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ABSTRACT

The status attainment process has been a focus of substantial research by sociologists for the past two decades in the United States and other industrial nations (Blau & Duncan, 1967; Sewell & Hauser, 1975). The majority of these studies have concentrated on middle-class, college-oriented men, and only recently have researchers begun to examine the status attainment process as it applies to females (Alexander & Eckland, 1974; Dejong, Brawer, & Robin, 1971; McClendon, 1976; Treiman & Terrell, 1976; Tyree & Treas, 1974).

The present study contributed to the status attainment literature by examining the attainment process in a longitudinal sample of low-income Appalachian males and females. Ideas from the symbolic-interaction-role perspective were used to conceptualize the status attainment processes of rural youth (Hall, 1979). Special attention was focused on several family background variables, significant others, and parental expectations as factors contributing to status attainment. Several unique features of low-income Appalachian families also were considered in this study.

The sample consisted of 140 white males and 182 white females was drawn from a ten year longitudinal study of Appalachian youth from depressed areas of six southern states (Southern Regional Technical Committee, 1974). The youth were assessed in (a) 1969 when they were in fifth and sixth grade, (b) in 1975 when they were in high school, and (c) in 1979 when they were young adults.

A modified version of "the Wisconsin model" of status attainment (Sewell, Haller, & Portes, 1969) was used to examine the attainment

process for these low-income youth and path analysis was used as the statistical procedure. The causal arrangement of the model began with mothers' and fathers' education (family background variables) as exogenous variables which, in turn, were expected to predict such endogenous family and social-psychological variables as mental ability, the influence of intrafamilial and extrafamilial significant others, educational expectations, and academic performance. Finally, the effect of these exogenous and endogenous variables on educational and early occupational attainment was subsequently evaluated.

Although some investigators have found the attainment process to be virtually identical for males and females (McClendon, 1976; Treiman & Errell, 1975), other researchers have reported consistent gender differences in the importance of academic performance and family background (Alexander & Eckland, 1974; Sewell & Shah, 1967, 1968). The present study supported the latter position in that differences similar to those shown by Alexander and Eckland (1974) and Sewell and Shah (1967, 1968) were found. Males' educational and early occupational attainment were influenced by academic ability and expectations. Female attainment, on the other hand, was based on educational expectations, fathers' education education, and whether extrafamilial significant others talked to them about their future plans.

The results indicated that the status attainment process in low-income Appalachian families revealed a pattern constant with traditional gender-role orientations. Social placement decisions were influenced substantially by traditional notions of gender role assignment. Males' attainment was based primarily on personal expectations

and abilities, indicating that they responded to general expectations for instrumental role performance. Females were influenced more strongly by fathers' education, implying that female attainment in these Appalachian families was partially determined by family expectations for traditional marital and domestic role performance. That is, poorly educated fathers seemed to expect their daughters to engage in traditional female roles (e.g., domestic roles) in which higher education is unnecessary. Better educated fathers seemed to communicate expectations which encouraged higher attainment for their daughters. In addition, female status attainment was influenced by extrafamilial significant others, such as teachers and counselors, and this finding may have implications for future intervention programs.

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CHAPTER I

INTRODUCTION

Southern Appalachia is a rural, mountainous area of the United States containing many social and cultural contrasts. In this region, one may observe planting by the signs practiced along with modern agricultural techniques. The recital of traditional Elizabethan folk tales may be heard adjacent to sophisticated nuclear laboratories in Oak Ridge, Tennessee. On Sunday, a preacher may proclaim that floods are God's punishment and then baptize members of his congregation in a waterway controlled by the Tennessee Valley Authority. Furthermore, outsiders may be treated with distrust in isolated rural towns located in close proximity to the 1982 World's Fair.

Many of these contrasts indicate that Appalachia is a society in transition from a traditional folk culture to an urbanized part of modern America (Ford, 1962; Hennon & Photiadis, 1979; Schwarzweller, 1970). Other evidence of this transition may be found in changes which are occurring in the social and economic institutions of this region. For example, although the economic system of Appalachia continues to be dominated by agriculture, forestry, and mining, the region is becoming increasingly industrialized, as more companies relocate to the Sunbelt (Brown, 1970, 1972). Furthermore, while a sizeable number of Appalachian families continue to live a traditional, subsistence life-style in rural areas, it appears that

much of the Appalachian population is influenced by urban culture. Thus, Appalachia is no longer an isolated, rural folk culture, even though remnants of this traditional society remain, especially among low-income groups (Hennon & Photiadis, 1979).

Considering the many changes taking place in this region, it is not surprising that contemporary Appalachia has become socially and culturally diverse. However, some of this diversity has existed for many years because social groupings have been loosely integrated, and until recently communication among the isolated groups has been difficult because of mountainous terrain. In earlier times, Appalachia was more a collection of families living in the mountains than a regional society (Schwarzweller, 1970).

In contrast to the dominance of economic institutions in urban society, the family has been the dominant institution in rural Appalachian folk culture. Appalachia has been referred to as a "familistic society in transition" (Schwarzweller, 1970) in which a strong sense of family permeates almost every aspect of social life.

Especially during earlier times, kinship groups functioned as culturally isolated units, family norms served as the basic mechanisms for social control, and kinship relationships were the most meaningful social interactions. Families were cohesive production and consuming units and individuals looked to families for the satisfaction of economic and social needs. The collective welfare of nuclear and extended families often was subject to the fortunes or misfortunes of subsistence agriculture (Schwarzweller, 1970).

Although close knit, cohesive families have provided many Appalachians with high levels of security, individual family members also have been caught in a web of familism (Polansky, Borgman, & DeSaix, 1972; Schwarzweller, 1970). That is, high levels of family interaction may have deterred Appalachians from active involvement with the dominant American society and its expectations. To the extent that family groups have been separated from the mainstream culture, individual family members have been isolated and limited in their world views.

Because many change elements have been introduced into Appalachia, a transformation of this familistic society has been occurring (Weller, 1965). For example, transportation and communication facilities have been improved, and educational services have been upgraded (Schwarzweller, 1970). Changes of this kind are indications that Appalachia is being integrated with modern America. In their early studies of the integration of Appalachian subculture with the dominant American culture, Schwarzweller and Brown (1962) have argued that educational systems function as one of the most important institutional linkages. Moreover, education will continue to be one of the most important cultural bridges as technological-industrial growth proceeds in the region.

In the midst of this change process, some writers and commentators have been concerned that modernization may lead to the eventual destruction of traditional folk culture (Lewis, Johnson, & Askins, 1978). They lament the passing of old values and ways, the sense of human dignity, and the strong family loyalties that

characterize traditional Appalachian society. Many are concerned that ties with mainstream America and increasing interdependence within the region may signal the end of Appalachia as a cultural entity.

From another perspective, however, the widespread poverty that has plagued Appalachia has been due, in large part, to the region's underdeveloped economy. Thus, modernization may mean greater freedom and opportunity for individual expression because more effective use can be made of Appalachia's human resources as the region becomes more industrialized. Accordingly, the issue of human resource development in Appalachia is addressed in this study through the examination of processes by which low-income youth from this region attain particular educational and early occupational levels.

Statement of the Problem

The purpose of this study is to examine the effects of several family and social-psychological variables upon the educational and early occupational attainment of low-income rural youth from Appalachia. Longitudinal data will be used to address these issues.

The model used in this study is based on the Wisconsin model of status attainment that was developed by a group of researchers originally affiliated with the University of Wisconsin (Sewell, Haller, & Ohlendorf, 1970; Sewell, Haller, & Portes, 1969; Woelfel & Haller, 1971). Several social-psychological variables are examined in the Wisconsin model that mediate the effects of family social origins on the early status attainment levels of youth. Specifically,

the independent variables included in the model are parents' socioeconomic status, significant other influences, youths' occupational and/or educational goals, and youths' mental abilities.

These variables are used, in turn, to predict youths' educational and early occupational attainment levels. Since its inception, the Wisconsin model has been employed widely in research on the attainment of socioeconomic status (Alexander, Eckland, & Griffin, 1975; Haller & Portes, 1973; Hout & Morgan, 1975; McClendon, 1976; Picou & Carter, 1976; Porter, 1976; Sewell et al., 1969; Sewell et al., 1970; Treiman & Terrell, 1975; Williams, 1972, 1975; Wilson & Portes, 1975; Woelfel & Haller, 1971).

Rationale

Despite the fact that the Appalachian folk-culture developed in relative isolation, it has shared many values and traditions with mainstream America (Brown & Schwarzweller, 1970). These traditions include the importance of family relationships, a belief in God, and adherence to the principles of democracy. Another common tradition is that upward social mobility is one of the primary goals, and that occupational and educational achievement are the most common means for attaining upward social mobility (Jencks, Bartlett, Corcoran, Crouse, Eaglesfield, Jackson, McClelland, Mueser, Olneck, Schwartz, Ward, & Williams, 1979).

Various subgroups within American society, however, such as Appalachian youth have faced many "inherent" obstacles to

achievement throughout the attainment process. For instance, rural residence, lower socioeconomic status, and female gender are factors beyond their control that limit their attainment. The effect of these obstacles has been presented by Jencks and his collaborators (1979) who found that poor family background and rural Southern residence are related negatively to educational attainment and subsequent income levels. Furthermore, female workers tend to be concentrated in low-paying, dead-end jobs and earn only about three-fifths of the salaries that males earn (Tittle, 1981; Women's Bureau, 1979).

Because the region was geographically isolated from the rest of the country, the obstacles to upward mobility in southern Appalachia and the widespread poverty in this area were not widely recognized for many years. However, when the issue of poverty was brought to the attention of government officials during the Kennedy administration in the early 1960's, numerous state and federal programs began to focus on the alleviation of economic problems and inherent limitations faced by Appalachian families (Photiadis & Schwarzweller, 1970). Although well meaning and sometimes helpful, most of these programs were designed by urban professionals who did not understand Appalachian subculture (Hennon & Photiadis, 1979; Photiadis, 1980). Currently, with appropriations for social programs becoming scarce, the programs that are developed in the 1980's should be specifically tailored for the populations being served. The information gained from research of this kind will contribute directly to the development

of appropriate and effective intervention programs in Appalachia. The status attainment process of Appalachian youth is an area of concern requiring increased attention.

It is important to investigate the process of educational and occupational attainment in this group because insights might be gained into obstacles faced by low-income Appalachian youth. The knowledge resulting from such studies might be used by educators and counselors as a means of helping young people to deal realistically with the obstacles they face and to utilize their talents and abilities more effectively.

The delineation of both the structural and social-psychological factors which affect attainment have important implications for intervention. For example, investigations that identify the "significant others" who influence the career plans of adolescents, may indirectly contribute to youths' higher achievements. That is, strategies may be designed for conveying realistic vocational information to significant others who, in turn, may communicate this knowledge to Appalachian youth.

Finally, many of the previous research endeavors in Appalachia have been ethnographic studies executed by ministers, physicians, and other helping professionals who live and work in the region (Looff, 1971; Stephenson, 1968; Weller, 1965). Although conducted with sensitivity, these investigations often have neglected the diversity of family life in Appalachia by focusing on small geographic areas and samples with limited generalizability. By contrast, the sample of youth

used in this study was drawn from four states in Appalachia and was more representative of low-income youth throughout the region.

Conceptual Framework

The structural and social-psychological factors influencing the status attainment of youth are addressed in this study. Accordingly, many of the ideas from the status attainment literature might be organized and interpreted within the symbolic interaction framework.

The symbolic interaction perspective evolved from ideas first addressed in the seminal works of James, Mead, Cooley, and Thomas (Blumer, 1969; Stryker, 1980). Within this perspective, human beings are believed to live in both a physical and symbolic environment and acquire a complex set of symbols in their minds. Furthermore, people have values and behave in accordance with their perceptions and mental evaluations of the world. Cognitive variables of this kind are viewed as intervening processes between stimuli and behavioral responses. Thus, from the symbolic interaction perspective, human behavior cannot be studied without considering the mental processes within the individual.

Recognizing the symbolic or mentalistic activities which occur within the status attainment process is important because youth acquire mental expectations for educational and occupational attainment and act in accordance with these expectations. Furthermore, significant others also hold mental expectations for the behavior of

youth which are based on their assessment of the adolescents' attributes and their perception of age appropriate norms.

The symbolic interaction framework (at least the "structuralist" version of this perspective) can provide additional insight into the status attainment process because this framework deals explicitly with such concepts as social position, status, prestige, and roles (Biddle, 1979; Burr, 1973; Stryker, 1980. First, social position refers to a widely known identity that people share - such as pedestrian, policeman, fisherman, and elderly person. Shared identities of this kind appear in all societies and are important features of the human experience (Biddle, 1979). For example, the final dependent variable in many status attainment models is occupational attainment, a concept referring to social positions in the occupational sphere that youth attain in early adulthood.

A second concept, status, refers to the collection of rights and duties assigned to social positions. The criteria for establishing one's status depends upon the prestige of the social position; that is, the level of deferential behavior shown by others who are not members of that social position.

These concepts are salient to the present study for two reasons. First, this study is concerned with a sample of low-income youth whose families retain low status in our society because individuals outside of the group assign little prestige to their social positions. Second, different status levels are assigned to occupations according to the prestige given to these positions in the occupational sphere.

Another essential component of the symbolic interaction framework is the concept of role, which refers to the dynamic aspects of status. In this case, when people act upon the rights and duties which constitute status, they are performing a role. Moreover, Bernard (1976) proposed that roles consisted of beliefs and cognitions as well as behavioral components. In other words, roles consist of sets of socially reinforced mental expectations for behavior and actual performance in accordance with these expectations.

The interrelated and reciprocal nature of roles are additional qualities of roles that have substantial importance (Aldous, Osmond, & Hicks, 1979; Bernard, 1976). Use of the terms "interrelated" and "reciprocal" imply that a parent role cannot exist without a child role, a physician role without a patient role, or a teacher role without a student role. This reciprocal quality of roles suggests that a change in one part of the role pattern or family system will contribute to changes in other family roles (i.e., a change in the role of an adolescent requires a complementary adjustment in the role of parent). In this manner, families can be conceptualized as mutually reciprocating systems, with fathers, mothers, siblings, infants, and extended family members occupying complementary statuses and roles.

Symbolic interactionists argue that role appear during the process of socialization and within the context of a system of role relationships (Biddle, 1979). Social agents teach children appropriate ways of behaving in social contexts, and the young

eventually come to perform roles. This process of role learning occurs as individuals become responsive to the expectations of others for their personal behavior, and through modeling the role behaviors that others perform. One of the most important aspects of parental roles concerns the socialization of offspring for current roles in childhood and the future roles of adulthood. Through this process, children learn role behaviors that are considered appropriate for their gender, social class, ethnic group, and other social positions they are expected to occupy in life.

Socialization for roles, therefore, is a key idea that coincides with much of the research on the status attainment process. That is, youth learn necessary role behaviors for attaining and occupying a social position in the occupational sphere. Young people both consider their own abilities and respond to the expectations of others when forming mental expectations about future educational and occupational performance. These mental expectations, in turn, affect the enactment of prerequisite role behavior (i.e., the student role) for later attainment.

Another important factor in the socialization of children is the position of parents in the social stratification system (i.e., the family socioeconomic status). This is the case because parental socioeconomic status tends to define the range of role behaviors that are encouraged in family life and delimits their expectations for children (Jencks et al., 1979). These factors, in

turn, circumscribe the youths' own expectations and their opportunities for role-modeling.

The "others" who hold expectations for the role performance of youth are considered to be significant others (Biddle, 1979). These are individuals whose perspectives and expectations are important elements of a young person's reference groups. Parents frequently serve as the most important significant others for children during middle-childhood, whereas a more complex pattern tends to emerge during adolescence (Kandel & Lesser, 1969; Peters, Peterson, & Southworth, 1981). Although young people continue to perceive their parents as very important significant others, during adolescence they also identify additional significant others such as peers and teachers as they experience increased interaction with the larger community (Kandel & Lesser, 1969; Peters et al., 1981; Picou & Carter, 1976; Sebald & White, 1980).

Once children become aware of the expectations held by significant others, they begin to incorporate these standards into their own expectations through the process of internalization (Biddle, 1979; Biddle & Thomas, 1966). In the initial step of this process, attributed expectations are assigned to a generalized other; that is, the generalized expectations for behavior held by the society in which the children live. In the final step, however, these expectations become incorporated into the child's own normative system. Thus, a child may initially believe that "my mother wants me to get a job when I get big," which becomes

"everyone expects me to get a job when I grow up" and eventually is internalized as "I must get a job as an adult."

