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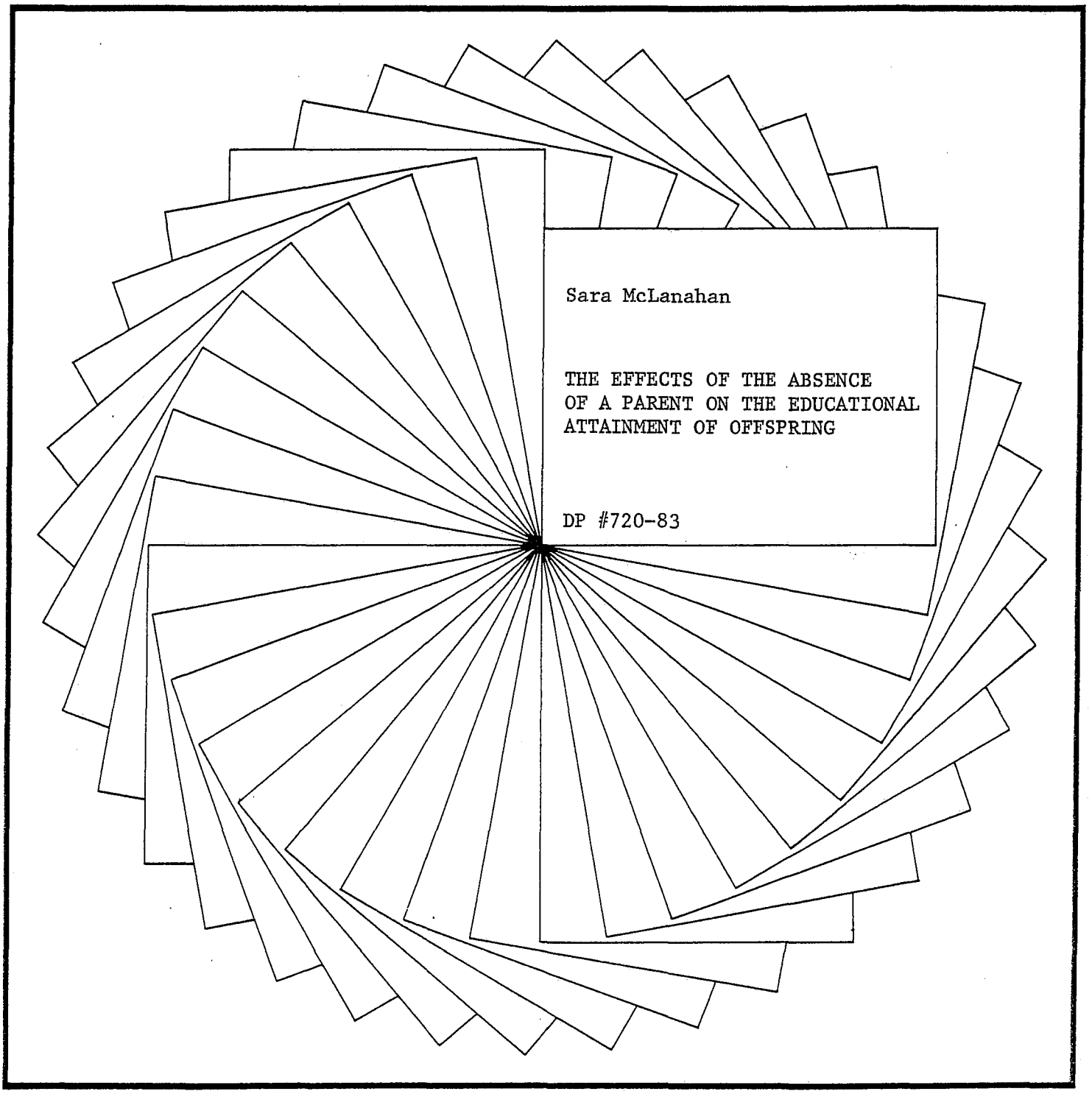

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THE EFFECTS OF THE ABSENCE OF A PARENT ON THE EDUCATIONAL ATTAINMENT OF OFFSPRING

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ABSTRACT

This paper addresses the question of whether offspring living in one-parent families at age seventeen obtain less education than offspring living in two-parent families. Four hypotheses for parent absence effects are tested: the "no effects" hypothesis, the "economic deprivation" hypothesis, the "absent father" hypothesis, and the "family stress" hypothesis. Separate analyses are presented for blacks and whites. The findings show that economic deprivation and the stress associated with recent family disruption can account for nearly all the parent absence effect among whites. For blacks there is some evidence for the economic deprivation hypothesis and more consistent support for the absent-father explanation.

THE EFFECTS OF THE ABSENCE OF A PARENT ON THE EDUCATIONAL ATTAINMENT OF OFFSPRING

1. INTRODUCTION

In response to rising divorce rates and the rapid growth of female-headed families over the last two decades, researchers and policymakers have become increasingly concerned with the impact of the absence of a parent on children. This concern has stimulated the creation of a large body of literature reflecting the interests of several disciplines in a variety of substantive areas (e.g., juvenile delinquency, school performance, psychological adjustment, and socioeconomic attainment). In general, most of the studies conducted thus far show that children who grow up in single-parent families are more likely to have juvenile records, to perform poorly in school, and to have lower socioeconomic attainment in adulthood than children who spend most of their lives in two-parent households. (For critical reviews see Herzog and Sudia, 1973; Ross and Sawhill, 1975; Shinn, 1978; Hetherington et al., 1981).

Despite the consistency of these findings, however, there is much debate over how to interpret the relationship between family structure and offspring behavior. On the one hand are researchers who argue that the association is due to social class and cultural factors that lead to the formation of female-headed families as well as maladaptive behavior in offspring. On the other hand are those who believe that family structure has a independent effect but who disagree over whether it is due to economic deprivation, the absence of a male role model, or the stress of recent marital disruption. Unfortunately, in much of the existing research, characteristics such as race, family size, and

parents' income and education have not been taken into account; and thus it is impossible to isolate the effects of family structure per se from those of socioeconomic background. Moreover, given that most researchers have not distinguished among different types of single-parent families (e.g., never married, widowed, divorced) nor controlled for duration of parent absence, the effects associated with the event of marital disruption are confounded with those due to the ongoing strain of single parenthood. In short, while the level of speculation and concern for female-headed families is high, our understanding of its consequences for offspring is quite limited at this time.

The purpose of this study is to identify and evaluate four theories of why children from one-parent families have lower attainment than offspring who grow up in two-parent households. The theories include (1) the "no effect" hypothesis, which argues that family effects are due entirely to spurious relationships resulting from the failure to control for background factors; (2) the "economic deprivation" hypothesis, which argues that effects are due to current economic status rather than parent absence per se; (3) the "absent-father" hypothesis, which views the lack of a male role model as the primary determinant of offspring behavior; and (4) the "family stress" hypothesis, which emphasizes the importance of the event of marital disruption and its immediate consequences.

