Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the "Pathology of Matriarchy"[1]

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The effect of alternative family structures on children's educational and occupational success has been constant over the past 30 years. Higher rates of unemployment and lower-status occupational positions could account for the negative effect of single-mother families on children's attainment throughout the period. Children from single-father families and stepfamilies have consistently had lower attainments than children from both two-biological-parent and single-mother families. The influence of many other dimensions of children's family background declined from the 1960s to the 1980s but has declined no further since. Among six candidate theoretical frameworks, the findings are most consistent with an evolutionary view of parental investment.

The "pathology of matriarchy" hypothesis that came out of the Moynihan Report (1965) is that the absence of a father is destructive to children, particularly boys, because it means that children will lack the economic resources, role model, discipline, structure, and guidance that a father provides. Moynihan (1965) focused on the African-American family, but the publication came on the eve of what was to be 15 years (1965–80) of sustained, rapid increase in the divorce rate of non-Latino whites. Some researchers have carried the "pathology of matriarchy" view beyond the African-American family to the larger population. Popenoe (1996, p. 8),

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echoing Moynihan, argues that "if we continue down the path of fatherlessness, we are headed for social disaster."

Social science research has produced evidence both for and against the "pathology of matriarchy" view. Some studies using national samples show that children from single-mother families have lower attainments than children from two-biological-parent homes (Duncan and Duncan 1969; McLanahan and Sandefur 1994), while other studies, also using national samples, show that once other factors are taken into account, children from single-mother families do approximately as well as children from two-biological-parent families (Biblarz, Raftery, and Bucur 1997; McLanahan 1985). Some studies show that alternative family types—single-mother, single-father, and stepfamilies, for example—have similar, negative consequences for children (Dawson 1991); while other studies show that children from some kinds of nontraditional families have higher attainments, on average, than children from other kinds (Amato and Keith 1991*b*).

This article is about searching for order in this diversity of findings. We assess whether change over time in the effects of alternative families, and differences in researchers' decisions about which independent variables to include and leave out of models, can account for the discrepancies observed in the literature. We do this by tracking the relationship between alternative families and children's educational and occupational success over four decades—the 1960s, 1970s, 1980s, and 1990s—using four large nationally representative surveys. For each time period, we observe how the family structure/child outcome relationship changes depending on the other dimensions of respondents' family backgrounds that are taken into account.

We find that the effect of family structure on children's socioeconomic success has been constant over 30 years. In the 1960s and 1970s, the high rate of unemployment among single mothers could explain the negative effect of single-mother families on children's educational and occupational attainment. In the 1980s and 1990s, single mothers' low-status occupational positions—rather than their employment/unemployment status per se—could account for the negative effect of female headship. There were no significant differences by gender in the effects of alternative families—alternative families had the same effect on men and women. The influence of many other dimensions of children's family background declined from the 1960s to the 1980s, but this decline progressed no further between the 1980s and the 1990s.

The discrepancies found in the literature about the consequences of alternative families for children are due in part to different decisions about which variables are exogenous to the process and in part to different decisions about how to group alternative families. With or without various sets of controls, we find that over the past 30 years children from single-

father families, father/stepmother families, and mother/stepfather families have consistently had lower attainments than children from both two-biological-parent families and single-mother-headed families. Among six candidate theoretical frameworks, the findings are most consistent with an evolutionary view of parental investment.

BACKGROUND

Why Do Children from Alternative Families Have Lower Attainments?

Below we review the main theories of the effects of family structure on children and discuss the predictions made by each. These predictions are summarized in the second column of table 1.

Sociological theory.—Almost all existing theory about the consequences of family structure for children centers around the relationship between family type and resources. Under the general rubrics of "social structure and personality," or "social structure and psychological well-being," sociological theory—socialization, learning, and control theory—predicts that children from alternative families get fewer economic, social, and cultural resources, which help facilitate success.

TABLE 1

SUMMARY OF PREDICTIONS ABOUT FAMILY STRUCTURE EFFECTS ON CHILDREN'S ATTAINMENT

Theory	Static Prediction	Change Prediction
Sociological:		
Socialization-learning*	$2BP > \overline{2BP}$	No change
Control†	$2BP > \overline{2BP}$	No change
Economic‡	$2BP = STF = STM > SF > SM$	No change
Evolutionary psychology§	$2BP > SM > STF \vee SF > STM$	No change
Selection bias (parental competence)‖	$2BP > \overline{2BP}$	Increase in effect over time
Marital conflict#	$2BP > \overline{2BP}$	Increase in effect over time

NOTE.—2BP = two-biological-parent family; $\overline{2BP}$ = any non–two-biological-parent family; STF = stepfather/biological-mother family; STM = stepmother/biological-father family; SF = single-father family; SM = single-mother family.

* Baumrind (1980), Weinstein and Thornton (1989), Simons and Associates (1996).

† Nock (1988), Astone and McLanahan (1991).

‡ Becker (1964, 1981).

§ Trivers (1972), Daly and Wilson (1996).

‖ Cherlin et al. (1991), Popenoe (1988, 1993).

Grych and Fincham (1990), Kline et al. (1991).

Socialization theory emphasizes the essential role of parenting in shaping children's lives (Baumrind 1978, 1980; Parcel and Menaghan 1994). In the case of single-mother families, father-absence reduces the family's ability to provide optimal amounts of support and control to children (Astone and McLanahan 1991; Thomson, Hanson, and McLanahan 1994). The emotionally distressing event of a spouse's death or of divorce, coupled with responsibility overload, negatively impacts women's psychological well-being (Acock and Demo 1994; Crosby 1987; Simons and Associates 1996). This leads to inconsistent parenting (Hetherington, Cox, and Cox 1978), less supervision over children (Thomson, McLanahan, and Curtin 1992), parental authoritarianism (Bronfenbrenner 1979), and an expectation that children mature in ways inappropriate for their age (Weinstein and Thornton 1989). All of these undermine the healthy development of children.

Learning theory views the family as a primary site where children learn about how to get along in the society when they reach adulthood (Kohn 1969, 1983). Without a father, children will lack a male model of how to successfully achieve in market activity (Powell and Parcel 1997; McLanahan and Sandefur 1994). In two-biological-parent families, children learn about how authority relations are structured and how to successfully interact with authority figures (Nock 1988). This learning facilitates children's educational and occupational attainment. In father-absent homes, where mother/child relations run the risk of becoming more peerlike, and in stepfamilies, where stepparent/child relations may be defined more as friends than as parent/child, children will not learn these important skills.

At the same time that alternative families represent for children the removal of positive resources, they also covary with children's exposure to negative ones. Events that produce alternative family structures oftentimes involve a loss or trauma—either the death of a father (or less frequently, of a mother) or the divorce of parents followed by the father (most often) moving out of the home. These events are stressful in the short term and have the potential to impact children's long-term life course trajectories in negative ways (Amato and Booth 1997; Glenn and Kramer 1987; Mueller and Pope 1977; Wallerstein 1989). The number of changes in family configuration over the course of childhood is an important predictor of some outcomes, like the risk of having a child outside of marriage (Wu and Martinson 1993). For other outcomes, like children's educational and occupational attainment, exposure to alternative family structures (even from birth) seems to be more important than the number of disruptive family events experienced or durations spent in particular kinds of families (McLanahan and Sandefur 1994; Wojtkiewicz 1993). Children raised in single-parent families from birth, for example, have roughly the

same high school dropout rate as those who experienced a transition from a mother-father to a single-parent family following parental divorce.

Problems in child socialization and parental control will occur in a variety of types of alternative families that children may experience—single-parent families, stepfamilies, and so on. In the case of single-parent families, for example, the undermining of parental control is a structural consequence of the absence of the father from the residential home. Stepparents, on the other hand, have "only a limited license to parent" (Furstenberg and Cherlin 1991, p. 85), and the arrival of a stepparent into the residential home can create disruption and friction in intergenerational relations that can take years to resolve and adjust to (Cherlin and Furstenberg 1994). The main prediction of sociological perspectives is that the two-biological-parent family is generally the optimal form for the successful socialization of children in modern society and that children from any kind of alternative family will, on average, do less well.

Economic theory.—Economic theory proposes that socioeconomic success is partly a function of human capital (Becker 1964, 1981; Becker and Tomes 1986). Households act as singular units to maximize collective utility. Utility comes from commodities—like children—that are produced by investments in market activity and household services. The two-parent family is among the best-functioning forms in modern capitalist society because it allows for the provision of household services by one partner and economic resources (or market goods) by the other. This is a particularly efficient system for maximizing utility and, by extension, the human capital of children.

Since children's success depends on the economic resources and equivalent services that parents provide, children who spend most of their childhoods in a two-parent family (biological or stepfamily) will have the highest attainments because two parental figures are present to provide complementary resources. Single-parent families will yield less income from the market and have less time for the provision of household services. One parent cannot cover both market and nonmarket activities as successfully as two, and children from single-parent families, accordingly, will do less well. Among children from single-parent families, economic theory would predict that children from single-father families will do better than those from single-mother families because they will carry a substantial income advantage. Children who grow up in single-mother families will have the lowest attainments—mother-headed families average less than a third the income of two-parent families and about half the income of alternative father-headed families (Meyer and Garasky 1993; DaVanzo and Rahman 1993).

Evolutionary psychology.—The evolutionary perspective on the family

(e.g., Emlen 1997) gives more weight to the role of the mother than that of the father in determining children's fates, and it places special importance on biological relationships. The evolutionary view starts with the premise that mothers invest more of their resources in children than fathers. The survival (or, perhaps, in the modern context, the "well-being") of a given child is of greater interest to the mother than to the father, because more of the mother's than of the father's potential reproductive investment is tied up in any one child (Trivers 1972). Both parents attempt to balance investing in present children against investing in having additional children in ways that maximize their reproductive fitness. But because women's potential for having additional children is far lower than men's, they have a greater interest in making sure that the children they do have do well. Evolutionary psychologists sometimes depict motherhood as, in part, a strategic exercise in finding ways to secure material resources from sometimes reluctant fathers, whose reproductive calculus may be pulling them toward future children (and partners) more than present ones.

