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**AUTHOR** Wenk, DeeAnn; Hardesty, Constance L.  
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**ABSTRACT**

This study examines the impact of family structure, poverty level, and region of residence on educational attainment. The study uses data collected by the National Longitudinal Survey of Youth, with a probability sample of 3,854 men and women aged 14 to 18 in 1979. Logistic regression was used to allow for the analysis of dichotomous dependent variables (high school completion versus incompleteness and attendance of at least one year of college versus not attending college). Parent's socioeconomic status is measured by the mother's and father's education and occupation. Household structure is categorized as two parent household, one parent household, or an alternative household form. Residential status is measured in terms of rural/urban and southern/non-southern. Significant findings are: (1) living in a single parent or two-parent household (in contrast to alternative form of household) increases the odds of completing high school and living in a two-parent household increases the odds of attending college; (2) education of both parents is a powerful predictor of college attendance; (3) living in poverty significantly decreases the odds of both high school completion and college attendance; and (4) the negative effect of living in the rural south disappears when the effects of family background are controlled. (KS)

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DeeAnn Wenk  
Department of Sociology  
University of Oklahoma  
Norman, OK 73075  
(405) 325-1751  
AB9107@UOKMVSA

Constance L. Hardesty  
Department of Sociology  
University of Oklahoma  
Norman, OK 73075  
(405) 325-1751  
AA2107@UOKMVSA

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# Family and Household Effects on the Educational Attainment of Young Adults

## Introduction

Education is one of the most important human capital resources in our society. While not providing equal monetary returns for all, education nevertheless continues to be a major determining factor of social status. Due to the significance of education as a human capital investment for all individuals, it is essential to explore the various factors that influence educational attainment.

In this study, educational attainment is examined primarily in terms of the structural components that provide a context for promoting or inhibiting educational attainment. Specifically, we explore the critical role that the family and household structure play in the education investment of children while taking into account the effects of individual characteristics. To promote our understanding of education as a resource in rural areas, we explore the differential effects of these family and household variables depending on individuals' residence in rural versus urban environments.

Previous research emphasizes the need to inquire into the variety of family and household factors that influence the education attainment of children. The effects of family background on the education attainment of American youth have been extensively examined (McLanahan 1985). Parental characteristics indicate the type of socialization children receive in regards to

education as well as resources available to allocate to education.

There is however, also a need to study the influences of family structure on education. There have been significant changes in family structure in the last 20 years. High divorce rates and high rates of unwed parenthood have substantially increased the risk of spending time in single or step-parent households. Only 27 percent of all black children and 66 percent of all white children lived with biological parents in 1988. Today, approximately one out of every two children can expect to spend some time during childhood with a single parent (Bianchi, 1990).

Some recent studies show that the influence of household structure on educational attainment is through socialization and resource availability (Amato 1987; Krein and Beller 1988; Coleman 1988). Living in a single-parent household as a child has a substantial negative impact on the probability of completing high school and college (Mueller and Cooper 1986). Clearly it is important to examine further how changing family structures are influencing the educational attainment of today's youth.

The present study builds on recent research on education attainment in several ways. First, we examine the impact of family structure in the year of expected high school completion on finishing high school and on attending at least one year of college. This allows us to examine the effects of family resources immediately available to young adults and the household presence of parents at this critical juncture in the youth's educational career.

Second, we measure household structure by whether the youth is living in a two-parent, one-parent or another type of household at the time of expected high school graduation. The effects of living in other types of households including, independent, married-couple, other relative or non-relative on educational attainment have not been extensively examined. There is a substantial proportion of youth who live in such arrangements at the time they would be expected to graduate from high school or begin attending college, 31 percent in this sample. Thus, a comprehensive understanding of the process of educational attainment demands that the effects of non-traditional household arrangements be examined.

We also directly measure the availability of resources at the time of expected high school graduation and college attendance by determining family poverty status. Taking into account household structure, we designate youth as either living in households with below or above poverty level income.

Additionally, we examine variation in the relationship between household structure and educational attainment by residence. This allows a test of the effects of additional resources and socialization indicated by one's residence. Specifically, we compare the effects of living in the urban south, urban nonsouth, rural south, and rural nonsouth.

Finally, we use a population based sample for analysis. Some of the studies on educational attainment have utilized school based samples which may be biased because they do not include individuals not attending school (Coleman 1988; Astone and McLanahan 1991).

The National Longitudinal Survey of Youth includes an over sample of disadvantaged youth both enrolled and not enrolled in school. Because this is an annual survey, information on school returnees is also available.

### Literature Review

#### **Family Background**

Education is one way in which class position is transmitted across generations<sup>1</sup>. Families generally prepare and motivate children to achieve their class level. Parents of different classes use distinct types of discipline and rewards. Lower class parents tend to encourage less independent thought and place less value on education than middle and upper class parents. Kohn (1979) argues that these patterns result from the parents' own socialization and from the parents' views of what is essential to succeed in life.

The research of Luster, et al. (1989) provides further support for Kohn's hypothesis focusing on the link between class related parental values, childrearing beliefs, and parental behavior. The authors found that parents with higher levels of education and mothers with higher occupational prestige are less likely to value conformity and more likely to value self-direction. In turn, those parents who value self-direction are more likely to adopt parenting behaviors that have been linked to valued cognitive outcomes in children and that may better prepare children for the classroom setting.

Haveman et al. (1991) discuss parental background

characteristics in terms of role model theory positing that parents set examples for children. Parents with more education and higher level occupations act as models to encourage similar behavior in their offspring.

