Recent Trends in the Inheritance of Poverty and Family Structure

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Abstract

This study investigates trends in the interdependence of poverty and family structure from one generation to the next, focusing specifically on mothers and daughters. This aspect of the mobility process has not been explored, despite widespread concern about the life chances of children in poor single-parent families and dramatic changes in the distributions of poverty and family structure in recent decades. We examine origin-by-destination status along the two dimensions of poverty and family structure, using rich panel data and loglinear models to parse out the associations between poverty and family structure within and across generations. Our results show that the intergenerational associations between poverty and family structure are strong, but operate through largely independent pathways. Net of the correlation between poverty and family structure within a generation, the intergenerational transmission of poverty is significantly stronger than the intergenerational transmission of family structure, and neither childhood poverty nor family structure affects the other in adulthood. Finally, despite important changes in the distributions of poverty and family structure, we find no evidence of change in the processes of intergenerational inheritance over time.

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1. Introduction

Intergenerational social mobility is a key feature of inequalities in socioeconomic opportunities and rewards. Sociological studies of mobility trends, which focus mainly on occupational mobility, tend to emphasize the mobility opportunities of individuals as they relate to labor market opportunities and rewards. Yet social science and recent social trends point to the interdependence of socioeconomic well-being and the organization of families. Socioeconomic resources are distributed through families in a complex way and socioeconomic inequalities bear upon all persons, whether involved in the labor market or not. In the United States, family structure has become an important stratifying variable. Over a quarter of all children now live with a single parent, up from 12 percent in 1970 (US Census Bureau, 2003a). About half of all children spend some time apart from their mother or father by age eighteen (Bumpass and Lu, 2000). Single-parent families have higher poverty rates than two-parent families and are more than twice as likely to experience long spells of poverty (US Census Bureau, 1998). The dynamics of poverty and family are intimately interwoven: poor economic prospects reduce the chances of marriage and increase those of divorce (Oppenheimer et al., 1997; Raley and Bumpass, 2003; Sweeney, 2002); likewise, nonmarital childbearing and divorce are important in precipitating spells of poverty (Bane and Ellwood, 1986). Although the direction of causality is difficult to determine, it is clear that increases in single parenthood are linked to increases in poverty (Bane, 1986; Thomas and Sawhill, 2002).

The growing share of children in poor single-parent families has generated concern in policy and academic circles. This concern stems not only from the potential hardships children face growing up, but also from the long-term implications of poverty and single parenthood for their success later in life. Children who grow up poor or spend time in a single-parent family are more likely to experience poverty and single parenthood as adults. Prior research demonstrates the intergenerational associations between poverty and family structure, but generally focuses on either poverty or family structure effects without fully accounting for the interdependence of the two. Understanding how poverty and family structure are transmitted from one generation to the next requires a careful accounting of the correlation between poverty and family structure within a generation, as well as the potential interactions between poverty and family structure across generations. Estimating the direct intergenerational effects of poverty and family structure is critical for mapping the processes through which poverty and single parenthood matter for children—and for designing policies to best address the needs of families.

We investigate the interdependence of poverty and family structure from one generation to the next and how it has changed over time, focusing specifically on mothers and daughters. The joint inheritance of poverty and family structure has not been

explored, despite widespread concern about the life chances of children in poor single-parent families and dramatic changes in the distributions of poverty and family structure in recent decades. Our study contributes to three related fields of research: research on social mobility, poverty effects, and family structure effects. Following the approach used in social mobility research, we estimate models of cohort trends in the associations between social origins and destinations. We explore the interactions between poverty and family structure in both the mother and daughter generations, treating the relationships between poverty and family structure as matter of empirical investigation. Unlike most social mobility research, we focus on women and rely on family-level characteristics to gauge socioeconomic status, explicitly recognizing the significance of marriage and children in women's economic wellbeing.

2. Conceptual and methodological framework

A long tradition of research on social mobility in sociology and economics (e.g., Grusky, 2001; Haveman and Wolfe, 1995) provides a conceptual framework for thinking about how parents affect children's attainments and how the transmission of parent characteristics might change over time. It is a framework that combines insights from human capital and socialization/role modeling theory, positing that parents affect children through endowments and investments. Endowments include genetic characteristics such as ability, personality, and physical traits; they may also include cultural or social capital such as tastes, values, family connections, and other social ties. Investments include the money parents spend on children's health, care, education, and neighborhoods, as well as the time and effort parents spend on supervision, support, and expectations. High-income parents presumably have greater endowments to pass on to their children, as well as more time and money to invest in traits that are rewarded on the job market. The cultural, social, and human capital parents pass on or develop in their children is also rewarded on the marriage market (e.g., Harding et al., 2005). Within this framework, the degree of inheritability of endowments and investments may depend on family characteristics (Peters, 1992). For example, children from single-parent families may have less access to family connections than children from two-parent families; blacks may get a lower rate of return on family connections than whites.

In studying social mobility, sociologists have tended to focus on occupation-based measures of socioeconomic status (Blau and Duncan, 1967; DiPrete and Grusky, 1990; Featherman and Hauser, 1978; Grusky and DiPrete, 1990; Hauser et al., 2000; Hout, 1984, 1988), since occupations can be reported retrospectively and by proxy much more reliably than income. Economists have largely focused on the intergenerational inheritance of labor income, such as annual earnings and hourly wages. Early estimates of father–son earnings correlations were around .2, about half that of correlations in occupational status (Becker and Tomes, 1986). More recent estimates, using corrections for transitory variance in fathers' earnings, show father–son earnings correlations of .4 and higher, closer to correlations in occupational status (Mazumder, 2001; Solon, 1992; Zimmerman, 1992).
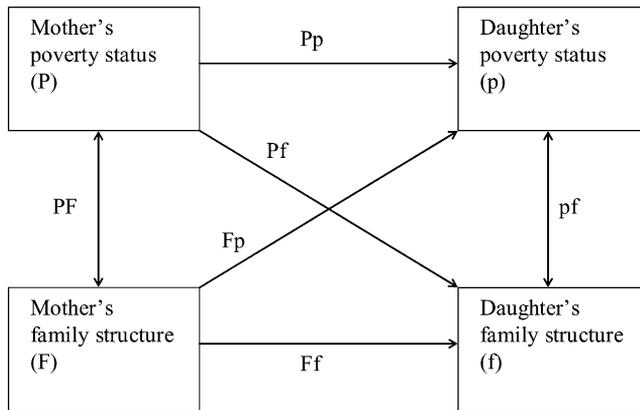
Fig. 1. Simple model of the joint intergenerational inheritance of poverty and family structure.

Women's economic mobility has been relatively under-studied. Even existing work focuses on individual-level outcomes closely tied to labor market success (but see Harding et al., 2005; Peters, 1992). Among women, persistence in parent–child occupational status and earnings is much lower than persistence in income (Hauser et al., 2000, Table 3; Peters, 1992, Table 3). Economic wellbeing—particularly that of women—is created not just by jobs and earnings, but by decisions about whether to marry, have children, and stay married.[1] Harding et al. find that the correlation between women's earnings and family income has increased over time, but is still only .4; men's has decreased, but is still nearly twice that. The focus on occupations and earnings fails to capture the intimate relationship between socioeconomic status and the family. With high levels of divorce and rising rates of nonmarital childbearing, it is increasingly important to blend our understanding of social mobility with family structure and change (DiPrete, 2002; Mare, 2001; Winship, 1992).