Also important in the symbolic interactionist perspective are general roles (Biddle, 1979), a concept referring to roles that apply to all or nearly all contexts within a society. For example, in most contexts within the United States, women are stereotyped as being sensitive and men more aggressive, southern people speak more slowly than people from the North, and adults have more self-control than children. In addition, members of a society retain characteristic expectations for the performance of general roles referred to as general role expectations (Biddle, 1979). Along these lines, the status attainment process examined in this study is concerned with the general role expectations that people associate with the performance of educational and occupational roles by young people. It is still expected, for example, that men will be the chief providers in their families (Peterson, Rollins, Thomas, & Heaps, 1982), in spite of recent changes in sex-role attitudes (Bernard, 1975; Bruce, 1974; Mason, Czajka, & Arber, 1976).

Another important symbolic interaction concept, personal selection (Biddle, 1979) consists of the processes a person goes through in determining whether to enter a certain social position. As applied to the attainment process, personal selection is involved in the educational and occupational expectations that youth develop for themselves. Through this process, young people examine various alternatives for educational and occupational

attainment, evaluate their own abilities, and consider the expectations of significant others for role performance. Subsequently, youth adjust their expectations for attainment according to the feedback they receive from initial stages of the personal selection process.

Finally, the symbolic interaction perspective deals with the larger social systems, such as societies, communities, and families which encompass and influence human relationships and behavior (Biddle, 1979; Peterson & Rollins, 1982; Stryker, 1980). That is, social systems are comprised of structured sets of interdependent role relationships and contain distinctive elements associated with these relationships. These elements include complements of social positions, functions characteristically performed within the social systems, and shared expectations for role performance. In the present study, Appalachia is conceptualized as a social system that is changing from a rural folk society into a more contemporary social system in which positions and roles are far more diversified.

Nominal Defintions

Family socioeconomic status is an important variable for the present study and is defined as the achieved position of a family within the social stratification system (Biddle, 1979). The importance of this concept lies in the recognition that youth share in their family's social prestige, their family's obstacles to success, their parents' occupational subculture, and their family's

general level of education. These factors establish a foundation for role expectations, attitudes, and values to an extent that figures prominantly in the socialization process within families (Otto, 1975). The level of parents' education is used in the present study as an indicator of family socioeconomic status.

The level of mother's education is a variable in the present study representing how many years of formal education mothers have completed and varies from beginning elementary school through the number of years of college attended. The level of father's education represents how many years of formal education the fathers have completed and also varies from the beginning of elementary school through the number of years of college attended.

Another variable concerns the occupational roles that are performed by young adults and is referred to as the level of early occupational attainment. Occupations are social positions in which roles are performed to obtain money from a larger social system providing financial rewards (Biddle, 1979). Early occupational attainment varies from being unemployed to occupying managerial and professional positions (Duncan, 1961).

Educational attainment represents the level of education which young people have achieved in young adulthood. Educational attainment varies from beginning elementary school through the maximum number of college years attended.

The amount of intrafamilial significant other influence for education is a variable referring to youths' perceptions of how far their parents want them to go to school. This variable ranges from

the completion of eigth grade through graduation from college (undergraduate level).

The amount of extrafamilial significant other influence for education refers to the number of people from outside the family, such as peers, teachers, neighbors, and others who talked to youth about how far to go in school. Extrafamilial significant others influence varies in terms of the number (0-4) of referents beyond family boundaries who were selected by youth.

The level of youths' educational expectations represents the personal selection of educational goals that young people expect to achieve. A distinction is made in the literature between youths' educational expectations and their educational aspirations (Brookover, Erickson, & Joiner, 1967; Williams, 1972). In this case, the former term indicates how far students predict they will progress in school and the latter term refers to the level of education that students hope to attain. As a variable in the present model, educational expectations vary from expecting to finish eighth grade to anticipating college graduation.

An additional variable examined in this study is mental ability which is concerned with the performance of youth on tests of mental ability. This variable, as defined in this study, ranges from borderline levels (IQ of 60) to superior levels (IQ above 120).

The final variable to be defined is the level of academic performance, which refers to the level of competence demonstrated by youth in performing the academic role in school settings. Defined in this manner, the level of academic performance varies

from a perceived grade point average of A to a perceived grade point average of F.

Objectives

The principal objective of this study is to test a theoretical model concerning the educational and occupational attainment processes in male and female youth from Appalachia with longitudinal data. This study also has seven specific objectives which are components of the proposed model. They are:

1. To determine the direct and indirect effects of family socioeconomic status (father's and mother's education) on the educational and occupational attainment of young adult offspring.

2. To determine the direct and indirect influences of intra-familial significant others for education measured in early and late adolescence on the educational and occupational attainment of young adults.

3. To determine the direct and indirect influences of extra-familial significant others for education measured in early and late adolescence on the educational and occupational attainment of young adults.

4. To determine the direct and indirect effects of educational expectations on the educational and occupational attainment of young adults.

5. To determine the direct and indirect effects of mental ability on the educational and occupational attainment of young adults.

6. To determine the direct and indirect effects of academic performance on the educational and occupational attainment of young adults.

7. To determine the direct effects of educational attainment on the occupational attainment of young adults.

CHAPTER II

REVIEW OF THE LITERATURE

Understanding the status attainment process of low-income Appalachian youth requires that a broad range of related topics be reviewed. To accomplish such a purpose, this chapter begins with Bernstein's (1971) conceptualization of position-oriented families, and then progresses to reviews of the literature on familism, Appalachian families, occupational attainment, educational attainment, gender differences in status attainment, and models of status attainment. Finally, empirical and theoretical support is presented for the specific hypotheses included in the proposed research model.

Position-Oriented Families

Ideas proposed by Basil Bernstein (1960, 1964, 1970, 1971, 1973) will be used in this study to conceptualize the role structure of low-income Appalachian families. Bernstein (1971) employs the concept of role structure to examine social class differences in family organization. Using this scheme of analysis, he distinguishes between person-oriented and position-oriented families. Within person-oriented families, the distribution of family power and influence is a function of the psychological qualities of family members. Roles within these families are flexible and dynamic as a result of different attributes and interests of individual members. The authority structure in person-oriented families tends to be democratic and the characteristics of these families are more typically found in middle-class households.

Conversely, in position-oriented families, there are high levels of role segregation and authoritarian leadership structures. Furthermore, the status levels that determine formal divisions of responsibility in these families are based on age and gender differences. Family roles are usually ascribed, clear-cut, and inflexible.

Because the rigid, cohesive organization of position-oriented families is more typical of lower-class groups, the sample of Appalachian youth used for this study are probably members of position-oriented families in which intrafamilial roles are determined by the gender and age of individual members. These families are more likely to retain greater sex role differentiation along traditional expressive-instrumental lines (Bronfenbrenner, 1961; Brown & Schwarzweller, 1970; Gochros, 1974; Hennon & Photiadis, 1979; Photiadis, 1980; Wilson, 1979). In addition, the familistic orientations of Appalachians tends to facilitate boundary maintenance of considerable strength (Brown & Schwarzweller, 1970; Heller & Quesada, 1977; Photiadis, 1980).

Another idea related to Bernstein's proposals is that a family's role structure reflects the ascribed ordering of the larger society as they perceive it (Cook-Gumperz, 1973). That is, the parents' perception and experience of their extrafamilial role involvement may be reflected in the organization of roles within their own families. More specifically, the experiences of parents within occupational contexts may influence the manner in which they socialize their children to adopt occupational roles as adults (Jencks et al., 1979; Kohn, 1969, 1977). According to this viewpoint, parents attempt to

socialize their children in ways that insure success in occupational settings that are similar to their own.

These are important considerations in the present examination of the status attainment process of low-income youth. This is the case because low-income Appalachian parents may influence their offspring in such a manner that young people adopt attitudes towards educational and career attainment similar to their parents'. For example, it is reported frequently that many low-paying occupations require high levels of conformity and obedience to external authority, and that parents who retain these jobs may instill such values in their children (Kohn, 1969, 1977; Peterson & Peters, 1983; Southworth & Peterson, 1981). In addition, low-income Appalachian parents may attempt to prepare their children to live in a world characterized by high levels of nuclear and extended family cohesiveness and traditional sex-role differentiation.

Familism

Familism is a type of social organization in which the individual's interests and privileges are perceived as being less important then those of the family group. High levels of familism tend to be pervasive in the social organization of traditional cultures such as rural Appalachia. Familism consists of a set of rights and responsibilities pertaining to members of a kinship network, such as an obligation to give preference to intra-family over extra-family relationships, and a right to receive aid from one's family in times of need. These rights and responsibilities help to maintain kin group

cohesiveness, a sense of belonging to a group, and obligations to others. Generally, familism pertains to the "exclusiveness" of family relationships which divides the social environment into "we" (certain kin members) and "they" (non-kin members or outsiders) (Heller, 1970; Heller & Quesada, 1977).

Heller (1977) developed a typology of rural familism which conceptualized this phenomenon as a "collective response to environmental exigencies" (1977, p. 222). The central idea here is that a given type of familism is an adaptive orientation; that is, a collective family response to surrounding socio-ecological conditions. Heller posited that several forms of rural familism exist in the United States. One form, which he called extended-kin-oriented familism, is common in southern Appalachia and refers to the circumstances in which nuclear and extended family systems are linked closely together. Within this orientation, the bases of emotional and physical support for family members, and the identity and self-worth of the individual are defined by extended family systems. Consequently, a lower value is placed on the marital relationship in the extended-kin-oriented system because the spouses satisfy many of their emotional and psychological needs through extended-kin relations.

Family social organization, Heller (1977) concluded, is influenced strongly by the adaptive responses of people to socioeconomic conditions, such as availability of employment and amount of residential stability. For example, many kin groups in rural Appalachia have experienced long-term residential stability and live in close proximity

to each other. Family lineages, existing over long periods of time, have encouraged an emphasis on extended family contacts. These extended family relationships, in turn, tend to establish one's social status and provide meaning for everyday social experiences.

The primary role of familism in the social organization of rural Appalachian has been illustrated in a study by Schwarzweller, Brown, and Mangalam (1971). These investigators found that in a sample of Appalachian families from Eastern Kentucky, parents and the families of their adult children visited each other in three fourths of the sample more than 100 times in a year and in one-third of the cases, kin visits averaged once per day.

Other findings consistent with the issue of familism in Appalachian have been reported by Looff (1971) and Weller (1965, 1974). They have concluded that Appalachian families are held together by norms of obligation and emotional dependence. While ties of affection may be present, individuals also retain strong obligations to family members even when little affection is involved. Thus, the family is not "so much a mutually supportive group in which each member gives himself for the others, as it is a group in which each members demands support from the other" (Weller, 1974, p. 48).

Familism may be an important consideration when the educational and occupational attainment processes of low-income youth are of primary concern. Low-income youth from this region grow up in very cohesive, position-oriented families and inhabit social worlds principally consisting of kinship relationships. A relevant question concerns the impact of these family relationships on their educational

expectations and eventual status attainment. For example, youth from these cohesive families often are expected to reside in close proximity to their families of origin (Heller & Quesada, 1977; Photiadis, 1980) and this factor may limit available educational and occupational possibilities. Because these youth are oriented so closely to their low-income families, their access to extrafamilial significant others who may have essential information for higher attainment may be restricted.

Appalachian Families

The great cultural and social diversity of the Appalachian region has promoted the development of a wide variety of family types. Urban, rural, farm, non-farm, black, white, upper, middle, and lower class families are found in the region. To add even greater complexity, many Appalachian families have settled outside the area in recent decades. This out-migration from Appalachia increased as many jobs became available in northern cities during and after World War II (Brown, 1970). When these complexities of Appalachian family life are considered, any generalizations must be made with caution and with immediate qualifications. Consequently, in this discussion, the concept "Appalachian family" is an abstract concept used to communicate about the modal or typical form of rural mountain families.

Several investigators have studied rural mountain families in the subsistence-agricultural areas of eastern Kentucky (Brown, 1952; Brown & Schwarzweller, 1970; Schwarzweller et al., 1971). Although these studies are based on small samples from a limited geographic

area, some of their findings may generalize to rural, low-income families in other parts of Appalachia as well. Despite these shortcomings, investigators have identified a number of characteristics that may be shared by a large number of mountain families.

Family Tradition

The mountain family tends to emphasize traditions more than American families in general. Patterns of dealing with problems, methods of canning and cooking, and kinship responsibilities have been passed on generation after generation.

Family Size

The Appalachian family has tended to be larger than families in the nation as a whole (Brown, 1972). However, the difference is not as large as it used to be and the fertility rate now approximates the rest of the nation after declining during the 1950's and 1960's.

Family Alliance

The nuclear family in Appalachia, like other parts of America, is considered to be the most important social group. After marriage, young couples are expected to establish residences that are separate from their families of orientation. However, despite this emphasis on maintaining separate residences, couples often settle in closer proximity to their extended kin than is the case outside of Appalachia.

The effects of extended family networks on nuclear family relationships have been studied by Elizabeth Bott (1957, 1971) and many of her findings are relevant to Appalachian families. Generally,

Bott (1971) proposed that characteristics of extended social networks in which marital couples have been involved will influence the couple's internal division of labor, and their joint companionship. In the case of cohesive, familistic social networks (like those found in Appalachia), Bott (1957, 1971) has found that marital roles are segregated, and leisure time activities are pursued with extended family members rather than with spouses.

Bott's explanation for these findings about role segregation have two distinct, but related parts. First, because close-knit family networks are characteristic of areas with high levels of residential stability, primary relationships with extended kin may have existed before the couple became married. Under these circumstances, the marriage may actually be superimposed on preexisting kinship patterns and may continue to be responsive to extended family members' expectations for gender segregated roles. For example, the social networks of many wives usually include female kin (Komarovsky, 1967) with whom such household tasks as babysitting are shared. This joint activity, in turn, leads the wife to place fewer demands on the husband to perform household tasks, and he is freer to pursue his own segregated tasks. Second, the existence of extended social networks indicates that each spouse retains non-marital sources for need gratification and depends less on his/her spouse for companionship in leisure activities. Thus, relationships of this kind seem to encourage sex-role divisions within the marriage.

To a large extent, Bott's conceptualizations are similar to the description of position-oriented families (Bernstein, 1971) and

extended-kin-oriented familism (Heller & Quesada, 1977) presented earlier. The segregated roles that Bott discussed are similar to those found in position oriented families in which roles are based on the age and gender of family members. Her proposals about continued participation in extended family relationships after marriage also parallel the characteristics of extended-kin-oriented familism in Appalachia.

Male Dominance

The husband is still regarded as the head of households in many Appalachian families, and is expected to take leadership roles in maintaining family well-being. Wives, on the other hand, have retained less influence in family decision-making and have been the traditional performers of domestic roles (Brown & Schwarzweller, 1970; Gochros, 1974; Hennon & Photiadis, 1979; Photiadis, 1980; Wilson, 1979). Currently, however, these family patterns are beginning to change. As more wives obtain employment, they are demanding more equality in decision-making, and are expecting their husbands to share childrearing responsibilities (Hennon & Photiadis, 1979).

Such descriptions of Appalachian family life may provide insight into the family experience of Appalachian youth. That is, the families of these youth are experiencing substantial changes in role structure as modernization progresses in Appalachia. It is within this context of transition in family life that Appalachian youth develop their educational and occupational plans.

Occupational Attainment

Satisfactory occupational attainment usually is very difficult for rural, low-income youth (Blau & Duncan, 1967; Ginzberg, Ginsburg, Axelrod, & Herma, 1951; Hall, 1979; Jencks, Smith, Acland, Bane, Cohen, Gintes, Heyns, Michelson, 1972; Jencks et al., 1979; Rodman, 1963). They frequently attend poorer schools (Caudill, 1962, 1976; Hall, 1979; Jencks et al., 1972; Jencks et al., 1979) and are members of families with restricted psychological and financial resources (Ginzberg et al., 1951; Hall, 1979; Williams, 1972). Often they have unsuccessful role models to follow in their families (Hall, 1979) and receive less encouragement from their parents (Kohn, 1977). Furthermore, many rural youth are unaware of available occupations or are unwilling to move away from their families and familiar surroundings (Hall, 1979). Thus, these factors may severely limit the occupational opportunities available for rural low-income youth.

Further compounding the problems faced by rural youth are the generally depressed economic conditions in their immediate environment. Because poverty is widespread and unemployment is high in rural Appalachia, youth often find few alternatives for satisfactory occupational attainment. These consequences usually result in frustration, apathy toward the economic system, and resignation to less than satisfactory occupational attainment (Turner, 1982). After initially preferring higher status occupations, many youth take any job they can find; an outcome that results in feelings of apathy, anomie, and futility within the occupational sphere (Turner, 1982).