Like the others, this theory would predict that children from two-biological-parent families will have an advantage over those from other kinds of families. The father's average resource contribution to children will be less than the mother's, but not by much because humans have high male parental investment, and so children will benefit from the presence of the biological father. But in contrast to the economic model, for example, the evolutionary view predicts that children from alternative families will do better raised by a single mother than a single father. Children from single-mother families will also have advantages over those from stepfather/biological-mother families. The stepparent's concern with his own reproductive fitness is in competition with the stepchildren for the mother's resources, increasing the risk of abuse to children in families with a stepparent (Daly and Wilson 1996).

Selection bias (parental competence).—One of the unanswered questions in family structure research is whether the observed negative effect of alternative families on children represents a selection effect. One variant of the argument is that people who divorce, for example, are less stable or less competent at family life. Children who experience their parents' divorce do less well because their parents are less competent, not because of the divorce per se. Cherlin et al. (1991) found using longitudinal data that many child behavioral problems associated with divorce were actually present in the children prior to their parents' divorce. The divorce, like the negative child outcomes, may have been a consequence of some preexisting family dysfunction (but see Cherlin, Chase-Lansdale, and McRae 1998).

Parental competence involves role performance as parent in the family,

but it may also involve value orientations (Popenoe 1993, 1996). Modern parents, particularly those who divorce, may be less "child-centered" and hold weaker "family values" than those who do not divorce (Popenoe 1993). Alternative value systems may be another, related source of selection, causing a spurious relationship between family structure and children's attainment.

Marital conflict.—Another variant of the selection hypothesis is that the main detrimental effect on children is not divorce but family conflict. Divorce is often preceded by (and sometimes followed by) high levels of conflict. Marital conflict is hurtful to children. Children of divorce have lower attainments than children from two-parent families because they have had sustained exposure to their parents' discord (Amato and Booth 1997; Amato, Loomis, and Booth 1995; Glenn and Kramer 1987; Mueller and Pope 1977).

Both parental death and divorce create sadness, distress, and related problems for children in the short term. Negative effects on children's health, self-esteem, and school performance have been observed (Dawson 1991; Mauldon 1990; Kline, Johnston, and Tschann 1991; Mott, Kowaleski-Jones, and Menaghan 1997). In the long term, children from alternative families have lower average socioeconomic achievements—in education, occupation, and earnings—than those raised in two-biological-parent families (Duncan and Duncan 1969; McLanahan 1985; Amato and Keith 1991*b;* Biblarz and Raftery 1993; McLanahan and Sandefur 1994; Powell and Parcel 1997; Amato and Booth 1997). McLanahan and Sandefur (1994) present evidence of negative effects of alternative families on selected child outcomes across four national surveys.

Some scholars believe that this combination of reasonable theory and strong supporting evidence points to a scientific truth about the family—that the stable "intact" family remains the best-functioning form, at least for modern capitalist society. Glenn (1994) asserts that a plethora of evidence has led to "virtually unanimous" agreement among the best social scientists that alternative families are not in the best interests of children (but see Stacey 1996).

Disquiet about the New Consensus

Other findings and some theory give cause for uncertainty about the new consensus. In the classic 1973 Occupational Changes in a Generation (OCG II) survey, the negative impact of mother-headed households on sons' occupational attainment is small and entirely a function of women's disadvantaged employment and occupational positions (Biblarz et al. 1997). Powell and Parcel (1997) similarly find little adverse consequence of an alternative family structure for men's education, occupation, and

earnings in the Panel Study of Income Dynamics (PSID), although they do find adverse consequences for women. McLanahan's (1985) earlier analysis of the PSID showed that father absence had no significant effect on children's education once income is taken into account. Boggess (1998), also using the PSID, finds no effect of living with a single mother on children's likelihood of graduating from high school. McLanahan (1985, p. 898) concluded that her results "do not support the notion that the long term absence of a male role model itself is the major factor underlying family structure effects." In the National Education Longitudinal Survey, holding constant other factors, there are no differences between children from two-biological-parent homes and those from female-headed families in the odds of dropping out of high school or attending college (Painter 1998). Among the six family types included in Teachman, Paasch, and Carver (1997), "divorced mother" seems to be the only type to not directly increase children's odds of dropping out of high school, holding other factors constant.

Why the Discrepancy in Findings?

Both the findings and conflicting nonfindings about the effects of family structure on children are based on large, national random samples, where results should be approximately the same. So why the discrepancies? One possibility is that the choice of exogenous "control" variables (e.g., race, gender, sibship size, parents' education, residence) as well as "intervening variables" (e.g., family head's income, employment status, occupational position, sibship size) varies across studies. Conclusions about family structure's effect may depend on the other variables that are taken into account.

For example, on average, the greater the number of siblings, the lower children's attainments (Blake 1989; Powell and Steelman 1993; Steelman and Powell 1989). If children from single-mother homes have fewer siblings than children from two-parent families, this would represent an advantage associated with the single-mother family structure. Studies that take away this advantage by controlling for number of siblings will show a stronger negative effect of single motherhood. Studies that do not control for siblings will show a weaker effect. Conversely, the higher the socioeconomic position of parents, the greater the socioeconomic attainment of children (Blau and Duncan 1967; Featherman and Hauser 1978). Single mothers have lower socioeconomic positions than the fathers (and some mothers) who head two-parent families. Studies that do not take parent's socioeconomic position into account will show a stronger effect of family structure.

A second possibility is that the effect of family structure has changed

TABLE 2

PERCENTAGE DISTRIBUTION OF CAUSES AMONG RESPONDENTS FROM ALTERNATIVE FAMILIES

	Death of Parent	Divorce	Other
1962 Occupational Changes in a Generation	68	28	4
1973 Occupational Changes in a Generation	60	36	4
1986–88 Surveys of Income and Program Participation	42	53	5
1992–94 National Survey of Families and Households	33	62	5

NOTE.—Figures based on causes by birth cohorts derived from the General Social Surveys, 1973–96; pertains only to respondents from single-mother, single-father, mother/stepfather, and father/stepmother families.

over time (the change predictions of each theory are detailed below). Findings are not so much discrepant as simply pertinent to different periods. The evidence from national surveys spans at least 25 years, from about 1962 (e.g., Duncan 1967) to 1987–88, in the case of the first wave of the National Survey of Families and Households (NSFH). Among the cohorts represented over this time period, the main reason for families not to be two-biological-parent has shifted from the death of a parent to divorce (Bumpass and Sweet 1989).

Table 2 shows estimates of the percentage distribution of primary cause (death of parent, divorce, other) among adult respondents from alternative families in four national surveys (these surveys are analyzed later in the article). Because most of these surveys do not contain information on cause of alternative family structure, we calculated the cause distributions for each birth cohort in the 1973–96 General Social Surveys (GSS) and then applied the distributions to the samples listed in table 2, weighting by the number of respondents in each birth cohort (the oldest cohorts in the 1962 OCG survey were assigned the averages for the grouped "pre-1930 birth cohort" of the GSS).

Table 2 shows that, over the past 30 years, divorce has come to replace death of a parent among samples of adults from alternative family backgrounds. The replacement of cause across time is striking: In 1962, 68% of adults from alternative family backgrounds are estimated to have experienced the death of a parent and 28% experienced the divorce of their parents, compared with only 33% experiencing the death of a parent and 62% experiencing parental divorce in 1992–94.[2]

[2] The growth in the number of female-headed families between 1950 and 1980 has, for whites, been driven primarily by growth in the rate of marital disruption and, to a lesser extent, by growth in the rate of nonmarital childbearing (for African-Americans the pattern is reversed) (Wojtkiewicz, McLanahan, and Garfinkel 1990).

Some of the theories discussed above would predict that this shift in the cause structure accompanying cohort replacement should lead to an increase in the magnitude of the negative effect of alternative families over time (from the 1960s to the 1990s), while others would predict essentially no change. The change-over-time prediction of each theory is listed in the third column of table 1.

For the sociological theories, the keystone variable is family structure. Heightened risk of parental authoritarianism or neglect and inadequate models of authority relations are structural consequences of the absence of one parent, no matter what process gave rise to that absence. There should be few differences, for example, in outcomes between children from widowed-single-mother families and those from divorced-single-mother families because they share the same basic family structure. The sociological theories that emphasize structure accordingly would predict no change over time in the effect of single-parent and other kinds of alternative family structures, even as the process giving rise to the alternative structures shifts. Other sociological perspectives—like marital conflict—that focus more on family process than on family structure would make the opposite prediction (see below).

Economic and evolutionary theory also predict no change. From the evolutionary perspective, divorced and widowed single mothers have the same level of their own fitness tied up in the children, and so both types of mothers would have the same level of impetus to invest highly in their children. The presence of a nonbiological parent would negatively impact children, regardless of whether the biological father had died or the parents had divorced. The change in cause structure over time should not alter the implications for children of basic family forms.

Economic theory focuses on household structure and composition. It claims, for example, that two-parent households are more efficient at maximizing utility than one-parent households and so would also predict no change over time in the effect of alternative family structures.

These predictions of "no change" over time are based somewhat on the assumption "other things being equal." Some evidence, for example, while not conclusive, shows that widowed mothers and their children have greater access than divorced mothers to certain kinds of social supports

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Never-married single mothers—while a fairly socioeconomically diverse group—are, on average, more likely than divorced single mothers to be young, have low levels of education, have children at younger ages, and participate in welfare programs (London 1996). Unfortunately, the GSS and the other data sets that we analyze do not allow us to distinguish among respondents from never-married and divorced single-mother homes. However, available evidence suggests that the socioeconomic attainments of children from both groups tend to be similar (McLanahan and Sandefur 1994).

and may enjoy advantaged socioeconomic positions (McLanahan, Garfinkel, and Ooms 1987; Acock and Keicolt 1989; Amato and Keith 1991*a,* 1991*b;* Holden and Smock 1991; Biblarz and Gottainer 1999; Sugarman 1993, 1995).[3] Economic theory would generally favor single-parent families with greater economic resources over those with fewer economic resources in predicting children's human capital and subsequent attainment. But, independent of resources, economic theory makes no prediction about difference in outcomes between groups from single-parent families produced by the death of a parent vis-à-vis divorce, nor does evolutionary theory (although for evolutionary theory it makes an important difference whether the single parent is the biological mother or father).