In this paper, we examine the joint transmission of poverty and family structure from one generation to the next. Fig. 1 shows a simplified diagram of our model. The direct intergenerational effects of poverty and family structure (Pp, Pf, Ff, Fp) are a product of parental endowments and investments that link family background to life chances though genetic, cultural, and social advantages, educational achievement, skills, and aspirations. These are net of the within-generation association between poverty and family structure (PF, pf).[2] As suggested above, the degree of inheritabil-

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[1] Wives are more dependent on their husbands' earnings in marriage, and are more likely to retain custody of their children after separation. Child support payments from nonresidential fathers in no way make up for lost contributions to household income (Duncan and Hoffman, 1985; Peterson and Zill, 1986); most never-married mothers receive no formal child support at all (Bianchi, 1995, 1999; Seltzer, 1991).

[2] The arrows that connect poverty and family structure within a generation are two-headed, implying that poverty may lead to single parenthood and single parenthood may lead to poverty, as well as the possibility that poverty and family structure are jointly dependent on other factors. Thus childhood poverty and family structure may have both direct and indirect effects on adult outcomes. While we do not focus on indirect effects in our empirical analysis, we will return to them in our discussion of results.

ity of parent characteristics may not be the same for all groups; we examine whether the paths from mother's poverty are different for single-parent and two-parent families and, likewise, whether the paths from mother's family structure are different for poor and nonpoor families. Finally, we test whether these paths have changed across cohorts. In the following sections, we review the empirical research on poverty and family structure effects and trends in these effects. Based on the available evidence, we summarize what we expect to see in our data and proceed to our analysis.

3. Poverty and family structure effects

The empirical research on poverty and family structure effects can be understood within the social mobility framework outlined above, although the poverty literature places more emphasis on the financial resources parents have to invest in children, and the single-parent literature focuses more on socialization and role modeling.[3] Childhood poverty and family structure are associated with both poverty and family formation later in life. Children who are poor in one generation are disproportionately poor in the next (Corcoran, 2001; Corcoran and Adams, 1997; Duncan et al., 1998); girls who grow up poor are more likely to start their families early and to start them outside of marriage (Wu, 1996). Likewise, children who spend time with a single parent have higher poverty rates and lower levels of occupational and educational attainment than children from two-parent families (Astone and McLanahan, 1991; Biblarz and Raftery, 1993, 1999; McLanahan, 1985; McLanahan and Sandefur, 1994; Sandefur et al., 1992; Wojtkiewicz, 1993); girls from single-parent families are more likely to become single mothers later in life (McLanahan, 1988; McLanahan and Bumpass, 1988; McLanahan and Sandefur, 1994; Wu, 1996; Wu and Martinson, 1993). The intergenerational associations between childhood poverty and family structure weaken when account is taken of the socioeconomically disadvantaged position of single-parent families, but remain nonetheless. For example, half the single-parent effect on high school graduation and early childbearing can be explained by the low income of single mothers (McLanahan and Sandefur, 1994).

In the terms of Fig. 1, there is evidence of all four intergenerational paths (Pp, Pf, Ff, Fp), net of the within-generation correlation of poverty and family structure (PF). But the close connection between mother's poverty and family structure makes it difficult to identify their independent intergenerational effects. If either childhood poverty or family structure is measured with error, the intergenerational paths linking

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[3] Poverty affects the resources parents have to invest in children's health and nutrition, home environments, neighborhoods, childcare, and schools; it is also associated with stress and other (often unmeasured) parent characteristics such as health problems, drug problems, talents, and motivations (Guo and Harris, 2000; Mayer, 1997). Multiple pathways link family structure to children's life chances: economic deprivation (Bianchi, 1995; Duncan and Rodgers, 1991; Eggebeen and Lichter, 1991), residential instability (McLanahan and Sandefur, 1994), changes in family circumstances (Martinson and Wu, 1992), parenting behaviors (Astone and McLanahan, 1991; Thomson et al., 1992), and attitudes about sexual activity and childbearing outside of marriage (Axinn and Thornton, 1996; Thornton and Camburn, 1987).

them to adult outcomes may be biased. Complicating this estimation is the scarcity of good prospective data, particularly on family income. Many studies rely on single-year measures of income, which may poorly approximate economic wellbeing over childhood; others rely on education and occupation as proxies for income, which, despite being more stable, may not adequately reflect household-level resources (Duncan et al., 1998; Wolfe et al., 1996). Measurement error may overstate the intergenerational effects of poverty and family structure; in particular, since family income is likely to be measured with more error than family structure, prior work may overstate the contribution of family structure relative to poverty. To the extent the effects of poverty and family structure can be separated, the long-term consequences of poverty seem to be stronger for children's attainment-related outcomes, and family structure effects seem to be stronger for health- and behavior-related outcomes (Duncan and Brooks-Gunn, 1997; McLanahan, 1997). This generalization, drawn from a linked set of studies examining a variety of outcomes beyond poverty and family structure, suggests that the direct transmission of poverty should be stronger than the association between childhood poverty and adult family structure ($Pp > Pf$), and the direct transmission of family structure should be stronger than the association between childhood family structure and adult poverty ($Ff > Fp$).

4. Interactions

While considerable effort has gone into untangling the effects of socioeconomic status and family structure, relatively little has gone into estimating interactions between the two.[4] Results with respect to differences in the intergenerational transmission of occupation and earnings by family structure are mixed—and might not hold at the bottom of the socioeconomic distribution. There is no empirical work, to our knowledge, on interactions between poverty and single parenthood, although they are often implicit in academic and policy discussions. Discussions of the underclass, in particular, tie poverty to single parenthood and suggest that the combination has consequences beyond their simple additive effects. The double disadvantage of poverty and single parenthood may leave families with fewer resources to deal with any form of adversity, pushing them over a threshold that strengthens the persistence of

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[4] Biblarz and colleagues (Biblarz and Raftery, 1993, 1999; Biblarz et al., 1997) find that occupational transmission is weaker for single-parent than two-parent families. They argue that family disruption weakens the "social-psychological dimensions of parent/child relations that facilitate family transmission" (1999, p. 332) and thus diminishes the ability of single-parent families to pass on advantages to their children. As the authors acknowledge (1993, p. 107), their results may be in part a function of the interaction between family structure and household head for whom origin occupation is measured. In two-parent households, the father is the household head, but in single-parent households, the head may be the mother, a stepfather, or some other family member. Peters (1992), also relying on the household head for origin earnings, finds no difference in the intergenerational transmission of earnings between single-parent and two-parent families (nor does she find a difference in the intergenerational transmission of family income). Fertig (2003a) explicitly examines the interaction between family structure and sex of parent. She finds that with each additional year in a single-parent or stepparent family, the father–child inheritance of earnings becomes weaker and the mother–child inheritance of earnings becomes stronger.

poverty (Jencks, 1991). An alternative perspective emphasizes poor single mothers' reliance on welfare. This view—which gained considerable political currency in the 1980s—posits that welfare dependency erodes norms of work and marriage and traps future generations in poverty (Mead, 1986; Murray, 1984).

5. Trends in inheritance

There is no published research (to our knowledge) on trends in the intergenerational persistence of poverty. Research on trends in the inheritance of occupations, earnings, and income shed some light on the problem. Sociological research shows sustained—but slowing—declines in intergenerational occupational persistence since the 1960s (Biblarz and Raftery, 1999; DiPrete and Grusky, 1990; Featherman and Hauser, 1978; Grusky and DiPrete, 1990; Hout, 1988; but see Rytina, 2000). Research in economics also reports declines in the association between father's and son's earnings (Fertig, 2003b). Results with respect to income are mixed: Corcoran (2001) and Mayer and Lopoo (2001) find declines in the association between parents' income and son's family income and earnings, but Levine and Mazumder (2002) find increases in the association between parents' income and son's earnings. The overall effect of family background appears to have declined in importance between the early 1960s and 1990s, but the intergenerational associations of parental income, occupation, education, and race may not have all moved in the same direction (Biblarz and Raftery, 1999; DiPrete and Grusky, 1990; Harding et al., 2005; Mayer and Lopoo, 2001). In sum, socioeconomic mobility has probably increased since the 1960s, but increases are slowing.