Thus, the occupational attainment of rural youth may be influenced by ascribed factors such as low family socioeconomic status, social-psychological factors such as parental encouragement and generally restricted economic opportunities. The situation of many Appalachian youth can be contrasted with the "American Dream"; that is, the belief that everyone has an "equal" chance to get ahead or succeed (Ginzberg et al., 1951, Jencks et al., 1972; Jencks et al., 1979; Rodman, 1963).

Educational Attainment

The importance of education in the occupational process has been substantiated in a number of studies (Bachman, O'Mally, & Johnson, 1978; Blau & Duncan, 1967; Jencks et al., 1972; Jencks et al., 1979; Sewell et al., 1969). In our society, education is an important factor in upward social mobility, because spending time in school instills attitudes and behaviors which are valued by employers. Consequently, occupational attainment is usually a reflection of prior educational achievement (Blau & Duncan, 1967; Jencks et al., 1972; Jencks et al., 1979).

When used as an independent variable in research models, education has been identified as a major predictor of subsequent occupational attainment (Bachman et al., 1978; Blau & Duncan, 1967). The logic for this direct relationships includes the recognition that many occupational roles have educational prerequisites. Another explanation may be that the educational process certifies that individuals are adequately socialized in the intellectual capacities

and personal characteristics necessary for performing occupational roles (Porter, 1976).

As a dependent variable, education seems to be influenced by such structural and social-psychological variables as gender, significant other influence, IQ, and social class (Bachman et al., 1978; Sewell et al., 1969). The effects of these variables upon educational attainment) is reflective not only of students' mental abilities, but also how well they have internalized the attitudes and role behaviors that are valued by society (Portes, 1976).

Previous studies have shown that low-income rural youth usually have lower aspirations and expectations than middle- and upper-income groups from urban areas (Kenkel, 1981; Kuipers, Southworth, & Reed, 1979; Tittle, 1981). These differences become more pronounced as youth mature and become more realistic about their chances for success. Middle- and upper-income youth realize they have skills and resources for higher attainment. Low-income youth on the other hand, become cognizant of the many obstacles to attainment they face and gauge their future plans accordingly (Kenkel, 1981; Kuipers et al., 1979).

Other factors contributing to the depressed aspiration and expectation levels of low-income youth may result from family socialization processes. During the preadolescent and adolescent years of an individual's life, for example, parents are perceived as important influences on educational plans (Peters et al., 1981; Stroup, 1980). Given the many obstacles and limitations that low-income families face and the realities of restricted employment opportunities in Appalachia, parents may socialize children for lower educational attainment.

Parents, in this case, develop expectations for their children's achievement based on evaluations of their children's abilities and chances for success. They also communicate these expectations to their children who, in turn, incorporate parental expectations into their personal selection processes.

Besides the influence of socialization processes, there are other practical reasons for lower educational expectations and attainment levels in rural, low-income youth. That is, future plans of rural youth often involve limited vocational training and early labor force entry (Kenkel, 1981; Thomas & Falk, 1978). Therefore, educational attainment may be minimized in the initial stages of the attainment process, and may become even less feasible over time. That is, once low-income rural youth enter the labor force, returning to the classroom may become an expensive alternative at a later time.

Thus, several factors contribute to the low expectations and depressed educational attainment of Appalachian youth. Gradually, young people come to recognize the many obstacles they face and revise their educational expectations accordingly as they enter the labor force quite early. Having recognized the many obstacles to attainment, parents also may foster aspirations and expectations that contribute to low educational attainment in their offspring.

Gender and Attainment

Although a substantial number of studies have been conducted on the status attainment process in males, until recently only a very few

number of studies have addressed this issue for females (Alexander & Eckland, 1974; Falk & Cosby, 1975; Hall, 1979; McClendon, 1976; Scanzoni, 1979; Treiman & Terrell, 1975). According to Hall (1979), the general reasons for the paucity of research on female status attainment have included (a) the persistent stereotype that females traditionally become home-makers, (b) the predominance of males in the labor force, and (c) the social status of females often is considered dependent on the occupational attainment of the male through marriage.

Currently, more extensive interest in the status attainment process of women has developed. Treiman and Terrell (1975), for example, have suggested that this is, in part, a consequence of the increased role that women are playing in the work force. Despite this increased emphasis, however, the majority of studies on this issue have been restricted to middle-class, college-oriented women (Hall, 1979). Little information is available on low-income women, and general status attainment models that are applicable to males may be less than satisfactory in predicting the status attainment of low-income females (Hall, 1979).

In an early study of gender differences in educational attainment, for example, Alexander and Eckland (1974) found that the educational attainment of females was lower than that of males. Furthermore, these researchers noted that the relative importance of ability and status background factors for most school outcomes were gender-linked. In addition, female attainment levels were more strongly dependent than males on social class origins. Academic ability, on the other

hand, was more important for the educational progress of males than females. An important limitation to these findings, however, may be that the data used by Alexander and Eckland (1974) were based on a national sample of youth acquired in 1955. During the 1950's females probably were more traditional than contemporary women, and often faced greater expectations to become wives and mothers. Thus, compared to the current trends for increased female employment, the effect of gender on educational attainment may have been more pronounced in 1955.

In another study, Treiman and Terrell (1975) studied the differences between male and female status attainment using an extant longitudinal data set gathered by the Census Bureau in 1962 and 1967. In contrast to the findings of Alexander and Eckland (1974), Treiman and Terrell (1975) found the educational attainment process to be similar for both employed males and females. For unemployed females, however, educational attainment was more directly determined by parent education and occupational attainment. Findings of this kind regarding unemployed females were consistent with those of Alexander and Eckland (1974) who found that family socioeconomic status more strongly influenced the status attainment of females.

In the area of occupational status, Treiman and Terrell (1975) found that women were concentrated in occupations with lower salary levels relative to their educational requirements (such as clerical workers or teachers). There was little evidence, however, that women's occupations were otherwise lower in status than occupations held by men. Furthermore, Treiman and Terrell (1975) found (as did

Alexander and Eckland, 1974) that occupational attainment was generally dependent on educational attainment for both genders.

Treiman and Terrell's (1974) findings have been further supported in a study by McClendon (1976) who used a more recent data set (General Social Survey, GSS). Findings from this study revealed that socioeconomic background predicted the educational attainment of unemployed more effectively than employed females. Furthermore, employed females demonstrated a pattern of occupational attainment which was similar to their male counterparts.

In order to more accurately assess the female status attainment process, McClendon (1976) added (as initially proposed by Alexander and Eckland, 1974) such variables as marital status, number of children, and employment status to the basic Wisconsin model. To a large extent, however, these additional varibles resulted in little additional explanatory information than the original Wisconsin model.

Using data from a longitudinal research project carried out in the rural South, Thomas and Falk (1978) found that 60% of the white rural females in the sample aspired to traditional female occupations such as beautician, secretary, school teacher, and nurse. Very few of these women, however, aspired to be housewives. When status expectations were examined, Thomas and Falk (1978) found that three-fourths of the white females expected to make traditional career choices, with 30% expecting to be housewives. They summarized the situation for rural females in the following manner:

> One might say these women evidenced a career choice myopia. Their focus was not on the broad range of occupations but rather on those few occupations wherein large numbers of

> women already reside. Given this finding, there is strong suggestion of a completeness with which traditional sex-role socialization is carried out and/or the degree to which these young women perceived a sex-restricted range of attainable occupations (p. 87).

The traditional process of status attainment shown by rural youth may be the result of traditional sex-role socialization. That is, the influence of parents upon the attainment process may differ according to the gender of their children. For example, Butler and Baird (1974) reported a direct influence of several independent variables (mother's aspirations and expectations for children's occupation, father's influence, mother's preference for an outgoing child, first born status) on occupational goals for females from a sample of rural youth from the Southeastern United States. Conversely, for males in the sample, the same variables revealed a more indirect pattern of influence.

Thus it is expected that rural youth, both males and females, may reflect traditional patterns of status attainment and be influenced by similar variables (parents' education, significant other influence, educational expectations, IQ, academic performance). However, the specific paths of influence affecting status attainment may differ somewhat for each gender.

The Wisconsin Model

The issue of status attainment--the process by which individuals come to secure positions in the educational and occupational hierarchies--has received attention from many researchers in recent years (Spenner & Featherman, 1978). Primary interest has shifted from a concern with

mobility--the distance between positions of status within and between generations--to the causal sequences of status transmission and attainment (Wilson & Portes, 1975).

By changing the focus from how far a person has progressed in status attainment to the factors which contribute to social placement, researchers have been able to generate statements about the causal relationships involved in the attainment process. For example, the socioeconomic status of parents is no longer simply a baseline for the measurement of mobility. Instead, this variable has been included increasingly as one of the variables in causal models of the status attainment process.

Status attainment is one of the few research areas in which there has been a blend of theory and empirical results. Decisive in this development has been the use of path analytic techniques that permit researchers to rigorously incorporate empirical findings into sophisticated multivariate theories. Data are used in each step of the process to test the appropriateness of a whole system of variables, whereas previously, researchers were limited to dealing with isolated hypotheses and bivariate relationships (Wilson & Portes, 1975).

Two primary foci are found in the status attainment literature. One focus, stemming from the work of Blau and Duncan (1967), deals with intragenerational and intergenerational status transmission on the basis of structural variables such as family socioeconomic status. The second focus, which is closely affiliated with the work of Sewell and his collaborators (Sewell et al., 1970; Sewll & Shah, 1968b) expands the first line of research by concentrating on the process of

status attainment in individuals and also by employing both structural and social-psychological variables as causal links in the process.

Sewell et al. (1969) suggested that by developing a social-psychological model, approaches could be developed to modify some attainment behaviors. For example, when Sewell et al. (1969) examined the significant other variable, they noted that this variable, if manipulated, might affect status attainment outcomes. The implication was that strategies could be designed to manipulate the status attainment variables, leading to more satisfactory levels of attainment. Another reason for including social-psychological variables was to increase the amount of explained variance in the dependent variable of final occupational attainment beyond what Blau and Duncan (1967) were able to do with only structural variables.

In this Wisconsin model, as it came to be designated, it was posited that both structural and social-psychological factors affect both the significant others' influence on youth and the assessment by youth of their own abilities. Furthermore, an additional presumption was that the influence of significant others, and the youth's own estimates of ability would subsequently affect educational and occupational aspirations. Finally, levels of aspirations would, in turn, influence levels of educational attainment.

Despite these expectations, the social-psychological variables did not greatly add to the explained variance in occupational attainment that was accounted for by the structural variables (Sewell et al., 1969). Nevertheless, the importance of social-psychological

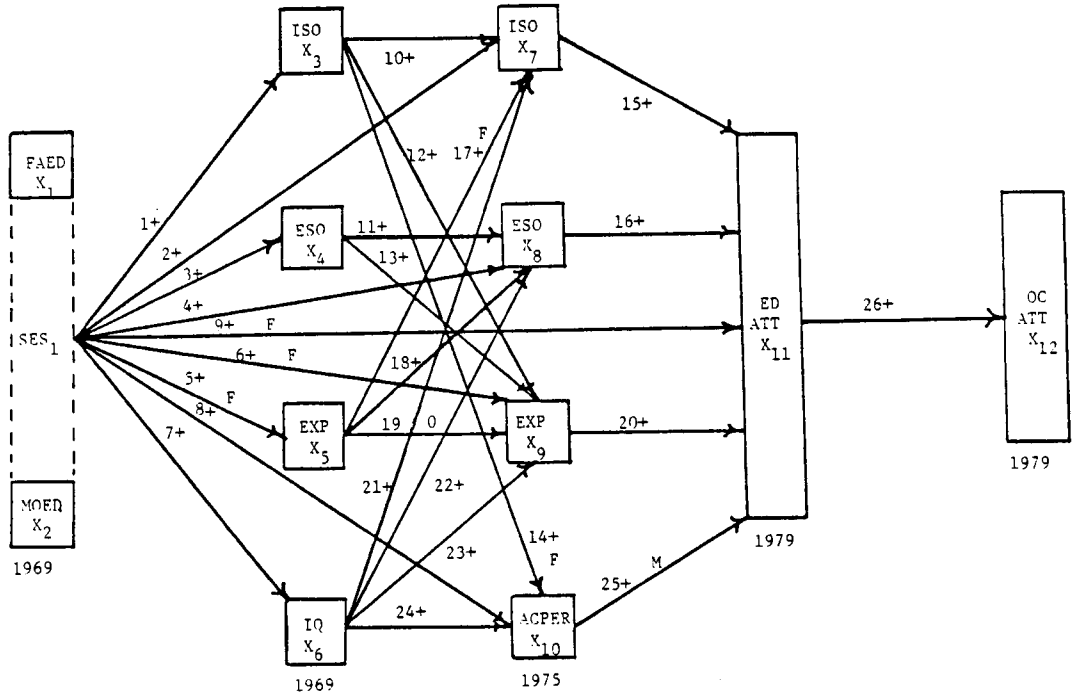
variables did not diminish for the Wisconsin researchers (Sewell et al., 1969) because they suggested that the model would prove to be more powerful with a larger sample than the original one (N = 929). Furthermore, they believe that by concentrating on the significant other variable, the Wisconsin model would reveal possible intervention strategies. As Sewell et al. (1969) stated

> 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 expectation existing significant others have for the individual (p. 90).

Hall (1979) has pointed out several problems associated with the Wisconsin model. First, he proposed that Sewell et al. (1969) limited their explanations to descriptive relationships between variables and did not consider the model within more general theoretical frameworks. Second, the primary focus within the model on social-psychological variables may have lead researchers to overemphasize these variables and neglect structural limitations such as race, sex, and job market flucutations. Third, the model may lack generalizability because it was developed, tested, and applied almost exclusively to white males. Despite these shortcomings, however, the Wisconsin model has been widely employed and is used again in the present study to examine the attainment process of rural Appalachian youth.

Research Hypotheses

The remainder of this chapter is concerned with a review of the literature specific to the causal linkages in the model illustrated in Figure 1. Each of the numbered arrows in Figure 1 corresponds to



FAED - Father's Education
MOED - Mother's Education
ISO - Intrafamilial Significant Other Influence
ESO - Extrafamilial Significant Other Influence
3 - Number of Corresponding Hypothesis
+ - Positive Relationship
- - Negative Relationship
0 - No Relationship Predicted

IQ - Mental Abilities
ACPER - Academic Performance
ED ATT - Educational Attainment
OC ATT - Early Occupational Attainment
M - Stronger Relationship for Males
F - Stronger Relationship for Females

Figure 1. The Status Attainment Model for Appalachian Youth

[1]The general term "SES" is used when FAED (X_1) and MOED (X_2) are similarly related to a subsequent variable. For example, the arrow (labeled no. 1) which proceeds from SES to ISO (X_3) indicates that FAED (X_1) and MOED (X_2) are related similarly to ISO (X_3). This notation method has been established to reduce the number of arrows necessary for depicting the relationships between FAED (X_1) and MOED (X_2) and the successive attainment variables.

a hypothesis with the same number that is found in the following section.

The Influence of Family Socioeconomic Status

The first linkages among the variables are concerned with the relationships between family socioeconomic status and the subsequent variables in the attainment process. In the present model, mother's level of education and father's level of education are used as indices of family socioeconomic status, and when both indices are similarly related to a subsequent variable, the general term "SES" is used. For example, in Figure 1, the arrow (labeled no. 1) which proceeds from SES to "intrafamilial significant other influence" (X_3) indicates that father's educational level (X_1) and mother's educational level (X_2) are related similarly to "intrafamilial significant other influence" (X_3). This notation method has been established in Figure 1 to reduce the number of arrows necessary for depicting the relationships between fathers' and mothers' educational levels and the successive attainment variables.

Significant other influence. The first series of hypotheses to be examined pertain to the relationship between socioeconomic status and significant other influence. Such predictions reflect that the influence of SES on a person's educational attainment is due to the impact of class dimensions on the types of significant other influences a person receives in the adolescent period. That is, the family's socioeconomic position creates conditions that limit the number and type of significant others available to the young person

and the nature of their influence (Haller & Portes, 1973; Sewell et al., 1969; Sewell et al., 1970). Lower class youth frequently interact with other low-income individuals and, thus, are exposed to a restricted set of role expectations that are representative of this status level. Given these circumstances, low-income youth may experience fewer opportunities to talk about higher educational attainment than middle-income youth who have friends from a variety of status levels.

Consistent with these ideas, certain characteristics of Appalachian families also affect the number of people from inside and outside the family who talk to youth about educational plans. The cohesive, familistic orientations of low-income families from Appalachia provide youth with fewer opportunities to interact with significant others outside the family. Moreover, many adults from these families have been unsuccessful in school settings and are unable to provide realistic education-related information to their children. Middle-class parents, on the other hand, are usually more successful in school and more likely to pass on helpful information to children. Such findings clearly illustrate that as SES increases, the influence of intrafamilial significant others is likely to increase. Consequently the pertinent hypotheses (see Figure 1) specify that:

Hypothesis 1. As the level of SES increases, the perceived level of intrafamilial significant other influence for education (SO) will increase in 1969 (the childhood period).