In contrast, the selection bias (or parental competence) perspective predicts that the magnitude of the negative effect of alternative families is growing over time, as the old cohorts who experienced a parent's death as children leave our samples, replaced by the new cohorts who experienced their parents' divorce. Widowed mothers would be more competent at family life than divorcees, on average, and so the children from alternative families in the earlier period should have done substantially better than those in the later period. Widowed mothers, who did not choose an alternative family structure for themselves and their children, will also have more traditional values and lifestyles than divorced parents, who did. These kinds of values will be positively functional for children's success in the society, more so than the alternative values of divorcees.

Marital conflict theory makes the same prediction—the negative effect of alternative families is growing over time. Children from alternative families in the earlier period would be expected to do substantially better than those in the later period because they will have been less likely, on average, to have had exposure to parental conflict. Children of divorce often have mixed and sometimes hostile feelings toward their fathers, for example, whereas children whose fathers died tend to develop a warm and positive inner construction of the deceased father (see, e.g., Rozondal's [1983] "halo" effect; see also Silverman, Nickman, and Worden 1992).

[3] Social Security survivor's benefit payments to single widowed mothers and their dependent children tend to be substantially higher than AFDC payments to other kinds of single mothers and, unlike AFDC, they carry no requirement of an assets test to collect benefits (Sugarman 1993, 1995). To the extent that widows with dependent children have, on average, more economic resources than their divorced and never-married counterparts, the replacement of widows with divorced and never-married mothers over time could produce a growing negative effect of the "single-mother" family type. Measures like the family head's employment status and occupational position—considered later in the article—will only partly take into account the differences in material resources available across these disparate family types.

If the predictions of the selection hypotheses (parental competence, marital conflict) are sustained, such a pattern of increase in the negative effect of alternative families over time would be particularly important in light of changes that have been occurring over time in the effects of other dimensions of children's family backgrounds. A transition from ascription to achievement, or a "march toward meritocracy," has been occurring in the United States, particularly since the 1960s. Featherman and Hauser (1978) find a modest decline over the 20th century in the strength of the relationship between the family's socioeconomic position and children's socioeconomic destinations. This decline became clearly evident between 1960 and 1970 and steepened from 1970 onward (Featherman and Hauser 1978; Hout 1984*b,* 1988; Grusky and DiPrete 1990; DiPrete and Grusky 1990). The effect of race on socioeconomic attainment has also declined substantially (Hout 1984*a*), particularly at higher education levels (Hout 1988). If the importance of family structure as a source of ascription has increased as that of the old sources has waned, the offset could produce a halt in the trend toward universalism. If the family's socioeconomic position is making a comeback as a source of ascription in the 1990s, as some recent evidence suggests (Hout 1997), this, coupled with a potentially growing family structure effect, could lead to a reversal of course—a trend toward growing inequality in the opportunity structure.

Interactions

Research on the consequences of family structure for children generally explores how alternative families directly affect children's health, psychological well-being, and socioeconomic success. Two potential consequences that have been subjected to less empirical testing involve interactions, or conditional relationships.

The first idea is that family disruption may reduce the intergenerational transmission of status. Drawing primarily on socialization and role modeling theory, Biblarz and Raftery (1993) argued that family disruption negatively impacts social-psychological dimensions of parent/child relations that facilitate family transmission. They found that the association between parent's occupation (socioeconomic status, occupational autonomy, and training, from Hout [1984*b,* 1988]) and son's occupation was weaker among sons from alternative families. This was extended in Biblarz et al. (1997), but both studies rely on early-1970s data (OCG II) that include only men. As far as we know, this hypothesis—that father absence may be more important as a disrupter of socioeconomic transmission than as a direct determiner of socioeconomic attainment—has not been tested further.

The second idea, raised by Duncan and Duncan (1969), is that children who grow up in alternative families may have a more difficult time capitalizing on their educational accomplishments or translating their education into occupational success. Duncan and Duncan (1969) note that the returns in occupational status to each additional year of education were greater among sons raised in two-biological-parent families than among sons from alternative families. Duncan and Duncan (1969) offer no speculation about the potential process involved, nor do they statistically test the observed differences in coefficients. To our knowledge, this possible consequence of family structure has not been explored further.

Fathers may be an important link to the public sphere for children. Getting a good job is partly a function of educational credentials, but it may also be a function of, among other things, parental connections and exposure to knowledge about how to secure jobs (McLanahan and Sandefur 1994). Assuming that parents generally have the greatest knowledge about the occupational stratum in which they are located, children from female-headed families would be at a significant disadvantage, because female heads occupy substantially lower occupational positions than male heads (Biblarz et al. 1997). With less exposure to the father-as-worker model, and potentially less access to his connections, children from alternative families may find it more difficult to get the payoff to education normally achieved by children from two-biological-parent families.

Approach to the Analysis

The first large-scale empirical attempt to assess the socioeconomic consequences for children of family disruption was Duncan and Duncan (1969; see also Duncan 1967). These articles have been cited over 100 times since their publication, including recently in Powell and Parcel (1997) and Hout (1997).

Duncan and Duncan (1969) found that men from female-headed families (as well as men from alternative male-headed families) had lower occupational achievements (measured as average scores on Duncan's 1961 socioeconomic index—SEI) than men from two-biological-parent families. Duncan and Duncan (1969, pp. 284–85) interpret the five-point gap in occupational achievement between sons from two-parent and those from female-headed families as possible support for the Moynihan view: "The analyses reported above lend some support to the notion that the son raised in a family headed by a female is handicapped with respect to occupational success. . . . The evidence in this paper obviously does not constitute 'proof' that the matriarchal family structure and the absence of a father are 'pathological.' For Negroes as for non-Negroes, however, the

indication that an intact family background facilitates occupational success is quite compelling."

In the analyses that follow, we go back to Duncan and Duncan (1969) and to the 1962 Occupational Changes in a Generation survey (OCG I) in an attempt to locate the sources, or mechanisms, by which female-headed families (and other types of alternative families) may have led to a reduction in children's occupational success.[4]

We then move forward in time, replicating the analyses on national surveys from each of the subsequent decades. Among the questions that guide our analyses are the following:

1. Do conclusions about family structure effects change substantially depending on the mix of control variables?
2. Do conclusions about family structure effects change substantially depending upon period?
3. Do the socioeconomic achievements of children from different types of alternative families vary substantially?
4. Which (if any) of the theoretical perspectives are supported in terms of both the static and change predictions (table 1) that they make?
5. Do alternative families exhibit a weaker level of intergenerational socioeconomic transmission than two-biological-parent families?
6. Do alternative families reduce children's ability to translate educational achievement into occupational success?

DATA

Data are the 1962 OCG I, the 1973 OCG II, the pooled 1986–88 Surveys of Income and Program Participation (SIPPs), and the 1992–94 second wave of the NSFH, matched to information contained in the first wave (1987–88).[5] The OCG I and OCG II surveys were mail supplements to

[4] Hauser and Warren (1997) discuss the importance of SEI as a central dimension of social inequality and the advantages of SEI over other measures of inequality, like income.

[5] Occupational Changes in a Generation data were made available by the Data and Program Library Service at the University of Wisconsin-Madison. The data for Occupational Changes in a Generation—Replicate Master File, 1962 and 1973 were originally collected by the U.S. Bureau of the Census under grants from the National Science Foundation to Peter M. Blau and Otis Dudley Duncan, at the University of Chicago, and to David L. Featherman and Robert M. Hauser, at the University of Wisconsin-Madison. The Surveys of Income and Program Participation were produced by the U.S. Bureau of the Census, Washington, D.C., and distributed by the Inter-University Consortium for Political and Social Research, Ann Arbor, Michigan. The National Survey of Families and Households was funded by a grant from the Center for Population Research of the National Institute of Child Health and Human Development. The survey was designed and carried out at the Center for Demography and Ecology at the University of Wisconsin–Madison under the direction of Larry

the March 1962 and March 1973 Current Population Surveys, respectively. They represent the civilian noninstitutional male population ages 20–64 in those years. Comprehensive discussions of the OCG surveys can be found in Blau and Duncan (1967) and Featherman and Hauser (1978).

The SIPPs are large longitudinal (9 waves of interviews over 36 months) household surveys administered by the U.S. Bureau of the Census, representing U.S. household members (both male and female) ages 15–64. The second waves of the 1986–88 SIPPs panels include a family background topical module that contains most of the variables needed for the present analysis.

The NSFH includes interviews with 13,008 respondents ages 19 and older who comprise a representative sample of the adult U.S. household population. In the second wave of the NSFH, 10,008 of the original respondents were reinterviewed five years later. We use the family background characteristics that respondents reported on at time 1 to predict their time 2 socioeconomic positions. Following Duncan and Duncan (1969), for all data sets we select U.S.-born respondents from nonfarm origins ages 25–64. Analyses based on the OCG surveys include only men. Analyses based on SIPPs and NSFH include both men and women.

The OCG surveys ask respondents who they lived with most of the time up to age 16. SIPPs asks respondents who they were living with at age 16. NSFH1 asks respondents who did not live with both biological parents from birth until age 19 who they lived with at each age, 0–19. For the NSFH, we use respondent's family arrangement at age 16.

Based on responses to these items, we constructed family types that were comparable across the four surveys: (1) two-biological-parent families; (2) alternative mother-headed families (comprised almost fully of single-mother families); (3) alternative father-headed families (including both single-father and father-stepmother families); and (4) mother-stepfather families. These "snapshot in time" indicators of a small set of primary family types generally do well at capturing the major effects of this dimension of family background (McLanahan and Sandefur 1994; Powell and Parcel 1997; Wojtkiewicz 1993).