Like point-in-time estimates of mobility, research on trends does not tell us enough about the mobility process of women. The few studies that include women focus largely on occupations and earnings, minimizing the connections between family and social stratification that are key to women's socioeconomic mobility (an exception is Harding et al., 2005). Moreover, overall trends in the inheritance of occupations, earnings, and income may not be representative of associations at particular strata of the income distribution. There is substantial evidence that the inheritance of socioeconomic status is strongest at the bottom of the distribution (Corcoran and Adams, 1997; Duncan et al., 1998; Eide and Showalter, 1999; Fertig, 2003b; Harding et al., 2005; Hertz, 2005; Peters, 1992), and changes in inheritance at the low end of the income distribution may not follow the same pattern as changes at the middle or top. Harding et al. (2005), for example, report no change between the 1970s and 1990s in parent-daughter income inheritance for those raised in the bottom quartile and a decline for those raised in the top.[5]

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[5] Fertig (2003b) finds differential change in father–son wage inheritance over time by wage quintile, but does not find differential change in mother–daughter or father–daughter wage inheritance (indeed, she finds no change over time).

The inheritance of poverty may change over time if the relative investments in rich and poor children change or the returns to parental endowments or investments change (Mayer and Lopoo, 2001). Increases in income inequality may increase the inequality of parental investments in children, strengthening the inheritance of poverty. Similarly, increasing socioeconomic segregation and social isolation of the poor may increase the inequality of community investments in children (Jargowsky, 1997; Wilson, 1987). By contrast, government programs may reduce the investment gap between high- and low-income families. Increases over the 1960s and 1970s in welfare, education, healthcare, and childcare spending should have helped to break the link between poverty and later-life success for children growing up at that time. More recent retrenchments of social programs—particularly the rolling back of welfare over the 1980s and 1990s—may reduce opportunities for poor children, especially those from single-parent families. In terms of changes in the returns to parental endowments or investments, the most obvious has been the increase in the returns to education (e.g., Katz and Autor, 1999; Mare, 1995). Because poor children attain less schooling, increases in returns to schooling may increase the inheritance of poverty. In sum, for children growing up in the 1960s and 1970s, there are offsetting forces on the intergenerational transmission of poverty; for more recent cohorts, however, the forces may be moving towards increasing inheritance.

With respect to family structure effects, trends seem to depend on the source of female headship and the particular outcome of interest. The overall effect of alternative family structures on children's educational and occupational success has not changed over the past 30 years (Biblarz and Raftery, 1999), nor has the intergenerational transmission of divorce (Li and Wu, 2002; Teachman, 2002), but the correlation between family instability and teen premarital childbearing has increased (Gottschalk et al., 1994). Two offsetting factors may alter the effect of family structure over time: the rising incidence and changing composition of single-parent families. With single-parent families becoming more common, they face less stigma and more social support, which may reduce their consequences for children (McLanahan, 1988; Smith and Cutright, 1988). At the same time, single-parent families are increasingly formed through nonmarital childbearing as opposed to divorce (Bianchi, 1995, 1999; Bumpass and Raley, 1995). Never-married mothers fare worse socioeconomically and may be more isolated from mainstream institutions, thereby increasing the inheritance of family structure.

6. Research questions

With over a quarter of all children living in single-parent families and forty percent of these children poor (US Census Bureau, 2002a, 2003a), understanding the long-term implications of poverty and family structure is a critical undertaking. Our research addresses three questions:

(1) What are the intergenerational relationships between poverty and family structure? On the basis of prior research, we expect net associations of

both childhood poverty and family structure on later-life poverty and family structure. But the direct transmission of poverty and family structure should be stronger than the ''cross'' effects (i.e., the effect of poverty on family structure or family structure on poverty). We suspect that measurement error in prior studies has resulted in overestimates of the cross effects of childhood poverty and family structure, as well as overestimates of the effects of family structure relative to poverty. We use loglinear models and rich panel data with multiple observations on childhood income and living arrangements to parse out patterns of association within and across generations. Good estimates of the intergenerational effects of poverty and family structure, net of their within-generation correlation, are important for understanding the mechanisms linking poverty and family structure from one generation to the next and for thinking about policies to address persistent inequality.

(2) Is the combination of poverty and single parenthood especially harmful for children? There is little evidence with respect to the interaction of poverty and family structure, but policy and academic discussions suggest that the combination of poverty and family structure may have consequences for the next generation beyond their additive effects.

(3) Has the intergenerational persistence of poverty and family structure changed over time? We investigate change over two cohorts: one growing up in the 1960s and reaching mid-adulthood in the 1980s; the other growing up in the 1970s and reaching mid-adulthood in the 1990s. These cohorts grew up under very different family regimes. For them, factors affecting the transmission of poverty and family structure may have offsetting effects on trends in intergenerational inheritance.

7. Data and measures

We rely on data from the National Longitudinal Surveys to examine the transmission of poverty and family structure from mothers to daughters (NLS, US Bureau of Labor Statistics, 2002). We use data from the NLS Young Women (NLSYW) and the NLS Youth (NLSY). The NLSYW is a nationally representative sample of over 5000 14–24-year-olds first interviewed in 1968. The NLSY provides nationally representative data on a more recent cohort of about 6300 women ages 14–21 in 1979. We follow mothers and daughters in each of these cohorts over an approximately 20-year period, until sample members are in their late thirties. The NLS started as a national probability sample, representing all people of a particular cohort living in the United States at the initial survey date. NLS response rates have been relatively high: in the last survey years used here, retention rates were 68 and 81 percent for the NLSYW and NLSY, respectively. Sample weights adjust for known characteristics of nonrespondents and are applied in all analyses, and thus offset potential effects of cumulative attrition on the representativeness of the survey.

Our sample is restricted to women who are in their teens and living with their mother at first interview, who remain in the survey over 20 years, and who have a child by the time we last observe them. This includes 1157 women from the NLSYW (cohort one) and 1552 from the NLSY (cohort two), for a total of 2709 (see Appendix A for more detail). Cohort one daughters are ages 14–18 when first interviewed in 1968 and 34–38 when last observed in 1988, and cohort two daughters are ages 14–18 when first interviewed in 1979 and 35–39 when last interviewed in 2000. We restrict the sample to ages 18 and under at first interview so that we can record characteristics of daughters' families while they are still in the parental home.[6] We keep only families in which a mother is present (this may be a social mother, i.e., a stepmother) so that we can examine patterns of mother–daughter inheritance. Finally, because this research is centrally driven by questions about the consequences of family structure for child wellbeing, we limit our analysis to women with children. Approximately 20 percent of our sample of 34- to 39-year-olds was childless, compared with estimates of childlessness from the June Current Population Survey of 15 percent among 40- to 44-year-olds in 1988 and 19 percent in 2000 (US Census Bureau, 2003b). This suggests that our study underrepresents delayed childbearing to only a small degree, i.e., few of the childless women excluded from our sample go on to have children.

We measure poverty and family structure at two points during respondents' lives: in their teens and middle adulthood. The first point provides information about respondents' families of origin and the second tells us about the families they formed later in life. We construct a mother–daughter sample, with time one representing the mother generation and time two representing the daughter generation. Mothers and daughters are on average 45 and 37 years old, respectively, when we last observe their income and family structure. At these ages, transitory variance in income is relatively low (Mazumder, 2001), and most women have formed their own families. Nonetheless, the difference in mothers' and daughters' ages at the time of observation may attenuate the intergenerational association of poverty and family structure. Being older, mothers are at a stage in life when incomes tend to be higher; in addition, they have more exposure to marriage, divorce, and remarriage. More generally, constructing comparable measures of poverty and family structure for both generations requires us to use an incomplete summary of women's income and family experiences. Our measures do not fully capture flows into and out of poverty and single parenthood.