In comparing these hypotheses I focus on one dimension of offspring behavior: educational attainment. This indicator has received considerable attention from psychologists as well as sociologists, and a large literature exists on the subject, ranging from studies of cognitive performance among school children to research on the amount of schooling obtained by adults. Moreover, academic achievement appears to

be related to a number of indicators of adult well-being, including occupational status, income, and marital stability (Duncan and Duncan, 1969; Duncan et al., 1972; Featherman and Hauser, 1976). The data are taken from the Michigan Panel Study of Income Dynamics, which is a national survey of 5000 American households followed since 1968. These data are well-suited for the present analysis in that offspring of original panel families are subsequently included in the panel once they establish independent households. Because of this design, it is possible to construct a sample of respondents that provides detailed information on the economic and marital history of their families of origin as well as their own educational behavior in adolescence. Consequently, it is possible to separate effects due to economic status and marital instability from those due to parent absence per se. In addition, by following a group of offspring into young adulthood, it is possible to determine the extent to which family characteristics and behaviors observed in adolescence are consistent with long-term educational attainment.

2. FAMILY STRUCTURE AND ATTAINMENT: PAST STUDIES

Our knowledge of family structure and its impact on educational attainment comes from two rather distinct literatures: research on adult attainment performed primarily by sociologists, and studies of cognitive achievement in children and adolescents carried out by psychologists and sociologists. Each of these approaches has certain strengths as well as certain weaknesses, and each provides us with a somewhat different picture of the nature and importance of family structure effects. (See Hetherington et al., 1981, for an extensive review of both literatures.)

The attainment research, which focuses on adults, indicates that those who grow up in one-parent families complete fewer years of schooling than those who spend most of their lives in two-parent households (Duncan, 1967; Duncan and Duncan, 1969; Duncan et al., 1972; Featherman and Hauser, 1976; Hauser and Featherman, 1976). This finding is consistent across several studies of attainment and is related to other indicators of adult well-being, including occupational attainment and marital stability (Duncan and Duncan, 1969).

The strength of the attainment approach lies in its use of large representative samples, multivariate models, and sophisticated statistical techniques. Moreover, it provides evidence of consequences that persist beyond childhood and adolescence. Its weakness lies in its inability to elaborate upon family structure effects. For example, none of this work deals satisfactorily with the issue of whether observed effects are due to the absence of a parent per se or to family economic status. While attainment models typically adjust for the occupational and educational status of the family head, these controls are not adequate when comparing one- and two-parent families. Since one-parent families are generally headed by single women and since female householders earn considerably less than males of similar occupational and educational status, effects due to economic deprivation are still confounded with those of family status.

Another limitation of the attainment models is their inability to discriminate among different types of single-parent families (e.g., never married, widowed, divorced, separated) or to control for duration of parent absence. These distinctions are crucial in separating effects due to the absence of a parent from effects due to marital disruption,

and the lack of information on these variables seriously inhibits our ability to interpret past results. To be fair, we should note that the failure to control for income or to examine different types of single-parent families is generally not the fault of researchers, in that reliable information on parents' income and marital history is simply not available in most of the data used to examine attainment.

A second general approach to the study of family structure and educational attainment is found in the literature on cognitive achievement, which is based on children and adolescents currently in school. Unfortunately, much of this research has methodological problems and its findings are mixed and generally inconclusive (Ross and Sawhill, 1975). The most reliable of these studies show that offspring from single-parent families perform as well on standardized tests as children from two-parent families but less well on subjective indicators such as grade point averages and behavioral ratings, which are based on teacher evaluations (Coleman et al., 1966; Tabler et al., 1968; Hanushek, 1972; Hetherington et al., 1981).

Perhaps the most provocative finding in the literature on school children is the evidence of variation among different types of single-parent families. Zill (1978), for example, shows that children of widows are much better off than children living with separated mothers. In a similar vein, Hetherington, Cox, and Cox (1978a) in their studies of divorce show that offspring performance decreases dramatically immediately following parents' separation and gradually improves during the next few years. These findings suggest that the event of marital disruption rather than continuing parent absence is the crucial determinant of lower achievement among children who currently live at home and that

single-parent families may be no different from two-parent households once they have recovered from the shock of marital dissolution.

As noted above, the literature on cognitive achievement has several methodological problems. First, most studies in this area are based on small nonrandom samples and do not attempt to control for socioeconomic factors. Second, much of this research uses school samples that exclude offspring who are not in school. Since those most affected by parent absence may be most likely to drop out of school, this design could result in underestimation of the effects of parent absence, particularly when comparing adolescents. Finally, the research on cognitive achievement does not necessarily provide a reliable picture of long-term effects. For example, the work of Hetherington, Cox, and Cox suggests that children's responses to marital disruption may be relatively short-lived and that achievement and behavioral differences observed at one point in time may not necessarily translate into long-term differences in attainment. In a similar vein, one cannot infer that the absence of cognitive differences among children and adolescents means that family structure has no long-term consequences. As Hetherington and her colleagues (1981) have noted, offspring may terminate their schooling for reasons other than poor achievement. In particular, early entrances into the labor force, early pregnancies and marriages, and economic necessity in general may prove to be more critical in explaining family structure effects than academic performance in itself.

The present analysis is designed to examine offspring behavior at two points in time; once while respondents are living with their families of origin and once again in young adulthood. In this way, I will be able not only to control for economic factors and other characteristics

of the home environment, but also to determine the extent to which differences observed at adolescence have lasting consequences on adult attainment.

3. THEORETICAL ISSUES

Implicit in the literature on family structure are several distinct theories of why educational attainment is lower among children who grow up in single-parent households. These theories, which are based on more general models of status attainment, early socialization, and family stress, are usually presented as ad hoc interpretations and in most cases have not been empirically tested. In the following discussion four such perspectives are described briefly, along with several hypotheses that might be used to compare and evaluate their relative merit.

The No-Effect Hypothesis

The most simplistic of the family status hypotheses is the view that the absence of one parent has no direct consequence for offspring attainment. According to this view, findings reported in past research result entirely from spurious relationships that are created by the failure to control for background factors such as race, education, and occupation of parents. Proponents of this hypothesis generally point out that being black and having little education or a low-status occupation is positively related to the formation of single-parent families as well as to lower attainment among offspring. To the extent that these factors are not taken into account when assessing parent absence, their impact will be reflected in the estimates of the family effect. This

position is implicit in some of the earlier critiques of the literature in which the absence of proper controls is interpreted as an indication that family structure has no consequences for offspring.

The Economic Deprivation Hypothesis

The second theory to be examined is the notion that lower academic achievement among offspring in one-parent families is a consequence of poverty rather than family structure (Rainwater and Yancey, 1966). Since single-parent families account for nearly one-half of all families living below the poverty line and since family income is clearly related to educational attainment, this argument must be given considerable weight until proven otherwise. The "economic deprivation" theory, as outlined above, treats economic status as an endogenous variable rather than a background factor. That is, current income is believed to have an independent impact on attainment, net of economic factors that influence the formation of female-headed families. For this reason, the theory is distinct from the no-effect hypothesis described above.

Several arguments can be made for why low economic status might lead to low achievement among offspring in single-parent families. First is the notion that lack of supervision is the critical variable (Maccoby, 1958; Fleisher, 1966; Hetherington et al., 1978a; Colletta, 1979). This position, which is sometimes referred to as the "mother absent" hypothesis, maintains that low income increases the likelihood that mothers will work, that working mothers provide less supervision to their children, and that inadequate supervision results in behavioral problems in school. Since offspring in single-parent families have lower incomes

and are more likely to have a working mother, it is assumed that they have less supervision and therefore perform less well in school.