In addition to giving stronger encouragement to children, setting examples for children to complete higher education, and adopting parenting behaviors that prepare children for academic success, parents with more education are likely to have more social and economic resources, or human capital, than parents with less education. This means that children of higher educated parents are likely to grow up expecting and feeling obligated to attend college. They also have access to information on receiving higher education. Those who lack this source of capital are more likely to drop out of school (Coleman 1988).

This previous research, specifying the process by which social class influences educational expectations, preparation and attainment clearly indicates the need to explore parental background characteristics. In the present study both mothers' and fathers' educational level and type of occupation are incorporated into the analysis. The inclusion of these variables provides an understanding of the link between family and education in regard to the intergenerational transfer of class related resources. Such analysis has important policy implications. If parental characteristics effect educational attainment then policies may need to target specific children by focusing on changing attitudes toward education, providing information about opportunities for



higher education and stressing the value of education in determining their lives.

### Household Structure

Because parents are the major source of social norms and human capital encouraging educational attainment, not having or losing parents may have a significant negative effect. Compared to children in two parent homes, children raised in single parent homes are significantly less likely to graduate from high school and go on to college (Coleman 1988; Krein and Beller 1988; McLanahan 1985; Mueller and Cooper 1986; Wojtkiewicz 1991). This is particularly true for those living in single mother households. The longer the time not spent in a two parent home during childhood, the more devastating the effect on school completion (Krein and Beller 1988).

Several hypotheses have been proposed to explain the variations in education attainment among children of single-parent versus two-parent households. First, single-parent families, particularly those headed by women, tend to be economically disadvantaged relative to two-parent households (Astone and McLanahan 1991; McLanahan 1985; Mueller and Cooper 1986). Due to economic deprivation, less money is available to invest in children which may effect the characteristics of children including their education attainment.

The remaining factors that have been proposed as differentially influencing children in single-parent versus two-parent families deal not with financial resources but with



variations in family relationships. Time as an available resource is limited when only one parent is available to meet the demands of the family. Because of the large number of responsibilities placed on single parents, they are often forced to decrease their time spent in childrearing (Amato 1987). Related to limitations in time availability, children in single-parent families report lower levels of control and supervision (Amato 1987; Astone and McLanahan 1991; McLanahan and Bumpass 1988).

The issue of parental supervision has been related to academic performance. Astone and McLanahan (1991) find that family relations measured by parental practices such as monitoring child's school progress, having high aspirations for child and high general supervision positively influence grades, attendance, attitudes and completion of high school. Also, besides supervision and parental aspirations for the child, the effects of parental practices are clearly manifested in the effects of child's expectations and attitudes towards educational attainment. Both parent's and child's expectations and attitudes are significantly lower when there has been a divorce.

Researchers have also explored variations by household structure in the general family environment that may effect child characteristics. Studies have suggested that family life is less cohesive and warm after separations due to tensions and the preoccupation of members with personal problems (See Amato 1988 for review of these studies). However, the findings do not consistently support these conclusions. While single parent

families may offer less supervision, especially during adolescent years (Amato, 1987), they may offer more companionship (Astone and McLanahan 1991). Amato's (1987) results indicate that children in single-parent families are just as likely as those from intact families to report that their mothers talked to them more often, were interested in them, provided assistance with homework and helped with personal problems.

Coleman (1988) discusses variations in the effects of household structure on family relations in terms of social capital. He argues that the presence of human capital resources could indicate the presence of social capital. In the case of the family, social capital refers to the relations between children and parents. The relationship between the parent and child determines whether or not he or she is able to take advantage of the financial and human capital resources the parents possess. In fact, Coleman argues "that the human capital itself is irrelevant to the child's educational growth if not complemented by social capital embodied in family relations" (p. S110, 1988). Coleman (1988) discusses the number of parents present in the home as one indicator of social capital.

Clearly research indicates the need to explore the effects of household structure on the education attainment of young adults. In the present study, the effects of living in a single-parent home on high school completion and college attendance are explored. If the negative effects of living in a single parent home on education attainment are due to economic deprivation as suggested in many

previous studies, then when controlling for poverty status household structure should not have a significant effect. If however, the effect of household structure is due to variations in human relationships within the family as discussed, then the effects of household structure should be significant despite the control for poverty status.

The results have important policy implications. If economic deprivation is the main factor hindering the education attainment of children in single-parent families then policies must be directed at financial support. If, on the other hand, living in a single parent family negatively influences education regardless of whether or not financial resources are available, policies must be directed at social rather than financial support. For example, if single parents have less time for support and supervision of children, we may need to develop policies such as age-specific after-school programs, homework helping programs, etc. Policies may need to provide social support networks that facilitate the specific needs of single parents.

In the following analysis two parent families include both intact and step-parent families. Some previous research suggests that family relationships and the effects on children may be different in single-parent and two-parent households (Astone and McLanahan 1991; Wojtkiewicz 1991). Some of these effects may be due to stress and tension related to uncertainty about discipline and affection in step-parent relationships, children's feelings of betrayal toward their non-custodial parent, or feelings of jealousy

toward the step-parent (Amato 1987). However, Amato (1987) notes that the addition of step-parents can result in improved family functioning by increasing the standard of living, increasing the well being and self-esteem of the divorced parents, and providing compensatory emotional support and companionship for children who have lost touch with the noncustodial parent.

In light of this research we have combined intact and step-parent families to compare household types in regard to resources such as time availability, that can be supplied by one versus two parents. The analysis allows us to compare the presence of one versus two parents at the timing of expected high school completion to ascertain if the number of parents living in the home determines education attainment of youth. Further, the effects of single versus two-parent households are compared to other non-traditional household forms including independent, married couple, other relative or non-relative households. Little information is presently available regarding the effects of these household types on educational attainment.