Poverty is measured by comparing total family income to the official weighted poverty thresholds adjusted for family size (US Census Bureau, 2002b).[7] In the NLSYW,

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[6] We exclude 8 percent of all 14–18-year-olds who are no longer in the parental home at the time of the first interview. Those living away from home are more likely to be married and to have a child by the year following the first interview. They are also more likely to have a nonmarital birth within this period: 13 percent of homeleavers versus 6 percent of others. Although this difference represents a strong association, the numbers are small enough not to affect our results.

[7] The official poverty thresholds are an absolute standard intended to represent what a family needs to get by (Citro and Michael, 1995). The official thresholds are differentiated by family size and age composition; the weighed thresholds are differentiated by family size only. In 2002, the weighted threshold for a family of four was $18,392 (US Census Bureau, 2003c).

the young women report on income for both generations—their parents and themselves.[8] In the NLSY, all income is self-reported, by the parents when the girls are in their teens and by the women themselves later in life. For each generation, we average three survey years of data and compare this estimate to the average poverty threshold. Taking an average over three years gives us a measure of wellbeing that better reflects the permanent component of income (Mayer, 1997; Solon, 1992; Zimmerman, 1992). It provides a better estimate of household-level resources than is typical in much of the family background effects literature.

We define family structure according to whether there is a single mother or two married parents in the household, excluding all families with no mother present. As with poverty, we use three years of survey data to distinguish single-parent from two-parent families, according to whichever is the most common status over three years. We use household rosters and respondents' marital status reports to generate these measures in daughters' teen and middle-adult years, corresponding to mothers' and daughters' family experiences. This approach has several advantages: it assesses poverty and family structure over the same years; provides more stable estimates than do single-year snapshots; and gives all sample members an equal chance of single parenthood, regardless of when they married or had their first child. This approach, however, does not differentiate between stepfamilies and biological married-parent families, nor does it differentiate between divorced and never-married mothers.[9,10] There appears to be little difference in the effects of growing up with a divorced mother, never-married mother, or remarried mother (McLanahan, 1997; McLanahan and Sandefur, 1994; Wojtkiewicz, 1993). Thus combining families formed through divorce and nonmarital childbearing may not have serious implications for estimates of intergenerational effects, but combining biological married-parent and stepparent families may underestimate the intergenerational consequences of single-parent families.

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[8] Mothers' own reports of family income are available only for a subset of the NLSYW daughters who were matched to mothers in the NLS Mature Women sample. To examine the reliability of daughters' reports as proxies for mothers' reports, we regress a 3-year average of the log of mothers' reported income from the NLS Mature Women sample on the analogous measure reported by their daughters in the NLSYW. The resulting coefficient, which we estimate to be .85 ($N = 658$), is the equivalent of the reliability ratio. Levine and Mazumder (2002) estimate a reliability of .93 for sons' income reports as proxies for fathers' reports in the NLS; they find that adjusting for measurement error has little effect on estimates of father–son income elasticity.

[9] We could use marital histories to further differentiate between various kinds of families (e.g., our alternative definition of family structure relies on histories). However, this introduces bias by giving women who marry and have children early—and who tend to be poorer—longer exposure to the risk of divorce and thus single parenthood than women who marry and have children later.

[10] Data limit the extent to which we can account for trajectories of fertility, marriage, and remarriage, and do not allow us to examine cohabitation (Wu et al., 2001). Leaving cohabitation out of the analysis has few implications for the mother generation, for whom cohabitation was rare when we last observed their marital status. Ignoring cohabitation among daughters, for whom it was more common, may lead to overestimates of single parenthood. We expect these overestimates to be small, however, since most cohabitations are short-lived (Bumpass and Lu, 2000), and averaging over survey years (as we do to distinguish single-parent and two-parent families) places more weight on stable family arrangements.

We replicate our analyses to test the sensitivity of our results to an alternative definition of family structure that includes all divorced mothers—whether or not currently married—in the single-parent category. The time one (origin) measure comes from a question about whom the respondent was living with at age 14; an intact family includes both biological parents at age 14, and a nonintact family includes a single mother or mother and stepfather. The time two (destination) measure comes from the comparison of marriage and fertility histories; an intact family is one in which the respondent is married at first birth and still married at last interview, and a nonintact family includes those who had their first child outside of marriage or divorced after the birth of their first child (whether or not remarried). Our results are very similar regardless of how we define family structure; thus we focus on our current marital status definition.

Table 1 shows the poverty/family structure distribution of daughters by mother's poverty and family structure, cohort, and race. It gives the origin-by-destination status across four groups cross-classified by poverty status and female headship: not poor two-parent, not poor female-headed, poor two-parent, and poor female-headed. Differences in the marginal distributions of poverty and family structure by race are striking: about 7 percent of white daughters are poor in both cohorts one and two; poverty declines among blacks across cohorts from 27 to 21 percent, but remains much higher than among whites. Race differences in family structure are also large: in cohort one, nearly 85 percent of white daughters are married, as compared to 50 percent among blacks. By cohort two, the proportion married drops to just under 80 percent of whites and 40 percent of blacks. Across cohorts, the major shift in the poverty/family structure distributions is from two-parent families (both poor and nonpoor) to nonpoor single-parent families. This holds for whites and blacks, although changes are more pronounced among blacks.

Table 1 contains the outflow rates from a given poverty/family status in childhood to a given poverty/family status in adulthood.[11] The diagonal cells of the table indicate the degree of persistence in poverty and family structure; if the joint inheritance of poverty and family structure is increasing, data should show an increase across cohorts in the corner cells of the table. Fully 80 percent of white daughters born to nonpoor two-parent families end up in nonpoor two-parent families, regardless of cohort; the share born to poor single-parent families who remain poor single-parent increases from 5 to 10 percent across cohorts. The

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[11] Collapsing the matrices in Table 1 over family structure and cohort shows that of all girls who are poor in childhood, 26 percent are poor in adulthood (20 percent of whites and 32 percent of blacks); of all girls who are not poor in childhood, 6 percent are poor in adulthood (6 percent of whites and 14 percent of blacks). Corcoran (2001, Table 4.1) reports comparable estimates from the Panel Study of Income Dynamics. In her sample, which includes male and female respondents observed at ages 15–17 and 25–27, 24 percent of poor children are poor in adulthood (7 percent of whites and 33 percent of blacks) and 4 percent of nonpoor children are poor in adulthood (3 percent of whites and 15 percent of blacks). Our estimates are similar, given differences in samples and methods.