A second explanation suggests that economic necessity results in lower attainment by encouraging adolescents to assume adult roles which in turn affect the timing of life course transitions. Specifically, offspring from single-parent families are more likely to work full time and to be responsible for younger siblings, and these activities result in early departures from school (Colletta, 1979; Kelly and Wallerstein, 1979; Weiss, 1979). It should be noted that this explanation does not assume that early departures are associated with poor performance or negative behavior in general. On the contrary, offspring who leave school prematurely to fulfill adult roles may be highly responsible. Their responsibilities, however, are directed toward family survival rather than individual achievement.

A third argument for income-related effects blames the welfare system for the lower attainment of offspring. Included here are notions of welfare dependency and welfare stigma, both of which are believed to undermine achievement in school (Rainwater and Yancey, 1967; Auletta, 1981). Again it should be noted that in these explanations welfare is treated as an endogenous variable having an independent effect on offspring attainment, net of background or personality characteristics that may affect the selection into single-parent families as well as welfare status.

The Absent-Father Hypothesis

A third explanation for family effects states that the continuing absence of a father leads to low attainment among offspring in single-

parent families. This view is derived from socialization theory, which stresses the importance of the male role model to the cognitive and emotional development of children. With respect to educational attainment, the theory proposes that the absence of a father decreases motivation for achievement and interferes with normal psychosexual development, resulting in poorer academic performance and premature termination of schooling.

The impact of the absence of a father is difficult to test because nearly all single-parent families have an absent father. As a result, it is difficult to tell whether family effects are due to the absence of a male role model or to having one parent rather than two. While a pure absent-father effect cannot be measured empirically, other testable hypotheses can be derived from this theory. For example, if the absence of a father is the critical factor, the effect of family structure should be consistently negative across all types of female-headed families, other factors being equal. Second, since socialization theory emphasizes the importance of early childhood in the development of attitudes and behaviors, one would expect children who experience the absence of a father at a young age and for an extended period of time to be worse off than those who lose a father in adolescence. Finally, the absent-father theory argues that the absence of a male role model is more detrimental to male offspring than to females, and therefore one would expect to find a sex differences in the responses of offspring, with males showing more negative effects than females[1] (Carlsmith, 1964; Hetherington et al., 1978b; Wallerstein, 1978; Hess and Camara, 1979).

The Family Stress Hypothesis

The fourth explanation for a family structure effect is derived from family stress theory (Hill, 1958). According to this view, parents' marital disruption is a major source of stress for offspring, involving multiple role and status changes that often result in feelings of anger and loss (Wallerstein and Kelly, 1980; Hetherington, 1981). These feelings, which are most intense during the period of initial separation, may result in antisocial behavior as well as a loss of confidence and self-esteem. With respect to schooling, stress theory suggests that recent disruptions result in behavioral problems at school and in poorer overall academic performance[2] (Goode, 1956; Bohannan, 1970; Hetherington et al., 1978a).

The variables appropriate for testing stress theory are similar to those used to evaluate the absence of a father. The hypotheses, however, predict contradictory results. First, stress theory suggests that since single-parent households vary according to their concentration of recently disrupted families, the effects of parent absence should also vary for different types of one-parent families. In particular, one would expect separated households to have the strongest negative effect and never-married households to show the least negative effect, all else being equal. Second, the theory suggests that within single-parent households, time since marital disruption should be positively related to offspring performance (i.e., the more distant the disruption, the less negative the impact).

Clearly the relationship between the absence of a parent and offspring behavior is subject to a variety of interpretations and has

stimulated a good deal of debate. The conflicting hypotheses have not been explicitly tested thus far, however, nor compared with respect to their relative merit. In the present study, each hypothesis is tested separately in a context that focuses on educational attainment as the indicator of offspring behavior. Part one of the analysis looks specifically at adolescent behavior and asks whether or not parent absence is related to being in school at age seventeen. Part two looks at attainment in young adulthood and asks whether parent absence is related to graduation from high school and to total years of school completed. By focusing on behavior in adolescence as well as adulthood, I have attempted to develop a model that not only accounts for the impact of family structure on offspring living at home but also explains how adolescent behavior is translated into long-term disadvantages.

4. METHODS

Data

The data are taken from the Panel Study of Income Dynamics (PSID), which is a national representative survey of households conducted by the Survey Research Center at the University of Michigan. The Panel Study has followed 5000 American families since 1968 and is made up of approximately 2000 low-income households drawn from the Census Bureau's Survey of Economic Opportunity and a fresh probability sample of approximately 3000 additional households taken from the Survey Research Center's national sampling frame. The oversampling of low-income families provides an unusually large sample of single-parent families and black families.

The present study is based on information obtained from the eleven-year individual tape (1978). The sample consists of respondents who were between the ages of seventeen and twenty-seven in 1978 and who had been dependent children of panel families at age seventeen. Information on these offspring and their family situation at age seventeen was used to examine the relationship between family structure and school behavior in adolescence. For a subset of these respondents (those who had reached the age of twenty-three and had established separate households by 1978), information on completed education was used to corroborate the initial analysis of adolescent performance and to estimate the effect of family structure on long-term educational attainment. (Additional information on the sample and its limitations is provided in the Appendix).

The initial sample of offspring contained 3289 respondents: 1730 whites and 1559 blacks. Since only a small number of single-parent families are headed by males, the sample was restricted to offspring living with either two parents or a single female parent. The single-parent subgroup contained 48 offspring living with never-married mothers, 242 offspring living with widows, 290 respondents living with divorced mothers, and 342 respondents living with separated mothers.

Variables

Educational attainment was measured by three indicators: whether respondent was in school at age seventeen, whether respondent graduated from high school, and total years of school completed by respondent.

All independent variables were measured when the respondent was seventeen. Family structure was measured in several ways. First as a simple dichotomous variable indicating whether or not a parent was

absent from the household, PA; second as a set of dummy variables indicating marital status of household head (never married, NEV; widowed, WID; divorced, DIV; and separated, SEP); and finally, as a set of dummy variables representing time since parents' marital disruption: 1 year or less, 2 to 4 years, or 5 years or more.

The control variables include education of household head, EDUC (0 = has trouble reading or writing, 1 = 0-5 grades, 2 = 6-8 grades, 3 = 9-11 grades, 4 = high school, 5 = 12 grades plus nonacademic training, 6 = some college, 7 = college BA but no advanced degree, and 8 = college and advanced or professional degree); region of the country in which respondent lived (coded as dummy variables representing the North Central NC, South, and West--Northeast omitted); size of the CITY in which respondent lived (1 = under 10,000, 2 = 10,000-24,999, 3 = 25,000-49,000, 4 = 50,000-99,999, 5 = 100,000-499,999, 6 = over 500,000); total family income (measured in dollars) INC; family need/size (measured in dollars and based on the annual food needs of the household adjusted for number and ages of family members) NEED; mother's employment status, WOKM (0 = 0 hours worked during past year, 1 = 1 or more hours worked during past year); offspring's employment status, WOKO (0 = 0 hours worked during past year, 1 = 1 or more hours worked); and family welfare status, WEL (0 = no AFDC received during past year, 1 = 1 or more dollars of AFDC received).