### **Residence**

While most studies on education attainment control for residence, little has been done to directly ascertain the relative importance of residence versus family background. Willits et al. (1988) examine the process of education attainment within a rural population but do not directly compared differences between metropolitan and nonmetropolitan areas.

The need to focus on education attainment by residence is

indicated by the substantial education gap. In 1987 among adults aged 18 to 44, 20 percent of those in rural areas had less than a high school education compared to 15 percent of those in urban areas. The gap in college education is even greater. Among adults in rural areas, 36 percent had completed one or more years of college compared to 52 percent of urban adults. In part, the difference in educational levels between urban and rural areas is due to the out-migration of better educated adults from rural areas. However, research has documented that rural residents are less likely to complete high school and when they do complete high school, they are less likely to attend college (O'Hare 1988).

In the following analysis, the effect of residence on high school completion and college attendance is taken into account. The analysis provides an understanding of the effects that other variables have on education attainment within the context of a larger community structure.

In light of the previous research, this study explores the effects of family background characteristics, household structure and residence. In addition, the influence of individual characteristics including race, sex, and self esteem are explored. Two questions are considered. First, the analysis addresses the question of whether there are effects of household structure on educational attainment after controlling for the effects of parent's socioeconomic status. Second, does living in a rural area have an effect on educational attainment in addition to the

influence of individual characteristics, parent's socioeconomic status and household structure? It is essential to address this question to understand the specific development of human resources in rural areas. Through such analysis, it is possible to explore how variation in educational attainment is related to the individual, family or household situations of rural residents or to unique structural characteristics of rural areas.

### Data

The data for this study are taken from The National Longitudinal Survey of Youth. This annual panel survey of 12,868 men and women aged 14 to 22 in 1979 uses a multistage stratified area probability sample of dwelling units and group quarter units drawn by the Bureau of the Census from the primary sampling units (Center for Human Resource Research 1987). The sample, drawn in 1978, has an over-representation of blacks, Hispanics and economically disadvantaged youth.

There was a response rate of 92% from 1979 to 1986. The major differences between those who dropped out or who have missing data are that those respondents are likely to be older, more likely to be in the armed forces, more likely to have not lived at home all their lives, more likely to be currently married, less likely to be enrolled in school in 1979 and more likely to have completed high school.

A subsample that contains 3,854 men and women aged 14 to 18 years in 1979 who had not graduated from high school is used for analysis. The subsample represents 55 percent of the cases without



missing data on family income, education and residence.

Important features of the data for this analysis include a sufficient number of young men and women for comparing by residence, race, ethnicity and income, detailed information on income and earnings, the availability of data on the place of residence for each year of the survey, the inclusion of family background information and the recency of most data on individual characteristics and household composition.

### Methods

Logistic regression is used to allow for the analysis of dichotomous dependent variables. The dependent variables in the logistic regression are interpreted as the log-odds of completing high school and the log-odds of attending college by 1986. The beta coefficients indicate the amount of change in the log-odds per unit change in the explanatory variable. The amount of change in the probability per unit change in the explanatory variable can be calculated by using the following formula:

$$p = \exp(L1) / [1 + \exp(L1)] - \exp(L0) / [1 + \exp(L0)],$$

where  $p$  is the change in the probability,  $L0$  is the logit before the change and  $L1 = L0 + B$  is the logit after the unit change (Petersen 1985).

### Measures

Educational attainment, the dependent variable, is measured for both high school completion (12 grades completed) and attendance at least one year of college (more than 12 grades completed).<sup>2</sup>

Parent's socioeconomic status is measured by mother and



father's education and occupation. Education measures include high school completion and the completion of at least one year of college. Mother and father's occupation are coded into rough class categories, professional, clerical and labor occupations according to the 1980 occupational census classification.<sup>3</sup>

Household structure is measured at the typical year of high school graduation. In each year of the survey a detailed list of household members is compiled. From this information it is determined whether, in the expected year of high school graduation, each respondent is living in a two parent household (including two parents or step parents), a single parent household (including any one parent) or an alternative household form such as being a single parent, living with a spouse, living alone, or living in a subfamily.<sup>4</sup>

To assess the influence of monetary resources on educational attainment, poverty status rather than family income is selected as the most appropriate variable. Poverty status is used to differentiate those who do or do not have access to basic monetary resources. The analysis examines whether or not the lack of such basic resources impedes educational attainment. Poverty status is measured in the typical year of high school graduation.<sup>5</sup>

Residential status is measured in the year that the individual typically would be expected to graduate from high school and attend college; 22 percent of the sample has a rural residence. To explore possible variations in the regional influences of southern and non-southern areas, residence is differentiated further by national

regions. Residence in the south or non-south at the expected time of high school graduation is designated by state of residence; 37 percent of the sample reside in the south.<sup>6</sup>

Other individual variables include age, race, ethnicity, sex and self-esteem.<sup>7</sup> All are measured as self reports in 1979. Race and ethnicity are dummy variables coded as black versus other and Hispanic versus other.

The distribution of the sample on the independent variables for the total sample and by residence is shown in Table 1. One major difference between the areas are in the percent Black and Hispanic. The southern regions, both urban and rural, report higher proportions of Blacks. Urban areas, both south and non-south report higher percentages of Hispanics. The rural south region reports the lowest level of high school completion. However, overall there is little variation in the percent completing high school by region. The percentage attending college is substantially lower in the rural south than in the other areas.

The statistically significant differences between areas on the independent variables are presented in Table 2. The differences in high school completion are significant between the rural south and both the urban south and urban non-south areas. College completion rates are significantly different for the rural south and all other areas. College completion rates also are significantly different between the non-south rural and non-south urban areas. Overall, the greatest number of significant differences exist between the rural south and the other three areas.

