of mental ability upon the ultimate dependent variables is reduced but remains significant.

4. Mother's education is still found to manifest a significant, negative effect upon son's educational expectations.

5. The inclusion of definers' expectations increases the accuracy with which the dependent variables may be estimated.

Replacing the educational expectations of definers with the educational attainment of models in the causal model employing status variables, the following pattern of consequences are found:

1. The attainment characteristics of models are found to have a significant impact upon all of the ultimate dependent variables; specifically, it appears to be the dominant predictor of educational goals. Furthermore, this variable has the greatest impact upon educational aspirations rather than educational expectations.

2. The educational attainment of models has very little impact as an intervening variable between background variables and educational goals. This conclusion is evidenced by the finding that father's education and academic performance maintain the significance and
magnitude of effects manifested before considering models' attainment; only the effect of mental ability is somewhat reduced and it remains significant.

3. The accuracy of prediction of the ultimate dependent variables is increased by inclusion of models as contrasted to the operation of background variables exclusively.

Upon expansion of the exogenous variables to include father's educational expectations for himself and mother's educational expectations for herself, a similar pattern of consequences was found:

1. Models' attainment still prevails as the dominant predictor of the three levels of educational goals.

2. The direct effects of mother's educational expectations for herself on son's educational aspirations and expectations are reduced to nonsignificance.

3. The direct effects of mental ability on all of the dependent variables is decreased but remains significant.

4. Academic performance is found to exhibit significant effects upon the educational goal variables similar in magnitude to that found prior to inclusion of model influence.

5. Although prior to the inclusion of models' attainment father's occupational status and father's educational expectations for himself did not exhibit significant effects upon any of the ultimate dependent variables, after such inclusion both of these variables are found to be significant predictors of educational expectations.

6. Again, when contrasted with the reduced model, that incorporating the effects of models' attainment provides more accurate estimation of the educational goals.
The incorporation of educational expectations of definers, in aggregate form, into the expanded model including attainment of models reveals the following patterning of consequences of influence:

1. Both definers' expectations and models' attainment manifest significant effects upon the three measures of educational goals; however, the expectations of definers have a substantially greater effect upon educational expectations. Furthermore, the impact of the expectations of definers is reduced by the inclusion of model characteristics.

2. Father's occupational status is found to have a significant effect upon son's educational expectations.

3. Mother's education maintains its significant negative effect upon educational expectations.

4. The effect of mental ability upon the three levels of educational goals is reduced but remains significant.

5. Academic performance exhibits a significant impact upon educational fantasy choice only.

Before definers' expectations were disaggregated and their consequences assessed when considered simultaneously with the operation of models' attainment, the consequences of parental and nonparental expectations were examined. Such examination revealed the following information:

1. Both parental and nonparental expectations had significant effects upon educational expectations; however, only nonparental expectations significantly affected educational aspirations and neither set of expectations served as a predictor of fantasy choice. Furthermore, parental expectations have a greater impact upon son's educational expectations than do those of nonparents.
2. Mother's education still exhibits a significant negative effect upon educational expectations.

3. The effect of mental ability upon all levels of educational goals is significant.

4. Academic performance does not significantly affect any of the ultimate dependent variables when these influence variables are controlled.

The final model considered employed all of the differential sources of interpersonal influence. The consequences of these influences were observed to be as follows:

1. Both the expectations of parents and the educational attainment of models were found to have significant impacts upon all three measures of educational goals. Parental expectations manifested a slightly larger effect upon educational expectations than did models' attainments, while the characteristics of models exhibited greater impact upon aspirations and fantasy choices.

2. Nonparental expectations were not found to have significant effects upon the ultimate dependent variables once models' attainment was taken into account.

3. The only other variables maintaining significant effects upon the dependent variables were mental ability and academic performance; mental ability exhibits a significant impact upon all of the dependent variables, while academic performance significantly affects only educational fantasy choice.

4. The degree of accuracy of estimation of the three dependent variables is increased so that this model represents the greatest explained variance achieved.

Implications for the Posited Conceptualization

In Chapter II of this report, it was suggested that the full explication of the process by which youth
formulate their status aspirations required further elaboration of the role played by significant others in that process. Specifically, the suggestion was made that attention needed to be directed to the determinants and consequences of the influence rendered by these others. In the case of the former, it was posited that emphasis on the role of socioeconomic status as the definitive indicator of the sociocultural factors which serve to elicit or determine significant other influence was likely to be too limited a conceptualization. Such an exclusive focus did not allow for the diversity of cultural values which might reside with a given socioeconomic strata and which might also affect the role played by significant others. In an effort to remedy this situation, the role of parental orientations to educational attainment was incorporated as a possible indicator of cultural values which might prove relevant.