5. MODELS AND ESTIMATION TECHNIQUES

Two of the dependent variables are dichotomous indicators: whether respondent was in school at age seventeen and whether respondent graduated

from high school. To overcome the problems created by using dichotomous dependent variables in ordinary least squares regression, logistic response models were used to estimate the effect of family structure on these two indicators of attainment. The logits were generated by the program GLIM (Baker and Nelder, 1978), which uses a maximum likelihood estimation procedure. GLIM reports standard errors for each coefficient and a likelihood estimate for the fit of the overall model. The standard errors were used to evaluate the statistical significance of the independent variables, and changes in the likelihood estimates were used to determine whether the inclusion of particular variables improves the fit of nested models. The third measure of attainment, years of school completed, is a continuous variable, and therefore OLS estimation techniques were used to examine the impact of family structure. The specific models used to test each of the hypotheses outlined above are discussed in the following section.

6. FAMILY STRUCTURE AND EDUCATIONAL ACHIEVEMENT AT SEVENTEEN

The first part of the analysis focuses on adolescent behavior and asks whether the absence of a parent is related to being in school at age seventeen. Preliminary findings indicated that responses vary considerably by race, and therefore each of the four hypotheses was tested separately for blacks and whites.[3] Results for this portion of the analysis are presented in Tables 1 and 2.

The No-Effect Hypothesis

The first hypothesis to be tested is the notion that the relationship between the absence of one parent and offspring attainment is

Table 1. The Effects of the Absence of One Parent on the Log Odds of Being in School at Age Seventeen for White Offspring

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	2.15 (.08)*	1.25 (.26)*	.71 (.41)	.58 (.42)	.81 (.41)	.70 (.41)	1.83 (.25)*
PA	-.52 (.20)*	-.45 (.21)*	-.19 (.23)	-.08 (.24)			-.25 (.63)
SEX							.41 (.50)
PA × SEX							-.19 (.41)
NEV					-1.04 (3.35)		
WID					.66 (.44)		
DIV					-.09 (.32)		
SEP					-1.51 (.40)*		
YR1 × WID						.33 (1.00)	
YR2-4 × WID						.03 (.60)	
YR5+ × WID						1.51 (.82)†	
YR1 × DIV						.08 (1.04)	
YR2 × DIV						-.52 (.46)	
YR5+ × DIV						.12 (.47)	
YR1 × SEP						-2.60 (.90)*	
YR2-4 × SEP						-1.04 (.56)*	
YR5+ × SEP						-.98 (.80)	
EDUC		.28 (.05)*	.22 (.05)*	.21 (.05)*	.21 (.05)*	.21 (.05)*	
CITY		-.008 (.04)	-.04 (.05)	-.03 (.05)	-.03 (.05)	-.03 (.05)	
NC		-.36 (.21)	-.36 (.21)	-.36 (.21)	-.40 (.21)	-.36 (.21)	
SOUTH		-.26 (.24)	-.24 (.24)	-.19 (.24)	-.22 (.25)	-.19 (.25)	
WEST		-.10 (.25)	-.09 (.26)	-.05 (.26)	-.10 (.26)	-.03 (.26)	
INC			.34 (.11)*	.29 (.10)*	.33 (.11)*	.35 (.11)*	
NEED			.16 (.49)	.48 (.51)	.18 (.49)	.22 (.50)	
WOKM				.14 (.16)			
WOKO				.04 (.16)			
WEL				-.95 (.36)			
df	1728	1722	1720	1717	1717	1709	1726
-2 log likelihood	1235	1187	1174	1167	1157	1147	1233

*$p < .05$

†$p < .10$

Table reads: "PA (the absence of a parent) decreases the log odds of being in school at age seventeen by .52. When background factors are taken into account, the absence of a parent reduces the log odds by .45. When economic factors are taken into account. . ."

NOTE: The standard errors for the logits are reported in parentheses.

Table 2. The Effects of the Absence of One Parent on the Log Odds of Being in School at Age Seventeen for Black Offspring

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	1.99 (.10)*	1.58 (.28)*	1.44 (.38)*	1.46 (.38)*	1.36 (.39)*	1.44 (.39)*	2.06 (.32)*
PA	-.89 (.13)*	-.98 (.14)*	-.84 (.16)*	-.71 (.17)*			-.74 (.43)
SEX							.05 (.43)
PA × SEX							-.10 (.26)
NEV					.42 (.61)		
WID					-.98 (.19)*		
DIV					-.68 (.24)*		
SEP					-.84 (.21)*		
YR1 × WID						5.26 (3.61)	
YR2-4 × WID						-1.59 (.33)*	
YR5+ × WID						-.85 (.21)*	
YR1 × DIV						-1.37 (.59)*	
YR2 × DIV						-.80 (.52)	
YR5+ × DIV						-.59 (.27)*	
YR1 × SEP						-.54 (.60)	
YR2-4 × SEP						-.76 (.36)*	
YR5+ × SEP						-.85 (.23)*	
EDUC		.18 (.05)*	.15 (.05)*	.14 (.05)*	.14 (.05)*	.12 (.05)*	
CITY		.10 (.05)*	.08 (.05)	.07 (.05)	.07 (.05)	.07 (.05)	
NC		.31 (.23)	.28 (.23)	.32 (.23)	.28 (.23)	.27 (.23)	
SOUTH		.30 (.23)	.29 (.23)	.29 (.23)	.30 (.23)	.27 (.23)	
WEST		.17 (.31)	.19 (.31)	.21 (.31)	.18 (.31)	.24 (.32)	
INC (in ten thousands)			.27 (.13)*	.26 (.14)†	.30 (.13)*	.29 (.13)*	
NEED (in ten thousands)			-.22 (.31)	-.13 (.32)	-.17 (.32)	-.19 (.32)	
WOKM				-.27 (.15)			
WOKO				.33 (.16)*			
WEL				-.25 (.18)			
df	1557	1552	1550	1547	1547	1538	1555
-2 log likelihood	1497	1467	1461	1454	1454	1441	1496

*$p < .05$

†$p < .10$

due to background factors such as parents' education, city size, and region of the country. These variables are believed to be related to parent absence as well as attainment, and some have argued that they are responsible for the family structure effect reported in past studies. To test this hypothesis the following equations were estimated:

$$Y = b + b\ PA$$

$$Y = b + b\ PA + b\ C,$$

where PA represents parent absence measured as a dichotomous variable and C represents the control variables: parents' education, city size, and region of the country. The results of these tests are presented in columns 1 and 2 of Tables 1 and 2.