## Results

The first set of analysis of educational attainment examines the effect of residence relative to the effects of individual, parent's socioeconomic status and household characteristics for the total sample. The equations predicting the odds of completing high school or at least one year of college by 1986 are shown in Tables 3a and 3b. The first equations for each dependent variable show the effects of the individual characteristics. In the second equations, the residence variables are entered. The reference category is the urban north. Living in the rural south at the expected time of high school graduation has a significant negative effect on completing high school and attending college relative to living in the urban north. This means that for those living in the rural south their likelihood of completing high school by 1986 was 9 percent lower than those living in other areas. The odds were 14 percent lower that they had attended at least one year of college.

In the third equation however, parental characteristics are shown to account for a substantial portion of the effect of residence. Both mother and father's education and occupation are significant predictors of both high school completion and college attendance. The negative effect of living in the rural south disappears.

Parental background does not account for all of the difference in the probability of completing high school or attending college. In the fourth equations measures of self-esteem, household structure and poverty status are entered. Living in a single-

parent or two-parent household versus an alternative form at the expected time of high school graduation increases the odds of completing high school. Living in a two-parent household significantly increases the odds of attending college. Living in poverty significantly decreases the odds of both high school completion and college attendance. With the exception of father's occupational status, the family background characteristics remain significant in determining high school completion after controlling for household characteristics. Similarly, except for labor related occupations for mothers and sales occupations for fathers, the family background characteristics remain significant in determining college attendance.

The second part of the analysis examines the effects of individual characteristics, parent's socioeconomic status family background and household structure within each of the residential areas. For these residential subsamples, only the models including all variables are presented (Tables 4a and 4b). There is very little substantial variation in the effects of family background by residence. Parental characteristics are important determinants of high school completion in the rural non-south and the urban south. Family background characteristics, especially parents' educational levels, are important in determining college attendance in each of the four areas (not shown).

In regard to high school completion, individual characteristics are important in both the rural and urban south. One unusual finding is that being Black or Hispanic increases the

odds of completing high school in the south and the odds of attending college in all areas except the rural non-south. However, the effects of race and ethnicity are only positive and significant after controlling for family background and household structure (not shown). Being female consistently has a positive effect on educational attainment.

Self-esteem and living in a two-parent family operate as positive influences on educational attainment for high school and college in each of the geographic areas. With the exception of living in a single parent household in rural areas, each of the variables is positively significant. Living in a two parent-household at the expected time of high school graduation raises the odds of completing high school and attending college by over 15 percent in all areas (Tables 5 and 6).

Living in poverty at the expected time of high school graduation decreases the odds of completing high school by 10 percent only in the urban non-south (Table 5). Poverty decreases the odds of college attendance in the rural south by 19 percent and urban non-south by 10 percent (Table 6). The effect of living in poverty on educational attainment in areas infamous for extreme poverty is in addition to that of family background and household structure.

### Discussion and Conclusions

An important finding from this analysis is that effects of household structure are strong indicators of educational attainment in all regional areas regardless of parent's socioeconomic status.

The living situation at the expected time of high school graduation plays a role in determining resources necessary to continuing education, including socialization and income. This indicates that policies to improve human capital resources need to be directed at the social as well as the financial disadvantages facing teenagers in single parent and non-parental households.

The findings from the analysis of each of the regional areas show that there are very few differences in the effects of parent's socioeconomic status and household structure between regions. While the effects of parental characteristics on completing high school are not as substantial in the rural areas as they are in urban areas, in all areas the education of both parents is a powerful predictor of college attendance.

When the effects of family background are controlled, the negative influence of living in the rural south on educational attainment disappears. This suggests that there are family characteristics which are more prevalent in the rural south than other areas which discourage high school completion and college attendance. Because we examine residence at the point of high school graduation it is evident that this effect is not due to differential migration of youth by education.

These results suggest that rural teenagers are just as likely to translate family resources into increased education as are teenagers living in other regions. The problem is that they are more likely to lack family resources. Thus, strategies to increase educational attainment for youth could work through the family in



both rural and urban areas. Parents in rural areas need to be made aware of the growing need, opportunity and value of high school completion and college attendance. They also need the means necessary to make this a reality.

These findings do not suggest that the problem of education lies only with the family in the rural south. There are structural causes of the higher proportion of low socioeconomic families in the rural south. It does suggest however, that structural changes intended to improve educational attainment, in the rural south must in part do so through the family. In particular, difficulties faced by families living in poverty and nontraditional households need to be addressed. Thus, an effective means to increase human educational resources is to attend to difficulties created by family and household circumstances.

Therefore, it is essential that efforts to promote education as a resource, regardless of the area, must focus on improving the limited opportunities imposed by household characteristics. This includes measures to increase income for single parent families so children are not pressured to enter the labor force. Also, measures to increase child support not only provide economic assistance but increase the chance of contact between the outside parent and child (Furstenberg, et al. 1983). Programs to improve wages and skills of single mothers are needed as well. In general, measures to help teens in nontraditional family arrangements obtain the economic and social resources they need to advance, including student grants and scholarships are needed.



Young adults are facing particularly difficult times today due to the baby boom squeeze in the labor market. Paul Light (1990) argues that young adults today will face greater economic difficulties than their parents and will face them regardless of family background. William O'Hare argues that rural youth experience even greater difficulties because of the industrial restructuring of many small towns and rural areas (O'Hare 1988). The problem with instituting reforms is that the direct benefits to the providers of support are few. The benefits of helping those who need it most are more long term, and indirect but are nonetheless essential for a productive flourishing society.