With respect to the delineation of the consequences of significant other influence, it was contended that distinction made between significant others who exerted their influence as definers and those who did so as models was a relevant one. However, the differential roles enacted by these two types of influences had not been adequately conceptualized nor empirically evaluated. Thus, drawing upon the reference group orientation from which the distinction between modes of influence originally derived, an attempt was made to ferret out the differential
functions likely to be characteristic of the two types of significant others. In particular, it was suggested that definers and models constituted separate, though definitely related, sources of influence. Definers were delineated as those persons likely to function as the source of normative prescriptions regarding what they felt to be the level of educational achievement appropriate for the youth in question. On the other hand, models were characterized as the persons the youths would employ as comparison points to validate the expectations received from definers. Furthermore, it was suggested that the expectations of definers might function to elicit comparison to particular models. This was particularly posited as a likelihood when the youth was unsure of the definer or of the expectations. Thus, the contention was made that the expectations of nonparental definers would be more likely to elicit comparison with relevant models and therefore, were subject to validation or modification via this comparison.

Given the findings of this report, the conceptualizations posited appear to have substantial merit, despite some rather anomalous findings. Those relationships suggested as relevant tended to be supported by the findings provided in the analysis. In order to comment upon the key implications of the findings for the posited conceptualizations, the discussion will be divided into two sections: (1) the implications related to the
determinants of significant other influence and (2) those relating to the differential consequences of that influence. Determinants of Significant Other Influence

The expansion of previously assumed determinants of significant other influence to include some dimension of cultural values appears to have considerable utility for the explication of this influence. This is true despite the fact that their inclusion provides some paradoxical results. Of all the variables included as potential determinants of the influence exerted by models and definers, the variables chosen as indicative of cultural values (the self-expectations of fathers and mothers) were found generally to manifest independent effects upon the expectations of definers and the educational attainment of models. This was particularly true in the case of mother's educational expectations for herself, which was consistently the strongest predictor from among the sociocultural background variables.

The role of parental values as determinants of significant other influence was consistently supported regardless of the mode of influence under consideration. Parental self-expectations, particularly those of the mother, were found to be important predictors of definers' expectations and models' attainments alike. Ostensibly, these variables play an important role in the determination of influence rendered by significant others. This is not to say that the current knowledge concerning the
determinants of significant other influence is sufficient. On the contrary, in the case of models, it is readily apparent that consideration needs to be given to further delineations of the determinants of that influence.

This study has revealed that the background variables posited do serve as predictors of the educational attainment of models. However, their relationship to this attainment is neither sufficient nor straightforward. It is insufficient in that only about one-fourth of the variance in the attainment variable is explained, suggesting that there are other determinants operative in eliciting the influence characteristics of models. Further, and perhaps more importantly, the impact of these variables is somewhat paradoxical in that two determinants appear to be inversely related to models' attainment. Specifically, the empirical analysis indicates that the characteristics of models are inversely related to father's educational expectations for himself and academic performance, after one considers the impact of definers.

These findings are indeed surprising and definitely contrary to the relationships that were posited. The author of this report is not aware of any literature which might shed light upon these findings. Indeed, it is unlikely that there is a realistic substantive explanation for such relationships. In all probability, these findings may be a function of the statistics employed.
For example, it is reasonable to suggest that these results may be attributable to a failure to allow for interaction among the various determinants as they operate to elicit the attainment characteristics of models. If such an interaction exists and was not allowed for in the analysis, then one might expect certain anomalous findings, such as those observed, to be manifested. In any case, it is likely that these findings are not substantively meaningful but rather are attributable to the mathematical relationships entailed in the statistical analysis.

Clearly, further research is needed to identify other determinants of the influence characteristics of models and to clarify the relationships examined in this report. In regards to the latter, analysis should be so constructed so as to allow for possible interaction among the determinants posited.

**Consequences of Significant Other Influence**

The distinction made between significant others who exert their influence as definers and those who do so as models appears to have considerable relevance for the explication of the role of interpersonal influence in the aspiration formation process. Both the expectations which definers hold for the students and the educational attainment of model have strong independent effects upon the educational goals of youth. In addition, of all the variables included in the analysis, these two variables
were found to have the strongest independent effects upon educational projections. Ostensibly, both modes of influence are important to a full delineation of this decision-making process.

While both the expectations of definers and the attainment of models were consistently found to be important predictors of educational goals, the level of educational goal upon which each model had its greatest impact did vary. Definers were found to exercise more influence upon educational expectations than they did upon the less "reality-grounded" aspirations. Models, on the other hand, tended to exhibit their greatest impact upon educational aspirations rather than expectations. This differential tends to suggest that models may be of more importance for the setting of goals rather than shaping actual expectations. However, this tendency does not obviate the relevance of each mode of influence for all levels of educational goals.