Hypothesis 2. As the level of SES increases, the number of extrafamilial significant others for education (ESO) will increase in 1969 (the childhood period).

Hypothesis 3. As the level of SES increases, the number of intrafamilial significant others for education (ISO) will increase in 1975 (the adolescent period).

Hypothesis 4. As the level of SES increases, the number of extrafamilial significant others for education (ESO) will increase in 1975 (the adolescent period).

Educational expectations. There are also a number of studies which have examined the relationship between SES and children's educational expectations. Generally, these investigations have concluded that children of lower class origins are more likely to have lower educational expectations than children from upper socio-economic levels (Sewell, Haller, & Straus, 1957; Sewell & Orenstein, 1965; Sewell & Shah, 1967). As Hall (1979) has stated, "low-income youth begin with lower goals and reduce them more quickly since they realize the difficulty of attaining them" (p. 26).

There is also good reason to anticipate gender differences in the effects of SES on educational expectations. Because low-income Appalachian families are position-oriented, and retain traditional gender role orientations, they may place different valuations on educational goals depending upon their children's gender. Although SES has been found to have a direct influence on the aspirations and plans of both male and female youth, the effects are stronger for

females (Alexander & Eckland, 1974; Hauser, 1971; Marini, 1978; Sewell & Shah, 1967, 1968a, 1968b). That is, low-income females are expected to have lower educational expectations corresponding to the expressive roles of housewife and mother that they traditionally occupy. Males, on the other hand, respond to the generalized role expectations for becoming "breadwinners" and frequently retain higher expectations for attainment. Considering these findings, the following hypotheses have been formalized:

Hypothesis 5. As the level of SES increases, the level of educational expectations (EXP) will increase in 1969. This relationship should be stronger for females (see Figure 1).

Hypothesis 6. As the level of SES increases, the level of educational expectations (EXP) will increase in 1975. This relationship should be stronger for females (see Figure 1).

Mental ability. Early studies of educational attainment used mental ability as an exogenous variable because researchers thought mental ability tests measured inherent levels of intelligence. However, investigators have increasingly become aware that family socioeconomic status influences performance on standardized mental ability tests (Olmedo, 1981; Scarr, 1981). These tests usually require at least vicarious familiarity with middle-class culture in order to score well, and consequently, low-income youth have fewer opportunities to acquire the necessary skills and knowledge. Thus, it is possible to specify that:

Hypothesis 7. As the level of SES increases, the level of mental ability (IQ) will increase (see Figure 1).

Academic performance. Another predictive function of SES in status attainment models has been its independent effect on high school performance (Alexander & Eckland, 1974). To a large extent, high school grades are a measure of the degree to which youth perform the expected student role. That is, grades symbolize more than intelligence because students acquire particular grades by behaving in such a manner as to influence the grading behavior of teachers. Middle-class teachers contribute to this outcome by responding to both the students' academic performance and to the students' overall role behavior. Thus, student whose role behavior meets middle-class expectations may influence teachers in a positive manner (Porter, 1976). Results of this kind imply that:

Hypothesis 8. As the level of SES increases, the level of academic performance (AC PER) will increase (see Figure 1).

Educational attainment. Another important influence of socio-economic status is its direct effect on the educational attainment of males and females (Alexander & Eckland, 1974; Jencks et al., 1972; Jencks et al., 1979; Sewell & Shah, 1967). The logic for this relationship includes the recognition that low-income youth are less likely to have a home environment fostering the intellectual skills necessary for success in school. Furthermore, these youth often attend poorer schools that do not encourage college attendance,

and have fewer financial resources to pay for a college education (Jencks et al., 1972).

Gender differences also may exist in the relationship between socioeconomic status and educational attainment. These differences have been demonstrated in several studies which have found that SES may exert a stronger effect on the educational attainment of females (Alexander & Eckland, 1974; McClendon, 1976; Sewell & Shah, 1967; Williams, 1972). This is the case because women from low-income families are most often expected to become housewives, for which higher education is not believed to be essential. In middle-class families, however, women are frequently encouraged to pursue careers requiring higher educational attainment. Thus, socioeconomic status may affect the educational attainment of females through differing gender-role expectations communicated by their peers.

Although the relationship between socioeconomic status and educational attainment has been established for both genders (Alexander & Eckland, 1974; Jencks et al., 1972; Jencks et al., 1979; Sewell & Shah, 1967), this linkage may be weaker for males. In families from both middle- and lower-socioeconomic levels, sons are expected to become primary wage earners when they reach adulthood. Consequently, their parents may be more willing to extend financial and psychological support for the higher attainment of male offspring (Peterson et al., 1982; Williams, 1972). Thus, socioeconomic status may exert a less powerful influence on the educational attainment of males because parents from various income levels retain

similar expectations for male role performance. These findings are summarized in the following manner:

Hypothesis 9. As the level of SES increases, the level of educational attainment (ED ATT) will increase. This relationship will be stronger for females than for males (see Figure 1, p. 39).

The Influence of Significant Others

As stated in the first chapter, significant others are persons who exert the most influence on adolescents' lives. One of their most important influences concerns the educational and occupational expectations that they communicate to youth. Adolescents, in turn, often develop levels of aspirations and expectations which are fairly consistent with those of their significant others (Sewell et al., 1970).

Intrafamilial significant others. An important developmental phenomenon is that young people usually maintain their parents as primary significant others, and adhere to many of their expectations and prescriptions for educational and occupational attainment. Accordingly, youth continue to perceive parents as very important significant others throughout the adolescent period (Biddle, Bank, & Marlin, 1980; Davies & Kandel, 1981; Kandel & Lesser, 1969; Peters et al., 1981; Picou & Carter, 1976; Sebald & White, 1980). The enduring quality of parental significant other influence may be formalized as:

Hypothesis 10. As the perceived level of intrafamilial significant other influence (ISO) increases in 1969, the perceived level of

intrafamilial significant other influence for education (ISO) will increase in 1975 (see Figure 1, p. 39).

Extrafamilial significant others. Although youth retain parents as primary significant others during adolescence, they also branch out to include additional significant others such as peers and teachers. This occurs as adolescents increasingly become exposed to others in the larger community (Biddle et al., 1980; Davies & Kandel, 1981; Kandel & Lesser, 1969; Peters et al., 1981; Picou & Carter, 1976; Sebald & White, 1980). Within the present model, the same extrafamilial significant variable was measured in two time periods, and the expected positive relationship between these variables is expressed as:

Hypothesis 11. As the number of extrafamilial significant others for education (ESO) increases in 1969, the number of extrafamilial significant others for education (ESO) will increase in 1975.

Educational expectations. Another influence of both intrafamilial and extrafamilial significant others pertains to their effect on the educational expectations retained by youth. In several studies, positive relationships have been found between the expectations for youths' attainment held by their parents, teachers and peers, and the youths' aspirations and expectations for educational attainment (Davies & Kandel, 1980; Sewell & Shah, 1968b; Williams, 1972). Thus, it seems that youth incorporate the role expectations held by their significant others and use them as guides for future role performance.

The predicted relationship between significant other influence and educational expectations may be formalized as:

Hypothesis 12. As the level of intrafamilial significant other influence for education (ISO) increases in 1969, the level of educational expectations (EXP) will increase in 1975 (see Figure 1, p. 39).

Hypothesis 13. As the number of extrafamilial significant others for education (ESO) increases in 1969, the level of educational expectations (EXP) will increase in 1975 (see Figure 1, p. 39).

Academic performance. Although mental ability has been found to be an important determinant of high school grades for males and females (Hout & Morgan, 1975), gender differences may be apparent in the relationship between intrafamilial significant others and academic performance. For example, Hout and Morgan (1975) found that academic achievement by females was solely a function of measured intelligence. In the case of males, on the other hand, the influence of parents and intelligence were equivalent determinants of school performance. Such gender differences were attributed to the traditional sex-role orientation and greater concern of parents for the educational attainment of their sons. Thus, results of this kind provide support for Hypothesis 14 as follows:

Hypothesis 14. As the perceived level of intrafamilial significant other influence for education (ISO) increases, the level of academic performance (AC PER) will increase. This relationship will be stronger for males than for females (see Figure 1, p. 39).

Educational attainment. As previously stated, one of the most important functions of significant others is to communicate to youth their expectations for future achievements. Young people, in turn, may internalize these expectations as they define their own plans for the future. Thus, most of the influence of significant others on the educational attainment of young people is mediated through youths' own educational expectations.

Despite this evidence of an indirect relationship, Sewell et al. (1970) have also reported that significant others have a moderate direct effect on educational attainment. A possible explanation for this finding is that significant others may serve as role models for youth (Biddle et al., 1980; Haller & Portes, 1973; Kandel & Lesser, 1969). That is, youth may model the behavior of significant others pertaining to educational attainment, in addition to internalizing their expectations for future role performance. Some of the influence of significant others, therefore, may be independently related to educational attainment, instead of being mediated solely through youths' expectations. This direct relationship may be stated as follows:

Hypothesis 15. As the level of perceived intrafamilial significant other influence for education (ISO) increases in 1975, the level of educational attainment (ED ATT) will increase in 1979 (the early adult period) (see Figure 1, p. 39).

Hypothesis 16. As the number of extrafamilial significant others (ESO) increases in 1975, the level of educational attainment (ED ATT) will increase in 1979 (the early adult period) (see Figure 1, p. 39).

The Influence of Educational Expectations

Social psychological models of status attainment have specified that the formation of educational expectations may be the critical causal sequence of events underlying educational attainment patterns (Falk & Cosby, 1975; Haller & Portes, 1973; Sewell & Hauser, 1975). Youths' educational expectations, in turn, influence the subsequent variables in the attainment process. In this review, the effects of educational expectations on significant others, later educational expectations, and educational attainment are considered.

Significant others. A causal link in the research literature has been established between the expectations expressed by young people and the expectations communicated by significant others. That is, educational expectations expressed by youth may modify the expectations that are formed and communicated to them by their significant others. Williams (1972), for example, found that the educational expectations of males in early adolescence had an effect on the expectations held for them by intrafamilial significant others (parents). Parents, in this case, seemed to be receptive to the expectations of male youth because their educational futures are an important issue for parents.

Gender differences in the effect of educational expectations on intrafamilial significant other influence may also exist. Because of the lower valuation assigned to female educational attainment female educational expectations may exert a less powerful influence on intrafamilial significant others.

The educational expectations of youth also have been found to affect the expectations held by extrafamilial significant others. For example, Williams (1975) found that teachers' expectations were influenced by students' educational expectations, and Kandel and Lesser (1969) found concordance between the educational expectations of youth and the expectations of their peers. Two hypotheses summarize these relationships between educational expectations and significant other influence as follows:

Hypothesis 17. As the level of educational expectations (EXP) increases in 1969, the level of intrafamilial significant other influence for education (ISO) will increase in 1975. This relationship will be stronger for males than for females (see Figure 1, p. 39).

Hypothesis 18. As the level of educational expectations (EXP) increases in 1969, the number of extrafamilial significant others for education (ESO) will increase in 1975 (see Figure 1, p. 39).

Educational expectations. There are contradictory findings in the research literature concerning the consistency of educational expectations over time. Williams (1972), for example, established that aspirations and expectations measured in the tenth grade were consistent with those assessed in the twelfth grade. In contrast, when Kuipers et al. (1979) examined a sample of rural youth from Appalachia, they reported a decrease in educational goals from the late grade school years to the final two years of high school. This decline may indicate that low-income adolescents accurately perceived the obstacles they faced and lowered their expectations realistically

according to their perceptions. Because of the foregoing inconsistencies, the present hypothesis is as follows:

Hypothesis 19. There will be no relationship between educational expectations (EXP) in 1969, and educational expectations (EXP) in 1975 (see Figure 1, p. 39).

Educational attainment. A major contribution of status attainment research has been to demonstrate the central importance of expectations for later attainment (Falk & Cosby, 1975; Haller & Portes, 1973; Sewell & Hauser, 1975). The development of these expectations is a gradual process involving the realistic appraisal of the possibilities conveyed by significant others and the self-evaluation of youth (Haller & Portes, 1973; Woelfel & Haller, 1971). That is, before forming their own expectations youth reflect on their own abilities in relation to the desired goal (i.e., educational attainment) and then evaluate information regarding the goal from other sources (significant others). These expectations, in turn, influence the range of eventual attainment levels in a positive manner (Sewell et al., 1969; Sewell et al., 1970; Sewell & Shah, 1968a). Consequently, this relationship is formalized as follows:

Hypothesis 20. As the level of educational expectations (EXP) increases in 1975, the level of educational attainment (ED ATT) will increase in 1979 (see Figure 1, p. 39).

The Influence of Mental Abilities

Another key variable in the status attainment process is the mental ability of youth. This variable may be important because mental abilities predict success in school to the extent that youth with high mental abilities are more adept at performing the student role. Higher educational attainment (or success in school), in turn, is a major factor in subsequent occupational attainment (Haller & Portes, 1973; Jencks et al., 1979; Sewell et al., 1969; Sewell et al., 1970). The influence of mental abilities on significant others, expectations, and academic achievement are examined in this study.

Significant others. A positive relationship has been found between mental abilities and the influence of intrafamilial and extrafamilial significant others. An explanation for this relationship is that parents and teachers may base or revise their expectations for educational attainment on their observation of youths' mental abilities. Furthermore, because youth choose peers with similar characteristics, mental abilities may determine which peers, if any, that youth talk to about educational attainment. For instance, youth with lower mental abilities may associate with similar young people for whom higher educational attainment is not an important issue. Conversely, youth having higher mental abilities may associate and discuss with young people of comparable mental abilities (Sewell et al., 1970; Williams, 1972, 1975). Thus, results of this kind may be formalized as follows:

Hypothesis 21. As the level of mental abilities (IQ) increases, the level of intrafamilial significant other influence for education (ISO) will increase (see Figure 1, p. 39).

Hypothesis 22. As the level of mental abilities (IQ) increases, the number of extrafamilial significant others for education (ESO) will increase (see Figure 1, p. 39).

Educational expectations. Another means by which mental ability influences the attainment process is through the formation of youths' educational expectations (Williams, 1972). According to this viewpoint, children and adolescents consider their abilities and then, in part, base their expectations upon these perceptions of ability. This relationship between mental ability and educational expectations may be specified as follows:

Hypothesis 23. As the level of mental ability (IQ) increases, the level of educational expectation (EXP) will increase (see Figure 1, p. 39).

Academic performance. A widely accepted index of academic performance is the grades that youth receive in school. Because grades measure the degree to which a student has performed a required academic task, they are influenced by intelligence directly. Thus, a formal statement of this relationship is:

Hypothesis 24. As the level of mental ability (IQ) increases, the level of academic performance (AC PER) will increase (see Figure 1, p. 39).

The Influence of Academic Performance

In status attainment models, academic performance (i.e., grades) has been identified as an important mediator of mental ability on educational attainment. That is, student grades represent both how successfully they have completed designated academic tasks and how well they have been socialized to perform the student role. In other words, to receive high grades, students must behave in a manner that elicits positive grading behavior from their teachers. Thus, those students who receive high grades usually have adequate mental abilities for performing academic tasks. In addition, they seem to have adopted the appropriate values and attitudes for higher attainment (Porter, 1976). Examples of these values and attitudes include: (a) the value of education for later occupational attainment, (b) the importance of completing assignments, and (c) the attitude that high grades are prerequisite for college entrance.

Gender differences also have been reported in the relationship between academic performance and educational attainment (Alexander & Eckland, 1974; Williams, 1972). Most males respond to the generalized role expectations of society that educational attainment is a stepping stone for instrumental role performance (e.g., provider role) in adulthood. Consequently, males who perform well in school retain opportunities for higher educational attainment, which subsequently may lead to higher occupational attainment.

In contrast, females often are socialized to perform expressive domestic, child care, and child socialization roles. High levels of academic performance and subsequent high levels of educational

attainment, are not necessary to perform these family focused roles. Thus, female educational attainment may be influenced more strongly by the gender-role expectations in their families of origin than by their academic performance (Alexander & Eckland, 1974; Peterson et al., 1982; Williams, 1972). This relationship between academic performance and educational attainment, and corresponding gender differences may be summarized as:

Hypothesis 25. As the level of academic performance (AC PER) increases, the level of educational attainment (ED ATT) will increase. This relationship will be stronger for males than for females (see Figure 1, p. 39).