The estimate for the bivariate relationship (column 1) between parent absence and attainment indicates that living in a single-parent family decreases the log odds of being in school by .52 for whites and by .89 for blacks. In probability terms, these numbers indicate that parent absence decreases the probability of being in school by about 5% for whites and about 13% for blacks.[4]

The change in the coefficients for parent absence between columns 1 and 2 indicates that the control variables account for approximately 18% of the negative association between family structure and offspring attainment among whites, while they are actually masking some of the effect on blacks. The masking is due to the fact that, among blacks, parent's education and city size are positively associated with being in school as well as with living in a female-headed family. These results indicate that the impact of family structure reported in past studies is not due entirely to its association with race, parent's lower level of

education, city size, or region of the country; and therefore I reject the hypothesis that parent absence has no independent effect on attainment, net of its association with background factors.

The Economic Deprivation Hypothesis

To evaluate the hypothesis that current economic status and income-related factors account for the negative impact of growing up in a single-parent family, two additional models were tested:

$$Y = b + b\ PA + b\ C + b\ INC + b\ NEED$$

$$Y = b + b\ PA + b\ C + b\ INC + b\ NEED + b\ WORK + b\ WEL,$$

where INC represents current family income, NEED represents family need, WORK represents a set of variables for mother's and offspring's employment status, and WEL indicates whether the family received welfare during the past year. Results from the new models are reported in columns 3 and 4 of Tables 1 and 2.

According to column 3, current economic status, net of family size, accounts for a major portion of the effect of parent absence among whites but for very little of the impact on blacks. For whites, the disadvantage associated with living in a one-parent household drops dramatically when income is added to the model. The income coefficient itself may be interpreted as indicating that a $10,000 change in income alters the probability of being in school by about 17% for whites and about 13% for blacks (see note 4). While $10,000 is a great deal of money, this amount is not far from the average economic loss associated with marital disruption (Hoffman, 1977).[5]

Column 4 reports changes in the coefficient of parent absence due to the inclusion of the employment indicators and the welfare measure. For whites, the employment indicators are unrelated to being in school, while the welfare coefficient is highly significant. The latter variable may be interpreted as indicating that being on welfare decreases the probability of being in school by about 36% for whites. For blacks, the picture is somewhat different. Offsprings' working has a positive effect on being in school while mothers' working and welfare are insignificant.

To summarize briefly, the results reported in columms 3 and 4 indicate that the economic deprivation hypothesis has a good deal of merit in accounting for the consequences of family structure among white offspring but is less convincing as an explanation for blacks. In addition, the data suggest that neither the absence of a mother, who must work outside the home, nor adolescent employment can explain why offspring in single-parent families are less likely to be in school than adolescents in two-parent households.

The interpretation of the welfare coefficient is somewhat ambiguous. Although one might argue that it is measuring the effect of early socialization or stigma, it may also be viewed as picking up the additional nonlinear effect of being in the lowest income category. The latter interpretation could explain why the welfare coefficient is more significant for whites than for blacks. The average income difference between families on welfare and other households being quite large for whites and less striking for blacks, the welfare variable would be less of a discriminator among blacks, to the extent that it is measuring an additional low-income effect. On the other hand, a stigma interpretation is also consistent with the black/white differences observed in

Tables 1 and 2 in that we might expect welfare to have more negative connotations for whites than for blacks.

Absence of a Father and Family Stress

As noted above, the absent-father and family stress theories provide an interesting comparison in that they predict opposite effects for similar variables. The absent-father theory suggests that all types of single-parent families should have negative consequences, all else being equal, that the effect of the absence of a father should increase over time, and that male offspring should be most affected by family breakup. Family stress theory, on the other hand, argues that different types of single-parent families have different consequences for offspring (depending on their proportion of newly disrupted households), and that effects decrease over time.

To test these hypotheses, three additional equations were estimated in which the dichotomous indicator for parent absence was replaced with more precise measures of family background. The new models take the following form:

$$Y = b + b\ MAR + b\ C + b\ INC + b\ NEED$$

$$Y = b + b\ MAR \times YEAR + b\ C + b\ INC + b\ NEED$$

$$Y = b + b\ PA + b\ SEX + b\ PA \times SEX,$$

where MAR represents a set of dummy variables indicating whether family head is never married, widowed, divorced, or separated, and YEAR represents a set of dummy variables measuring whether parent has been absent 1 year or less, 2 to 4 years, or 5 or more years. The MAR x YEAR interaction term represents the effects of each family type for each period of

parent absence, net of the control variables and current family economic status. (The omitted category is two-parent households. Respondents living with never-married mothers were not included in the analysis of duration effects). The final equation estimates the interaction between sex of offspring and parent absence; that is, it allows us to examine the additional impact on school behavior of being female and living with a single parent.

The results of this portion of the analysis are presented in columns 5 through 7 of Tables 1 and 2. According to column 5 of Table 1, the impact of parent absence is not consistent across all categories of single-parent families, at least among whites. Offspring living with separated mothers are much worse off than those living with two parents, while offspring in other types of female-headed households do not differ significantly. For blacks, the effects are more consistent: they are negative for all types of single-parent families except never-married mothers.

The absence of consistent effects in Table 1 indicates that for whites something other than a father's absence is determining whether or not offspring remain in school. Moreover, the concentration of negative effects in separated households suggests that recent marital disruption is an important determinant of negative consequences. The coefficients for the interactions between family type and length of parent absence (column 6) confirm this pattern and suggest that where parent absence has an effect (i.e., in separated households), the effect is most negative during the first year after disruption, less negative but still significant during the second, third, and fourth years, and negative but insignificant after five years of father's absence. These findings lend

considerable support to the notion that family stress rather than the absence of a father per se is responsible for the negative consequences associated with single-parent status for whites.

For blacks the pattern is somewhat different. According to the coefficients in column 5, offspring living with widowed, divorced, and separated mothers are less likely to be in school than offspring in two-parent households. While on the one hand these results appear to support the absent-father hypothesis, there is contradictory evidence as well. For example, the absence of a negative effect among offspring living with never-married mothers is unexpected inasmuch as these offspring are generally assumed to have had the least amount of contact with their fathers. Moreover, for offspring living with divorced and widowed mothers, the effect of a father's absence decreases with time as it does among whites (column 6). The latter finding is consistent with the stress hypothesis up to a point. The persistence of negative effects, however, suggests that something other than stress is affecting offspring performance.

As a final step in the comparison of the stress and the absent-father hypotheses, the interaction of a parent's absence and sex was examined. The results of this test, presented in column 7, indicate that the impact of a parent's absence is similar for both sexes, which is inconsistent with the absent-father hypothesis, at least as it is formulated above.

7. FAMILY STRUCTURE AND ATTAINMENT IN YOUNG ADULTHOOD

The second part of the analysis looks at the impact of family structure on the long-term attainment of offspring. Two additional measures

of attainment were examined: whether respondent graduated from high school and total years of school completed. The motivation for looking at the new measures of attainment arises in part from the ambiguity of the adolescent indicators. For example, being out of school at seventeen does not necessarily indicate a failure to graduate from high school, while being in school is not perfectly correlated with successful matriculation. The focus on adult attainment, therefore, represents an effort to validate the results in Tables 1 and 2 as well as to develop a model linking long-term attainment with adolescent behavior.

Family Structure and High School Graduation

Results for the impact of family structure on graduation from high school are presented in Tables 3 and 4 below. As noted earlier, these estimates are based on a subsample of respondents who were seventeen at some point between 1968 and 1972 and who were 23 or older in 1978 (see Appendix). The same set of equations outlined above was used to test the hypotheses on the new measure of attainment.