## References

Amato, Paul R. 1987. "Family Processes in One-Parent, Stepparent, and Intact Families: The Child's Point of View" Journal of Marriage and the Family 49:327-337.

Astone, Nan Marie and Sara S. McLanahan. 1991. "Family Structure, Parental Practices and High School Completion." Paper presented at the 1989 meetings of the Population Association of America.

Bianchi, Suzanne M. 1990. "America's Children: Mixed Prospects", Population Bulletin, 45:1, Washington, D.C.:Population Reference Bureau, Inc.

Center for Human Resource Research. 1987. NLS Handbook. The Ohio State University, Columbus, Ohio.

Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." American Journal of Sociology, Volume 94 Supplement, S95-S120.

Current Population Reports. 1979, 1980, 1981. Characteristics of the Population Below the Poverty Level, Consumer Income, Series P-60, nos. 130, 133, 138. Washington, D.C.:Bureau of the Census.

Furstenberg, Frank F, Jr., Christine Winquist Nord, James L. Peterson, Nicholas Zill. 1983. "The Life Course of Children of Divorce: Marital Disruption and Parental Contact." American Sociological Review, 48: 656-668.

Haveman, Robert, Barbara Wilfe, James Spaulding. 1991. "Childhood Events and Circumstances Influencing High School Completion." Demography, 28: 133-157.

Kohn, Melvin L. 1979. "The Effects of Social Class on Parental Values and Practices," in David Reiss and Howard A. Goffman, eds., The American family: Dying of Developing, pp. 45-68. Plenum Press Publishing Corp.

Krein, S.F. and A.H. Beller. 1988. "Educational Attainment of Children from Single-Parent Families: Differences by Exposure, Gender, and Race." Demography 25:221-234.

Light, Paul C. 1988. Baby Boomers, W.W. Norton & Company, Inc., New York, NY.

Luster, Tom, Kelly Rhoades, and Bruce Haas. 1989. "The Relation between Parental Values and Parenting Behavior: A Test of the Kohn Hypothesis." Journal of Marriage and the Family 51: 139-147.

McLanahan, Sara. 1985. "Family Structure and the Reproduction of Poverty." American Journal of Sociology, 90:873-901.

Mueller, Daniel P. and Philip W. Cooper. 1986. "Children of Single Parent Families: How They Fare as Young Adults." Family Relations, 35:169-176.

O'Hare, William P. 1988. "The Rise of Poverty in Rural America." Population Trends and Public Policy, Washington, D.C.: Population Reference Bureau, Inc.

Peterson, Trond. 1985. "A Comment on Presenting Results from Logit and Probit Models." American Sociological Review, pp. 130-31.

Sandefur, Gary D., Sara McLanahan and Roger A. Wojtkiewicz. 1989. "Race, Family Structure, and High School Graduation" Paper presented at the 1989 Meetings of the Population Association of America.

Willits, Fern K., Donald M. Crider, and Robert C. Bealer. 1988. "Observations on Opportunity and Change: Data from a Two-Panel Study." Rural Sociology 53(3):321-333.

Wojtkiewicz, Roger A. 1991. "Parental Presence and High School Graduation: The Effects of Living with Single Parents, Stepparents, Grandparents, and Other Relatives." Unpublished paper Louisiana State University.

## Notes

1. To remain consistent with the literature being reviewed, the term "class" is used in this paper to refer to socio-economic status. The term is not being used as a strict Marxian concept.

2. Both were measured in 1986. Cases with missing data for 1986 were either completed from information on earlier years when possible, or deleted from the analysis.

3. If the mother or father was not present, or no data was given, the above variables were coded zero. If mother or father was not employed, was not present or had missing occupational data, occupation was coded 0 and thus represents the reference category. Because some of the respondents were age fourteen in 1979, they were answering for the current year while others were providing retrospective data. This measure assumes there was no change in mother or father's status or that such change is not significant to the analysis. Again, the preferred variable would include a comprehensive measure of changing family background. However, the data provided such information for the respondent only at age fourteen.

4. This variable is less than ideal because evidence suggests that living with a step-parent has different effects than living with two natural parents. However, more detailed divisions of household structure were not possible due to resulting limited cell sizes.

Previous studies have occasionally included measures of whether or not a change in household structure occurred during the period prior to high school graduation (Sandefur and McLanahan, 1989). Such a strategy however, poses difficulties because the number of years of information prior to typical high school completion is different for each age group. That is, those aged sixteen at the start of the survey (1979) would have two years of information regarding possible household structure change before the typical high school graduation year. In comparison, those aged fourteen in 1979 would provide four years of household structure information prior to expected high school completion. Given the variation in available information by age groups and the associated potential for bias, the structural change variable was considered inappropriate for the following analysis.

5. A measure of family income would imply that each dollar increment to income would increase the likelihood of educational degree completion. Using poverty status as a measure does present its own problems. The definition of poverty status is relatively arbitrary. For this study, poverty status is measured by whether total family income falls into categories of poverty designated by

family size, number of dependent children under age 18 and state of residence. The cut-off levels for poverty status change yearly according to changes in the Consumer Price Index. Family income includes income from all sources including earnings by all adult family members, AFDC income, and social security income (Center for Human Resource Research 1987; Current Population Report 1979, 1980, 1981). Poverty status is not adjusted for state of residence for 1979, 1980, and 1981.

6. While a measure of the duration of time lived in a rural or urban area before high school graduation would have been preferable, such a variable was not possible because the data lacked complete family residence histories. Therefore, residence during the typical year of expected graduation was considered the most appropriate substitute for determining residential effects on educational attainment by 1986.

Residence for expected year of high school graduation was determined by the question "Do you live in a rural area or on a farm?" Cases with missing data on this variable were eliminated from the analysis.