This study has further revealed that the inter-relationship posited to exist between the expectations of definers and the attainment characteristics of models was supported. Commensurate with the hypotheses, definers' expectations were found to be important predictors of the educational attainment of models. Furthermore, the role relationships which definers had vis-a-vis the students did make a difference. Thus, when the expectations of definers were disaggregated into those
held by parents and those held by non-parents, non-parental expectations were found to elicit comparison with models while parental expectations did not. This finding is consistent with the contention that students would be more likely to utilize the input of comparison with models when they were unsure of the definer or his/her prescriptions. This contention is further supported by the finding that the influence exerted by nonparental definers upon educational goal is entirely "absorbed" by the intervention of the educational attainment characteristics of models. Although the foregoing evidence is by no means definitive, it does suggest that the conceptualization of the interrelationship between the influence of definers and that of models appears to have substantial merit.

While this study tends to confirm the utility of maintaining the distinction between the influence of models and the influence of definers and the posited interrelationship between them, the findings regarding the role of the significant other variables as intervening variables provides less substantial confirmation. It was suggested that the influence rendered by significant others should intervene between personal and social background variables and educational goals so that the background variables should not exhibit direct, independent effects upon these projections. The empirical analysis is somewhat indicative of this stance but there are exceptions.
Most notable among these exceptions is the effect observed of mental ability upon the educational projection variables. The magnitude of its effect is substantially reduced by the inclusion of the significant other variables, but at no point in the analysis is the effect reduced to "zero." However, in comparing the magnitude of the effect of mental ability upon goals with the effects observed for significant other influence, it is apparent that educational goals are based primarily upon the influence rendered by significant others. Yet, mental ability does have some impact upon the educational goals, suggesting that educational projections are tempered somewhat by a youth's ability.

There are two other exceptions which merit consideration. Father's occupational status and mother's educational expectations for herself do maintain independent effects upon educational expectations when definers' expectations, taken in aggregate form, and models' attainments are included in the analysis as interveners. The finding regarding father's status is commensurate with other studies (Sewell and Hauser, 1972; Wilson and Portes, 1975) and suggests that socioeconomic status may not only provide the setting for the influence of significant others but may also have a defining effect upon educational plans itself.

The effect of mother's educational expectations for herself upon son's educational expectations was quite
surprising in that it was found to be inverse. As in the case of the anomalies discussed previously, this finding is indeed paradoxical and not readily explained substantively. Again, it may be suggested that such a finding may be attributable to mathematical misspecification and requires further research and analysis.

One final observation should be made regarding the elaboration of significant other influence as a means of more clearly specifying the process of aspiration formation. Through the inclusion of both the influence of models and that of definers into the model depicting the process, the aspiration formation process has been more closely estimated than has previously been reported in work examining the impact of definers only. While it is obvious that further research is needed to substantiate and/or clarify the relationships posited, it would also seem that this conceptualization should have considerable utility for career projection research.

Limitation of the Study

As in all empirical studies, this study has certain limitations which should be taken into account in considering the utility of the findings as a basis for generalizations and future development. Thus, in order to adequately assess the importance of the findings, it is necessary that consideration be given to these limitations. The major limitations of this study stem primarily from
The first limitation inherent in this study is the sample itself. The fact that the sample was drawn from a single city in the Midwest means that the sample cannot be taken as representative of any specified population. While the analysis of certain characteristics of the parents of the primary sample suggested that the sample was not greatly divergent from what would be expected in similar metropolitan areas, it would be presumptuous to claim representativeness.\footnote{1}

Furthermore, the very manner in which the sample was drawn obviates such claims. Given that this endeavor derives from a research project primarily concerned with the specification of black-white differences, the sampling procedure was dictated by the need for a balanced sample. This, in and of itself, would not necessarily create problems in the interpretation of either subsample. However, the constraints which were involved in identifying the race of potential subjects coupled with the need for parental consent for participation does necessitate some caution in inferential interpretation.

The second major limitation of this study derives from the general assumption of linear, additive relationships among all variables included in path analysis. As
discussed previously, this assumption may not have been met by some of the variables included in the analysis presented. In fact, it would seem likely that interaction may exist among some of the background variables considered, most notably among those variables assessing socioeconomic position and values of parents.

It would seem quite plausible that certain combinations of parental status and parental values might have specific impacts which cannot be assessed when one assumes that all effects are additive. For example, it is possible that the key to the impact of these variables as determinants of significant other influence resides in the degree of congruity between them. If they are congruent, achievement and values would be basically singular in their impact. However, if they were incongruent, the degree and direction of incongruency would affect the impact of each and or both acting jointly.