The other independent variables include race, number of siblings, and the education status, employment status, and occupational status of the family head that respondents lived with during childhood.[6] Occupational

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Bumpass and James Sweet. The field work was done by the Institute for Survey Research at Temple University. The original collectors, distributors, and funding agencies for all of these data sets do not bear any responsibility for the analyses or interpretations presented.

[6] To achieve comparability across surveys and to reflect the discrete nature of educational attainment, parent's education is classified as 0 = 0 years; 1 = 1–8 years; 2 = 9–11 years; 3 = 12 years; 4 = 13–15 years; 5 = 16 years; 6 = 17 or more years.

status was measured as Duncan's (1961) socioeconomic index (SEI) for the OCG surveys, and, for SIPPs and NSFH, Hauser and Warren's (1997) update of Duncan's SEI. The dependent variables are respondent's educational attainment (in years) and respondent's occupational status (SEI). The means (and percentages, where appropriate) of all the variables in the analyses, for each survey and family type, are shown in table 3.

RESULTS

Regression Models

Table 4 presents five models of occupational status (current SEI) for each of the four surveys. The BIC statistic is calculated to compare the relative fits of the models ($BIC = N \ln[1 - R^2] + p \ln[N]$, where p is the number of independent variables and N is the total sample size [Raftery 1986*a,* 1986*b,* 1995]). Following Logan (1996), one asterisk indicates effects for which there is positive evidence ($|t| \geq \sqrt{\ln N + 2}$), two asterisks indicate effects for which there is strong evidence ($|t| \geq \sqrt{\ln N + 6}$), and three asterisks indicate effects for which there is very strong evidence ($|t| \geq \sqrt{\ln N + 10}$), as defined in Raftery (1995). In a sample of 10,000 respondents, for example, positive evidence would require that the coefficient have $|t| \geq 3.35$, strong evidence would require that $|t| \geq 3.9$, and for very strong evidence, $|t| \geq 4.38$ (Raftery 1995).

The purpose of the analysis in table 4 is to observe the size and direction of change in the effect of family structure as other variables are added to the model, across the four surveys. We do this in order to assess how conclusions about the effects of family structure may depend on the other variables that are included or left out of models. Trends over time in the effects of independent variables are the focus of table 5.

The first section of table 4, based on the OCG I analyzed by Duncan and Duncan (1969), shows the effects (unstandardized betas from least-squares regression) of selected dimensions of family background on men's current occupational status. Model 1 (which is roughly equivalent to Duncan and Duncan [1969, table 2]) shows that men from alternative families hold occupations that are, on average, about 3–6 SEI points lower than those of men from two-biological-parent families.[7] In 1962, differences in

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Respondents missing on family head's education or family head's occupation (e.g., SIPPs includes a category "family head had no paying job" when respondent was age 16) were assigned mean values specific to their race by family structure by gender subgroup, with dummy variables for "family head was not employed" and "family head's education not reported" included in the models.

[7] These coefficients differ somewhat from Duncan and Duncan (1969) because we separate alternative father-headed families and stepfather-headed families (Duncan and Duncan treat them as a single "male-headed" group) and because Duncan and

socioeconomic status between African-American men and others (mostly non-Latino whites) were huge (22 SEI points).

Models 2 and 3 take into account the family head's employment and occupational status, respectively. Model 2 shows that having a family head who was not employed in the paid labor force (or for whom no occupation was reported) reduces men's socioeconomic attainment (by 8 SEI points). Origin unemployment also explains most of the effect of single-mother families on son's SEI. There is no significant difference in the occupational attainment of sons from two-biological-parent families and those from single-mother families once the family head's employment status is taken into account. The effect of a single-mother family is further reduced by taking into account differences in family head's occupational position (model 3).[8]

Men from alternative father-headed families have a lower average SEI than men from two-biological-parent families, with or without taking family head's employment and occupational status into account. Stepfamilies are associated with lower socioeconomic attainment, but this effect is not statistically significant based on the BIC criterion.

Models 4 and 5 add family head's education and number of siblings, respectively, to model 3. As is well known, parent's education is associated with children's socioeconomic success, and the greater the number of siblings children have growing up, the lower their socioeconomic attainments (in this case, each additional sibling costs the respondent about 1.4 SEI points on average).

When family head's education and number of siblings are added to the model, the effect of an alternative mother-headed family increases (-0.59 to -1.41 to -2.36). The effect in the final model (-2.36) is not significant based on BIC but would be treated as significant by commonly used criteria ($t = -3.1$, $p < .01$; not shown in table). In the 1962 data, men from single-mother families had fewer siblings than men from other family types (see table 3). Their mothers also had slightly higher levels of education, on average, than other heads. In earlier models 1–3 (those without

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Duncan treated all alternative female-headed families as a single group, whereas we include only alternative mother-headed families.

[8] Half of the men from mother-headed families in the OCG I reported no occupation for their family head, compared with only 5% of those from two-biological-parent families and 12% of those from alternative male-headed families (table 3). Blau and Duncan (1967) expressed concern that this puts researchers at particular risk of allowing origin unemployment to "carry" the effect of female-headed families in these data. The OCG II is well-suited to address Blau and Duncan's (1967) concern because the overlap between family structure and the family head's employment status is considerably less than in OCG I. Only 28% of OCG II respondents from single-mother-headed families report no occupation for their mothers.

TABLE 3

MEANS (UNLESS OTHERWISE NOTED) OF INDEPENDENT AND DEPENDENT VARIABLES BY CHILDHOOD FAMILY STRUCTURE AND SURVEY

VARIABLE	CHILDHOOD FAMILY STRUCTURE			
	Two-Biological-Parent	Alternative Mother-Headed	Alternative Father-Headed	Alternative Stepfather-Headed
1962 OCG I:				
Occupational status (SEI)	43	36	36	39
Education (years)	11.5	10.4	10.4	10.6
African-American (%)	6	17	13	11
Socioeconomic origins:				
Family head was not employed (%)	5	50	8	17
Family head's occupational SEI	33	30	30	30
Family head's education	1.8	1.9	1.7	1.7
Family head's education not reported (%)	9	18	16	17
Number of siblings	3.8	3.4	4.1	3.5
%	83	10	3	3
N	9,750	1,204	409	335
1973 OCG II:				
Occupational status (SEI)	46	41	40	38
Education (years)	12.5	11.5	11.1	11.3
African-American (%)	6	17	12	14
Socioeconomic origins:				
Family head was not employed (%)	5	28	9	11
Family head's occupational SEI	35	27	28	32
Family head's education	2.0	1.9	1.7	2.0
Family head's education not reported (%)	5	11	9	12
Number of siblings	3.5	3.4	4.0	3.6
%	83	11	3	3
N	16,010	2,054	562	659

1986–88 SIPPs:				
Occupational status (SEI)	38	35	35	35
Education (years)	13.1	12.5	12.4	12.3
African-American (%)	8	22	11	16
Female (%)	51	54	49	56
Socioeconomic origins:				
Family head was not employed (%)	7	36	12	13
Family head's occupational SEI	35	28	34	33
Family head's education	2.6	2.6	2.5	2.6
Family head's education not reported (%)	19	23	27	35
Number of siblings	3.1	3.2	3.5	3.3
%	78	11	4	8
N	27,017	3,815	1,220	2,776
1992–94 NSFH2:				
Occupational status (SEI)	40	36	36	38
Education (years)	13.4	12.7	12.6	12.6
African-American (%)	8	29	15	13
Female (%)	50	55	56	56
Socioeconomic origins:				
Family head was not employed (%)	6	18	10	14
Family head's occupational SEI	36	29	36	34
Family head's education	2.9	2.9	2.8	2.9
Family head's education not reported (%)	8	12	14	23
Number of siblings	3.2	3.4	4.8	3.4
%	75	14	4	8
N	4,905	897	240	495

NOTE.—To achieve uniformity in measurement across surveys, family head's education is classified as 0 = 0 years; 1 = 1–8 years; 2 = 9–11 years; 3 = 12 years; 4 = 13–15 years; 5 = 16 years; 6 = 17 or more years. OCG I and OCG II include men only. SIPPs and NSFH2 include men and women. For OCG I and OCG II, we use Duncan's (1961) SEI for 1960 census occupational titles. For SIPPs and NSFH, Hauser and Warren's (1997) update of Duncan's SEI for 1980 and 1990 census titles is used. "Family head was not employed" includes missing values on origin SEI, i.e., cases where no occupation was reported for the family head.

TABLE 4

UNSTANDARDIZED BETAS FROM REGRESSION OF CURRENT OCCUPATIONAL STATUS ON DIMENSIONS OF FAMILY BACKGROUND: U.S.-BORN RESPONDENTS AGES 25–64, FROM NONFARM ORIGINS

Independent Variable	1	2	3	4	5
1962 OCG I (N = 11,177):					
Childhood family structure:					
Two-biological-parent (reference)	...	...	...	...	...
Alternative mother-headed	−4.76***	−1.41	−.59	−1.41	−2.36
Alternative father-headed	−5.86***	−5.71***	−4.58*	−4.47*	−4.22*
Alternative stepfather-headed	−2.70	−1.89	−.54	−.63	−1.41
Race (African-American = 1)	−22.47***	−21.36***	−15.64***	−15.41***	−14.85***
Socioeconomic origins:					
Family head was not employed		−7.71***	−7.72***	−5.92***	−5.15***
Family head's occupational SEI			.39***	.30***	.27***
Family head's education				3.02***	2.59***
Family head's education not reported				−5.31***	−4.67***
Number of siblings					−1.39***
Intercept	44.28***	44.62***	31.12***	29.20***	36.01***
R^2	.0655	.0725	.1838	.2051	.2257
BIC	−720	−795	−2,214	−2,491	−2,775
1973 OCG II (N = 17,894):					
Childhood family structure:					
Two-biological-parent (reference)	...	...	...	...	...
Alternative mother-headed	−2.56**	−.94	1.20	.84	.17
Alternative father-headed	−4.64**	−4.40**	−2.54	−2.12	−1.66
Alternative stepfather-headed	−6.75***	−6.28***	−5.64***	−5.49***	−5.57***