Educational Attainment and Early Occupational Attainment

Educational certification is widely recognized as a central factor in subsequent career outcomes. Therefore, educational attainment has repeatedly been shown to be the most important determinant of occupational status (Blau & Duncan, 1967; Jencks et al., 1972; Jencks et al., 1979; McClendon, 1976; Sewell & Hauser, 1975). The final hypothesis is a specification of this relationship:

Hypothesis 26. As the level of educational attainment (ED ATT) increases, the level of early occupational attainment (OCC ATT) will increase (see Figure 1, p. 39).

Summary

A theoretical model was presented as a means of investigating the status attainment process in a sample of low-income Appalachian

youth. The format of the Wisconsin model of status attainment will be used to examine relationships between the following 8 variables: mother's education, father's education, significant other influence, educational expectations, mental ability, academic performance, educational attainment, and early occupational attainment. The study consists of 7 objectives and 26 hypotheses concerning the relationships between these 8 variables.

CHAPTER III

METHODS

Sample

A purposive sample was acquired for this study. Collecting this type of sample was justified, according to Hall (1979) for two reasons: (a) the cost and time involved in selecting a probability sample would have been prohibitive and (b) the objective of the original panel of data collection (Southern Regional Technical Committee, 1974) was to compare the goals of low-income youth from several subpopulations.

Subjects for this regional study consisted of a sample of low-income rural and urban Southern youth. During the baseline phase in 1969, data were collected on 1,412 mother-child pairs. The sample of fifth and sixth grade youth (mean age 11.2 years) was drawn from seven Southern states (Alabama, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia). Alabama later dropped out of the study and the youth from that state were not recontacted in later phases of the project. Collection of the data in 1969 was done under the direction of Southern Regional Research Project, S-63.

Three southern, low-income groups were represented in the original sample: Appalachian white, rural blacks, and urban blacks. This sample was drawn from 20 schools that were located in areas characterized by high levels of unemployment, poverty, and general

economic hard times. These schools were selected according to a stratification of rural areas containing towns of 2,500 residents or fewer and urban areas with cities of 40,000 residents or more. In order to reach sampling quotas in each state, the number of schools actually chosen corresponded to the selection of approximately one out of three that met the stratification criteria for the project. Using Census figures, the project investigators estimated that the population of families in the South with similar characteristics totaled about 200,000. Given the balance of stratified school choice with clusters of students chosen within schools, it may be realistic to estimate sampling error according to a simple random sampling model (Howell & Freese, 1979; Proctor, 1974). Significance tests based on this assumption, however, should be interpreted with caution.

All fifth and sixth grade students who attended the selected schools on the day of the survey (88%) were administered the Otis-Lennon Mental Ability Test (1969) as a means of screening out children who were unable to respond effectively to the questionnaire. The present study involved only the Appalachian white youth who were included in the full 10 year longitudinal project. This sample consisted of 322 (140 males and 182 females) out of a total of 580 white Appalachian youth who were included in the 1969 baseline panel.

Because the objectives of this project concerned low-income samples, children and parents of higher socioeconomic status were excluded from the sample based on the occupational status and educational attainment of the parents. When these higher income parents were eliminated the educational attainment levels of the remaining

Appalachian white parents were 9.1 years and 8.5 years for mothers and fathers respectively. Furthermore, the average occupational prestige scores (Duncan, 1961) of these parents were 55.9 for mothers and 58.9 for fathers, and all parents retained occupations in the lower five levels of the United States Census classification. More specifically, they were employed as craftsmen, operatives in factories, laborers, clerical workers, service workers, and agricultural workers.

The parents' educational and occupational attainment levels in 1969 also were compared to determine the similarities between the final longitudinal sample of 322 youth surveyed in 1979 and the 258 young people who dropped out of the original sample before the 1979 assessment (see Appendix A, Table 3). Specifically, no significant differences existed between the two groups regarding the occupational prestige scores (Duncan, 1961) of mothers and fathers, but significant differences were apparent for the educational levels of both parents for the two groups (see Appendix A, Table 3). Mothers in the longitudinal sample had a mean educational level of 9.1 years and mothers who dropped out averaged 8.2 years of education. Moreover, fathers in the longitudinal group had an average educational attainment of 8.5 years and fathers who dropped out averaged 7.4 years of schooling. Despite these significant differences in education, however, the educational levels of the mothers and fathers in the longitudinal group continue to reflect the lower socioeconomic nature of the sample.

Procedures

Pretesting of the initial questionnaire was done in the participating states between January and July, 1969. Revision of the original questionnaire was made by the regional project subcommittee (Southern Regional Technical Committee, 1974) and the final instrument was completed in January 1969. To explain and clarify the purposes and procedures of the study, training sessions were held for the interviewers before they went into the participating schools and into students' homes. Interviewers also were given instruction manuals to read before the assessments began. Instructions and prompts were included in each section of the assessment instrument to guide the students in completion of the questionnaires.

In 1969, the project researchers, in two member teams, administered the questionnaires in the classrooms. One researcher read the instructions, while the other helped students with individual questions and insured that procedures were followed correctly. The students answered questions regarding their occupational goals, educational goals, academic motivation, self-concepts, relationships with parents, and communication with parents.

Besides administering questionnaires in the classrooms, research teams traveled to the students' homes and interviewed the children's mothers in 1969. During these home interviews, the mothers provided demographic information about their families, and responded to questions concerning aspirations for their children and their childrearing practices (Southern Regional Technical Committee, 1974).

The second panel of data to be used in this study was collected in 1975. It involved reinterviewing the youth from the baseline sample when they were 17 to 19 years old (mean age 17.1) and in the eleventh and twelfth grades. Most of the survey questionnaires were administered in the schools and the youth were asked questions about their educational and occupational plans. Additionally, some students who had dropped out of school or had left the community were followed up and administered questionnaires individually.

A third panel of data was collected in 1979. Questionnaires were mailed to young adults (mean age 21.1) who were included as subjects in the initial 1969 panel. Again, the young people were asked to respond to questions related to their occupational and educational goals.

The researchers in each participating state were responsible for coding their questionnaires. A prepared coding sheet was used to code the responses, from which computer cards were then key punched. These cards were sent to the University of North Carolina, Greensboro, where they were transferred to computer tapes. Following this procedure, the researchers in each participating state received copies of the data tapes for analyses.

Operational Definitions

The principal dependent variable in this study was the occupational attainment of Appalachian youth in 1979. Occupational

attainment was assessed by asking the following question (see Appendix B, Table 4).

> Now what have been your job experiences? Please give the name of the job or type of work you had during each of the following years. 1975, 1976, 1977, 1978, Present.

The jobs that youth reported under the "Present" category were used as indicators of their occupational attainment for 1979. The NORC (National Opinion Research Center) classification format, which organizes occupations on a continuum of differing prestige levels (Reiss, 1961) was used to code the respondent's job titles Occupations included in the NORC system are representative of 10 major categories. Prestige scores on the NORC scale range from 34-93.

The other dependent variable included in the present study was educational attainment in 1979. It was assessed by an item on the 1979 questionnaire which asked: "How far have you gone in school?" (see Appendix B, Table 4). The range of variation on this item was from 1 - 10, with 1 representing "left before finishing the eighth grade" and 10 indicating "went beyond college (graduate or professional school)."

1. Father's education was an exogenous variable in the present model and was used as an indicator of family SES for the youth in 1969. This variable was measured by an item requesting the "last grade attended by father?" and varies from 1 - 16, with 01 indicating "1 year of school or less" and 16 indicating "college graduation" (see Appendix B, Table 4).

2. Mother's education was the other exogenous variable and another indicator of family SES in 1969. This variable was measured by an item requesting the "last grade attended by mother?" and varies from 1 - 16, with 01 indicating "1 year of school or less" and 16 indicating "college graduation" (see Appendix B, Table 4).

3. Intrafamilial significant other influence for education was an endogenous variable in the present model that was measured by an item in 1969 and 1975 that asked: "How far do you think your parents would like you to go in school?" The range of variation for this variable is from "8th grade" to "finish college" (see Appendix B., Table 4).

4. The number of extrafamilial significant others for education was an endogenous variable operationalized in 1969 and 1975 by an item that asked: "Who are the people who have talked to you about how far you should go in school?" The selection of extrafamilial significant others included "teachers, other kids, adult friends or neighbors, and 'other'." Variation in this variable ranged from none of the significant others selected (0), to all of significant others chosen (4).

5. Another endogenous variable was educational expectations; that is, the expectations individuals have for achieving some future educational goal. The assessment of Appalachian youth in this variable was accomplished in 1969 and 1975 with the question: "How far do you think you really will go in school?" Responses varied from "8th grade" to "finish college."

6. Mental ability was another endogenous variable and was originally assessed in 1969, using the Otis-Lennon Mental Ability Test, Elementary II level, Form J. Construct validity was demonstrated for this instrument by comparing Otis-Lennon scores with other established measures of mental ability (such as the Stanford-Binet and California Test of Mental Maturity), and correlations between .60 and .80 were reported (Otis & Lennon, 1969). Furthermore, the authors (Otis & Lennon, 1969) disclosed that the split-half and alternate-forms reliability coefficients for the Otis-Lennon were .95 and .92 respectively. In the present study, mental ability may vary from borderline levels (IQ of 60) to superior levels (IQ of 120 and above).

7. Academic performance is an endogenous variable pertaining to the quality of student performance in school in 1975. This variable was assessed through the question: "About what is your overall high school grade average?" having possible responses that varied from "A" to "D or F." High school grades that are reported by students have been found to correspond closely (correlations of .91 to .93) with actual grade point levels (Hanna, Bligh, & Lenke, 1970).

Analyses

An extension of multiple regression referred to as path analysis will be used both to determine the variance explained by the model and to ascertain the direct and indirect effects of the independent variables upon the dependent variable. Path analysis is a method of specifying and interpreting linear relationships within a series of

variables, when a prior causal ordering of the variables has been constructed. The causal ordering of variables in this study will be based on theoretical models developed by Blau and Duncan (1967) and Sewell et al. (1969), (see Figure 1, p. 39). The Statistical Package for the Social Sciences (Hull & Nie, 1979: Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975) will be used to conduct the analyses.

The variables in the present study have a reasonably clear causal ordering (Haller & Portes, 1973; Otto & Haller, 1979; Sewell et al., 1969) and the basic model is recursive (i.e., it assumes unidirectional causal relationships). Two exogenous variables are examined in this path model (father's education and mother's education) and the direct and indirect effects of these variables will be considered in the statistical analyses. Initially, the following 10 equations will be used to examine direct effects on the endogenous and dependent variables in the present model. The analyses of each of these equations will require a hierarchical inclusion method of multiple regression. The variables will be examined within the temporal framework diagrammed in Figure 1, page 39.

$$X_3 = P_{31}X_1 + P_{32}X_2 + E$$

$$X_4 = P_{41}X_1 + P_{42}X_2 + E$$

$$X_5 = P_{51}X_1 + P_{52}X_2 + E$$

$$X_6 = P_{61}X_1 + P_{62}X_2 + E$$

$$X_7 = P_{71}X_1 + P_{72}X_2 + P_{73}X_3 + P_{75}X_5 + P_{76}X_6 + E$$

$$X_8 = P_{81}X_1 + P_{82}X_2 + P_{84}X_4 + P_{85}X_5 + P_{86}X_6 + E$$

$$X_9 = P_{91}X_1 + P_{92}X_2 + P_{93}X_3 + P_{94}X_4 + P_{95}X_5 + P_{96}X_6 + E$$

$$X_{10} = P_{101}X_1 + P_{102}X_2 + P_{103}X_3 + P_{106}X_6 + E$$

$$X_{11} = P_{111}X_1 + P_{112}X_2 + P_{117}X_7 + P_{118}X_8 + P_{119}X_9 + P_{1110}X_{10} + E$$

$$X_{12} = P_{1211}X_{11} + E$$

Further analyses will include an examination of the indirect effects of several variables in the model on educational attainment. The series of 10 regression equations will be run twice, once for males and again for females to examine the model for gender differences. Other procedures will be used to rule out autocorrelation in the error terms and non-linear relationships within the statistical models.

CHAPTER IV

RESULTS

Statistical analyses for the hypothesized relationships among the variables in the status attainment model are reported in this chapter (see Figure 1, p. 39). These analyses were conducted with the Statistical Package for the Social Sciences (SPSS) subprogram New Regression (Hull & Nie, 1981) which assumes that all relationships are linear, additive, and fully recursive (Heise, 1969; Land, 1969). Initially, all hypothesized paths in the status attainment model were analyzed separately for males and females (see Appendix C, Table 5 for zero-order correlations), and during these procedures the variables were entered simultaneously into the regression equations.

After all of the hypotheses in the full model were tested, the data were again reanalyzed and reduced models were completed for both genders. These reductions in the full model were accomplished by eliminating all paths for which the t values were not significant at the .05 level of significance (Heise, 1969; Land, 1969). Tables 1 and 2 illustrate the results from the complete model and Figures 2 and 3 display the standardized path coefficients for the reduced models. No direct comparisons between the full and reduced models are displayed, because only minor changes in path coefficient strength were noted in the reduced models. In the following discussion of each hypothesis, the standardized path coefficients generated in the reduced models are used when significant relationships are reported.

Table 1

Standardized (Beta) and Unstandardized (B) Path Coefficients for Relationships Predicted in Total Model (Figure 1) for Males

Independent Variables[1]	Dependent Variables[1]																	
	X_3		X_4		X_5		X_6		X_7		X_8		X_9		X_{10}		X_{11}		X_{12}	
	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B
X_1	.19*	.10	.08	.03	.24**	.14	.24**	1.08	.21*	.11	-.03	-.02	.09	.06	-.08	-.02	-.02	-.01	-	
X_2	.09	.05	.08	.03	.20*	.13	.24**	1.17	.12	.07	.12	.06	.20*	.14	.13	.04	.11	.06	-	
X_3	-		-		-		-		.38**	.42	-		.24**	.34	.14	.08	-		-	
X_4	-		-		-		-		-		.03	.04	.12	.25	-		-		-	
X_5	-		-		-		-		.00	.02	.06	.04	.06	.07	-		-		-	
X_6	-		-		-		-		-.02	- .36	.21*	.02	.26**	.04	.39**	.02	-		-	
X_7	-		-		-		-		-		-		-		-		.08	.08	-	
X_8	-		-		-		-		-		-		-		-		-.01	-.01	-	
X_9	-		-		-		-		-		-		-		-		.45**	.34	-	
X_{10}	-		-		-		-		-		-		-		-		.22**	.41	-	
X_{11}	-		-		-		-		-		-		-		-		-		.27**	2.54
R	.25		.14		.37		.41		.54		.30		.61		.47		.66		.27	
R^2	.06		.02		.14		.17		.29		.09		.38		.22		.43		.07	
Significant F[2]	*		-		**		**		**		*		**		**		**		**	
Durbin-Watson[3]	1.97[a]		1.84[a]		1.83[a]		1.50[c]		1.75[b]		1.73[b]		2.18[a]		1.78[a]		1.74[b]		1.25[c]	

[1] The abbreviations used in the table refer to the following variables: X_1 father's education; X_2 mother's education; X_3 intrafamilial significant other influence 1969; X_4 extrafamilial significant other influence 1969; X_5 educational expectations 1969; X_6 mental ability; X_7 intrafamilial significant other influence 1975; X_8 extrafamilial significant other influence 1975; X_9 educational expectations 1975; X_{10} academic performance 1975; X_{11} educational attainment; X_{12} early occupational attainment.

[2] Asterisks identify level of significance: * $p<.05$; ** $p<.01$.

[3] The letters a, b, c represent conclusions about autocorrelation in error terms ($p<.05$); error terms are: [a]independent; [b]no conclusion; [c]autocorrelated.