In general, the results for whites, presented in Table 3, are quite similar to those in Table 1: the coefficient for parent absence remains positive even after background factors are taken into account; current family income continues to account for a major portion of the difference among offspring in one- and two-parent families; and separated households continue to account for nearly all of the parent absence effect. The major difference in Table 3 appears in the years since disruption coefficients. This suggests that the impact of parent absence does not decrease with time. It should be noted that the duration variables have been recoded so that the YR1-4 variable represents one to four years of

Table 3. The Effects of the Absence of One Parent on the Log Odds of Graduating From High School for Whites

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	2.13 (.29)*	.56 (.42)	1.11 (.64)	.97 (.67)	1.16 (.65)	1.18 (.66)	1.65 (.16)*
PA	-.58 (.28)*	-.60 (.31)*	-.44 (.34)	-.16 (.38)			-.005 (.39)
SEX							.71 (.30)*
PA × SEX							-.39 (.24)
NEV					---		
WID					.70 (.66)		
DIV					-.64 (.47)		
SEP					-1.77 (.64)*		
YR1-4 × WID						.02 (.80)	
YR5+ × WID						1.47 (1.14)	
YR1-4 × DIV						-.41 (.66)	
YR5+ × DIV						-1.26 (.64)*	
YR1-4 × SEP						-1.87 (.73)*	
YR5+ × SEP						-2.49 (1.44)	
EDUC		.53 (.08)*	.39 (.09)*	.37 (.08)*	.38 (.09)*	.40 (.09)*	
CITY		-.03 (.06)	-.09 (.07)	-.09 (.07)	-.07 (.07)	-.07 (.07)	
NC		-.28 (.34)	-.27 (.34)	-.30 (.35)	-.26 (.35)	-.33 (.36)	
SOUTH		-.39 (.38)	-.41 (.39)	-.35 (.40)	-.39 (.39)	-.41 (.40)	
WEST		-.66 (.37)	-.65 (.38)	-.62 (.38)	-.64 (.39)	-.68 (.40)	
INC (in ten thousands)			.94 (.28)*	.82 (.28)*	.90 (.28)*	.92 (.28)*	
NEED (in ten thousands)			-2.44 (.66)*	-2.04 (.70)*	-2.33 (.67)*	-2.38 (.67)*	
WOKM				-.005 (.26)			
WOKO				.23 (.24)			
WEL				-1.24 (.50)*			
df	764	759	757	754	755	750	762
-2 log likelihood	574.4	512.9	489.4	482.3	479.9	474.3	323.7

*$p < .05$

†$p < .10$

Table 4. The Effects of the Absence of One Parent on the Log Odds of Graduating From High School for Blacks

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	1.51 (.20)*	2.10 (.53)*	2.97 (.65)*	2.86 (.65)*	1.74 (.67)*	2.76 (.68)*	.90 (.40)*
PA	-.55 (.20)*	-.51 (.20)*	-.26 (.24)	-.63 (.27)*			-.45 (.62)
SEX							.50 (.60)
PA × SEX							-.09 (.39)
NEV					.85 (.94)		
WID					-.71 (.29)*		
DIV					-.38 (.40)		
SEP					.40 (.35)		
YR1-4 × WID						-.36 (.54)	
YR5+ × WID						-.84 (.32)*	
YR1-4 × DIV						-.57 (.59)	
YR5+ × DIV						-.26 (.48)	
YR1-4 × SEP						.32 (.48)	
YR5+ × SEP						.42 (.45)	
EDUC		.11 (.07)	.02 (.07)	.02 (.07)	.02 (.08)	.03 (.08)	
CITY		-.11 (.06)*	-.19 (.07)*	-.19 (.07)*	-.24 (.07)*	-.24 (.07)*	
NC		-1.14 (.48)*	-1.46 (.49)*	-1.54 (.50)*	-1.57 (.50)*	-1.57 (.50)*	
SOUTH		-1.38 (.48)*	-1.57 (.49)*	-1.52 (.49)*	-1.58 (.49)*	-1.57 (.50)*	
WEST		-.82 (.65)	-.94 (.66)	-1.00 (.66)	-1.01 (.67)	-1.13 (.68)	
INC (in ten thousands)			.88 (.30)*	.89 (.31)*	1.05 (.32)*	1.05 (.32)*	
NEED (in ten thousands)			-2.10 (.05)*	-2.36 (.47)*	-2.15 (.46)*	-2.16 (.47)*	
WOKM				.34 (.23)			
WOKO				.28 (.24)			
WEL				.75 (.30)*			
df	540	535	533	530	530	524	538
-2 log likelihood	650.6	635.3	605.9	595.9	595.5	592.5	646.9

*$p < .05$

†$p < .10$

parent absence and the YR5+ variable represents five years or more of parent absence. Despite the recoding, the number of families in each catagory is quite small, and therefore it is difficult to interpret the five year effect. The coefficients, however, do suggest that for divorced and separated households, the effects of a father's absence become more negative over time.

For blacks, the differences between Tables 2 and 4 are more striking: the impact of parent absence on graduation from high school is weaker overall and becomes insignificant when income is added to the model; the effects of separated and divorced households, which were strong and negative in Table 2, are insignificant in Table 4; and finally, the coefficients for widowed and divorced households and time since disruption do not show the strong pattern of negative association between recent disruption and attainment as they did in Table 2. Of particular note is the change in the welfare coefficient, which has a positive effect on attainment in Table 4. Taken at face value, the welfare coefficient suggests that the negative consequences of a parent's absence are restricted to those offspring whose families receive no public support. Since approximately 49% of female heads are welfare recipients, this suggests that the negative effects associated with parent absence accrue to only one-half of the single-parent population.

Despite the inconsistency across the two tables, the estimates for graduation from high school do not seriously alter my earlier conclusions regarding the theoretical explanations for parent absence with one exception: for blacks, the impact of economic status on attainment appears to be more substantial and more similar to that observed for whites. In addition, the results reported in Tables 3 and 4 suggest

that being out of school at age seventeen is indicative of failure to graduate from high school.

Family Structure and Years of School Completed

The final step in the analysis was to test the models described above on a third indicator of attainment: years of school completed. The results obtained from these equations are reported in Tables 5 and 6.

The estimates in Table 5 are consistent with those in Table 3 except the family effect is much weaker overall, which is to be expected since we are now looking at years of school completed instead of graduation from high school. The coefficients indicate that living with a separated mother reduces attainment among whites by one-and-a-quarter years and by an additional two-and-a-half years if the family receives welfare. (As before, the strongest effects are found in households that have been separated for less than five years.) Employment status appears to have very little impact on whites, while a $10,000 increase in family income improves attainment by about a third of a year.