Race (African-American = 1)	−16.17***	−16.05***	−10.36***	−10.37***	−9.03***
Socioeconomic origins:					
Family head was not employed		−6.88***	−6.80***	−5.16***	−4.04***
Family head's occupational SEI			.36***	.27***	.24***
Family head's education				2.60***	2.12***
Family head's education not reported				−7.86***	−7.21***
Number of siblings					−1.50***
Intercept	46.49***	46.79***	34.04***	32.17***	38.89***
R^2	.0325	.0371	.1348	.1533	.1744
BIC	−552	−628	−2,532	−2,899	−3,341
1986–88 SIPPs (N = 27,143):					
Childhood family structure:					
Two-biological-parent (reference)	. . .	. . .	. . .	. . .	. . .
Alternative mother-headed	−2.10***	−1.44***	.15	−.94	−.86
Alternative father-headed	−2.48***	−2.39***	−2.28***	−1.97**	−1.71*
Alternative stepfather-headed	−2.58***	−2.44***	−2.00***	−1.69***	−1.56***
Race (African-American = 1)	−6.43***	−6.33***	−4.39***	−3.66***	−2.73***
Gender (female = 1)	−1.94***	−1.97***	−2.09***	−2.20***	−2.21***
African-American × female	2.68***	2.68***	2.75***	2.56***	2.43**
Socioeconomic origins:					
Family head was not employed		−2.47***	−2.47***	−.22	−.93
Family head's occupational SEI			.29***	.18***	.17***
Family head's education				1.51***	1.35***
Family head's education not reported				−3.78***	−3.72***
Number of siblings					−.70***
Intercept	38.89***	39.06***	28.70***	27.52***	30.45***
R^2	.0215	.0240	.0871	.1068	.1196
BIC	−529	−588	−2,392	−2,964	−3,345

TABLE 4 (*Continued*)

Independent Variable	1	2	3	4	5
1992–94 NSFH2 (N = 4,757):					
Childhood family structure:					
Two-biological-parent (reference)	. . .	. . .	. . .	. . .	. . .
Alternative mother-headed	−2.90***	−2.59**	−1.10	−2.07	−2.21*
Alternative father-headed	−4.18*	−4.10*	−4.36**	−4.08*	−3.29*
Alternative stepfather-headed	−2.23	−1.95	−1.44	−1.00	−.92
Race (African-American = 1)	−7.63***	−7.41***	−5.49***	−3.89**	−3.16*
Gender (female = 1)	−1.75**	−1.74**	−1.87***	−1.66**	−1.66**
African-American × female	3.57	3.59	3.83	3.56	3.80
Socioeconomic origins:					
Family head was not employed		−3.56***	−3.57***	−2.41	−2.17
Family head's occupational SEI			.28***	.16***	.16***
Family head's education				1.50***	1.37***
Family head's education not reported				−5.13***	−4.72***
Number of siblings					−.57***
Intercept	41.36***	41.53***	31.14***	28.58***	31.00***
R^2	.0294	.0334	.0939	.1268	.1353
BIC	−91	−102	−401	−560	−598

* $|t| \geq \sqrt{\ln N + 2}$.
** $|t| \geq \sqrt{\ln N + 6}$.
*** $|t| \geq \sqrt{\ln N + 10}$.

controls for parent's education and number of siblings), these advantages of single-mother families were serving to offset other kinds of disadvantages. Taking away these advantages through statistical control in models 4 and 5 increases the negative impact of mother headship. Alternative father-headed families are associated with lower socioeconomic attainment regardless of control variables, while the effect of stepfamilies remains not significant.

The second section of table 4 goes through the same steps as above, on the 1973 OCG II. As in the OCG I, sons from alternative mother-headed families had lower occupational attainments than sons from two-biological-parent families mainly because they were more likely to have a family head who was not employed. This is reflected in the change in the effect of a mother-headed family from −2.56 in model 1 to −0.94 in model 2. It is interesting that, in both the OCG I and OCG II, among men who report that their family head had *any* paying job (regardless of the type of job), men from single-mother families held socioeconomic positions that were not significantly different from those held by men from two-biological-parent households. Taking into account parent's education and number of siblings does not, in the case of the OCG II, lead to a reemergence of a negative effect of single-mother families.

The occupational attainments of sons from alternative male-headed families are significantly lower than those of sons from two-biological-parent families. In the case of stepfamilies, the negative effect is strong regardless of control variables. The effect of alternative father-headed families is weaker and drops below BIC-based significance in model 3 onward.

The third and fourth sections of table 4 present the same analysis using the 1986–88 SIPPs and the 1992–94 NSFH2. These surveys include both men and women. We added gender (female = 1) to the models and tested all possible interactions involving gender and the other variables. There were no significant differences by gender in the effects of alternative families—alternative families had the same effect on men and women.

Gender is important in two ways. First, gender has a "direct" effect on occupational attainment: the average occupational status of women is lower than that of men. Second, the effect of race on occupational attainment depends on gender. Independent of other factors (model 5), African-American men average 2.73 SEI points lower than other race groups in SIPPs and 3.16 SEI points lower in the NSFH2. Among women, race has no significant direct effect on occupational attainment (−2.73 + 2.43 = −.30 in SIPPs and −3.16 + 3.80 = .64 in NSFH2).

The effects of alternative families roughly parallel those observed in the OCG I. Taking into account the family head's employment and occupational status reduces the effect of single-mother families to insignifi-

cance in both surveys. Relative to the OCG surveys, in both SIPPs and the NSFH the negative effect of single-mother families on children's socioeconomic attainment is more a function of mothers' disadvantaged occupational position and less a function of their disadvantaged employment status. In the OCG surveys, differences in employment explain most of the single-mother family effect. In SIPPs and NSFH, differences in occupational status explain most of the effect. Adding family head's education and number of siblings leads to the reemergence of a significant negative effect of single motherhood in the NSFH2. In SIPPs, the effect ($-.86$; $t = -3.0$; $p < .01$) is not significant based on BIC. Coming from any alternative male-headed families is generally associated with lower socioeconomic attainment in both of these surveys, with or without various sets of controls.

By including in table 4 only respondents who are presently working in the paid labor force (and hence have a current occupational status), we may be selecting the more successful children from alternative families. This would not be an issue in examining educational attainment, since virtually no one in any of the surveys is "missing" on education. Also, education is generally an earlier life course event than current occupation, and it tends to be completed in young adulthood. We might expect childhood family structure to have stronger effects on events that take place earlier in the life course.

The appendix replicates the analysis in table 4, treating education rather than occupation as the dependent variable. The main patterns are the same as those observed in table 4, only stronger and more clearly defined: family head's employment status and occupational status fully explain the negative effect of single-mother families in all four surveys. Controlling for family head's education and number of siblings brings the effect of single-mother families back, though below its original level. Stepfamilies and alternative father-headed families have negative effects on children's attainment, regardless of control variables. The negative effects of alternative father- or stepfather-headed families are generally larger than those of alternative mother-headed families.

Trends over Time

The analysis in table 5 focuses on trends in the effects of dimensions of family background over time. Our main interest is determining whether family structure effects depend on period. We merged the four surveys (selecting men only, since they are represented in all four time periods), created a year/period variable comprised of three dummies representing 1973, 1987, and 1993 (with 1962 as the referent), and then created interaction terms between the year dummies and each of the independent vari-

ables. Based on our inspection of the time-variable interaction coefficients, and theoretical models of change in patterns of inequality in the United States, we constrained the time changes in the effects of each independent variable to follow one of four forms: (1) no change over time (1962–93) in the effect of the independent variable on son's socioeconomic attainment; (2) steady (yearly) increase over time in the effect of the independent variable; (3) steady decline over time in the effect of the independent variable (called the "march-to-meritocracy" model); and (4) steady decline in the effect of the independent variable from 1962 through 1987, and no decline since (called the "speed bumps" model, from Hout [1997]).[9]

Table 5 presents two models. The "full model" includes the main effect of each independent variable plus all interaction terms involving year/period. The interaction coefficients are the differences in the size of the effects of the independent variable between 1962 and each subsequent period. For clarity of presentation, we show the actual effects implied for each year, rather than the difference scores. For 1962, *t*-values shown are for the test of whether the effect of the variable was significant in that year. For all other years, *t*-values shown are for the test of whether the effect of the variable is significantly different from its effect in 1962.

For example, the panel involving race shows that, independent of other factors, in 1962 African-American men held occupations that were, on average, about 15 points lower on the SEI than men of other races. In 1973, they held occupations that were, on average, 9 points lower. In 1987, they were 2.7 points lower, and in 1993, 3.4 points lower. The *t*-value −18.1 shows that race had a highly significant effect on occupational attainment in 1962. The *t*-values 5.7, 12.3, and 7.7 show that the effect of race in each subsequent period is significantly lower than its effect in 1962. The BIC-best model then finds the best way to describe change in the effects over time, from the candidate patterns discussed above.[10]

The effects of alternative families on children's attainment have remained constant over 30 years (the best model is that of "no change in

[9] The years of our survey data are 1962, 1973, 1986–88 (1987 midpoint), and 1992–94 (1993 midpoint). To estimate the various types of trend models, we created period scales and then multiplied them by independent variables. For the march-toward-meritocracy model, the period scale was 1962 = 0, 1973 = 11, 1987 = 25, and 1993 = 31. This form is used to test predictions that the effect of the independent variable(s) declined (or increased) steadily over time (i.e., by the same amount each year between 1962 and 1993). For the "speed bumps" model, the scale was 1962 = 0, 1973 = 11, 1987 = 25, and 1993 = 25. This constrains the effect of the independent variable to be constant from 1987 onward.

[10] The model is "BIC-best" within the constraint that some form of each of the independent variables be included in the model. We do this to provide maximum information on effects both significant and not.