Table 1
Daughter poverty/family structure distributions, by cohort and race

Mother's poverty and family structure	Daughter's poverty and family structure				Total	Mother marginals	Number of cases
	Not poor		Poor				
	Two-parent	Female-headed	Two-parent	Female-headed			
Cohort 1 (NLSYW)							
Whites							
Not poor two-parent	81.0	13.0	2.5	3.5	100	84.8	699
Not poor female-headed	76.7	16.4	5.3	1.7	100	6.5	54
Poor two-parent	61.9	12.9	15.2	10.1	100	5.6	46
Poor female-headed	79.0	15.9	0.0	5.1	100	3.1	26
Daughter marginals	79.6	13.3	3.3	3.8	100	100	825
Blacks							
Not poor two-parent	61.7	29.9	1.0	7.5	100	26.3	87
Not poor female-headed	26.2	56.5	0.0	17.3	100	10.3	34
Poor two-parent	54.1	16.1	8.3	21.6	100	34.9	116
Poor female-headed	27.2	26.8	6.5	39.5	100	28.5	95
Daughter marginals	45.6	26.9	5.0	22.5	100	100	332
Cohort 2 (NLSY)							
Whites							
Not poor two-parent	80.1	14.6	1.7	3.7	100	79.4	836
Not poor female-headed	70.6	23.4	1.7	4.3	100	12.1	127
Poor two-parent	53.2	21.7	9.6	15.5	100	4.9	51
Poor female-headed	72.4	12.7	4.9	10.1	100	3.7	39
Daughter marginals	77.4	15.9	2.2	4.6	100	100	1053
Blacks							
Not poor two-parent	47.9	38.4	2.1	11.7	100	36.1	180
Not poor female-headed	37.9	47.2	2.1	12.7	100	16.8	84
Poor two-parent	25.3	50.5	1.0	23.3	100	14.6	73
Poor female-headed	25.2	44.9	2.0	28.0	100	32.5	162
Daughter marginals	35.5	43.8	1.9	18.8	100	100	499

Note. Proportions and *N*'s are weighted.
Source. Data from the NLSYW (*R*'s ages 14–18 in 1968) and the NLSY (*R*'s ages 14–18 in 1979).

picture is quite different among blacks: the share born to nonpoor two-parent families who remain nonpoor two-parent drops from 62 to 48 percent; the share born to poor single-parent families who end up poor single-parent drops from 40 to 28 percent. The data suggest a slight absolute increase in the joint inheritance of poverty and single parenthood among whites and a more substantial decline among blacks. However, because the outflow rates are influenced by the tables' marginals, it is difficult to assess the strength of inheritance (or to make comparisons by cohort or race) based on the raw percentages alone. Loglinear models estimate the associations between poverty and family structure free of the marginal distributions of poverty and family structure and changes in these distributions over time.

8. Loglinear models of inheritance

We use loglinear models to systematically test patterns of association between poverty and family structure and change in these patterns over time. These models distinguish intergenerational associations from structural change, namely increases in the prevalence of single-parent families. Key to our analysis, they allow us to model the interdependence of poverty and family structure. While most investigations of the effects of poverty and family structure on children's life chances control for poverty and family structure on the right-hand-side of the equation, none to our knowledge disentangle the joint *outcomes* of poverty and family structure.[12] We estimate models on a six-way table of mother's poverty status i, by mother's family structure j, by daughter's poverty status k, by daughter's family structure l, by cohort m, and by race n. Differences between whites and blacks in rates of poverty and single parenthood are vast, as seen in Table 1; including race in the model, we avoid confounding race differences in the distributions of poverty and family structure with intergenerational associations between poverty and family structure. The model can be written

$$\log(\mathrm{freq}_{ijklmn}) = G(P, F, p, f, r, c).$$

The cell frequency freq_{ijklmn} is the expected number of daughters who move from poverty status i and family structure j in childhood to poverty status k and family structure l in adulthood, of cohort m and race n. The expected cell frequency is a function of the main effects of mother's poverty (P), mother's family struc-

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[12] Loglinear models provide a flexible framework for examining the joint inheritance of poverty and family structure across generations. While a multinomial logistic approach can also be used to examine multiple origin and destination states, it is a more cumbersome approach for assessing which aspects of interdependence are important. Loglinear models allow us to explore patterns of association in both families of origin and destination without imposing structure on how the states are related.

ture (F), daughter's poverty (P), daughter's family structure (f), cohort (c), and race (r), and selected interactions between these terms. Our baseline model conditions on all main effects, the joint distributions of mother's and daughter's poverty and family structure, change in these distributions across cohorts, and differences by race (i.e., it is saturated on all but the intergenerational associations of interest). Interactions between the marginal distributions of poverty and family structure and cohort (Pc, Fc, pc, fc) describe how the distributions of poverty and family structure change across cohorts, and interactions between the marginals and race describe how they vary by race (Pr, Fr, pr, fr). Interactions between mother's poverty and family structure (PF) and daughter's poverty and family structure (pf) describe the association between poverty and family structure within a generation, i.e., the likelihood of poverty among mothers and daughters, given single parenthood. Interactions of these and cohort (PFc, pfc) measure how the association between poverty and single parenthood changes across cohorts; interactions between these and race (PFr, pfr) measure how it varies by race. Four-way interactions ($PFcr$, $pfcr$) correspond to the possibility that the association between poverty and family structure changes differentially by race over time.

From this baseline, we test a series of hierarchical models, including intergenerational associations: two-way mother–daughter parameters describe the intergenerational transmission of poverty (Pp), the intergenerational transmission of family structure (Ff), the association between mother's poverty and daughter's family structure (Pf), and the association between mother's family structure and daughter's poverty (Fp). Interactions between these and cohort (Ppc, Ffc, Pfc, Fpc) describe change in intergenerational associations across cohorts; interactions between these and race (Ppr, Ffr, Pfr, Fpr) describe differences between whites and blacks in intergenerational inheritance. We add three- and four-way interactions to test the joint inheritance of poverty and family structure. Interacting mother's joint poverty and family structure with daughter's poverty (PFp) and with daughter's family structure (PFf) indicates whether the combination of poverty and family structure in childhood has consequences beyond their additive effects. Similarly, interacting daughter's joint poverty and family structure with mother's poverty (Ppf) and with mother's family structure (Fpf) indicates whether the association between mother's characteristics and daughter's poverty varies by daughter's family structure. Finally, the four-way interaction between mother's and daughter's joint poverty and family structure corresponds to the possibility that the combination of poverty and family structure in childhood is associated with this joint status in adulthood ($PFpf$).

9. Results

Table 2 presents fit statistics for selected models. We use the BIC statistic as the criterion for model selection; the lower the BIC, the better the model

Table 2
Goodness-of-fit statistics for selected loglinear models of the inheritance of poverty and family structure

Models	L2	df	P value	BIC
M1. Baseline	112.0	36	0.00	−172.6
M2. Baseline + *Pp* + *Ff*	43.0	34	0.14	−225.8
M3. Baseline + *Pp* + *Ff* + *Pf* + *Fp*	41.6	32	0.12	−211.4
M4. Baseline + *Pp* + *Ff* + *Pf* + *Fp* + *PFp* + *PFf* + *Ppf* + *Fpf*	37.8	28	0.10	−183.5
M5. Baseline + *Pp* + *Ff* + *Pf* + *Fp* + *PFp* + *PFf* + *Ppf* + *Fpf* + *PFpf*	33.0	27	0.20	−180.4
M6. Baseline + *Pp* + *Ff* + *Ppc* + *Ffc*	42.7	32	0.10	−210.3
M7. Baseline + *Pp* + *Ff* + *Ppr* + *Ffr*	39.1	32	0.18	−213.9

Note. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; and r, race.
Source. Data from the NLSYW (R's ages 14–18 in 1968) and the NLSY (R's ages 14–18 in 1979).

fit.[13] Model 1 is the baseline model; it includes the joint distributions of poverty and family structure and allows these joint distributions to vary across cohort and race, but it excludes all intergenerational associations. Model 2, our best-fitting model, includes only two additional terms: the intergenerational transmission of poverty and the intergenerational transmission of family structure. This parsimonious model captures the main features of the data better than any of the more complicated models. Noteworthy is what our best-fitting model does not include: (1) interactions representing cross intergenerational associations, i.e., the association between mother's poverty and daughter's family structure and that between mother's family structure and daughter's poverty; (2) interactions between the intergenerational transmission of poverty and family structure and cohort; and (3) interactions between the joint statuses of poverty and family structure from one generation to the next.