For blacks, the effects are also quite similar to those reported in Table 4, although the income coefficient is smaller and has less of an impact on the coefficient of parent absence. The duration effects are particularly noteworthy in that they are similar to the estimates reported in Table 2. Specifically, the coefficients indicate that the effect of parent absence is substantially greater for black offspring whose fathers have been absent less than five years. These results are partially consistent with the family stress hypothesis insofar as the relationship between duration and attainment is positive, controlling

Table 5. The Effects of the Absence of One Parent on Years of School Completed by White Offspring

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	13.05 (.08)*	11.35 (.23)*	11.97 (.35)*	11.87 (.36)*	12.01 (.35)*	11.97 (.35)*	13.05 (.25)*
PA	-.10 (.22)	-.06 (.20)	-.07 (.21)	.10 (.22)			-.36 (.71)
SEX							-.17 (.52)
PA × SEX							.17 (.44)
NEV					---		
WID					.38 (.30)		
DIV					-.15 (.30)		
SEP					-1.26 (.52)*		
YR1-4 × WID						.43 (.45)	
YR5+ × WID						.34 (.38)	
YR1-4 × DIV						-.44 (.41)	
YR5+ × DIV						-.27 (.47)	
YR1-4 × SEP						-1.32 (.61)*	
YR5+ × SEP						-1.21 (1.30)	
EDUC		.44 (.04)*	.38 (.04)*	.36 (.04)*	.37 (.04)*	.37 (.04)*	
CITY		-.010 (.04)	-.02 (.04)	-.02 (.04)	-.01 (.04)	-.02 (.04)	
NC		-.05 (.18)	-.05 (.18)	-.06 (.18)	-.05 (.18)	-.04 (.18)	
SOUTH		-.12 (.21)	-.17 (.21)	-.13 (.21)	-.17 (.21)	-.15 (.21)	
WEST		-.14 (.21)	-.14 (.12)	-.13 (.21)	-.15 (.21)	-.12 (.21)	
INC (in ten thousands)			.31 (.10)	.28 (.10)	.30 (.10)	.31 (.10)	
NEED (in ten thousands)			-1.60 (.40)*	-1.39 (.41)*	-1.55 (.40)	-1.55 (.40)*	
WOKM				.02 (.14)			
WOKO				.13 (.14)			
WEL				-1.14 (.40)*			
R^2	.001	.178	.203	.213	.211	.21	.001

*p < .05

†p < .10

N = 765

Table 6. The Effects of the Absence of One Parent on Years of School Completed by Black Offspring

	No Effect		Economic Deprivation		Absent Father and Family Stress		
Independent Variable	Parent Absence (1)	Background Factors (2)	Economic Status (3)	Employment and Welfare (4)	Family Type (5)	Type and Time since Marital Disruption (6)	Sex of Offspring (7)
Constant	12.38 (.09)*	12.85 (.19)*	13.94 (.35)*	13.85 (.35)*			13.05 (.25)*
PA	-.41 (.14)*	-.38 (.14)*	-.37 (.16)*	-.52 (.18)*			-.36 (.71)
SEX							-.17 (.52)
PA × SEX							.17 (.44)
NEV					.37 (.53)		
WID					-.65 (.21)*		
DIV					-.73 (.28)*		
SEP					.09 (.22)		
YR1-4 × WID						-.81 (.37)*	
YR5+ × WID						-.60 (.23)*	
YR1-4 × DIV						-1.21 (.45)*	
YR5+ × DIV						-.62 (.34)*	
YR1-4 × SEP						-.39 (.31)	
YR5+ × SEP						.29 (.28)	
EDUC		.007 (.05)	-.02 (.05)	.004 (.05)	-.01 (.05)	-.04 (.05)	
CITY		-.09 (.045)*	-.13 (.04)*	-.15 (.04)*	-.15 (.05)*	-.15 (.05)*	
NC		-.73 (.24)*	-.84 (.24)*	-.87 (.24)*	-.86 (.24)*	-.82 (.24)*	
SOUTH		-.96 (.24)*	-1.02 (.24)*	-.92 (.24)*	-.99 (.23)*	-1.03 (.24)*	
WEST		-.34 (.38)	-.36 (.36)	-.47 (.37)	-.32 (.37)	-.37 (.37)	
INC (in ten thousands)			.18 (.17)	.24 (.18)	.25 (.17)	.26 (.17)	
NEED (in ten thousands)			-1.89 (.30)*	-2.10 (.30)*	-1.89 (.30)*	-1.89 (.30)*	
WOKM				-.17 (.15)			
WOKO				.28 (.14)*			
WEL				.48 (.20)*			
R^2	.014	.05	.11	.13	.14	.15	.03

*$p < .05$

†$p < .10$

N = 565

for parent absence. They are inconsistent, however, in that negative consequences appear to persist beyond five years.

8. SUMMARY

In the present study several hypotheses concerning the impact of family structure on educational attainment were tested. The results of this analysis provide strong support for some of the theories outlined above while they clearly contradict the prediction of others.

First, the findings demonstrate that offspring who are living with single mothers at age seventeen complete fewer years of school than offspring who are living in two-parent households. These results are not an artifact of place of residence, parents' education, or race, and they argue against the notion that family effects observed in past research are due entirely to the failure to control for background factors associated with the formation or presence of single-parent families.

Second, the data add considerable weight to the notion that economic deprivation is an important source of the difference between one- and two-parent households and suggest that the disadvantages associated with lower attainment could be significantly reduced if the incomes of single parents were increased and stabilized. With respect to employment behavior, there is no clear evidence that the absence of the mother (who works) or the assumption of adult responsibilities leads to lower attainment among offspring in one-parent families. Welfare, on the other hand, is strongly associated with attainment one way or another and appears to account for a significant portion of the family effect for both racial groups. While being on welfare appears to have

negative consequences for whites, the pattern is less consistent for blacks. Indeed, there is some indication that welfare enhances the long-term attainment of black offspring.

Finally, the data indicate that the impact of parent absence varies considerably according to type of single-parent family and to a lesser extent according to duration of parent absence. On the one hand, these findings lend support to the family stress hypothesis insofar as they show that parent absence does not necessarily have negative consequences and that offspring from recently disrupted households are least likely to be in school. On the other hand, the persistence of negative effects for five years and longer suggests that something other than the event of marital disruption is triggering early departures from school.[6]

While the results are somewhat mixed with respect to the stress hypothesis, there is even less support for the absent-father theory. The lack of consistent effects across different types of single-parent households, and in particular the absence of negative effects among black offspring living with never-married mothers, are clearly contradictory to the predictions of this hypothesis. Moreover, there is very little indication the consequences grow more negative as time passes.

In summation, the major finding of this study is that the absence of a parent does not automatically lead to lower attainment among offspring and that factors such as economic situation and family stress can account for a large portion of the negative consequences currently attributed to single parents. This suggests that policies aimed at equalizing the incomes of different family types and minimizing the stress that accompanies marital disruption may be quite successful in

eliminating some of the intergenerational disadvantages that accrue to offspring from female-headed families.

To examine the effect of parent absence on adolescents, family status information and educational behavior were both observed at age 17. As can be seen by the diagram, the analysis is based on observations of 17-year-olds taken over an eleven-year period (1968-1978). Educational behavior was based on educational status (in school or out of school at age 17). Offsprings' family status was based on two indicators: parents' marital status at 17 and length of time since parents' marital disruption. The latter indicator was constructed from a variable asked in 1968 of nonmarried heads (how long since marital disruption?) and from information on changes in marital status of the family head subsequent to 1968 and prior to respondent's becoming age 17. Unfortunately, in the PSID, information is not available on the marital history of married family heads prior to 1968, and therefore it is impossible to construct complete family histories for the offspring in my sample. (For offspring who were 17 in 1968 in two-parent families, there is no background information; for offspring who were 17 in 1978, there are 10 years of background data.) Because of this design limitation, I have focused specifically on family status at age 17 and have treated reconstituted families as continuously married households.