It is apparent that further work needs to be done to deal with the problem of potential interaction. However, the inclusion of non-linear relationships within causal models is a problematic endeavor. Currently, the statistical community of sociology is grappling with the problem and perhaps, will soon provide guidance. It would seem to this author that before adequate causal models of the process of aspiration formation, and indeed many complex social processes, can be constructed, this problem needs to be alleviated.
The third major limitation of this study stems from the reliance upon cross-sectional data. By being limited to cross-sectional data, analysis cannot be constructed so as to investigate reciprocal effects among variables. There have been attempts to estimate reciprocal effects within causal models based upon cross-sectional data (Woelfel and Haller, 1971). However, the validity of such procedures is somewhat questionable.

Yet, it is quite likely that in process models of the type considered here that there is considerable "feedback" effects among several of these variables. For example, it is probable that the expectations of definers may not only be affected by academic performance but the expectations may affect academic striving. Or likewise, the educational plans of youth may themselves elicit attention to and consequent influence by significant others. By having to rely upon unidirectional effects, the author has been forced to use her best judgment as to the dominant direction of effects. A full explication of the process would be greatly enhanced by analysis of data over time.

The fourth limitation inherent in this study is the measurement utilized in assessing certain key variables. Specifically, the potential for measurement error appears probable for two variables: (1) the educational values of parents and (2) the educational attainment of models.
The educational values of parents were obtained by means of a "proxy" variable specifically assessing parents' expectations for their own educational achievement if they were high school students. It is apparent that, while this variable probably captures the values which parents place upon educational achievement, it is also likely to be subject to a certain amount of contamination by other factors. Most notably, it is likely to be affected by parental assessment of their own abilities and potentials. Furthermore, it may be argued that this proxy variable only indirectly measures parental attitudes toward the value of education. Probably, a more direct measurement of this variable would have been more accurate.

The measurement of the educational attainment of models represents a somewhat different type of problem. This attainment was assessed by asking the students to specify the level of education achieved by each of the persons whom they had named as models. It is probable that such a measurement may be subject to selective perception by the respondents. In other words, it is likely that students might perceive the educational attainment of their models in a manner biased toward consistency with existing aspirations.

It should be noted that this type of problem was one which was cited regarding the measurement of definers' expectations in much of the previous work. This problem was ameliorated in the case of expectations of definers,
but it remained in the case of models due to the lack of sufficient data from the models themselves. It would appear that a better assessment of this variable would be one which was elicited from the models themselves.

It may be argued from a social psychological stance that the perception of attainment may be a more relevant variable than the actual level achieved. Indeed, in the case of definers, some persons have attempted to utilize perception of expectations as an intervening variable between definers' report of expectations and students' plans (see, e.g., Hotchkiss and Scritchfield, 1975). However, it may be suggested that when trying to ferret out dimensions of interpersonal influence the impact of selective perceptions in response to an instrument may confound and/or obscure patterns of relationship that might exist. However, until both measurements are utilized and compared, it is impossible to assess the relative merit of either.

In summary, those limitations just detailed represent the major concerns affecting the utility of this study. It should be noted that any model posited by a social scientist is really only an approximation of real world processes. The model which is presented here is obviously a simplification of the dynamics involved in the process of educational aspiration formation. Thus, it is not intended as the ultimate explication of the
process; rather, it represents an attempt to identify and provide insights regarding certain relevant aspects of the process. It is a step in the continuing cycle of sociological research, which hopefully provides some insight so that research on this process may advance. Only replication and further development can assess whether such an approach has been merited.

**Suggestions for Further Development**

At this point in the report, attention is turned to the question, "Where should social scientists interested in this process go from here?" Obviously, the answer to such a question is somewhat presumptuous and may be limitless. However, several lines of further development may be and are suggested in the following discussion.

The obvious first step is replication. This study is bounded by its position in time and space and therefore, establishing the merit of the essential position taken requires independent verification. Such endeavors would benefit from attention being given to the problem outlined in the previous section. Most notably, consideration should be given to the specification and inclusion of non-linear relationships and more refined measurement of parental values and attainment characteristics of models.

Additionally, it would seem that efforts should be expanded to include occupational, as well as educational, decision-making. The roles played by models and definers
in the choice of an occupation might vary substantially from their role within the realm of educational plans. Indeed, the specialized knowledge involved in specific careers may well affect the impact of models vis-a-vis definers in this process. Such research would, out of necessity, require detailed examinations, many outside the realm of causal modeling in that consideration may have to be given to categorical differences among model characteristics.