The table summarizes the steps we followed in selecting a best-fitting model. We test Models 1–5 hierarchically: from the baseline, Model 2 (BIC = −226) adds direct intergenerational associations, Model 3 (BIC = −211) includes cross intergenerational associations, Model 4 (BIC = −183) adds all three-way interactions between poverty and family structure, and Model 5 (BIC = −180) adds the full four-way interaction between mother's and daughter's joint poverty and family structure. Apart from the direct intergenerational associations, none of the additional two- or higher-way interactions improve model fit. We test interactions between the direct intergenerational associations and race and cohort in Models 6 and 7. Model 6 (BIC = −210) adds three-way interactions between intergenerational inheritance and cohort; Model 7 (BIC = −214) adds three-way interactions including race. Neither cohort nor race interactions improve model fit. Despite changes in the distributions of poverty and single parenthood across cohorts, there are no changes in the intergenerational processes related to single parent-

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[13] BIC, or Bayesian Information Criterion, is equal to $L^2 - (df) \ln(N)$, where L^2 is the likelihood ratio, df the degrees of freedom, and N the total sample size. BIC tends to favor simpler models more than P values in large data sets (Raftery, 1995). A smaller BIC statistic indicates better fit to the data, and negative statistics indicate models preferred over the saturated model.

hood over time. And despite dramatic differences in levels of poverty and single parenthood by race, we find no differences in intergenerational processes of inheritance by race.

Further support of our preferred model (Model 2) is in Table 3, which shows a summary of parameter estimates for selected models. Parameter estimates of the intergenerational transmission of poverty (Pp) and family structure (Ff) are highly robust to model specification, and the interactions excluded from our preferred model are generally very small in magnitude. Cross effects and three-way interactions are smaller than their standard errors in almost every instance, providing no evidence for even marginally significant parameters excluded from our final specification. The only exception is the model that includes only cross effects (Pf and Fp) and no same status effects (Pp and Ff). In this case, the cross effects are larger and achieve statistical significance. However, when same status effects are added to the model, the

Table 3
Summary of parameter estimates for selected models (baseline parameters not shown)

Model	β	Exp (β)	SE (β)
Best-fitting (df = 34, BIC = −225.8)			
Pp	1.25[***]	3.47	0.17
Ff	0.40[***]	1.50	0.12
Baseline + cross poverty and family structure (df = 34, BIC = −176.1)			
Pf	0.51[***]	1.67	0.13
Fp	0.32[*]	1.37	0.16
Best-fitting + cross poverty and family structure (df = 32, BIC = −211.4)			
Pp	1.25[***]	3.48	0.18
Ff	0.42[***]	1.52	0.13
Pf	0.10	1.11	0.15
Fp	−0.16	0.85	0.18
Best-fitting + three-way poverty and family structure interactions (df = 28, BIC = −183.5)			
Pp	1.65[***]	5.19	0.30
Ff	0.48[***]	1.61	0.16
Pf	0.31	1.36	0.20
Fp	−0.17	0.84	0.40
PFp	−0.13	0.87	0.36
PFf	−0.27	0.76	0.28
Ppf	−0.57	0.56	0.38
Fpf	0.15	1.16	0.40
Best-fitting + interactions with cohort (M6, df = 32, BIC = −210.2)			
Pp	1.28[***]	3.60	0.25
Ff	0.48[**]	1.62	0.20
Ppc	−0.06	0.94	0.33
Ffc	−0.12	0.89	0.25

Notes. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; r, race.
Source. Data from the NLSYW (*R*'s ages 14–18 in 1968) and the NLSY (*R*'s ages 14–18 in 1979).
[*] *P* value < .10 (two-tailed tests).
[**] *P* value < .05.
[***] *P* value < .01.

cross effects are almost completely eliminated. This illustrates the importance of simultaneously examining the intergenerational inheritance of poverty and family structure in order to accurately estimate direct effects.

Table 4 shows the full set of parameter estimates for the preferred model (Model 2). The exponentiated coefficients (exp[B]) can be interpreted as odds ratios. Our key variables are the intergenerational transmission of poverty and family structure. The intergenerational transmission of poverty is over twice as strong as the intergenerational transmission of family structure: the odds of poverty are 3.5 times higher for children who grew up poor (vs. not poor); the odds of single parenthood are 1.5 times higher for children who grew up with one parent (vs. two). A test of difference between the poverty transmission and family structure transmission (in log form) yields a z-statistic of 3.86, which is highly significant ($P < .0001$). Baseline parameter estimates measure the joint distribution of poverty and family structure and variation in these distributions by race and cohort within a generation. They show, for example, that single-parent families are fully seven times more likely to be poor than two-parent families (exp[PF] = 7.1; exp[pf] = 6.6), and that this relationship is invariant between cohorts (PFc and pfc are not statistically significant). The association between poverty and family structure has remained stable, on the one hand, despite improvements in women's earnings; on the other, it has done so despite the increasing share of never-married mothers, who tend to be younger and less educated than their divorced counterparts.

We replicate all analyses based on our alternative definition of single-parent families (refer to the tables in Appendix B). This definition includes all divorced mothers—whether or not currently married—in the single-parent category. In other words, whereas prior analyses counted stepfamilies as two-parent families, this definition counts them as single-parent families. Our best-fitting model is the same regardless of which family definition we apply. The only substantive difference in results is in the size of the estimated intergenerational associations between poverty and family structure. Table 5 compares these estimates. Based on our alternative definition (including stepfamilies in the single-parent category), we get a smaller estimate of the mother-daughter transmission of poverty (odds of 3 vs. 3.5) and a larger estimate of the mother-daughter transmission of family structure (odds of 2 vs. 1.5). Whereas the latter difference is not trivial it is statistically significant at only the .07 level ($z = 1.470$). The larger intergenerational association of family structure is not surprising, given prior evidence that children in stepparent families fare similarly to children in one-parent families. Our first definition of single-parent families blurs these distinctions. Nonetheless, the conclusions differ only slightly by definition. The final models include the same set of parameters, and the transmission of poverty continues to be stronger than the transmission of family structure.

10. Discussion

Poverty and single parenthood are tied together in discussions of the underclass and in perceptions of the public. Whether due to the double disadvantage

Table 4
Parameter estimates of best-fititng model

	β	Exp (β)	SE (β)
Marginal effects			
P	−2.86***	0.06	0.14
F	−2.64***	0.07	0.13
p	−3.34***	0.04	0.18
f	−1.83***	0.16	0.09
r	−3.39***	0.03	0.18
c	0.19***	1.20	0.05
Marginal effects by race and cohort			
Pr	2.86***	17.53	0.25
Fr	1.53***	4.61	0.33
pr	0.27	1.31	0.43
fr	1.15***	3.16	0.22
Pc	−0.07	0.94	0.19
Fc	0.67***	1.95	0.15
pc	−0.40	0.67	0.26
fc	0.18	1.20	0.12
rc	0.28	1.32	0.23
Prc	−1.08***	0.34	0.35
Frc	−0.56	0.57	0.39
prc	−0.13	0.88	0.68
frc	0.52*	1.69	0.28
Intragenerational effects			
PF	1.96***	7.13	0.26
pf	1.90***	6.66	0.26
Intragenerational effects by race and cohort			
PFr	−1.27***	0.28	0.44
pfr	0.12	1.13	0.51
PFc	−0.37	0.69	0.33
pfc	0.41	1.50	0.35
PFrc	1.22**	3.38	0.57
pfrc	−0.38	0.68	0.77
Intergenerational effects			
Pp	1.25	3.47	
Ff	0.40	1.50	
Intercept	6.54	690.20	
Obs	64		
df	34		
L2	42.96		

Notes. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; r, race.
Source. Data from the NLSYW (R's ages 14–18 in 1968) and the NLSY (R's ages 14–18 in 1979).
* P value < .10 (two-tailed tests).
** P value < .05.
*** P value < .01.