Table 2

Standardized (Beta) and Unstandardized (B) Path Coefficients for Relationships Predicted in Total Model (Figure 1) For Females

Independent Variables[1]	Dependent Variables[1]											
	X_3		X_4		X_5		X_6		X_7		X_8	
	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B
X_1	.22**	.11	.01	.00	.15	.08	.19**	.81	.20*	.10	.00	.00
X_2	.02	.01	.07	.02	.21**	.12	.37**	1.67	.18*	.10	.00	.00
X_3	-		-		-		-		.26**	.26	-	
X_4	-		-		-		-		-		.29**	.40
X_5	-		-		-		-		-.13	-.12	-.08	-.06
X_6	-		-		-		-		.08	.01	.23**	.02
X_7	-		-		-		-		-		-	
X_8	-		-		-		-		-		-	
X_9	-		-		-		-		-		-	
X_{10}	-		-		-		-		-		-	
X_{11}	-		-		-		-		-		-	
R	.23		.08		.31		.48		.44		.41	
R^2	.05		.01		.09		.23		.19		.16	
Significant F[2]	**		-		**		**		**		**	
Durbin-Watson[3]	1.84[a]		1.77[a]		1.72[a]		1.95[a]		2.01[a]		1.88[a]	

Independent Variables[1]	Dependent Variables[1]											
	X_9		X_{10}		X_{11}		X_{12}					
	Beta	B	Beta	B	Beta	B	Beta	B				
X_1	.20*	.13	.18*	.05	.18**	.09	-					
X_2	.07	.05	-.05	-.02	.08	.04	-					
X_3	.07	.09	.15*	.08	-		-					
X_4	-.05	-.10	-		-		-					
X_5	.13	.15	-		-		-					
X_6	.17*	.03	.40**	.03	-		-					
X_7	-		-		-.02	-.02	-					
X_8	-		-		.14*	.17	-					
X_9	-		-		.53**	.43	-					
X_{10}	-		-		-.03	-.05	-					
X_{11}	-		-		-		.19*	1.23				
R	.43		.52		.67		.19					
R^2	.18		.27		.45		.04					
Significant F[2]	**		**		**		**					
Durbin-Watson[3]	2.25[a]		1.65[b]		1.84[a]		1.95[a]					

[1] The abbreviations used in the table refer to the following variables: X_1 father's education; X_2 mother's education; X_3 intrafamilial significant other influence 1969; X_4 extrafamilial significant other influence 1969; X_5 educational expectations 1969; X_6 mental ability; X_7 intrafamilial significant other influence 1975; X_8 extrafamilial significant other influence 1975; X_9 educational expectations 1975; X_{10} academic performance 1975; X_{11} educational attainment; X_{12} early occupational attainment.

[2] Asterisks identify level of significance: * $p<.05$; ** $p<.01$.

[3] The letters a, b, c represent conclusions about autocorrelation in error terms ($p<.05$); error terms are: [a]independent; [b]no conclusion; [c]autocorrelated.

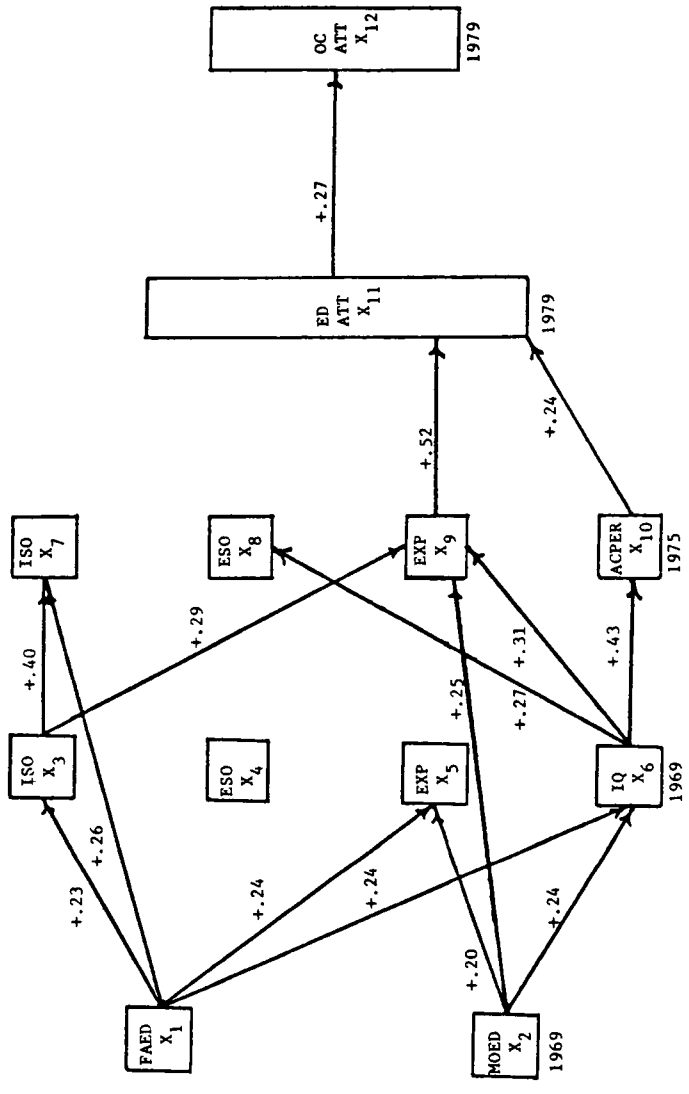


Figure 2. Standardized Path Coefficients in the Reduced Status Attainment Model for Appalachian Males

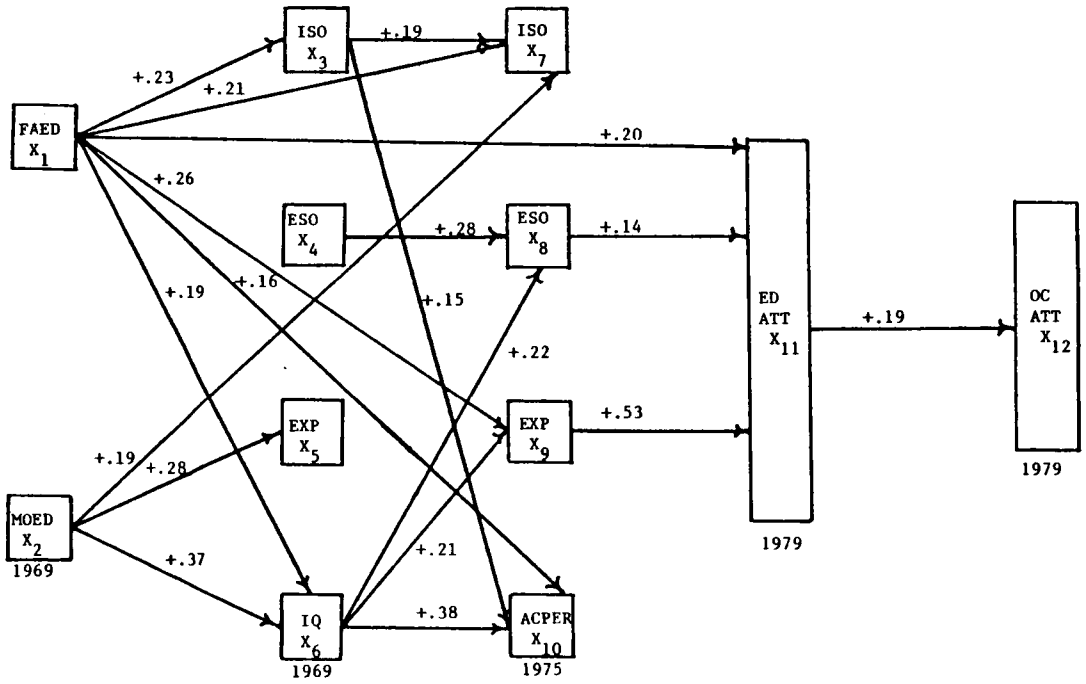


Figure 3. Standardized Path Coefficients in the Reduced Status Attainment Model for Appalachian Females

Before each hypothesis in the full model is discussed, several important issues concerned with multiple regression and path analysis must be dealt with. This first issue pertains to autocorrelation in the error terms of variables in each regression equation. The second issue is concerned with the possibility that curvilinear relationships may characterize the predicted relationships in this study.

Autocorrelation in the Error Terms

In the development of a causal model, it is necessary to include all of the important explanatory variables. To insure that this task is accomplished, the error terms in the regression variables should be examined. All of the pertinent variables are believed to be included in the equation when the error terms are independent. An important variable may be left unspecified in a model when autocorrelation occurs in the error terms (Schumm, Southerly, & Figley, 1980).

The Durbin-Watson test for autocorrelation (Neter & Wasserman, 1974) was used to determine whether the error terms in the regression equations were autocorrelated. Lower and upper value boundaries were used in the Durbin-Watson test to evaluate whether a calculated value falls within a predetermined ranged. A value below the lower boundary leads to a conclusion that error terms are autocorrelated. Conversely, when a calculated value lies above the upper boundary, the error terms are considered to be independent. The Durbin-Watson

test is considered inconclusive when calculated values fall within these boundaries.

The Durbin-Watson test analysis was conducted with the subprogram New Regression in SPSS (Hull & Nie, 1981). These calculated values, in turn, were compared to the values in the Durbin-Watson Test Boundary Tables (Neter & Wasserman, 1974) to determine whether autocorrelation was present in each regression equation. The calculated Durbin-Watson values and conclusions about autocorrelation may be found at the bottom of Tables 1 and 2. These values demonstrated that in all but two regression equations, the error terms were either independent or that no conclusions could be made about autocorrelation. In the male model, however, autocorrelation was demonstrated in two equations in which mental ability and occupational attainment were the dependent variables. These findings indicated that an undefined variable besides socioeconomic status (such as biological factors) may be an important predictor of mental abilities in males and that an undefined variable besides educational attainment (such as youths' occupational expectations) may influence male occupational attainment.

Non-linear Relationships

The relationships in path models usually are assumed to be linear. This assumption should be checked, however, because parameter estimates may be severely biased if curvilinear or non-linear relationships are present (Schumm et al., 1980). One of the best means to detect non-linear relationships is by direct examination of scatterplots of data for the relationships between variables.

To examine the path model for curvilinear relationships, scatterplots were generated using the Scattergram procedure in SPSS (Nie et al., 1975). Visual examination of each of these scatterplots revealed no systematic relationships in the raw data that would indicate the presence of non-linear relationships. Thus, the assumptions of linearity which underly path analysis were considered to be valid in this study.

The Complete Model

Hypothesis 1 stated that the level of SES would be positively related to the perceived level of intrafamilial significant other influence for education in 1969 (the childhood period). Accordingly, this hypothesis was only partially supported for males and females. Father's education was a significant predictor for both genders (path coefficients of .23 for males and females) while mother's education was not a significant predictor of intrafamilial significant others for either gender (see Table 1, p. 69, Table 2, and Figures 2 and 3).

Hypothesis 2 proposed that the level of SES would be positively related to the perceived level of intrafamilial significant other influence for education in 1975 (the adolescent period). Mother's and father's education were both found to be significant predictors for females (path coefficients of .21 and .19 respectively) but only father's education (path coefficient of .26) was a significant predictor for males (see Table 1, p. 69, Table 2, and Figures 2 and 3). Thus, hypothesis 2 was only partially supported.

In Hypothesis 3 it was specified that the level of SES would be positively related to the number of extrafamilial significant others for education chosen in 1969 (the childhood period). Because the respective path coefficients between mother's and father's education and extrafamilial significant others were not significant, this hypothesis was not supported for either gender (see Table 1, p. 69, Table 2, p. 70, and Figures 2 and 3).

Hypothesis 4 stated that the level of SES would be positively related to the number of extrafamilial significant others for education chosen in 1975 (the adolescent period). Because neither father's nor mother's education was significantly related to extrafamilial significant others in 1975, this hypothesis was not supported in either the male or female models (see Table 1, p. 69, Table 2, p. 70, and Figures 2 and 3).

Hypothesis 5 specified that the level of SES would be positively related to the level of educational expectations in 1969, and this relationship was expected to be stronger for females. Partial support was provided for this hypothesis because father's and mother's education were significant predictors for males (path coefficients of .24 and .20 respectively), while only mother's education (path coefficient of .28) was significant for females. Examination of unstandardized path coefficients (see Tables 1 and 2, pp. 69-70 respectively) did not demonstrate a stronger relationship for females than males in this prediction.

Hypothesis 6 proposed that the level of SES would be positively related to the level of educational expectations in 1975 and this

relationship was expected to be stronger for females. This hypothesis was provided partial support because father's education was a significant predictor for females (path coefficient of .26), while mother's education was not related to female educational expectations. Conversely, mother's education was significantly related to educational expectations for males (path coefficient of .25), while father's education was not a significant predictor. Inspection of the unstandardized path coefficients (see Tables 1 and 2, pp. 69-70 respectively) revealed that these relationships were not stronger for females.

Hypothesis 7 specified that the level of SES would be positively related to the level of mental ability. This prediction was supported fully because both mother's and father's education were significantly related to the mental ability of males (path coefficients of .24 and .24 respectively) and females (path coefficients of .19 and .37) (see Table 1, p. 69, Table 2, p. 70, Figure 2, p. 71, and Figure 3).

Hypothesis 8 proposed that the level of SES would be positively related to the level of academic performance. This hypothesis received partial support because father's education in the female model was significantly related to academic performance (path coefficient of .16) (see Table 1, p. 69, Table 2, p. 70, Figure 2, p. 71, and Figure 3). Nonsignificant results were apparent for the effect of both parents' education on male academic performance and for the influence of mothers' education on female academic performance.

Hypothesis 9 stated that the level of SES would be positively related to the level of educational attainment and this relationship was expected to be stronger for females. Partial support for this hypothesis was provided because a significant relationship was demonstrated only within the female model. That is, neither mother's nor father's education was a significant predictor in the male model, while father's education (path coefficient of .20) was significantly related to educational attainment in the female model (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 10 specified that the level of intrafamilial significant other influence for education in 1969 would be positively related to the level of intrafamilial significant other influence for education in 1975. The significant path coefficients of .40 for males and .19 for females provided full support for this hypothesis (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 11 proposed that the number of extrafamilial significant others for education in 1969 would be positively related to the number of extrafamilial significant others for education in 1975. This relationship was significant only for females (path coefficient of .28). Thus, partial support was provided for this hypothesis (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 12 proposed that the level of intrafamilial significant other influence for education would be positively related to the level of educational expectations in 1975. Partial support for this hypothesis was demonstrated because only the path coefficient of .29

in the male model was significant (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 13 stated that the number of extrafamilial significant others for education in 1969 would be related positively to the level of educational expectations in 1975. Because neither of the path coefficients were found to be significant, this hypothesis was not supported (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 14 proposed that the perceived level of intrafamilial significant other influence for education would be positively related to the level of academic performance and this relationship was expected to be stronger for males. Partial support was provided for this hypothesis because a significant path of .15 was found for females. However, since the relationship was not significant for males, the strength of this linkage was opposite to predicted levels (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 15 specified that the level of perceived intrafamilial significant other influence for education in 1975 would be related positively to educational attainment. This hypothesis was not supported because neither path coefficient for males nor females was found to be significant (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 16 proposed that the number of extrafamilial significant others for education in 1975 would be related positively to educational attainment in 1979. Partial support was provided for this hypothesis because the relationship was significant for females (path coefficient

of .14) but not for males (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 17 indicated that the level of educational expectations would be related positively to the level of intrafamilial significant other influence for education in 1975, and that this relationship was expected to be stronger for males. No support was provided for this hypothesis because the path coefficients did not reach significant levels in either the male or female models (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 18 specified that the level of educational expectations in 1969 would be positively related to the number of extrafamilial significant others for education in 1975. This prediction was not supported because path coefficients corresponding to this relationship for each gender did not reach significant levels (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 19 posited that there would be no relationship between educational expectations in 1969 and educational expectations in 1975. Accordingly, this hypothesis was supported fully because the path coefficients for both the male and female models were not significant (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 20 proposed that the level of educational expectations would be related positively to the level of educational attainment in 1979. Path coefficients of .52 for males and .53 for females indicated that this hypothesized relationship was supported fully (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 21 stated that the level of mental abilities would be related positively to the level of intrafamilial significant other influence for education in 1975. Significant path coefficients were not apparent for this relationship and no support was provided for Hypothesis 21 (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 22 specified that the level of mental abilities would be related positively to the number of extrafamilial significant others for education in 1975. Complete support was provided for this prediction because significant path coefficients of .27 for males and .22 for females were evident (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 23 stated that the level of mental ability would be related positively to the level of educational expectations. Accordingly, significant path coefficients of .31 for males and .21 for females indicated that this relationship was supported (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 24 posited that the level of mental ability would be related positively to the level of academic performance. Again, support for this hypothesis was demonstrated because significant path coefficients of .43 and .38 were found in both the male and female models, respectively (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 25 proposed that the level of academic performance would be related positively to the level of educational attainment and this relationship was expected to be stronger for males. A

significant path coefficient of .24 was generated for males, but the same relationship was not significant for females. Partial support for this hypothesis was provided because the relationship was stronger for males than for females (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Hypothesis 26 stated that the level of educational attainment would be related positively to the level of occupational attainment. This hypothesis was supported for both models, because significant path coefficients of .27 for males and .19 for females were found (see Tables 1 and 2 and Figures 2 and 3, pp. 69-72 respectively).