Obviously, the "true" worth of this model requires longitudinal examination. Such examination would not only aid in specification of the time-order of components but shed light upon how the process of aspiration formation changes over time. It would be interesting indeed to follow the development of aspirations as they approach the time of achievement. Furthermore, the ultimate utility of work of this nature rests upon the ability to specify the process so as to be able to predict actual attainment. It is all very well and good to be able to predict attitudes but what are the implications of those attitudes for behavior?

In addition to the concerns directed toward a fuller explication of the process presented in this study (i.e., among white males), consideration should be given to delineation of the convergences and divergences from the model as they occur among females and other racial
groupings. What are the roles of definers and models in the process of aspiration formation among white females, black females, and black males? Before we may talk in terms of a general model of status aspiration and attainment, attention must be given to sub-group variations and similarities.

Recently, there has been some work along these lines with regards to the role of definers (see, e.g., Carter, 1972; Hout and Morgan, 1975; Treiman and Terrell, 1975; McClendon, 1976; Curry, et al., 1976a, 1976b). However, most of these studies have been content to point out differences without attempting to develop a more general model. Furthermore, much of this work has assumed universality of measurement techniques irrespective of subcultural differences in language and experience which might have very definite implications for the validity of findings. Such "selective observation" must be dealt with if our knowledge is to progress toward a general model of the aspiration-attainment process.

The foregoing answers to the question, "Where do we go from here?", are only a few of those which might be given. Yet, those few call for enormous amounts of conceptual and empirical development. They represent what this author would label the "frontier" of status attainment research. The results of such efforts would facilitate a better understanding of the process by which
the young people in our society get "inducted" into their positions as citizens and productive (or non-productive) contributors to the ongoing social organization.

**Pragmatic Implications**

Often, in modern times, to know about a social process is not enough. Social scientists are frequently faced with the question of the meaning of their work for the persons, groups, organizations, and/or societies they study. Obviously, much of what we do as social scientists is exploratory, attempting to document "social facts." As such, our findings may not merit pragmatic applications. In many respects, the findings reported in this dissertation are of that type. Given that this endeavor represents an exploration of the roles of models and definers in aspiration formation, it requires further verification and specification before it may be justifiable to speak of pragmatic applications. However, it does represent a set of ideas which, if further development upholds them, may have very definite implications for the "real world." Thus, it is to these possibilities that attention is now directed.

Of what use would information regarding the role of different kinds of significant others in career decisions be? In general, knowledge of interpersonal influence within the career decision-making process could provide grounds for intervention in the process
so as to impact upon the options which young people perceive as available and legitimate. Such a position has been advocated before with regards to the role of definers, as seen in the following comment by Sewell, Haller and Portes (1969: 90):

"... practical change agents might be able to change levels of attainment, either by inserting themselves or others as new significant others or by changing the expectations existing significant others have for the individual."

It is apparent from this comment that Sewell and his associates see some utility in manipulating the influence provided by significant others. Why is this so? They are pointing to a possible means of improving young people's chances to find a niche in society's ongoing educational and occupational structure which is beneficial to both the young persons and society. Many young persons, because of their cultural background or experience, do not have access to or perceive options which are consistent with their productive potential. By providing their current significant others with more information or by giving these young people new influencers, the plans which are made might be improved and greater attainment be achieved.

The particular role of models in this process should be obvious. If indeed models do influence career decisions, as the findings of this report suggest, then not only may the role of definers be manipulated but so may that of models. In fact, it may be somewhat easier
in the latter case. By definition, models do not have
to be persons with whom the individual interacts,
although more influence may be exercised by those who
do so. Thus, it would seem that in many cases the major
task would be to make more "good" role models visible and
detailed, so that in effect youth are given more informa-
tion about their possibilities through observation. This
approach may have particular potential for those whose
own environment does not provide them access to persons
who have "made it."

It should be noted that what is being suggested is
not an entire society of lawyers or doctors but rather a
more viable utilization of potential. Of course, such a
manipulation of influence mechanisms presupposes a societal
structure which would accommodate the inclusion of persons
into occupations where they might not originally have
been. However, it would seem, from the somewhat idealistic
stance of this author, that society should stand to benefit
from optimum utilization of talents. This of course does
not necessitate that it would adjust easily or without
problems. Yet, this direction might be a feasible one if
the social organization of the society was in agreement.

Obviously, the foregoing discussion contains a
substantial number of "ifs"—if the idea has empirical
substance, if intervention can be achieved, if new
sources of influence could be accepted, etc. Yet, it
would seem that there may be some practical use for this
knowledge, if it is knowledge, in the real world. However, as a human being who cares about others, I must advise caution. There are numerous bridges to be crossed before we are ready to proceed and then we as social scientists, and as potential policy makers, must proceed with extreme caution.