Table 5
Comparison of parameter estimates based on alternative family definitions (baseline parameters not shown)

Model	β	Exp (β)	SE (β)
Stepfamilies counted as two-parent (df = 34, BIC = −225.8)			
Pp	1.25***	3.47	0.17
Ff	0.40***	1.50	0.12
Stepfamilies counted as single-parent (df = 34, BIC = −220.5)			
Pp	1.08***	2.95	0.18
Ff	0.77***	2.15	0.11

Notes. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; r, race.
Source. Data from the NLSYW (*R*'s ages 14–18 in 1968) and the NLSY (*R*'s ages 14–18 in 1979).
  * P value < .10 (two-tailed tests).
 ** P value < .05.
*** P value < .01.

of poverty and single parenthood or the higher levels of nonwork and welfare participation among single mothers, the combination of poverty and single parenthood is seen as especially harmful to children. In Jencks' critique of the underclass literature, he states (1991, p. 97): "to understand what is happening to those at the bottom of American society, we need to examine their problems one at a time, asking how each has changed and what has caused the change. Instead of assuming that the problems are closely linked to one another, we need to treat their interrelationships as a matter for empirical investigation. When we do that, the relationships are seldom as strong as our class stereotypes would have led us to expect." Our analysis takes on this challenge: it untangles the associations between poverty and family structure and, indeed, shows that the processes reproducing them from one generation to the next are less closely linked than popular perception suggests. In sum, we find that childhood circumstances are strongly associated with adult outcomes, but that the intergenerational transmission of poverty and family structure operate through largely independent pathways. Net of the association between poverty and family structure within a generation, the intergenerational transmission of poverty is significantly stronger than the intergenerational transmission of family structure, and neither childhood poverty nor family structure affects the other in adulthood. Finally, despite important changes in the distributions of poverty and family structure, we find no evidence of change in the processes of intergenerational inheritance over time.

Based on prior research, we expected to find direct and cross effects of childhood poverty and family structure on adult poverty and family structure. We expected the direct transmission of poverty to be stronger than its effect on family structure, and the direct transmission of family structure to be stronger than its effect on poverty, but we expected to find these cross effects nonetheless. In particular, much past work finds an effect of childhood family structure on socioeconomic attainment, independent of socioeconomic circumstances in childhood. This discrepancy with the general

conclusions of the single-parent effects literature could be due to variation across studies in what outcomes are examined at what stage of the life course, what variables are included as controls, and how well controls for childhood economic resources are measured. Corcoran and Adams (1997), using longitudinal data with prospective reports of family income over multiple childhood years, report that childhood poverty is strongly associated with adult poverty, but family structure has weak and often insignificant effects on economic mobility. Our results echo these, and suggest that inadequate control for family income may lead to the confounding of poverty and family structure effects.

We also hypothesized that measurement error in childhood income would lead to overestimates of the effects of family structure relative to poverty in prior work. Using multiple years of data to derive more stable estimates of family income, we show that the intergenerational transmission of poverty is significantly stronger than the intergenerational transmission of family structure. Children who grow up poor are 3.5 times more likely to be poor as adults; children who grow up with a single mother are 1.5 times more likely to become a single mother. Although the relative magnitude of these associations is not as dramatic when we rely on an alternative definition of single-parent families, poverty continues to exert a stronger effect than family structure on later-life outcomes.

Of course, the total effect of childhood family structure on adult poverty may be stronger than its direct effect: it is possible that childhood family structure affects adult poverty indirectly through childhood poverty; for example, a parent's divorce may lead to poverty that then persists into adulthood. Likewise, it is possible that childhood poverty affects adult family structure indirectly though its effect on childhood family structure. Indeed, these scenarios are likely, as there is evidence that the causal relationships between poverty and family structure run in both directions. While these indirect effects are important, understanding intergenerational transmission net of the socioeconomically disadvantaged position of single-parent families within a generation is critical for deciphering mechanisms and formulating policy. The lack of cross effects and the strength of the intergenerational transmission of poverty relative to family structure means that if we could break the link between poverty and family structure within a generation, we could go a long way towards weakening the persistence of poverty across generations. The odds of poverty are seven times higher for single-parent families than two-parent families. Rates of poverty for single mothers and their children are considerably higher in the US than other industrialized nations, despite the relatively high labor force participation rates and earnings of single mothers in the US (McLanahan and Carlson, 2001). From a list of sixteen wealthy countries, cash transfer programs in the US do the least in reducing poverty rates of children in single-mother families (McLanahan and Carlson, 2001, Table 4). Our results suggest that the best way to reduce the transmission of poverty is to increase the resources of poor families with children. The current emphasis on marriage promotion in welfare initiatives—and the more general tendency to treat the problems of poverty and single parenthood as inseparable—risk diverting

scarce resources from poverty programs with more direct impacts on family income.

We find no change in the processes of inheritance across two cohorts growing up in the 1960s and 1970s and reaching mid-adulthood in the 1980s and 1990s. This stability is despite substantial increases in single-parent families, an increasing share of never-married mothers among single parents, and vast changes in the normative and policy environment of single motherhood. Perhaps the increasing prevalence and changing composition of single-parent families have had offsetting effects on the persistence of family structure from one generation to the next. Rising incidence may result in greater acceptance of single-parent families and gradual social adjustment, while changing composition may increasingly marginalize an already socially disadvantaged group. The lack of change in the intergenerational inheritance of poverty is consistent with the recent slowdowns in historical trends towards universalism. This stability is within a context of expanding federal programs for low income families in the 1960s and 1970s. With the retrenchment of social programs starting in the 1980s, we might expect increases in inheritance for more recent cohorts.

This study relies on rich data spanning over twenty years in the lives of two cohorts. Despite the long window of observation, we are limited in our ability to capture flows into and out of poverty and single parenthood. It may be particularly difficult to escape from long-term or deep poverty; likewise, spending three years with a single mother may be a very different experience than spending most of childhood, just as experiencing a single transition into single parenthood is not the same as moving in and out. Additionally, the persistence of family background characteristics may depend on contextual variables, such as the level of neighborhood poverty, the quality of schools, and the kin networks children are typically exposed to. The processes reproducing poverty and family structure might look very different if we could model these complexities. Despite the availability of panel data, sample sizes are generally too small to fully capture the diversity of families and the social and economic environments in which they are situated. In reviewing the tradition of social mobility research launched by Blau and Duncan in the 1960s, Winship (1992) questions the suitability of the status attainment model, with its individual-level orientation, for analyzing poverty. As families continue to move in many directions away from the traditional male-breadwinner model, it is increasingly important to blend research on family and social stratification. This work represents a step in that direction.

Appendix A. Details of the sample

A.1. Cohort 1 (NLSYW)

We start with 5159 women from the NLS Young Women (NLSYW) sample. We drop 62 who are "other" race (not white or black); 2643 who are over 18 at the time of first interview; 288 who are not living with their mother at first interview; 653 who did not respond in 1988; and 317 who did not have a first birth by the last observation in 1988. Applying these restrictions, we are left with a sample of 1196. Additional cases are lost because of missing information on income, marital status, or marital history.

Time one measurements of poverty and family structure are taken from the 1968, 1969, and 1970 Young Women interviews. Poverty status is determined based on daughters' reports of family income and family size. Household rosters are used to determine whether there is a single mother or two parents in the household. Time one measurements are only valid in years in which the respondent is in the parental home. Restricting the sample to young women 14–18 in 1968 limits bias due to early homeleaving.

Time two measurements are taken from the 1985, 1987, and 1988 Young Women interviews. Poverty is based on respondents' reports of family income and family size. Single-parent and two-parent families are differentiated based on respondents' current marital status. These measurements are only valid in years since the birth of a first child.