To examine the effect of parent absence on completed education, a subsample of respondents aged 23 to 27 in 1978 were used to observe completed education at age 23. As the diagram shows, less than half of the respondents in the original sample had reached age 23 by 1978 and thus the analysis of long-term attainment is based on a smaller sample.

NOTES

[1]Recent research is not entirely consistent with this view inasmuch as there is increasing evidence of the importance of fathers in female development. The hypothesis tested here, however, reflects the view that was dominant in the early research on absent fathers, as expressed by Carlsmith (1964).

[2]In the present study I focus on one type of family stress: marital disruption. Needless to say, there are numerous other sources of stress which affect two-parent families as well as single-parent households.

[3] Summary Information on Family Status, Educational Status and Welfare Status of Black and White Offspring at Age Seventeen

	Proportion in One-Parent Families	Proportion Out of School	Proportion on Welfare
Whites	11.7%	11.1%	2.4%
Blacks	41.6%	17.4%	23.6%

[4]The following equations were used to transform logit estimates into probability effects. For dichotomous variables, the equation is $P = Bp(1-p)$, where p is the average probability for the sample. For whites, $p = .889$, for blacks, $p = .826$. For continuous variables, the equation is $P = p_2 - p_1$, where $p_2 = \exp (B_1 + B_2\bar{z})/1 + \exp (B_1 + B_2\bar{z})$ and $p_1 = \exp (B_2\bar{z})/1 + \exp (B_2\bar{z})$. $\bar{z}$ represents the control variables.

[5]Hoffman found that white women who divorced or separated between 1968 and 1974 experienced a $7789 loss due to absence of spouses' earnings while black women experienced a $6468 loss. The net income loss for both groups was smaller because of increases in women's labor income, transfer income, and income of others in the household.

[6]The concentration of negative effects in separated households and the persistence of effects beyond five years suggest that separated households are uniquely problematic for white offspring. Two explanations come to mind. The first involves a reformulation of the stress hypothesis tested above to include "unresolved" disruptions as well as recent disruptions. The second argues for a selection effect, namely, that long-term separation represents a category of female heads who have not gone to the trouble or expense of obtaining a legal divorce. According to the latter view, characteristics associated with a low probability of remarriage in mothers are also related to low attainment in offspring.

REFERENCES

Auletta, L.

1981 "The underclass." The New Yorker, Nov. 16, Nov. 23, Nov. 30.

Baker, R. J. and J. A. Nelder

1978 The GLIM System; Release 3: Generalized Linear Interactive Modelling. Oxford, England: Numerical Algorithms Group.

Carlsmith, L.

1964 "Effect of early father absence on scholastic aptitude." Harvard Educational Review 34:3-21.

Coleman, J., E. Q. Campbell, C. J. Hobson, J. McPartland, A. M. Mood, R. D. Weinfeld, R. L. York

1966 Equality of Opportunity. National Center for Educational Statistics. Washington D.C.: Government Printing Office.

Colletta, N. D.

1979 "Support systems after divorce: incidence and impact." Journal of Marriage and the Family (November):837-845.

Duncan, B.

1967 "Education and social background." American Journal of Sociology 72:363-372.

Duncan, B. and O. D. Duncan

1969 "Family stability and occupational success." Social Problems 16:273-283.

Duncan, O. D., D. L. Featherman, and B. Duncan

1972 Socioeconomic Background and Achievement. New York: Seminar Press.

Featherman, D. L. and R. M. Hauser

1976 "Changes in socioeconomic stratification of the races, 1962-73." American Journal of Sociology 83:621-651.

Fleisher, B. M.

1966 "The effect of income on delinquency." American Economic Review 56:118-137.

Goode, W.

1956 After Divorce. Glencoe, IL: Free Press.

Hanushek, E.

1972 Education and Race. Lexington, MA: D.C. Heath.

Hauser, R. M. and D. L. Featherman

1976 "Equality of schooling: trends and prospects." Sociology of Education 49:99-120.

Herzog, E. and C. E. Sudia

1973 "Children in fatherless families." In B. Caldwell Jr., and H. Ricciuti (eds.), Review of Child Development Research Vol 3., Chicago: University of Chicago Press.

Hess, R. D. and K. A. Camara

1979 "Post divorce family relationships as mediating factors in the consequences of divorce for children." Journal of Social Issues 35:79-96.

Hetherington, E. M.

1981 "Children and divorce." In R. Henderson (ed.), Parent-Child Interaction: Theory, Research and Prospect. New York: Academic Press.

Hetherington, E. M., K. A. Camara, and D. L. Featherman

1983 "Achievement and intellectual functioning of children in one-parent households." In J. Spence (ed.), Achievement and Achievement Motives. San Francisco: W.H. Freeman and Co.

Hetherington, E. M., M. Cox, and R. Cox

1978a "The aftermath of divorce." In J. H. Stevens, Jr., and M. Matthews (eds.), Mother-Child, Father-Child Relations. Washington D.C.: National Association for the Education of Young Children.

1978b "The development of children in mother-headed families." In H. Hoffman and D. Reiss (eds.), The American Family: Dying or Developing. New York: Plenum.

Hill, R.

1958 "Social stresses on the family." Social Casework 39:139-150.

Hoffman, S.

1977 "Marital instability and the economic status of women." Demography 14:67-76.

Kelly, J. B. and J. Wallerstein

1979 "Children of divorce." The National Elementary Principal 59:51-58.

Maccoby, E. E.

1958 "Effects upon children of their mothers' outside employment." In National Manpower Council, Work in the Lives of Married Women. New York: Columbia University Press.

Rainwater, L. and W. L. Yancey

1967 The Moynihan Report and the Politics of Controversy. Cambridge, MA: MIT Press.

Ross, H. L. and I. V. Sawhill

1975 Time of Transition: The Growth of Families Headed by Women. Washington, D.C.: The Urban Institute.

Shinn, M.

1978 "Father absence and children's cognitive development." Psychological Bulletin 85:295-324.

Tabler, K. A., E. E. Hixson and E. F. Collins

1968 "Elementary and secondary student characterisitics." Analytic note no. 81., Washington, D.C.: National Center for Educational Statistics, Office of Education.

Wallerstein, J. S.

1978 "Children and parents 18 months after parental separation: factors related to differential outcomes." Paper presented at the National Institute of Mental Health Conference on Divorce, Washington, D.C., February.

Wallerstein, J. S. and J. B. Kelly

1980 Surviving the Break Up: How Children and Parents Cope with Divorce. New York: Basic Books.

Weiss, R.

1979 "Growing up a little faster: the experience of growing up in a single-parent household." Journal of Social Issues 35: 97-111.

Zill, N.

1978 "Divorce, marital happiness and the mental health of children." Paper presented at the National Institute of Mental Health Conference on Divorce, Washington, D.C., February.