Summary

In this chapter an attempt has been made to summarize and comment upon the findings revealed in this study. Obviously, many of the specific findings of the analysis presented in Chapter IV have been excluded. Within the confines of this endeavor, it is not feasible to discuss every factor in detail; rather, an attempt has been made to focus upon the key findings and their implications and limitations. It was suggested that while the findings tend to be consistent with expectation, there are anomalies and limitations which necessitate further development and examination. Some of the particular directions which such delineations might take were briefly discussed. Finally, the practical implications of the type of work represented here were detailed.
Footnote to Chapter V

1This analysis is presented in Appendix A of Curry, et al., (1976).
APPENDIX A

QUESTIONNAIRE ITEMS
Father's Occupation (FE):

1. What is your occupation? (Specify the kind of work you do - if you are unemployed or retired indicate the last job you held.)

Father's/Mother's Education (FE/ME):

2. How much schooling did you complete?
   a) none
   b) 1st - 5th grade
   c) 6th grade
   d) 7th - 9th grade
   e) 10th grade
   f) 11th grade
   g) graduated from high school
   h) vocational or business school training but did not graduate
   i) some college but did not graduate
   j) graduated from vocational or business school
   k) graduated from college
   l) graduate school but no advanced degree
   m) master's degree
   n) graduate school after master's degree but no doctorate
   o) doctorate or equivalent degree (M.D., D.D., Ph.D., etc.)

Father's/Mother's Educational Expectation for Self (FEE/MEE):

3. If you were a high school student how much education do you think you REALLY COULD GET? (Check one answer)
   1. ______ 10th grade
   2. ______ 11th grade
   3. ______ graduate from high school
   4. ______ some vocational-technical school
   5. ______ some college
   6. ______ graduate from vocational or business school
   7. ______ graduate from college
   8. ______ some graduate school
   9. ______ master's degree
   10. ______ some graduate school after the master's degree
   11. ______ doctorate or equivalent degree (Ph.D., M.D., O.D.)
Parental Educational Expectations for Son (PE) [Asked of each parent]:

4. How much education do you think he [your son] REALLY WILL GET? (Check one answer)
   1. ______ 10th grade
   2. ______ 11th grade
   3. ______ graduate from high school
   4. ______ some vocational-technical school
   5. ______ some college
   6. ______ graduate from vocational or business school
   7. ______ graduate from college
   8. ______ some graduate school
   9. ______ master's degree
  10. ______ some graduate school after the master's degree
  11. ______ doctorate or equivalent degree (Ph.D., M.D., O.D.)

Nonparental Definer's Educational Expectation for Youth (NPE):

5. How much education do you think he [the youth] REALLY WILL GET? (check one answer)
   1. ______ less than a high school education
   2. ______ graduate from high school
   3. ______ graduate from vocational-technical or business school
   4. ______ some college, but not graduate
   5. ______ graduate from college and receive a B.A. degree
   6. ______ graduate from college and go on and receive a master's degree
   7. ______ receive a professional degree (Ph.D., Doctor, Lawyer, etc.)

Educational Attainment of Models - Information was given by the student in accordance with the following format (EAM):

6. 1st person on Your list [Student's list of models]

Name __________________________________________
Address _________________________________________
Occupation ______________________________________

**Educational Training ____________________________
Youth's Educational Fantasy Choice (EF):

7. If you were completely free to get any amount of education you wanted, how much would you get?
   (Circle one answer)
   1. I would not go to school at all
   2. 1st grade
   3. 2nd grade
   4. 3rd grade
   5. 4th grade
   6. 5th grade
   7. 6th grade
   8. 7th grade
   9. 8th grade
  10. 9th grade
  11. 10th grade
  12. 11th grade
  13. graduate from high school
  14. some vocational-technical school
  15. graduate from vocational-technical school
  16. some college
  17. graduate from college (B.A., B.S.)
  18. some graduate school
  19. master's degree (M.A., M.S.)
  20. some graduate school after the master's degree
  21. doctorate or equivalent degree (Ph.D., M.D., O.D.)

Youth's Educational Aspiration (EA):

8. Considering the amount of education you desire how much education will you actually try to get?
   1. I would not go to school at all
   2. 1st grade
   3. 2nd grade
   4. 3rd grade
   5. 4th grade
   6. 5th grade
   7. 6th grade
   8. 7th grade
   9. 8th grade
  10. 9th grade
  11. 10th grade
  12. 11th grade
  13. graduate from high school
  14. some vocational-technical school
  15. graduate from vocational-technical school
  16. some college
17. graduate from college (B.A., B.S.)
18. some graduate school
19. master's degree (M.A., M.S.)
20. some graduate school after the master's degree
21. doctorate or equivalent degree (Ph.D., M.D., O.D.)