In estimating poverty and single parenthood, three years of survey data are used. A family is counted poor if their average income over three years is below the average poverty threshold. A single-parent family is one in which the mother is unmarried in at least half of the years. Cases are kept if they have at least one of the three years of data: for poverty, at time one, 65 percent of the sample has data from all three years (10 percent from one and 25 percent from two); at time two, 74 percent has data from all three years (7 percent from one and 19 percent from two). For family structure, at time one, 75 percent of the sample has data from all three years (7 percent from one and 18 percent from two); at time two, 91 percent has data from all three years (2 percent from one and 6 percent from three).

A.2. Cohort 2 (NLSY)

We start with 6283 women from the NLS Youth (NLSY). We drop 1357 who are part of the poor white and military oversamples; 330 who are "other" race (not white or black) or are missing information on race; 1725 who are older than 18; 326 who were not living with their mother at the time of first interview in 1979; 422 who did not respond in 2000; and 400 who did not have a first birth by the last interview in 2000. Applying these restrictions, we are left with a sample of 1723. Additional cases are lost because of missing information on income, marital status, or marital history.

Time one measurements of poverty and family structure are taken from the 1979, 1980, and 1981 NLSY interviews. Poverty status is determined based on parents' self-reports of family income and family size. Single-parent versus two-parent family status is determined based on household rosters: if both a mother and father are in the home, then the family is two-parent. Both of these measurements are only valid in years that the NLSY respondent is in the parental home or in a dorm. We restrict the age limit to young women 14–18 in 1979 to limit bias due to early homeleavers.

Time two measurements are taken from the 1996, 1998, and 2000 NLSY interviews. Poverty is based on respondents' reports of family income and family size. Single-parent and two-parent families are differentiated based on current marital status. These measurements are only valid in years since the birth of a first child.

In estimating poverty and single parenthood, three years of survey data are used. A family is counted poor if their average income over three years is below the average poverty threshold. A single-parent family is one in which the mother is unmarried in at least half of the years. Cases are kept if they have at least one of the three years of data: for poverty, at time one, 49 percent of the sample has data from all three years (19 percent from one and 31 percent from two); at time two, 60 percent has data from all three years (12 percent from one and 28 percent from two). For family structure, at time one, 76 percent of the sample has data from all three years (9 percent from one and 15 percent from two); at time two, 91 percent has data from all three years (2 percent from one and 7 percent from two).

Appendix B

Daughter poverty/family structure distributions (stepfamilies counted as single-parent)

Mother's poverty and family structure	Daughter's poverty and family structure				Total	Mother marginals	Number of cases
	Not poor		Poor				
	Two-parent	Female-headed	Two-parent	Female-headed			
Cohort 1 (NLSYW)							
Whites							
Not poor two-parent	61.8	32.3	2.1	3.9	100	84.6	666
Not poor female-headed	50.4	42.3	0.0	7.3	100	7.0	55
Poor two-parent	42.1	36.3	5.4	16.3	100	5.4	43
Poor female-headed	53.9	32.0	3.8	10.4	100	3.0	23
Daughter marginals	59.7	33.2	2.1	5.0	100	100	787
Blacks							
Not poor two-parent	35.6	57.8	3.0	3.6	100	27.9	83
Not poor female-headed	18.5	60.8	0.0	20.7	100	9.9	30
Poor two-parent	22.9	44.9	6.6	25.5	100	37.7	113
Poor female-headed	11.7	43.7	4.3	40.2	100	24.5	73
Daughter marginals	23.3	49.8	4.4	22.5	100	100	299
Cohort 2 (NLSY)							
Whites							
Not poor two-parent	66.0	29.2	1.1	3.8	100	77.5	776
Not poor female-headed	42.3	50.2	0.0	7.5	100	14.6	146
Poor two-parent	41.6	45.6	4.3	8.5	100	5.1	51
Poor female-headed	29.0	56.6	6.1	8.4	100	2.8	28
Daughter marginals	60.3	33.9	1.2	4.7	100	100	1001
Blacks							
Not poor two-parent	25.9	58.5	1.4	14.3	100	33.3	153
Not poor female-headed	15.3	71.6	0.0	13.1	100	20.3	93
Poor two-parent	9.0	57.8	0.0	33.2	100	16.9	78
Poor female-headed	13.8	61.7	0.0	24.5	100	29.4	135
Daughter marginals	17.3	62.0	0.5	20.3	100	100	458

Note. Proportions and *N*'s are weighted.
Source. Data from the NLSYW (*R*'s ages 14–18 in 1968) and the NLSY (*R*'s ages 14–18 in 1979).

Goodness-of-fit statistics for selected loglinear models of the inheritance of poverty and family structure (stepfamilies counted as single-parent)

Models	L2	df	P value	BIC
M1. Baseline	130.7	36	0.00	−151.6
M2. Baseline + Pp + Ff	46.1	34	0.08	−220.5
M3. Baseline + Pp + Ff + Pf + Fp	38.9	32	0.19	−212.1
M4. Baseline + Pp + Ff + Pf + Fp + PFp + PFf + Ppf + Fpf	27.6	28	0.48	−191.9
M5. Baseline + Pp + Ff + Pf + Fp + PFp + PFf + Ppf + Fpf + PFpf	23.6	27	0.65	−188.1
M6. Baseline + Pp + Ff + Ppc + Ffc	41.0	32	0.13	−210.0
M7. Baseline + Pp + Ff + Ppr + Ffr	45.7	32	0.06	−205.2

Note. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; r, race.
Source. Data from the NLSYW (R's ages 14–18 in 1968) and the NLSY (R's ages 14–18 in 1979).

Parameter estimates of best-fitting model (stepfamilies counted as single-parent)

	β	Exp (β)	SE (β)
Marginal effects			
P	−2.86***	0.06	0.15
F	−2.84***	0.06	0.14
p	−3.46***	0.03	0.23
f	−0.66***	0.51	0.07
r	−3.71***	0.02	0.22
c	0.21***	1.24	0.06
Marginal effects by race and cohort			
Pr	2.91***	18.38	0.26
Fr	1.24***	3.46	0.34
pr	1.07**	2.90	0.51
fr	1.20***	3.31	0.23
Pc	0.04	1.04	0.19
Fc	0.83***	2.29	0.15
pc	−0.58*	0.56	0.34
fc	−0.05	0.95	0.09
rc	0.13	1.14	0.29
Prc	−0.97***	0.38	0.35
Frc	−0.35	0.70	0.40
prc	−1.19	0.31	1.16
frc	0.47	1.60	0.30
Intragenerational effects			
PF	1.87***	6.47	0.27
pf	1.41***	4.09	0.27
Intragenerational effects by race and cohort			
PFr	−1.28***	0.28	0.46
pfr	−0.55	0.58	0.56
PFc	−0.80**	0.45	0.35
pfc	0.50	1.66	0.40
PFrc	1.24**	3.47	0.59
pfrc	1.08	2.95	1.21

(*continued on next page*)

Appendix B (*continued*)

	β	Exp (β)	SE (β)
Intergenerational effects			
Pp	1.08[***]	2.95	0.18
Ff	0.77[***]	2.15	0.11
Intercept	6.22[***]	503.93	0.04
Obs	2545		
df	34		
L2	46.1		

Notes. P, mother's poverty status; F, mother's family structure; p, daughter's poverty status; f, daughter's family structure; c, cohort; and r, race.

Source. Data from the NLSYW (*R*'s ages 14–18 in 1968) and the NLSY (*R*'s ages 14–18 in 1979).

[*] *P* value < .10 (two-tailed tests).

[**] *P* value < .05.

[***] *P* value < .01.

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