Total Effects in the Reduced Models

Bsides direct effects, an independent variable in a path model also may influence a dependent variable indirectly through a relationship with an intervening or mediating variable. For those relationships in the reduced models in which these direct and/or indirect paths existed, a path coefficient representing the total effects of an independent variable upon a dependent variable may be calculated (Asher, 1976; Nie et al., 1975). The total effects, in this study, were determined by adding together the direct and indirect effects of the pertinent variables using the following formula:

$TE = DE + (IEa)\ (IEb)$.[1]

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[1] In this formula, TE = total effects, DE = direct effects, and IE = indirect effects.

Reduced Model for Males

Several indirect linkages between father's education and youth's educational attainment were established in the reduced model for males (see Figure 2, p. 71). That is, father's education was indirectly related to educational attainment through (a) intrafamilial significant other influence for education in 1969 and educational expectations in 1975 (total effects = 0 + .23 x .29 x .52 = .03), (b) through mental abilities and educational expectations in 1975 (total effects = 0 + .24 x .31 x .52 = .04), and (c) through mental abilities and academic performance (total effects = 0 + .24 x .43 x .24 = .02). Father's education also was directly and indirectly linked to intrafamilial significant others for education in 1975 through intrafamilial significant others in 1969 (total effects = .26 + .23 x .40 = .35). Moreover, father's education was related indirectly to extrafamilial significant others for education in 1975 through mental abilities (total effects = 0 + .24 x .27 = .06).

Mother's education, on the other hand, also was related to educational attainment through several indirect relationships in the reduced model for males (see Figure 2, p. 70). Specifically, mother's education was indirectly linked to educational attainment through (a) educational expectations in 1975 (total effects = 0 + .25 x .52 = .13), (b) mental abilities and educational expectations in 1975 (total effects = 0 + .24 x .31 x .52 = .04), and (c) mental abilities and academic performance (total effects = 0 + .24 x .43 x .24 = .02). Furthermore, mother's education was indirectly related

to extrafamilial significant other influence for education in 1975 through mental abilities (total effects = 0 + .24 x .27 = .06).

In summary, the exogenous variables of mother's and father's education indirectly affected male educational attainment. The strongest relationship involved educational expectations as a mediating variable between mother's education and educational attainment. The weakest significant linkages involved mental abilities and academic performance as intervening variables between mother's and father's education and educational attainment.

Reduced Model for Females

In the reduced model for females (see Figure 3, p. 72), father's education was directly and indirectly related to educational attainment. The indirect linkages were established through (a) educational expectations in 1975 (total effects = .20 + .26 x .53 = .34), (b) mental abilities and educational expectations in 1975 (total effects = .20 + .19 x .21 x .53 = .22), and (c) mental abilities and extrafamilial significant others for education in 1975 (total effects = .20 + .19 x .21 x .14 = .21). Father's education also was related directly to intrafamilial significant other influence for education in 1975, and indirectly related to this variable through intrafamilial significant other influence for education in 1969 (total effects = .21 + .23 x .19 = .25). Furthermore, father's education was related directly and indirectly to academic performance through (a) mental abilities (total effects = .16 + .19 x .38 = .23) and (b) through intrafamilial significant others for education in 1969 (total effects = .16 + .23 x .15 = .19) (see Figure 3, p. 72).

Several indirect linkages also were found in the reduced model for females (see Figure 3, p. 72) between mothers' education and subsequent depdent variables. Accordingly, mother's education was linked to educational attainment through (a) mental abilities and educational expectations in 1975 (total effects = 0 + .37 x .21 x .53 = .04) and through (b) mental abilities and extrafamilial significant others for education in 1975 (total effects = 0 + .37 x .22 x .14 = .01). An indirect linkage also was established between mother's education and academic performance through mental abilities in 1969 (total effects = 0 + .37 x .38 = .14).

Another indirect relationship was found in the reduced model for females (see Figure 3, p. 72) which did not pertain to mother's and father's education. In this case, extrafamilial significant other influence for education in 1969 was related to educational attainment through extrafamilial significant other influence for education in 1975 (total effects = 0 + .28 x .14 = .04).

In conclusion, father's education was related directly and indirectly to female educational attainment, whereas mother's education was related only indirectly to this dependent variable. The strongest link involved father's education and the mediating variable of educational expectations. The weakest relationship included mental abilities and extrafamilial significant others as mediating variables between mother's education and female educational attainment.

Summary

The results of the data analyses for a theoretical model on the status attainment process were reported in this chapter. Specifically, autocorrelation in error terms, curvilinear relationships, individual hypotheses, and indirect relationships in the path models were tested. In the next chapter, the implications of these findings are discussed.

CHAPTER V

DISCUSSION AND SUMMARY

The present study has examined the status attainment process in Appalachian youth. A theoretical model containing 12 variables and their expected relationships was constructed to examine the attainment process for males and females. Path analysis was used to test these predicted relationships in Chapter IV. The interpretations of these results, the limitations of the study, and the implications of this investigation for further research are considered in this chapter.

Interpretation of the Results

Concepts from the symbolic interaction conceptual framework are used to interpret the findings of this study. Specifically, ideas from the symbolic interaction framework are used to explan gender-role socialization, socioeconomic status, the impact of significant others, and the personal selection process. In each section of this chapter, therefore, such concepts are defined and their relevance to the results of the present study are explained.

Gender-Role Socialization

A conceptual link is established in this section between the socioeconomic status and gender-role orientation that is likely to be characteristic of the families considered in this study. To accomplish this, the importance of role socialization in the status attainment process of Appalachian youth is emphasized. The concept

role is an essential component of the symbolic interaction framework and refers to sets of socially reinforced mental expectations for behavior. Roles result from the socialization process and are key ideas for understanding the status attainment of youth. That is, the acquisition of role behaviors (e.g., gender-role behaviors) is necessary for attaining and occupying social positions in the occupational world.

In order to understand the kind of gender-role socialization that Appalachian youth experience, it is important to review some of the basic components of gender-role socialization in low-income Appalachian families. Because of their low-income levels, for example, it is likely that many Appalachian youth examined in this study were members of position-oriented families having high levels of gender-role segregation (Bernstein, 1971). The traditional attitudes and expectations held by members of such families often give rise to role distinctions based on age and gender. Thus, the fact that low-income Appalachian males and females are socialized respectively to perform instrumental (provider) roles and expressive (domestic) roles is important for explaining the differences found in the male and female status attainment models for this study.

Related to this idea is the fact that husbands in low-income Appalachian families are still regarded as heads of households and are expected to take leadership roles in maintaining family well-being (Brown & Schwarzweller, 1970; Gochros, 1974; Hennon & Photiadis, 1979; Photiadis, 1980; Wilson, 1979). Because of this leadership position, the father's attainment level has been used in many studies as the

most accurate index of family socioeconomic status (Otto, 1975). Thus, father's education is used as the primary index in the present study, while mother's education is employed as a secondary indicator of family socioeconomic standing (Felson & Knoke, 1974).

In addition to being the primary index of family socioeconomic status, a further link may be established between fathers' education and family gender-role orientation. Bernstein (1971), for instance, found that families of lower socioeconomic standing (including low educational attainment) were marked by rigidity, conventionalism, and high levels of gender-role segregation, whereas, middle-income families were characterized as being more flexible, open to change, and willing to experiment with different roles. Moreover, Bronfenbrenner (1961) found a negative relationship between family socioeconomic status and the rigidity of traditional gender-role orientation of family members.

Based on these results, it is likely that father's education (or the family's socioeconomic position) is an approximate index of the gender-role attitudes and gender-role divisions that exist within family life. For example, while most poorly educated parents maintain very traditional gender-role orientations, better educated parents tend to acknowledge and convey less traditional gender-role attitudes within the parent-child socialization process. In other words, the traditionality of family gender-role attitudes tends to increase (decrease) as the socioeconomic standing of these families tends to decrease (increase). From this perspective, increased education is

viewed as a mechanism that facilitates the development of less traditional gender-role relationships within the family context.

Both the socioeconomic resources and family gender-role attitudes, in turn, have important influences for the attainment of male and female youth (Alexander & Eckland, 1974; McClendon, 1976; Sewell & Shah, 1967; Treiman & Terrell, 1975). Most low- and middle-income males, for example, are socialized to become primary providers in adulthood and are given greater access than females to family resources for the attainment process (Peterson et al., 1982). In the case of females, however, socioeconomic resources and gender-role attitudes tend to distinctively affect their eventual attainment levels. While low-income families with traditional gender roles often encourage female youth to become housewives and discourage pursuits outside the home, less traditional middle-income families often support female careers beyond family boundaries (Nye, 1979).

In the present study, an example of the distinctive impact of gender roles on status attainment was found in the positive relationship between educational attainment and occupational attainment. When the unstandardized path coefficients (see Tables 1 and 2, pp. 69-70 respectively) concerning this relationship were compared, the coefficient for males was over twice as large as the coefficient for females. A gender difference of this magnitude suggested that performing the housewife or mother role may have precluded many females from translating educational achievement into occupational attainment. This is an important illustration of how the gender roles emerging from

the socialization process tend to differentially affect the status attainment of male and female youth.

The Effect of Socioeconomic Status

The symbolic interaction framework provides insight into components of a person's socioeconomic status through such concepts as social position, status, and prestige. First, the concept social position is a component of one's socioeconomic status, referring to widely known identities that are shared by many people, such as pedestrian, policeman, fisherman, and elderly person. Shared identities of this kind are important features of the human experience in all societies (Biddle, 1979).

The second concept, status, refers to the collection of rights, obligations, and meanings assigned to different social positions. Criteria for establishing one's status, depends on the level of deferential behavior or prestige shown by others outside that social position.

Family socioeconomic status, as conceptualized within a symbolic interaction perspective, is important because of its implications for the socialization experiences of children. More specifically, family socioeconomic status influences the values, attitudes, expectations, and role performance of parents (Jencks et al., 1979; Kohn, 1977). Such parental qualities, in turn, have important implications for the attainment of youth because they influence the expectations and role identities of young people during the socialization process (Haller & Portes, 1973). Subsequent parts of this section are

concerned with the specific means through which these influences are conveyed.

The effect of father's education. In the model for Appalachian males, the impact of father's socioeconomic status on educational attainment was mediated by the variables concerned with intrafamilial significant others and educational expectations (see Figure 2, p. 71). From a symbolic interaction perspective, therefore, this path may have indicated that the father's range of role experiences (indexed by his socioeconomic status) influenced the educational expectations he communicated to his sons. Subsequently, male youth internalized these paternal expectations which, in turn, directly influenced the sons' educational attainment. Family socioeconomic status, therefore, indirectly affected male educational attainment through the role expectations that father's communicated to their sons during the socialization process.

In contrast, father's education in the female model demonstrated important gender differences by having more complex and varied influences than in the male model, both in terms of direct and indirect influences on educational attainment (see Figure 3, p. 72). To understand the impact of father's education in the female model, it is important to keep in mind that components of socioeconomic status are indirect indicators of traditionality in gender-role attitudes. According to this interpretation, the impact of parents' education indicates that the gender-role socialization of female youth directly and indirectly influenced their eventual educational attainment.

First, the direct effect of father's education on educational attainment may have demonstrated that female achievement was encouraged as (a) family socioeconomic status increased, (b) females had greater access to family resources, and (c) gender-role expectations became less traditional. Second, the positive indirect effect of father's education on female educational attainment was mediated by the daughter's educational expectations in high school (see Figure 3, p. 72). In other words, fathers who attained higher educational levels probably provided more economic support for their daughters' education, retained less traditional gender-role expectations, and created a general climate that encouraged less traditional roles (i.e., educational achievement) for women. As a result, their daughters became more highly educated because they received more support for educational pursuits and developed higher educational expectations for themselves.

The effect of mother's education. The other indicator of socioeconomic status, mother's education, was found to positively influence male educational attainment through their educational expectations (see Figure 2, p. 71). This path also might have indicated that more highly educated parents could provide their sons with greater access to family resources which, in turn, encouraged them to retain higher educational expectations.

The indirect effects of mother's and father's education. Additional indirect relationships between parents' education and male educational attainment were mediated through mental ability and

academic performance (see Figure 2, p. 71). Parent's education level, in this case, may have reflected the quality of sensory, cultural, and educational experiences to which male youth were exposed by their parents. Such environmental experiences, in turn, directly affected their mental abilities, and indirectly contributed to their success in performing the student role (represented by academic performance and educational attainment). Mothers' and fathers' education also indirectly affected female academic performance through their mental abilities (see Figure 3, p. 72). In contrast to males, however, female academic performance did not contribute to their educational attainment.

Attainment and gender differences. A general assessment indicates that distinctive patterns in the influence of parental socioeconomic status and student academic performance illustrate important differences in the status attainment process of Appalachian youth. That is, while family socioeconomic status was more important than academic performance in the educational attainment of Appalachian females, academic performance was more important in the educational attainment of Appalachian males.

Perhaps such outcomes for females demonstrated that parents with lower levels of education conveyed traditional gender-role expectations to their daughters. In other words, low-income females were encouraged by parents and other social agents to become housewives and to assume traditional roles. Apparently, these normative influences were more important determinants of educational attainment than high

school performance because females were unable to translate their academic performance into further educational achievement.

The educational attainment of Appalachian males, on the other hand, was influenced directly by their performance of the student role. That is, regardless of social class membership, males seemed to be socialized to become primary providers, and their high school performance levels were closely linked to their future educational and occupational attainment. In short, males were faced with expectations that allowed them to transform their academic abilities into attainment more effectively than females.

The Effect of Significant Others

Another group of important findings involved the effects of significant others; that is, the individuals whose perspectives and expectations are important elements of a young person's reference groups. Based on the present results, some general conclusions about significant others were that (a) intrafamilial significant others indirectly influenced the educational attainment of Appalachian males, and (b) extrafamilial significant others directly influenced the educational attainment of Appalachian females. Specific evidence supporting these conclusions are discussed in the sections that follow.

The effect of intrafamilial significant others. An important finding was that the intrafamilial significant others variable (during high school years) was not related directly to educational attainment in either the male or the female models (see Figures 2 and 3, pp. 71-72

respectively). Thus, it appeared that specific discussions between parents and adolescents regarding future educational plans did not influence the subsequent educational attainment of Appalachian males and females.

During the elementary school years, however, intrafamilial significant others indirectly affected the educational attainment of male youth by influencing their educational expectations. Perhaps this indicated that male youth viewed their parents as being more powerful role models and gave more credence to parental messages about education during the elementary school years than in later periods. Male youth, in turn, may have internalized these parental messages into their personal educational expectations and these expectations subsequently became translated into educational attainment.

The effect of extrafamilial significant others. Another important gender difference involved the absence of a relationship between extrafamilial significant others (e.g., peers, teachers) during the high school years and the educational attainment of male, but not female youth (see Figures 2 and 3, pp. 71-72 respectively). This absence of a relationship in the male model, may have reflected the existence of general social expectations that men should become primary providers. That is, regardless whether men received specific encouragement from significant others outside the family, they were faced with traditional expectations of the male gender role.

In the female model, however, the existence of a positive relationship between extrafamilial significant others and educational

attainment might be explained in terms of traditional gender-role expectations in low-income Appalachian families. Many women who were socialized in such environments were expected to perform domestic/expressive roles in adulthood. However, when these traditionally oriented women from Appalachia received any outside encouragement for a non-traditional career, a significant change may have resulted. That is, contact with extrafamilial significant others may have provided alternative perspectives about adult roles and introduced some degree of flexibility into the traditional gender-role orientations of female youth. This exposure to significant others and alternative sources of information beyond family boundaries may have encouraged female youth to become more achievement oriented and to seek higher attainment.

The Personal Selection Process

Another important symbolic interaction concept is personal selection, which refers to the ideational processes a person goes through in determining whether to enter a particular social position (Biddle, 1979). Personal selection is a component of the identity formation process and involves the manner by which the roles that a person performs become a part of his/her identity (McCall & Simmons, 1978). For example, individuals who choose to perform the "physician role" incorporate this role into their self-concepts and identify themselves as doctors.

An important component of the personal selection process is the formation of educational and occupational expectations as part of the career identities of youth. That is, youth examine various

educational and career alternatives, evaluate their own abilities to perform these roles, and consider the expectations of significant others. A personal selection process of this kind was reflected in the status attainment of Appalachian youth.

Specific evidence in support of the personal selection process in the present study involved several variables (intrafamilial significant others, mental ability, mother's education) which influenced the educational expectations of males during the high school years (see Figure 2, p. 71). The influence of these variables indicated that male youth may have considered (a) input from intrafamilial significant others, (b) an assessment of their own intellectual abilities, and (c) their family background experiences in forming their educational expectations.