Youth's Educational Expectation (EE):

9. Sometimes we cannot get what we want. Taking everything into consideration (your abilities, money available, etc.) how much education do you really expect to get? (Circle one answer)
   1. I would not go to school at all
   2. 1st grade
   3. 2nd grade
   4. 3rd grade
   5. 4th grade
   6. 5th grade
   7. 6th grade
   8. 7th grade
   9. 8th grade
   10. 9th grade
   11. 10th grade
   12. 11th grade
   13. graduate from high school
   14. some vocational-technical school
   15. graduate from vocational-technical school
   16. some college
   17. graduate from college (B.A., B.S.)
   18. some graduate school
   19. master's degree (M.A., M.S.)
   20. some graduate school after the master's degree
   21. doctorate or equivalent degree (Ph.D., M.D., O.D.)

Relationship of Significant Other to the Youth:

10. Relationship to you ___________________________

   [Question was part of a set of questions asked of the youth in regard to each significant other named.]

Youth's Acquaintance with Educational Model:

11. Does this person know you? ________

   [Question asked of the youth for each person named as model.]
APPENDIX B

ZERO-ORDER CORRELATIONS, MEANS, AND STANDARD DEVIATIONS
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TABLE 24

Zero-Order Correlations for Expanded Model with Educational Expectations of Definers Disaggregated

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BIBLIOGRAPHY


Biddle, Bruce J. and Edwin J. Thomas (Eds.).  

Blalock, Hubert M.  

Blalock, Hubert M. (Ed.).  

Blau, Peter M.  

Blau, Peter M. and Otis Dudley Duncan.  

Blumer, Herbert.  

Bordua, David J.  

Boudon, Raymond.  

Boyle, Richard P.  

Brooks, Richard S.  

Bunge, Mario.  

Cain, Maureen E.  
Campbell, Ernest Q. and C. Norman Alexander.  

Carter, Nancy.  

Chapman, D. and J. Volkman.  

Cohen, Elizabeth G.  


Cooley, Charles Horton.  


Cottrell, Leonard S. and Nelson N. Foote.  

Couch, Carl J. and John S. Murray.  

Curry, Evans W., J. Steven Picou, H. Lawrence Hotchkiss, Shirley A. Scritchfield, and John M. Stahura.  
Curry, Evans W., H. Lawrence Hotchkiss, J. Steven Picou, Shirley A. Scritchfield, Jerome Salomone, and John M. Stahura.

1976b Significant Other Influence and Career Decisions of Black and White Female Urban Youth. Final Report to National Institute of Education. (Forthcoming)

Davis, James A.


Denzin, Norman K.


Deutsch, Morton and Harold B. Gerard.


Dewey, John.


Douvan, E. and J. Adelson.


Duncan, Otis Dudley


Duncan, Otis Dudley, Archibald O. Haller, and Alejandro Portes.


Ellis, R.A. and W.C. Lane.


Haller, Archibald O. and Joseph Woelfel.  
1972 "Significant Others and Their Expectations: Concepts and Instruments to Measure Interpersonal Influence on Status Aspirations."  
Rural Sociology 37 (December): 591-621.

Haller, Archibald O. and Alejandro Portes.  

Hartley, Ruth E.  

1960 "Relationship between Perceived Values and Acceptance of a New Reference Group."  

Hauser, Robert M.  
1972 "Disaggregating a Social-Psychological Model of Educational Attainment."  
Social Science Research 1 (June): 159-188.

Heise, David R.  
1969 "Problems in Path Analysis and Causal Inference."  

1942 The Henman-Nelson Test of Mental Ability.  

Herriott, R. E.  
1963 "Some Social Determinants of Educational Aspiration."  

Hotchkiss, H. Lawrence and Shirley A. Scritchfield.  
1975 "Interpersonal Sources of Influence: An Exploration of Alternative Theories and Methods."  
Paper presented at Annual Meetings, Midwest Sociology Society, Chicago, April 9-12.

Hyman, Herbert H.  
1942 "The Psychology of Status."  
Archives of Psychology 269: 5-38.

1975 "Reference Individuals and Reference Idols."  
Hyman, Herbert H. and Eleanor Singer (Eds.).  

Inkeles, Alex.  

James, William.  

Kahl, Joseph A.  

Kandel, Denise B. and Gerald S. Lesser.  

Kelley, Harold H.  

Kemper, Theodore D.  


Kerckhoff, Alan C.  