Southern states included Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Tennessee, Kentucky, Alabama, Georgia, Florida, South Carolina, North Carolina, West Virginia, Virginia, Maryland and Delaware.

7. Self-esteem was measured in 1979 for all respondents by the Rosenberg self-esteem scale. It is possible that measuring self-esteem at different ages produces variations in the effects on educational attainment. Self-esteem is significantly negatively correlated with age. However, 1979 is the only year in which self-esteem was measured. Moreover, variations in self-esteem by age are similar for those groups who do and do not complete high school or attend college, thereby minimizing the potential for bias.

**Table 1. Descriptive Characteristics and Odds of Completing High School and Attending College by Residence**

Characteristics	Total (n=3,854)	Urban		Rural	
		South (n=1,023)	Non-South (n=1,986)	South (n=471)	Non-South (n=374)
<b>Characteristics</b>					
Age (1979) (Range 14-18 years)	16.0	15.9	16.0	16.0	16.0
Sex (1=male, 2=female)	1.51	1.54	1.50	1.51	1.47
Black (% Black)	25	44	17	33	5
Hispanic (% Hispanic)	16	16	20	3	12
Self Esteem (1979) (Range 10-40)	31.74	31.77	32.0	30.95	31.41
<b>Parent's Education</b>					
Mother (%) (Respondent Age 14)		Percent (0=No, 1=Yes)			
Grades 1-12 Completed	38	34	40	35	42
>=1 yr. College Completed	15	14	17	5	17
Father (%) (Respondent Age 14)					
Grades 1-12 Completed	28	24	32	22	29
>=1 yr. College Completed	20	20	23	9	21
<b>Parent's Occupation</b>					
Mother (%)					
Professional Occupation	8	9	8	5	12
Clerical/Sales Occupation	14	14	16	9	15
Labor Related Occupation	29	34	25	36	26
Father (%)					
Professional Occupation	15	15	18	7	16
Clerical/Sales Occupation	7	7	8	3	7
Labor Related Occupation	45	45	42	52	51
<b>Household Structure</b>					
		Percent (0=No, 1=Yes)			
Two-Parent*	57	52	59	51	66
Single-Parent**	12	13	12	11	9
Other (Reference Group)***	31	35	29	38	25
Poverty Status	38	43	35	48	33
<b>Education</b>					
Proportion completing high School	81	81	82	76	81
Proportion completing >=1 year college	36	38	38	26	36

\* Two-Parents includes any combination of two parents with one or both being step-parents.

\*\* Single parents include mother, father, step-mother or step-father.

\*\*\* Other includes mainly nonfamily situations such as group quarters, roommates or single living but also subfamilies including living with a spouse and/or a child and any parent(s).



**Table 2. Statistically Significant Differences Among Residential Groups on Individual, Background and Household Characteristics**

Characteristic	Significant differences between					
	SU/NSU	SU/SR	SU/NSR	NSU/SR	NSU/NSR	SR/NSR
<b>Individual Characteristics</b>						
Age (1979)		*				
Sex				*		
% Black	*			*	*	*
% Hispanic	*			*	*	*
<b>Background Characteristics</b>						
<b>Mother</b> (Respondent Age 14)						
Grades 1-12 Completed	*		*			*
>=1 yr. College Completed		*		*		*
Professional Occupation		*		*	*	*
Clerical/Sales Occupation		*		*		*
Labor Related Occupation	*		*	*		*
<b>Father</b> (Respondent Age 14)						
Grades 1-12 Completed	*			*		*
>=1 yr. College Completed	*	*		*		*
Professional Occupation	*	*		*		*
Clerical/Sales Occupation		*		*		*
Labor Related Occupation		*	*	*	*	
<b>Household Structure, Poverty Status, and Self Esteem</b> (Year of Expected High School Graduation)						
Two-Parent	*		*	*	*	*
Single-Parent			*			
Other (Reference Group)	*	*	*			*
Self Esteem (1979)		*		*	*	
Poverty Status	*	*	*	*		*
<b>Education</b>						
Percent Completing HS		*		*		
Percent Completing >=1 Year College		*		*	*	*

\* p <= .05

NSR= Non-South Rural (n=374)  
 SR = South Rural (n=471)  
 NSU= Non-South Urban (n=1,986)  
 SU = South Urban (n=1,023)



**Table 3a. Beta Coefficients for the Percentage Increase in Odds of Completing High School by 1986 for All Residential Groups (n=3,854)**

Completing High School (0=742) (1=3,112)

Variable	Individual	Residence	Background	Household
<b>Individual Characteristics</b>				
Age (1979)	-.10**	-.10**	-.08*	-.07
Black	-.16	-.15	.40***	.39**
Hispanic	-.36***	-.41***	.31*	.28*
Sex (1=male, 2=female)	.34***	.34***	.43***	.64***
Self Esteem (1979)				.13***
<b>Residence</b>				
South Rural		-.40**	.06	.23
South Urban		-.03	.03	.13
Non-South Rural		-.06	.09	.15
<b>Parent's Education</b>				
<b>Mother</b>				
(Respondent Age 14)				
Grades 1-12 Completed			.88***	.74***
>=1 yr. College Completed			1.14***	.94***
<b>Father</b>				
(Respondent Age 14)				
Grades 1-12 Completed			.72***	.67***
>=1 yr. College Completed			1.29***	1.10***
<b>Parent's Occupation</b>				
<b>Mother</b>				
Professional Occupation			.52*	.51*
Labor Related Occupation			.31**	.26*
Clerical/Sales Occupation			.60***	.49**
<b>Father</b>				
Professional Occupation			.73***	.34
Labor Related Occupation			.25**	-.10
Clerical/Sales Occupation			1.24***	.81**
<b>Household Structure</b>				
Two-Parent Household				1.00***
Single-Parent Household				.50**
Poverty Status				-.35***
Intercept	2.66***	2.71***	.77	-3.79***
L <sup>2</sup>	38.13***	48.29***	500.22***	743.39***
R <sup>2</sup>	.008	.009	.123	.186