TABLE 5

TRENDS OVER TIME IN THE EFFECTS OF DIMENSIONS OF FAMILY BACKGROUND ON CURRENT OCCUPATIONAL STATUS: U.S.-BORN RESPONDENTS AGES 25–64 FROM NONFARM ORIGINS

Independent Variable	Full Model	*t*-value	BIC-Best Model	*t*-value
Intercept	36.01***	60.7	36.00***	81.1
Childhood family structure:				
Two-biological-parent family (reference)	. . .	. . .	. . .	. . .
Alternative mother-headed family:				
Effect of variable in:				
1962	−2.36	−3.1		
1973	.17	2.8		
1987	−.84	1.7		
1993	−1.95	.3		
Best model of change:				
No change in effect over time			−.87	−2.8
Alternative father-headed family:				
Effect of variable in:				
1962	−4.22*	−3.7		
1973	−1.66	1.7		
1987	−1.61	1.9		
1993	−2.45	.8		
Best model of change:				
No change in effect over time			−2.20**	−4.4
Alternative stepfather-headed family:				
Effect of variable in:				
1962	−1.41	−1.1		
1973	−5.57	−2.8		
1987	−1.36	.0		
1993	−2.18	−.4		
Best model of change:				
No change in effect over time			−2.44***	−5.8
Race (African-American = 1):				
Effect of variable in:				
1962	−14.85***	−18.1	−14.66***	−22.1
1973	−9.03***	5.7		
1987	−2.65***	12.3		
1993	−3.41***	7.7		
Best model of change:				
Speed bump model			.48***	13.4
Family head's occupational SEI				
Effect of variable in:				
1962	.27***	24.4	.28***	30.0
1973	.24	−2.1		
1987	.20**	−4.1		
1993	.18	−2.6		

TABLE 5 (*Continued*)

Independent Variable	Full Model	*t*-value	BIC-Best Model	*t*-value
Best model of change:				
March-to-meritocracy			−.003***	−4.6
Family head was not employed:				
Effect of variable in:				
1962	−5.15***	−6.6	−6.19***	−10.4
1973	−4.04	1.1		
1987	−.77***	4.6		
1993	−2.00	2.0		
Best model of change:				
Speed bump model			.224***	7.2
Family head's education:				
Effect of variable in:				
1962	2.59***	13.8	2.64***	17.6
1973	2.12	−2.1		
1987	1.24***	−5.8		
1993	1.56	−3.0		
Best model of change:				
Speed bump model			−.053***	−6.4
Family head's education not reported:				
Effect of variable in:				
1962	−4.67***	−6.8		
1973	−7.21	−2.7		
1987	−3.39	1.6		
1993	−5.70	−.9		
Best model of change:				
No change in effect over time			−4.39***	−15.3
Number of siblings:				
Effect of variable in:				
1962	−1.39***	−17.3	−1.47***	−30.7
1973	−1.50	−1.1		
1987	−.72***	6.6		
1993	−.47***	5.6		
Best model of change:				
March-to-meritocracy since 1973			.053***	10.8
R^2	.1939		.1926	
df	39		17	
BIC	−9,455		−9,617	

NOTE.—For 1962, *t*-value shown is for test of whether the coefficient is significant in that year. For all other years, *t*-value shown is for test of whether the effect observed in that year is significantly different than that observed in 1962. All models include dummy variables for period. For march-to-meritocracy and speed bump models, the coefficients shown are the change per year.

* $|t| \geq \sqrt{\ln N + 2}$.

** $|t| \geq \sqrt{\ln N + 6}$.

*** $|t| \geq \sqrt{\ln N + 10}$.

effect over time"). There is fluctuation in the family structure coefficients across years (of the sort we would expect from sampling error), but there is no clear pattern. Further, the *t*-values show no significant differences in the coefficients between years. BIC indicates that the fluctuation across periods should be treated as noise rather than as something more systematic.[11]

Hence, over 30 years of time, all else being equal (including number of siblings, and so on), a single-mother family has no effect on children's occupational attainment. The −0.87 SEI point ($t = -2.8$) associated with the single-mother form is not statistically significant by BIC standards (where in a sample of over 45,000 respondents, the minimum $|t|$ for indication of any positive evidence of an effect would be approximately 3.6). On the other hand, there is strong evidence that, independent of other factors, coming out of single-father families and stepfamilies is associated with lower occupational attainment. It is interesting that the effects of the alternative male-headed families are significantly more detrimental than the effect of single-mother families.[12]

The ordering of the values of the alternative family structure coefficients across these data sets suggests that two-biological-parent families have greater value than alternative mother-headed families, which, in turn, have greater value than alternative father- or stepfather-headed family. This was approximately the ordering observed in Biblarz et al. (1997) that led to their construction of a "distance from mother" scale, and it is also the ordering predicted by the evolutionary psychology perspective. To test whether this ordering is supported by the data, we refit the BIC-best model displayed in table 5 but treated family structure as a scale equal to 0 for two-biological-parent background, 1 for alternative mother-headed family, and 2 for alternative father- or stepfather-headed family. This model (not shown in table 5) explained the same proportion of variance (0.1926) as that explained by the BIC-best model shown in table 5, but it yielded two additional degrees of freedom and hence was more parsimonious (15 predictor variables as against 17). Accordingly, this turns out to be the strongest model given the data (BIC = −9638, as against −9617 for the BIC-best model shown in table 5).[13]

Other dimensions of family background decline in their ability to deter-

[11] We also conducted a trend analysis of the "total" effects (model 1 of table 4) of the family types, and the results were the same: the best model says that the effects of alternative family structures have remained constant over the time period (table available from authors).

[12] The *t*-values are 2.24 and 2.99 for difference between −0.87 and −2.20, and between −0.87 and −2.44, respectively.

[13] This ordering also fits the data best with education as the dependent variable.

mine children's destinations but then hit discernable "speed bumps" (Hout 1997) in the late 1980s. From 1962 through 1987, the effects of origin education, origin unemployment, and race declined steadily. Then, from 1987 to the present, the decline stopped. For example, the BIC-best model of the race effect, the "speed bumps" form, says that in 1962, African-American men held occupations that were, on average, 14.66 points lower on the SEI than men of other races. Since that time, the race gap diminished by 0.48 points every year through 1987 (hitting a low of −2.66, or −14.66 + [.48 × 25 years]), at which point it hit a "speed bump," and no further decline in the significance of race has been observed. In fact, in the "raw" data the effect of race on occupational status actually increased from 1987 to 1993 (from −2.65 to −3.41). This empirical observation fits with wide speculation and other kinds of evidence that there has been a recent rise in race inequality (Moss and Tilly 1996).

The effect of origin unemployment follows a similar pattern. Having a family head who was not employed mattered more for children's own achievement in 1962 than it did in 1987. But then, from 1987 to the present, this "march toward meritocracy" stopped (and even reversed in the raw data). This trend is particularly important because a larger proportion of new cohorts will come from alternative families, and children from alternative families have substantially greater odds of having a family head who is not employed.

Other dimensions of family background exhibit a "march toward meritocracy" that is as yet uninterrupted. The number of siblings that children have growing up matters less now than before. The effect of family head's occupational status has also declined from 1962 to the present. Independent of other factors, in 1962 each point increase in the family head's SEI produced a 0.27 point increase in the son's occupational status. By 1993, that effect had diminished to 0.18.

It was on this variable that Hout's (1997) "speed bumps" analogy was based. Hout finds suggestive evidence that the decline in the effect of origin SEI hit a "speed bump" in the late 1980s. While on face our results do not support this (note the way that the direct effect of origin SEI declines over time from 0.27 to 0.24 to 0.20 to 0.18 in our data), imposing a "speed bumps" form on the pattern of change in the origin SEI effect observed in our data leads to a fit based on BIC (not shown in table 5) that is identical to that shown in table 5. That we find the "speed bump" model supported for another central dimension of socioeconomic origins—family head's education, coupled with the "speed bumps" observed in the effect of race and origin unemployment—suggests the possibility of a trend in the United States toward (re)emerging inequality in the opportunity structure going into the 21st century.

Interactions

In the final steps of the analysis, we add to the BIC-best model (shown in table 5) terms representing interactions between each family type and origin SEI to test the hypothesis that alternative families exhibit a weaker level of intergenerational occupational transmission. All the interaction terms were statistically significant at the 0.01 level. There were no significant differences in the interaction terms over periods.

Coefficients of this type are difficult to interpret by simple inspection. In figure 1, we show the value of son's SEI predicted by the interaction model for three levels of family head's SEI across the four family types. All of the other variables in the model (siblings, period, origin unemployment, and so on) have been adjusted by multiplying their coefficients by their mean values and summing.

An inspection of figure 1 shows that the association between family head's SEI and sons' SEI is strongest among two-parent families and weaker among alternative families (weakest of all in stepfamilies). Put differently, parent's SEI plays a more important role in determining son's SEI in a two-parent family context than in other kinds of families. This is reflected in differences in the steepness of the slopes shown in figure 1.

In two-parent homes, moving from the low (10) to the high (70) end of

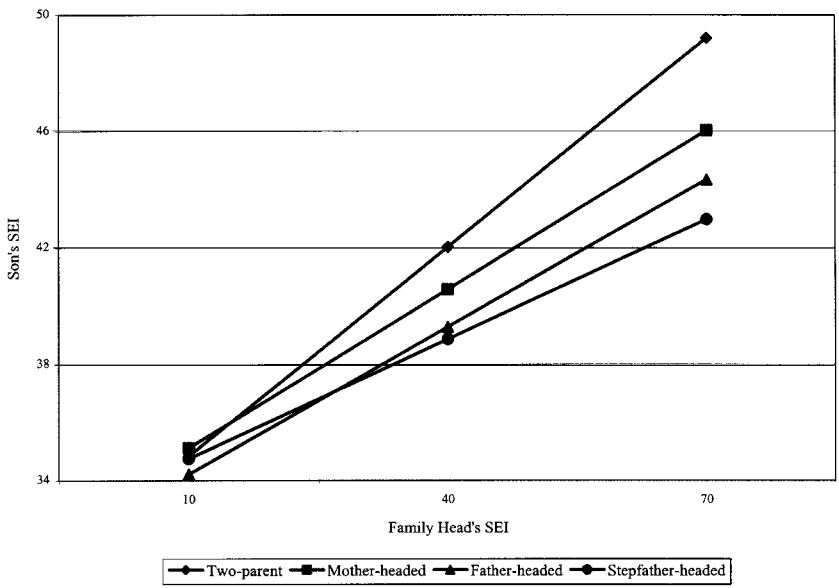

FIG. 1.—Estimated effects of childhood family structure and family head's SEI on son's current SEI.

origin SEI makes a difference of 14 SEI points for the son (from an SEI of 35 to 49), independent of all of the other variables in the model. In stepfamilies, moving from the low to the high end of origin SEI makes a difference of only 8 points in sons SEI (from 35 to 43). For single-mother families, the difference is 11 points, and for alternative father-headed families, 10 points.