Kerckhoff, Alan C. and Judith L. Huff.  

Kinch, John W.  

Krauss, I.  
Kuhn, Manford H. and Thomas S. McPartland.  
American Sociological Review 19 (February): 68-76.

Kuvlesky, William P. and D. H. Reynolds.  
1970a Occupational Aspirations and Expectations of Youth: A Bibliography of Research Literature I.  
Texas Agricultural Experiment Station, Texas A&M University (December).

1970b Educational Aspirations and Expectations of Youth: A Bibliography of Research Literature, II.  
Texas Agricultural Experiment Station, Texas A&M University (December).

1970c Youth's Projections for Residence, Income and Family Status: A Bibliography of Research Literature, III.  
Texas Agricultural Experimental Station, Texas A&M University (December).

Land, Kenneth C.  

Lane, W. C. and R. A. Ellis  
1968 "Social Mobility and Anticipatory Socialization."  

Larson, Lyle E.  

Lewin, K., T. Dembo, L. Festinger, and P. S. Sears.  

Li, C. C.  

Lindesmith, Alfred R. and Anselm Strauss.  

Linn, Erwin L.  
Lyons, Morgan and T. Michael Carter.  
1971 "Further Comments on Boyle's 'Path Analysis and Ordinal Data.'" American Journal of Sociology 76, 6 (May): 1112-1132.

McClelland, McKee J.  

Mannheim, Bilha F.  

Mauss, Armand L.  

Mead, George Herbert.  

Meade, M. J.  

Meier, Harold C.  
1969 "Status and Sex Variations in Modes of Parental Influence on Students' Decision to go to College." Sociological Focus 3, 1: 25-54.

Merton, Robert K. and Alice Kitt Rossi.  

Miyamoto, S. Frank and Sanford M. Dornbusch.  

Nagel, Ernest.  

Newcomb, Theodore M.  

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Picou, J. Steven and T. Michael Carter.

Picou, J. Steven, Evans W. Curry, and H. Lawrence Hotchkiss.

Pollis, Nicholas P.

Quarantelli, E. L. and Joseph Cooper.

Reeder, Leo G., George A. Donohue, and Arturo Biblarz.

Rehberg, Richard A. and David L. Westby.
Rigsby, Leo C. and Edward McDill.

Rogoff, Natalie

Rose, Arnold M.

Rosenberg, Morris.

Schmitt, Raymond L.

Schrag, Clarence.

Schwartzweller, H. K.
1959 "Value Orientations in Educational and Occupational Choices." Rural Sociology 24 (September): 246-256.

Sewell, William H., Archibald O. Haller, and Alejandro Portes.

Sewell, William H., Archibald O. Haller, and George W. Ohlendorf.
1972 "Causes and Consequences of Higher Education:  
Models of the Status Attainment Process."  
American Journal of Agricultural Economics  
(December): 851-861.

1968 "Social Class, Parental Encouragement, and  
Educational Aspirations."  
American Journal of Sociology 73: 559-572.

Sherif, Muzaffer.  
1953 "The Concept of Reference Groups in Human Relations."  
Pp. 203-207 in M. Sherif and M. O.  
Wilson (Eds.), Group Relations at the Crossroads.  

Shibutani, Tamotsu.  
1955 "Reference Groups as Perspectives."  
American Journal of Sociology 60: 562-569.  

Simmons, Roberta G.  
1969 "The Experimentally-Increased Salience of  
Extreme Comparative Reference Groups."  
Sociology and Social Research 53: 490-499.

Simons, H. A.  

Simpson, Richard L.  
1962 "Parental Influence, Anticipatory Socialization,  
and Social Mobility."  

Stephenson, R. M.  
1957 "Mobility Orientations and Stratifications of  
1,000 Ninth Graders."  
American Sociological Review 22 (April): 204-212.

Stouffer, Samuel A.  
1949 The American Soldier: Adjustment During Army Life.  

Strauss, Helen May  
1968 "Reference Group and Social Comparison Pro¬cesses Among the Totally Blind."  
Pp. 222-237 in Herbert H. Hyman and Eleanor Singer (Eds.),  
Readings in Reference Group Theory and Research.  
Stryker, Sheldon.  

Sullivan, Harry Stack.  

Thomas, W. I.  

Treiman, Donald J. and Kermit Terrell.  

Turner, Ralph H.  


Webster, Murray, Jr. and Barbara Sobieszek.  

White, Randall P. and E. Gordon Ericksen.  

Williams, Trevor H.  
Wilson, Kenneth L. and Alejandro Portes

Woelfel, Joseph and Archibald O. Haller.

Woelfel, Joseph.

Wright, Sewell.