\* p<=.05    \*\* p<=.01    \*\*\* p<=.001

**Table 3b. Beta Coefficients for Percentage Increase in Odds of Attending 1 or More Years of College by 1986 for All Residential Groups (n=3854)**

**Attending 1 or More Years of College (0=2,459) (1=1,395)**

Variable	Individual	Residence	Background	Household
<b>Individual Characteristics</b>				
Age (1979)	-.08**	-.08**	-.07*	-.09**
Black	-.20*	-.22*	.50***	.54***
Hispanic	-.24*	-.31**	.57***	.58***
Sex (1=male, 2=female)	.10	.10	.17*	.27***
Self Esteem (1979)				.12***
<b>Residence</b>				
South Rural		-.56***	.001	.10
South Urban		.06	.11	.18
Non-South Rural		-.13	.005	.02
<b>Parent's Education</b>				
<b>Mother</b>				
(Respondent Age 14)				
Grades 1-12 Completed			.67***	.55***
>=1 yr. College Completed			1.33***	1.17***
<b>Father</b>				
(Respondent Age 14)				
Grades 1-12 Completed			.60***	.55***
>=1 yr. College Completed			1.27***	1.15***
<b>Parent's Occupation</b>				
<b>Mother</b>				
Professional Occupation			.73***	.75***
Labor Related Occupation			.18*	.16
Clerical/Sales Occupation			.40***	.35**
<b>Father</b>				
Professional Occupation			.94***	.59***
Labor Related Occupation			.04	-.33**
Clerical/Sales Occupation			.48**	.10
<b>Household Structure</b>				
Two-Parent Household				.78***
Single-Parent Household				.10
Poverty Status				-.36***
Intercept	.70	.72	-1.27*	-4.93***
L <sup>2</sup>	22.53***	52.09***	874.85***	1122.85***
R <sup>2</sup>	.003	.008	.166	.214

\* p<=.05    \*\* p<=.01    \*\*\* p<=.001

**Table 4a. Beta Coefficients for the Percentage Increase in Odds of Completing High School by 1986 by Residential Groups**

Variable (# no; # yes)	Completed High School			
	NSR (70:304)	SR (114:357)	NSU (366:1620)	SU (192:831)
<b>Individual Characteristics</b>				
Age (1979)	-.07	-.08	-.08	-.06
Black	-.29	1.08***	.02	.65**
Hispanic (Other reference)	-.56	.44	.04	1.13***
Sex (1=male, 2=female)	.59***	1.07***	.51***	.69***
Self Esteem (1979)	.11***	.15***	.12*	.14***
<b>Parent's Education</b>				
Mother (< HS reference) (Respondent Age 14)				
Grades 1-12	.33***	.82**	.86***	.58*
>=1 yr. College	.23	8.35	.76**	1.48**
Father (< HS reference) (Respondent Age 14)				
Grades 1-12	1.59**	.36	.52**	.89***
>=1 yr. College	1.74	.72	.98***	1.24**
<b>Parent's Occupation</b>				
Mother (none reference)				
Professional	.42	1.34	.68	.08
Labor Related	-.16	.36	.22	.29
Clerical/Sales	.22	.43	.68**	.30
Father (none reference)				
Professional	.02	-.17	.64*	-.03
Labor Related	-.48	-.23	.20	-.53*
Clerical/Sales	6.24	.12	.91*	.75
<b>Household Structure</b>				
Two-Parent	1.73***	1.15***	.79***	1.08***
Single-Parent (Other reference)	1.70*	.34	.24	.66*
Poverty Status	-.50	-.33	-.45***	-.18
Intercept	-2.92	-4.36*	-2.92	-4.34**
L	113.04***	113.86***	113.04***	196.73***
R2	.213	.149	.213	.162

\* p<=.05    \*\* p<=.01    \*\*\* p<=.001

NSR= Non-South Rural (n=374)

SR = South Rural (n=471)

NSU= Non-South Urban (n=1,986)

SU = South Urban (n=1,023)

**Table 4b. Beta Coefficients for the Percentage Increase in Odds of Attending One or More Years of College by 1986 by Residential Groups**

Variable (# no; # yes)	Attended One or More Years of College			
	NSR (133:241)	SR (349:122)	NSU (1238:748)	SU (631:392)
<b>Individual Characteristics</b>				
Age (1979)	-.24*	-.13	-.10*	-.01
Black	.61	1.34***	.42**	.50**
Hispanic (Other reference)	-.36	1.78*	.52***	.70**
Sex (1=male, 2=female)	.29	.31	.25*	.33*
Self Esteem (1979)	.15***	.15***	.10***	.14***
<b>Parent's Education</b>				
Mother (< HS reference) (Respondent Age 14)				
Grades 1-12	.30	.71*	.61***	.51**
>=1 yr. College	1.02*	2.11**	1.11***	1.37***
Father (< HS reference) (Respondent Age 14)				
Grades 1-12	.80*	.98**	.43**	.53**
>=1 yr. College	1.27**	1.76***	1.02***	1.20***
<b>Parent's Occupation</b>				
Mother (none reference)				
Professional	1.24**	1.07	.78***	.35
Labor Related	.32	.40	.22	-.14
Clerical/Sales	1.10**	.40	.37*	.01
Father (none reference)				
Professional	.74	.74	.72***	.28
Labor Related	-.46	-.26	-.17	-.58**
Clerical/Sales	.36	.13	.18	-.19
<b>Household Structure</b>				
Two-Parent Household	.72	1.18***	.70***	.81***
Single-Parent Household (Other reference)	.13	.69	.11	-.09
Poverty Status	.11	-.78**	-.39**	-.29
Intercept	-3.87	-6.37**	-4.12***	-6.35***
L	144.83***	162.92***	533.68***	308.98***
R2	.223	.235	.189	.200