In addition, the influence of such variables as father's education and mental ability on educational expectations during high school may demonstrate the personal selection process of Appalachian females (see Figure 3, p. 72). That is, educational expectations appeared to be based on (a) how strongly they were obliged to perform traditional gender roles, and (b) an assessment of their intellectual abilities. Like their male counterparts, these educational expectations formed during the personal selection process became the most important contributors to female educational attainment.

Further evidence of the personal selection process in both males and females may be found in the absence of a relationship between the two measurements of educational expectations (1969 and 1975). This finding corresponded with findings from a study using

the present data by Kuipers et al. (1979) indicating that the educational goals of low-income youth decreased significantly from the grade school years to the final years in high school. This decline seemed to indicate that Appalachian males and females recognized the obstacles they faced and lowered their expectations in a realistic manner through the personal selection process.

A Summary in Terms of Symbolic Interaction

Although the status attainment process has been a focus of considerable research over the past two decades (see reviews by: Haller & Portes, 1973; Matras, 1980; Sewell & Hauser, 1975), there has been a substantial deficiency in conceptualizing this area in terms of theory (Hall, 1979). Consequently, this study has made use of ideas from the symbolic interaction framework to conceptualize the structural and social-psychological factors influencing the status attainment process of Appalachian youth from a broader theoretical perspective. That is, status attainment is considered to be an integral part of the role socialization process in which youth learn to perform roles considered appropriate for their gender, social class, ethnic group, and other social positions.

The symbolic interaction concepts status, role, significant other, and role expectation have been expecially useful for interpeting the results of this study. In short, the family's position in the social stratification system (their socioeconomic status) tends to influence the orientations and expectations which parents pass on to youth during the socialization process. Moreover, socioeconomic settings (a) function to limit the number and range

of significant others available to youth, (b) define the role expectations that significant others communicate, and (c) influence youths' mental abilities to a certain extent. These factors, in turn, are important during the personal selection process when youth develop the educational expectations that subsequently affect their performance of the student role (their educational attainment). Finally, because many occupations have educational prerequisites, the success of these youth in performing the student role strongly influences their eventual level of employment.

In summary, socialization for roles has been the key symbolic interaction concept for interpreting the results of the present study on status attainment. Within this socialization process, Appalachian youth learn the role behaviors necessary for attaining and occupying a social position in education and occupational spheres.

A Summary of Gender Differences in Status Attainment

The results of this study of low-income Appalachian youth corresponded closely with earlier status attainment research using middle-class samples which demonstrated that a different process may exist for males and females (Alexander & Eckland, 1974; Sewell & Shah, 1968). In general, these studies have found that male status attainment is based largely on the ability to perform specific roles (i.e., academic performance), whereas female status attainment is more a function of family socioeconomic (or background) variables.

It appeared, therefore, that males generally expected to become primary family providers in adulthood. That is, when males

demonstrated effective academic performance and expected higher educational attainment, they tended to achieve higher levels of educational and occupational attainment. Results of this kind have been an indication that, regardless of social class (Peterson et al., 1982), males are generally expected to become breadwinners.

Conversely, the educational attainment of low-income Appalachian females was dictated more fully by their gender-role socialization. Evidence for this interpretation was provided by the pervasive influence of father's education and the non-significant effect of female academic performance on educational attainment.

Gender-role differences also were reflected in the relationships between educational attainment and early occupational attainment. The larger unstandardized path coefficient in the male model (see Tables 1 and 2, pp. 69-70 respectively) indicated that educational attainment was tied more closely to the occupational attainment of males then females. This gender difference probably demonstrated that performing the housewife and mother roles may have prevented females from translating educational attainment into occupational attainment.

Limitations of the Study

Three methodological limitations were apparent in this study. They included: (a) purposive sampling, (b) measurement issues, and (c) the assumptions of path analysis.

Purposive Sampling

The generalizability of the present study may be limited because the participants were taken from a purposively-selected, nonprobability sample of low-income, Appalachian youth. Because the original project directors wanted to study only low-income families, they intentionally selected low-income cases using nonprobability sampling methods. This decision resulted in a unique sample with advantages and disadvantages. On the one hand, it was difficult to relate findings from this group to other samples because of the specific focus of the project. On the other hand, this focus allowed for the acquisition of more detailed information about a particular low-income group.

Another possible limitation pertained to using statistical procedures based on random probability when the sample of Appalachian youth was a nonprobability sample. However, the balance of stratified schools used in the original project and the clusters of students chosen within schools made the use of tests of significance based on random assumptions a realistic procedure (Howell & Frese, 1979; Proctor, 1974).

Measurement Issues

Reliability and validity. Single item measures of a variable as used in this study are not considered to be highly valid nor reliable assessments (Kerlinger, 1975). This limitation may be justifiable, however, given the complex, longitudinal nature of the data and the wide range of information assessed during the ten year

project. Furthermore, previous longitudinal studies of status attainment have used single item measures of variables in their respective models (Alexander & Eckland, 1974; McClendon, 1976; Sewell et al., 1970; Williams, 1972).

Accuracy of perceived influence. In a recent study, Davies and Kandel (1981) reported that youth tended to overestimate the influence that significant others had on their future plans. Yet overestimation of this kind did not seem to be a critical factor in the present study because intrafamilial significant other influence was not a primary predictor of status attainment.

Path Analysis

Path analysis is an analytical procedure for specifying linear relationships within a system of variables. The causal ordering of these variables and the postulated relationships are based on systematic theory-building procedures (Burr, 1973). One of the most important limitations of path analysis, however, may be the assumption that the relationships between variables are linear and unidirectional. That is, a metaphor of linear causality is imposed upon the data, when in fact this linear metaphor may not be appropriate in some cases. For exmaple, Davies and Kandel (1981) found that the influence of peers on youth is reciprocal (i.e., peers influenced youth and youth influence their peers) rather than unidirectional. Despite the limitation of unidirectionality, however, path analysis has been widely used in the examination of status attainment, and is an appropriate choice for the longitudinal data gathered during this study. Furthermore,

the temporal sequencing of this data makes unidirectional ordering of the variables according to causal assumptions more realistic.

Implications for Further Research

This study has established that there are gender differences in the status attainment process of low-income Appalachian youth which correspond to findings from previous studies (Alexander & Eckland, 1974; Sewell & Shah, 1968). Essentially, these differences are concerned with the importance of academic performance and mental abilities in the male status attainment process and the importance of family background for female attainment. More recent studies (McClendon, 1976; Treiman & Terrell, 1975) have shown that such gender differences were more pronounced when employed and unemployed females were compared. In the case of comparisons between employed females and employed males, however, the status attainment process has been found to be quite similar. Future studies on the status attainment process of Appalachian youth should examine the differences between employed and unemployed females.

The present study has generally focused on the educational process of Appalachian youth, and used educational attainment as the sole predictor of occupational attainment. Future studies, however, should examine other social-psychological variables which pertain specifically to occupational attainment, such as occupational aspirations, occupational expectations, and significant other influence for occupations. This may be an important area of study because many of the occupations

held by low-income Appalachians, such as farming, lumbering, and mining, are not specifically contingent upon prior education.

Besides examining the attainment variables in the population of Appalachian whites, there are other low-income groups in the South which require attention. For example, rural blacks in the South have been called a forgotten or "invisible" minority and live in some of the worst conditions of poverty in the United States (Allen, 1974; Cabbell, 1980). It is very important to study the status attainment process in such low-income groups and bring the findings to the attention of social agencies who administer programs in the region.

Implications for Intervention

Information gained from this study may have implications for intervention programs focused on Appalachian youth. Specifically, some of the findings regarding intrafamilial and extrafamilial significant others may prove to be helpful in this area. Furthermore, the present findings concerned with gender differences in the type and timing of significant other influence may encourage the development of distinctive intervention strategies for male and female youth.

For example, the indirect path between intrafamilial significant others during the elementary school years and male educational attainment, with educational expectations as an intervening variable, may have important implications for intervention programs (see Figure 2, p. 71). That is, current information about educational and career

opportunities should be provided to parents of fifth and sixth grade males in order to take advantage of their positions as the most important significant others of Appalachian youth. Agricultural extension agents might be helpful in dispensing this information because they have immediate contact with rural Appalachian families. From their positions as significant others, the parents may, in turn, pass on this knowledge to their offspring as they talk with them about future plans. Moreover, current information about educational and career opportunities should be provided to male youth in high school as they form their own personal educational expectations.

The relationship between extrafamilial significant others for education in 1975 and educational attainment also might have important implications for intervention with low-income Appalachian females. It appears that significant others from outside the family who talk to high school females about their future plans tend to influence their educational attainment. Therefore, teachers, counselors, and other extrafamilial significant others should receive current information about educational and occupational planning. These agents, in turn, should consult individually with promising high school females and provide information that is tailored to their goals, interests, and abilities.

Implications for Social Policy

One of the most honored ideals in American society has been "equal opportunity for all." Basically, this idea refers to the

right of all people to pursue the educational and occupational goals they choose. In order to pay more than simple lip service to this ideal, social planners have focused upon the difficulties of minority groups and distinctive subcultures in America. They have sought to understand the obstacles to social mobility faced by these groups and have attempted to design intervention strategies to remediate these problems. However, the geographic isolation of Appalachia kept the widespread poverty and other problems of this region obscured from social planners and policy makers for many years. Furthermore, when state and federal programs began focusing on the alleviation of the numerous difficulties faced by Appalachian people, they were often ineffective. This was the case because most of these programs were designed by urban professionals who did not fully understand the people and culture of Appalachia.

A key factor in successful interventions with low-income Appalachian youth may be a knowledge of the social-psychological processes that influence their behavior. The present study has been directed toward this end. Hopefully, the results of this endeavor may be used by social agents to create programs that will help Appalachian youth to deal realistically with the obstacles they face and to utilize their talents and abilities more effectively. A closer approximation to the ideal of "equal opportunity for all" will be accomplished in our society, when low-income Appalachian youth are provided with opportunities to pursue a wider range of educational and occupational goals.

Summary

This study has been concerned with gender differnces in the status attainment process of low-income Appalachian youth. Path analysis was used to test a theoretical model consisting of 26 hypotheses. Results were generally comparable to previous studies of attainment and showed that male status attainment was based on ability, whereas female attainment was related more closely to family socioeconomic status. Interpretations drawn from the symbolic interaction framework indicated that differences in male and female attainment may have been due to distinctive patterns of gender-role socialization in low-income families. These distinctive socialization patterns were reflective of traditional gender-role expectations that encourage women to become housewives and men to become primary providers. Finally, the results of this study which pertained to significant others may be incorporated into intervention programs for Appalachian youth.

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APPENDICES

APPENDIX A

Table 3

Demographic Comparison of the Ten-Year Longitudinal Sample and Those Subjects Who Dropped-Out

Group	N	Mean	Standard Deviation	Standard Error	T Score	DF	Significance[1]
Variable: Father's Occupational Prestige (Duncan, 1961; see Appendix C)							
Longitudinal	322	55.94	9.73	.5425	1.1054	578	
Dropped-Out	258	55.03	9.83	.6119			
Variable: Mother's Occupational Prestige (Duncan, 1961; see Appendix C)							
Longitudinal	322	58.55	5.18	.2888	1.0798	578	
Dropped-Out	258	58.07	5.39	.3355			
Variable: Mother's Educational Level							
Longitudinal	322	9.08	2.55	.1419	3.9675	578	**
Dropped-Out	258	8.21	2.73	.1701			
Variable: Father's Educational Level							
Longitudinal	322	8.49	2.72	.1513	4.76	578	**
Dropped-Out	258	7.40	2.79	.1736			

[1] T-Tests were used to determine the levels of significance.

* $p<.05$

** $p<.01$

APPENDIX B

Table 4

Questionnaire Items Used as Variables in the Present Study

Variable	Question	Responses
FAED (X_1) Father's Education	Last Grade Attended?	01 - 1 years of school or less to 16 - college graduation
MOED (X_2) Mother's Education	Last Grade Attended?	01 - 1 years of school or less to 16 - college graduation
ISO (X_3) Intrafamilial Significant Other Influence (1969)	How far do you think your parents would like you to go in school?	1. 8th grade 2. 1 or 2 years of high school 3. Go to a trade school instead of finishing high school 4. Finish high schoold 5. Finish high school and go to a trade school 6. 1 or 2 years of college 7. Finish college
ESO (X_4) Extrafamilial Significant Other Influence (1969)	Put a check by each of the people who have talked with you about how far you should go in school.	1. Teacher 2. Adult friend or neighbor 3. Other kids 4. Other (Who? _____)
EXP (X_5) Educational Expectations (1969)	How far do you think you really will go in school?	1. 8th grade 2. 1 or 2 years of high school 3. Go to a trade school instead of finishing high school 4. Finish high school 5. Finish high school and go to a trade school 6. 1 or 2 years of college 7. Finish college
IQ (X_6) Mental Abilities	Otis-Lennon Mental Ability Test, Elementary II Level, Form J.	Scores ranged from 60 to 120 and above
ISO (X_7) Intrafamilial Significant Other Influence (1975)	How far do you think your parents would like you to go in school?	1. 8th grade 2. 1 or 2 years of high school 3. Go to a trade school instead of finishing high school 4. Finish high school 5. Finish high and go to a trade school 6. 1 or 2 years of college 7. Finish college

Table 4 (Continued)

Variable	Question	Responses
ESO (X_8) Extrafamilial Significant Other Influence (1975)	Put a check by each of the people who have talked with you about how far you should go in school?	1. Teacher 2. Adult friend or neighbor 3. Other kids 4. Other (Who? _____)
EXP (X_9) Educational Expectations (1975)	How far do you think you really will go in school?	1. 8th grade 2. 1 or 2 years of high school 3. Go to a trade schoold instead of finishing high school 4. Finish high school 5. Finish high school and go to a trade school 6. 1 or 2 years of college 7. Finish college
ACPER (X_{10}) Academic Performance (1975)	About what is/was your overall high school grade average?	1. Mostly A's (90 - 100) 2. Mostly B's (80 - 89) 3. Mostly C's (70 - 79) 4. Mostly D's and F's (Below 70)
ED. ATT (X_{11}) Educational Attainment (1979)	How far have you gone in school?	1. Left before finishing 8th grade 2. Finished 8th grade 3. Finished 8th grade and went to a trade or vocational/technical school 4. Some high school 5. Finished high school 6. Finished high school and went to a trade or vocational/technical school or business college 7. Started college but have not finished 8. Finished junior or community college (2 years) 9. Finished college (4 years) 10. Went beyond college (graduate or professional school)
OC ATT (X_{12}) Occupational Attainment (1979)	Now what have been your job experiences? Please give the name of the job or type of work you had during each of the following years 1975, 1976, 1977, 1978, Present.	"Present" occupation coded using NORC format (Duncan, 1961)

APPENDIX C

Table 5

Zero-order Correlations Among Variables Employed in the Model[1]

Variables[2]	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}
X_1	...	.43	.23	.11	.32	.34	.35	.11	.36	.14	.25	.12
X_2	.43	...	.17	.11	.30	.34	.28	.20	.41	.25	.37	.18
X_3	.23	.11	...	.06	.55	.20	.46	.22	.39	.22	.33	.09
X_4	.04	.08	.24	...	-.04	.13	-.04	.07	.20	-.04	.06	-.07
X_5	.24	.28	.58	.17	...	.34	.34	.16	.37	.09	.32	.06
X_6	.35	.45	.18	.24	.21	...	.19	.27	.45	.43	.37	.11
X_7	.33	.30	.26	.10	.13	.25	...	.18	.54	.26	.41	.00
X_8	.08	.11	.01	.34	.02	.29	.18	...	.31	.27	.23	.13
X_9	.33	.27	.22	.04	.26	.30	.52	.18	...	.36	.61	.18
X_{10}	.33	.22	.26	.18	.34	.47	.29	.31	.34	...	.43	.09
X_{11}	.39	.31	.12	.23	.15	.36	.36	.25	.62	.28	...	.27
X_{12}	.04	.16	.10	.02	.16	.08	.22	.00	.24	.08	.19	...

[1] Correlations for males appear above the diagonal; those for females appear below.

[2] The abbreviations used in the table refer to the following variables: X_1 father's education; X_2 mother's education; X_3 intrafamilial significant other influence for education in 1969; X_4 extrafamilial significant other influence for education in 1969; X_5 educational expectations in 1969; X_6 mental ability; X_7 intrafamilial significant other influence for education in 1975; X_8 extrafamilial significant other influence for education in 1975; X_9 educational expectations in 1975; X_{10} academic performance in 1975; X_{11} educational attainment; X_{12} early occupational attainment

VITA

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While pursuing his degree in the Department of Child and Family Studies, David was elected to Phi Kappa Phi, national honorary society, and received the Excellence in Research in Child and Family Studies award. His current areas of interest include parent child relations, families in Appalachia, and the interface between research in clinical application.