This also means that family structure makes less of a difference for sons from low SES backgrounds than for sons from high SES backgrounds. At the low end of origin SEI, differences in destination SEI by family type are small. Children from low socioeconomic origins tend to end up in low socioeconomic destinations regardless of family type. Among children from the high end of origin SEI, differences in socioeconomic attainment across family types are substantial.[14]

We also speculated that children from some kinds of alternative families may have a more difficult time translating their educational achievements into occupational success because of more limited access to both parents' potential connections. To test this hypothesis, we followed steps like those above, adding son's education to the BIC-best model (table 5), and then terms representing interactions between each family type and son's education. All of the interactions were statistically significant at the 0.01 level. The results are displayed in figure 2.

Figure 2 shows a pattern that to our knowledge has not been documented empirically before: children from alternative families get less return (in terms of occupational SEI) to their educations, relative to children from two-parent homes. The differences look relatively small visually. This is somewhat deceptive because education is a hugely important determinant of occupational status for all family types (i.e., all the lines are steep).

Independent of other factors (including origin SEI, period, and interactions involving period), children from two-parent families gain, on average, 4 points on the SEI for each additional year of education that they obtain. Children from stepfamilies gain only 3 SEI points for each addi-

[14] The interaction effects displayed in figure 1 are adjusted for all the independent variables. As with the main effect, the interactive effect of single-mother families depends somewhat on the mix of control variables. In additional analysis (not shown, available from authors) we reestimated the interaction model but with only the controls shown in model 3 of table 4, plus period effects. The interaction effect continued to obtain (i.e., a less steep slope for children from single-mother families relative to those from two-biological-parent families, suggesting a weaker level of intergenerational transmission of socioeconomic status) but with smaller distances between points on the two slopes, suggesting a much smaller "direct" negative effect of single-mother families. Consistent with other findings throughout the article, the patterns for respondents from alternative male-headed families continued to be distinct from those of respondents from both single-mother and two-biological-parent families.

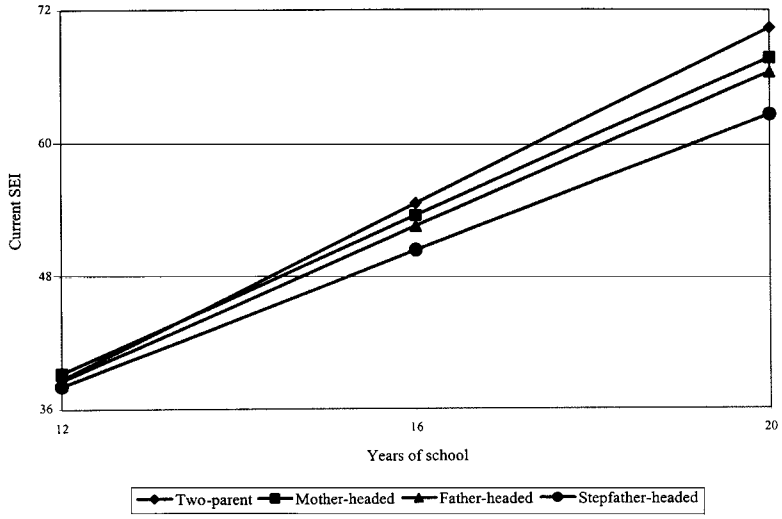

FIG. 2.—Estimated effects of childhood family structure and education on current SEI.

tional year of school. Children from single-mother and single-father families average approximately a half SEI point less (3.5) for each additional year of school than those from two-biological-parent families. At very low levels of education, children from alternative families are predicted to actually do better (in terms of SEI) than those from two-biological-parent families. But from the level of high school and beyond, family structure starts making an important difference to occupational returns in the opposite direction. This pattern is consistent with our idea that alternative families may be less able to connect their children into jobs commensurate with their educations. However, we predicted that the effect would be greatest for sons in single-mother families. It turns out that the effect is greatest for sons from stepfather-headed families.

DISCUSSION

We went into the analysis guided by six questions. In the following discussion, we return to the questions and assess how the empirical analysis informs our understanding of each.

Do conclusions about family structure effects change substantially depending on the mix of control variables?

The answer to this question is yes. The analysis shows that the effect of growing up in a single-mother family is a complex function of a set of

factors that represent both risks and benefits to children's socioeconomic success. On the side of risk, relative to sons from two-biological-parent families, sons from single-mother families have (1) the disadvantage of having a family head with a greater average likelihood of unemployment and (2) the disadvantage of having a family head with a lower average occupational position. Across four large surveys spanning 30 years, across two dependent variables—children's education and occupation—we find that there is no effect of growing up in a single-mother family once family head's socioeconomic location (employment, occupation) is taken into account.

This finding may mean exactly what it appears on face—that parent's labor force attachment and occupational position are keys to understanding the effect of single-mother families on children's socioeconomic destinations. It directs us to explore job differences between single mothers and other family heads: Where are they located in the occupational structure? How do their job conditions affect the family? What are the employment opportunities and constraints (Glass and Camarigg 1992)? Why is parental employment good for children? In terms of policy, the findings suggest that adequate job opportunities for single mothers could go a long way toward diminishing the unfavorable consequences of single-mother families for children.

Another possibility is that these variables—parent's employment and occupation—are carrying the effects of other variables within them. One possibility is income. We may be tapping the level of economic resources available to families. Hauser and Warren (1997) entertain the possibility that the occupational index SEI may actually be a better measure of permanent income than income itself.

The findings dovetail in many ways with the work of Kiernan and colleagues (e.g., Kiernan 1997) in Great Britain. Based on the National Child Development Study, Kiernan (1997) found that differences in educational and work outcomes between children from two-biological-parent and single-mother homes are largely a function of financial hardships. She concluded that it may be the financial advantages held by children from two-biological-parent homes that propel them to higher attainments, and not necessarily the fact that their parents stayed together.

We also found that children from single-mother families benefited from a good average level of origin education and low average number of siblings. These features help to offset other kinds of disadvantages associated with single-mother families. If we hold constant origin education and siblings through statistical control, the negative effect of a single-mother family reemerges.

This pattern is most clearly evident in the analysis of educational attainment shown in the appendix (table A1). Across all the surveys, model 3 shows no effect of alternative mother-headed families, but model 5 does

show a significant negative effect of alternative mother-headed families. The difference in conclusion depends on the variables we decide to control statistically. Studies that treat parents' education and number of siblings as exogenous (e.g., Duncan 1967; McLanahan and Sandefur 1994) will actually begin with a kind of statistically heightened "total" effect of alternative mother-headed families. In turn, whether one embraces model 3- versus model 5-like results will shape family discourse in very different ways. The former model suggests that single mothers who are able to secure adequate positions in the social structure—indicated by their employment and occupation—can offset the negative effect of the loss of the father, and their children will do approximately as well (in education) as those from two-biological-parent families. The latter model suggests something closer to a "pathology of matriarchy" perspective—pointing to some long-term legacies of father absence for children's attainments that go beyond the loss of socioeconomic resources.

Do conclusions about family structure effects change substantially depending upon period?

The effects of alternative family structures on children's socioeconomic success have remained constant over the past 30 years. Change in the effect of family structure over time probably cannot explain discrepancies observed in the family structure effects literature.

The effects of other dimensions of family background have changed over the period. Race-based inequality in socioeconomic attainment is no longer on the decline—it has not been since 1987 or thereabouts—and it may even be increasing. Having a family head who was not employed became less detrimental to children over time, but this decline too stalled in the late 1980s and may be reversing course. While family head's SEI has declined fairly steadily as a determinant of children's success, family head's education has not. These patterns suggest that U.S. society may indeed be hitting a "speed bump" in its progress toward universalism (Hout 1997). The trends may have particularly grave implications for new cohorts from alternative families, who will be disproportionately more likely to face the triple threats of race, origin unemployment, and family structure.

Do the socioeconomic achievements of children from different types of alternative families vary substantially?

Because most studies compare the outcomes of children from two-biological-parent families with those of children from alternative families, we know less about differences or similarities in attainment among children from different kinds of alternative families. Our findings indicate that, over a 30-year period, children from single-mother families consistently do better than those raised in single-father families or stepfamilies, once socioeconomic position is taken into account (see also Amato and Keith 1991*b;* Amato and Booth 1991; Hoffmann and Johnson 1998).

Single-father families and stepfather-headed families have about the same negative effect on children's attainments, an effect that cannot be explained by socioeconomic position.[15]

The "pathology of matriarchy" position is that the lack of a man in the home would be particularly detrimental to boys. The sons from alternative male-headed households in our data lived either with their biological father or a stepfather, and they were able to report the male head's occupation. Averaging across the four surveys, male heads' occupations were about 4–5 points higher than those of the single mothers. Yet even with the socioeconomic advantage, these sons did no better than those from single-mother families, and in some cases they did worse. If the single mothers had occupied the same socioeconomic position as the single fathers and stepfathers, their children would have had significantly higher attainments than those from the alternative male-headed families.

That father presence gave no particular advantage to sons from alternative families may reflect the legacy of the death of the mother or of a neglectful mother. Stepfathers may have dual households to invest in, stepparent/child relations can be problematic, and stepfamilies may introduce some distance into the children's relationship with the mother (Biblarz et al. 1997). Whatever the explanation, none of them can be neatly construed to fit with a "pathology of matriarchy" view.