\* p<=.05    \*\* p<=.01    \*\*\* p<=.001

NSR= Non-South Rural (n=374)  
 SR = South Rural (n=471)  
 NSU= Non-South Urban (n=1,986)  
 SU = South Urban (n=1,023)

**Table 5. Predicted Probability and Percent Change from Base Probability of Completing High School by 1986 by Residential Groups**

Base	Total	Predicted Probability (Percent Change)			
		NSR	SR	NSU	SU
	.80				
<u>Characteristics</u>					
Age (1979)		(1.6)	(-1.6)	(-1.8)	(-1.4)
Black	.72	(-6.6)	.90 (17.7)	.81 (.3)	.88 (11.9)
Hispanic (Other reference)	.67	(-13.3)	.83 (8.4)	.81 (.8)	.93 (18.2)
Female	.96	(.11)	.90 (17.6)	.88 (9.7)	.88 (12.5)
Male					
Self Esteem (1979)		(2.4)	(3.0)	(2.6)	(2.9)
<u>Parent's Education</u>					
Mother (< HS reference) (Respondent Age 14)					
Grades 1-12	.83	(6.5)	.88 (14.4)	.93 (15.0)	.88 (10.8)
>=1 yr. College	.81	(4.6)	1.00 (30.8)	.92 (13.6)	.95 (21.6)
Father (< HS reference) (Respondent Age 14)					
Grades 1-12	.96	(22.5)	.82 (7.1)	.89 (9.8)	.90 (15.3)
>=1 yr. College	.97	(23.6)	.87 (13.4)	.94 (16.5)	.94 (19.4)
<u>Parent's Occupation</u>					
Mother (none reference)					
Professional	.84	(8.2)	.93 (20.4)	.91 (12.4)	.79 (1.6)
Labor Related	.75	(-3.6)	.82 (7.1)	.84 (4.5)	.83 (5.8)
Clerical/Sales	.81	(4.4)	.83 (8.4)	.91 (12.3)	.83 (6.0)
Father (none reference)					
Professional	.78	(.5)	.73 (-3.7)	.90 (11.9)	.77 (-.7)
Labor Related	.69	(-11.1)	.72 (-5.2)	.84 (4.2)	.68 (-12.2)
Clerical/Sales	1.00	(30.8)	.78 (2.5)	.93 (15.7)	.89 (13.5)
<u>Household Structure</u>					
Two-Parent	.97	(23.5)	.93 (21.1)	.92 (14.1)	.92 (17.6)
Single-Parent (Other reference)	.96	(23.2)	.82 (6.8)	.85 (4.8)	.88 (12.1)
Poverty Status	.68	(-11.5)	.70 (-7.5)	.72(-10.2)	.75 (-4.1)

NSR= Non-South Rural (n=374)  
 SR = South Rural (n=471)  
 NSU= Non-South Urban (n=1,986)  
 SU = South Urban (n=1,023)

**Table 6. Predicted Probability and Percent Change from Base Probability of Attending College by 1986 by Residential Groups**

Predicted Probability (Percent Change)

Base	Total	NSR	SR	NSU	SU
	.37				
<b>Characteristics</b>					
Age (1979)		(-1.8)	(-1.6)	(-1.6)	(-1.5)
Black	.41	(15.3)	(25.6)	(9.7)	(11.3)
Hispanic	.33	(-8.8)	(30.6)	(11.7)	(15.3)
(Other reference)					
Female	.38	(6.8)	(7.2)	(5.8)	(7.7)
Male					
Self Esteem (1979)		(3.4)	(3.6)	(2.4)	(3.3)
<b>Parent's Education</b>					
Mother (< HS reference)					
(Respondent Age 14)					
Grades 1-12	.38	(7.0)	(15.6)	(13.6)	(11.7)
>=1 yr. College	.43	(2.1)	(33.2)	(22.5)	(26.0)
Father (< HS reference)					
(Respondent Age 14)					
Grades 1-12	.42	(17.2)	(20.4)	(9.8)	(12.0)
>=1 yr. College	.45	(24.6)	(30.3)	(21.6)	(23.7)
<b>Parent's Occupation</b>					
Mother (none reference)					
Professional	.44	(24.3)	(21.7)	(16.9)	(8.1)
Labor Related	.38	(7.4)	(9.2)	(5.2)	(-3.5)
Clerical/Sales	.44	(22.2)	(9.1)	(8.5)	(.2)
Father (none reference)					
Professional	.42	(16.2)	(16.2)	(15.8)	(6.5)
Labor Related	.32	(-11.4)	(-6.3)	(-4.1)	(-14.4)
Clerical/Sales	.39	(8.3)	(3.1)	(4.3)	(-4.6)
<b>Household Structure</b>					
Two-Parent	.41	(15.7)	(23.4)	(15.3)	(17.3)
Single-Parent	.37	(3.0)	(15.2)	(2.6)	(-8.1)
(Other reference)					
Poverty Status	.37	(2.6)	(-19.2)	(-9.7)	(-7.1)

NSR= Non-South Rural (n=374)

SR = South Rural (n=471)

NSU= Non-South Urban (n=1,986)

SU = South Urban (n=1,023)