Prompted by Wojtkiewicz's (1993) conclusion that a dichotomous indicator of family type captures the main effects in most cases, Powell and Parcel (1997) adopted a two-parent family/not two-parent family measure, as did Biblarz and Raftery (1993). Other research treats single-mother families, single-father families, and stepfamilies together as a "one-parent" group (McLanahan and Sandefur 1994). Duncan and Duncan's (1969) "female-headed" families include both respondents from single-mother homes and those who reported living with a female head (e.g., grandmother, aunt) but not the mother. Single, female-headed families and single-parent families are not the same as single-mother families, even though the "single female" and "single parent" terms may evoke a "single mother" image. When all alternative female-headed or single-parent families are considered together, the large group of children from single-mother families gets combined with a smaller group of children from other types of alternative families in which the negative association with children's attainment is especially strong. This increases the negative effect associated with the combined group and so appears to reinforce a "pathology of matriarchy" perspective that may not be fully consistent with the data.

[15] The alternative father-headed families include single-father families but also those where the father had remarried. Unfortunately, the data did not allow us to distinguish these.

Which (if any) of the theoretical perspectives are supported in terms of both the static and change predictions (table 1) that they make?

Evolutionary parental investment theory was the only one where static and change predictions were both borne out by the data. The sociological theories faltered in that they provide no basis for our finding that children from single-mother families actually have some advantage over children from other kinds of alternative families. The static predictions of economic theory—that children from stepfamilies will do better than those from single-parent families, that children from single-father families will do better than those from single-mother homes—were entirely unsupported.

The stability over time in the effect of family structure provides some evidence for its not being a selection effect. Hence, the change predictions of the parental competence and marital conflict models are not supported. Approximately two-thirds of the OCG I sample from alternative families experienced the death of a parent. In contrast, two-thirds of the NSFH2 sample from alternative families experienced parental divorce. Selection models would suggest that the former group had a more competent (widowed) parent(s) or had less exposure to marital conflict than the latter group, and so should have done better. Yet the consequences of family structure were essentially the same for both groups.[16] The constancy of this effect may imply a fundamental family process resistant to changes in the times or the culture.

The evolutionary perspective differs from the others by placing gender of parent and biological relations at the forefront of an explanation of family structure effects. It predicts that children from single-mother homes will have advantages over those from single-father homes because mothers have more of their reproductive investment tied up in their children than fathers. This prediction was supported in that, holding constant other variables, children from single-mother homes had higher attainments than those from alternative father-headed households. The evolutionary perspective also predicts that a stepparent will be of no advantage to children (stepparents have no real incentive to invest in stepchildren since stepchildren contribute

[16] While the marital conflict model is not supported by our data, further testing is required. Assume that in the earlier period only the most conflicted marriages ended in divorce, whereas in the later period families that are unhappy but less so also divorce. It is possible, e.g., that in the earlier period the pool of respondents from alternative families was made up of a large proportion that experienced parental death and a small proportion that experienced "severe" divorce of parents. In the later period, the pool from alternative families may have been composed of a small proportion that experienced parental death and a large proportion that experienced less severe parental divorce. Divorce may become less severe also as it becomes more institutionalized (Cherlin 1978; Wolfinger 1998). These may be offsetting effects resulting in no change in the effect of family structure over time.

nothing to stepparents' fitness) and may actually represent a negative effect insofar as the stepparent competes with the children for the resources of the biological parent. This prediction was supported insofar as children from single-mother families had higher attainments than those from stepfamilies. Finally, evolutionary theory predicts no change over time in the magnitude of the effect of family structure. Parental investment determines children's outcomes. The experience of the death of a spouse versus divorce would not alter the custodial parents' incentive to invest in the children. Parental investment is a function of a reproductive calculus that is part of an evolved psychology developed during the foraging eons. This prediction of no change over time was also supported.

Do alternative families exhibit a weaker level of intergenerational socioeconomic transmission than two-biological-parent families?

Do alternative families reduce children's ability to translate educational achievement into occupational success?

The finding observed in OCG II—that the effect of origin SEI on destination SEI is weaker among children from alternative families (Biblarz and Raftery 1993)—was confirmed here using data that were both older and more recent, and that included both men and women. This supports the proposition that alternative family forms may produce a general weakening in the intergenerational transmission of socioeconomic position. The particularly interesting aspect of the finding in the present case is that family structure may be more important for children coming out of the higher than the lower end of the socioeconomic spectrum. Loosely, among children from blue-collar families, there are almost no differences in average socioeconomic attainment depending on whether one was raised in a two-parent family, a single-parent family, and so on. But there are noticeable differences in attainment by family type among children from middle and upper-middle class origins. There has been some suggestion in media and policy debates that family structure probably will not matter much for children coming out of high-resource, female-headed families. Our results suggest the opposite: it may be at the high end where family structure does matter.

In a similar way, we found that children from alternative families get less occupational return to higher education. While we have no direct measure, our speculation is that the sort of "favoritism in hiring and special favors" given to families to help them launch their children, of the sort detected by Hout (1989, p. 322) in the case of Ireland, may be more accessible to two-parent families than to alternative families. Interestingly, both of these interaction effects, one involving intergenerational transmission and the other involving intragenerational attainment over the life course, expose consequences of family structure for children that would be hidden in a more typical "direct" effects approach.

APPENDIX

TABLE A1

UNSTANDARDIZED BETAS FROM REGRESSION OF YEARS OF SCHOOL ON SELECTED DIMENSIONS OF FAMILY BACKGROUND: U.S.-BORN RESPONDENTS AGES 25–64, FROM NONFARM ORIGINS

Independent Variable	1	2	3	4	5
1962 OCG I (N = 11,697):					
Childhood family structure:					
Two-biological-parent (reference)	. . .	. . .	. . .	. . .	. . .
Alternative mother-headed	−.89***	−.15	−.04	−.25	−.45***
Alternative father-headed	−.96***	−.92***	−.75***	−.73***	−.69***
Alternative stepfather-headed	−.75**	−.56	−.38	−.37	−.51
Race (African-American = 1)	−2.30***	−2.04***	−1.20***	−1.12***	−1.02***
Socioeconomic origins:					
Family head was not employed		−1.72***	−1.73***	−1.26***	−1.11***
Family head's occupational SEI			.06***	.04***	.04***
Family head's education				.59***	.51***
Family head's education not reported				−1.40***	−1.27***
Number of siblings					−.26***
Intercept	11.66***	11.73***	9.74***	9.40***	10.69***
R^2	.0457	.0644	.1952	.2458	.2851
BIC	−510	−732	−2,484	−3,225	−3,841

1973 OCG II (N = 19,283):					
Childhood family structure:					
Two-biological-parent (reference)	...	...	...	...	...
Alternative mother-headed	−.80***	−.54***	−.25*	−.31***	−.44***
Alternative father-headed	−1.27***	−1.22***	−.96***	−.87***	−.80***
Alternative stepfather-headed	−1.06***	−.99***	−.90***	−.86***	−.87***
Race (African-American = 1)	−1.37***	−1.36***	−.59***	−.60***	−.39***
Socioeconomic origins:					
Family head was not employed		−1.12***	−1.12***	−.80***	−.61***
Family head's occupational SEI			.05***	.03***	.03***
Family head's education				.53***	.45***
Family head's education not reported				−1.45***	−1.33***
Number of siblings					−.25***
Intercept	12.55	12.60	10.88	10.50	11.64
R^2	.0319	.0409	.1697	.2223	.2649
BIC	−586	−756	−3,527	−4,769	−5,846
1986–88 SIPPs (N = 34,825):					
Childhood family structure:					
Two-biological-parent (reference)	...	...	...	...	...
Alternative mother-headed	−.47***	−.26***	.12	−.26***	−.24***
Alternative father-headed	−.59***	−.56***	−.52***	−.42***	−.36***
Alternative stepfather-headed	−.68***	−.64***	−.54***	−.47***	−.45***
Race (African-American = 1)	−1.09***	−1.06***	−.62***	−.38***	−.15
Gender (female = 1)	−.21***	−.21***	−.22***	−.24***	−.23***
African-American × female	.54***	.54***	.56***	.50***	.49***
Socioeconomic origins:					
Family head was not employed		−.73***	−.77***	−.07	−.26***
Family head's occupational SEI			.07***	.03***	.03***

TABLE A1 (*Continued*)

Independent Variable	1	2	3	4	5
Family head's education				.50***	.45***
Family head's education not reported				−1.20***	−1.17***
Number of siblings					−.18***
Intercept	13.23	13.28	10.90	10.53	11.34
R^2	.0227	.0304	.1342	.2007	.2308
BIC	−737	−1,002	−4,935	−7,697	−9,023
1992–94 NSFH2 (N = 6,536):					
Childhood family structure:					
Two-biological-parent (reference)	. . .	. . .	. . .	. . .	. . .
Alternative mother-headed	−.49***	−.42***	−.11	−.39***	−.42***
Alternative father-headed	−.70***	−.68***	−.68***	−.60***	−.41*
Alternative stepfather-headed	−.79***	−.74***	−.65***	−.57***	−.57***
Race (African-American = 1)	−1.40***	−1.36***	−.96***	−.62***	−.45**
Gender (female = 1)	−.35***	−.35***	−.36***	−.30***	−.29***
African-American × female	.84***	.85***	.88***	.84***	.88***
Socioeconomic origins:					
Family head was not employed		−.62***	−.66***	−.26***	−.20
Family head's occupational SEI			.06***	.03***	.03***
Family head's education				.38***	.34***
Family head's education not reported				−1.18***	−1.10***
Number of siblings					−.13***
Intercept	13.66	13.70	11.52	10.94	11.53
R^2	.0418	.0472	.1540	.2402	.2602
BIC	−226	−255	−1,023	−1,708	−1,873

* $|t| \geq \sqrt{\ln N + 2}$.
** $|t| \geq \sqrt{\ln N + 6}$.
*** $|t| \geq \sqrt{\ln N + 10}$.

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