UCLA
On-Line Working Paper Series

Title

Family Structure, Intergenerational Mobility, and the Reproduction of Poverty: Evidence for Increasing Polarization?

Permalink

https://escholarship.org/uc/item/4z3470vb

Authors

Musick, Kelly
Mare, Robert D.

Publication Date

2003-10-02

Family Structure, Intergenerational Mobility, and the Reproduction of Poverty: Evidence for Increasing Polarization?

Kelly Musick
Robert D. Mare

FAMILY STRUCTURE, INTERGENERATIONAL MOBILITY, AND THE

REPRODUCTION OF POVERTY: EVIDENCE FOR INCREASING POLARIZATION?[*]

Kelly Musick

University of Southern California

and

Robert D. Mare

University of California, Los Angeles

October 2, 2003

FAMILY STRUCTURE, INTERGENERATIONAL MOBILITY, AND THE REPRODUCTION OF POVERTY: EVIDENCE FOR INCREASING POLARIZATION?

Abstract. A substantial body of research demonstrates links between poverty and family structure from one generation to the next, but leaves open key questions about the implications of these associations for aggregate-level change. To what extent does intergenerational inheritance affect trends in poverty and single parenthood over time? This paper examines how patterns of intergenerational inheritance play out in the population over the long run, using data from the National Longitudinal Surveys and a model of population renewal that takes into account intergenerational mobility and differential fertility across groups defined by poverty status and family structure. We find that recent patterns of intergenerational inheritance are contributing to growth in poverty and single parenthood, but their contribution is modest, falling well short of recent historical change and having little effect on the relative economic positions of single-parent and two-parent families.

Over the past thirty years, the proportion of children living in single-parent families more than doubled, from 12 percent in 1970 to 27 percent in 2000 (U.S. Census Bureau 2001a). This trend has worsened the economic circumstance of children, who experience greater economic hardship in single-parent than in two-parent families (Duncan and Rodgers 1991; Eggebeen and Lichter 1991; U.S. Census Bureau 1998). Single parenthood has grown more rapidly among women with relatively poor economic prospects (Ellwood and Jencks 2002). Education differentials in both marital disruption (Raley and Bumpass 2003) and nonmarital childbearing (Musick 2000) have risen, and exit rates from poverty have declined for female-headed families (Stevens 1994). These trends point to a divergence in the socioeconomic experiences of children in single-parent and two-parent families. Family structure has become an increasingly important marker for socioeconomic well-being.

Rapid changes in the family and their economic correlates have lead to concerns about the long-term effects of family structure on children. A substantial body of research documents the interdependence of poverty and family structure from one generation to the next. Children who spend time with a single parent attain lower levels of education and occupation, are more likely to be out of work, and are more likely to receive welfare than children who grow up with both biological parents (Astone and McLanahan 1991; Biblarz and Raftery 1993; McLanahan 1985, 1988; McLanahan and Sandefur 1994; Sandefur, McLanahan, and Wojtkiewicz 1992; Wojtkiewicz 1993). Girls who spend time with a single parent are more likely to have children out of marriage and to experience the disruption of their own marriages (McLanahan 1988; McLanahan and Bumpass 1988; McLanahan and Sandefur 1994; Wu 1996; Wu and Martinson 1993). This research raises questions about what we might expect for the future, suggesting a "…dynamic in current family changes that may well further weaken the prevalence of simple nuclear families" (McLanahan and Bumpass 1988:148). Given the

interdependencies of poverty and family structure, it also implies a dynamic that may widen the socioeconomic gap between single-parent and two-parent families.

Individual-level studies that document associations between poverty and family structure within and across generations raise intriguing questions about the effects of intergenerational inheritance on the population over time. Understanding the implications of individual-level associations for population change, however, requires an understanding of the interplay between intergenerational inheritance and demographic reproduction (Mare 1996, 1997). To date, there has been little such aggregate-level analysis. Our study uses data from the National Longitudinal Surveys (NLS) and a model of population renewal that takes into account the intergenerational transmission of single parenthood, the intergenerational persistence of poverty, and differential fertility across groups defined by poverty status and family structure. This strategy allows us to address questions about population change that emerge from research on the consequences of single parenthood. We estimate the extent to which current patterns of intergenerational inheritance contribute to trends in poverty and family structure. We focus on the potential role of inheritance in widening the economic gap between single-parent and two-parent families.

Our paper is organized as follows: In the next two sections, we review research on the dynamics of population growth and examine trends in the joint distribution of poverty and family structure. We then describe the methods and data used in our analysis. We look at how patterns of intergenerational inheritance, in combination with differential fertility, affect the long-run distributions of poverty and family structure, and we explore the sensitivity of our results to various assumptions about mobility and fertility. Finally, we replicate our analysis with an alternative definition of family structure and conclude with a discussion of main findings and implications.

AGGREGATE-LEVEL SOCIAL PROCESSES

Most research on poverty and family structure is conducted at the individual or family level, predicting the income or family behavior of men and women based on their parents' marital histories, socioeconomic status, and other characteristics. This research has formed our understanding of how poverty and single parenthood are transmitted from one generation to the next, but it has not shown how patterns of intergenerational inheritance play out in the population over time. The long-run effect of intergenerational inheritance depends on both the strength of inheritance and the size of fertility differentials across different kinds of families. If inheritance is strong and fertility differentials are large, they combine to affect the transformation of the population. By contrast, if inheritance is weak or fertility differentials are small, they will have little effect on the population from one generation to the next. Simple tabulations show that the mean number of children in female-headed families is greater than in two-parent families, and that poor families are larger than nonpoor families;[1] moreover, the

---

[1] We used March 2001 Current Population Survey data to calculate the mean number of children in female-headed/married-couple families and poor/nonpoor families (U.S. Census Bureau 2002a, Detailed Poverty Tables 1 and 16a). We divided the number of children in each group by the total number of families in that group; for example, for the mean number of children in female-headed families, we divided the number of related children under 18 in female-headed families by the total number of female-headed families with and without children. This method yielded the following means: 1.23 children in female-headed families, .90 in married-couple families, 1.64 in poor families, and .89 in nonpoor families. The poverty measure varies by family size, so that, by construction, poor families would be larger than nonpoor families even if fertility were unrelated to income. These tabulations

differential in family size by poverty status has grown in recent years (Eggebeen and Lichter 1991). We assess whether the intergenerational inheritance of poverty and single parenthood – in combination with family size differentials by poverty and family structure – are strong enough to affect the distribution of the population across these states over time.

There are few studies addressing questions posed at the aggregate level; one exception is an unpublished study by Garfinkel et al. (1991) on the reproduction of long-term welfare dependence among blacks. This is the only one to our knowledge that addresses the reproduction of poverty and family structure, but there is a small body of work that addresses change over time in other aggregate-level social processes. Aggregate demographic models have been used to examine trends in educational attainment (Mare 1996, 1997), the distribution of IQ (Preston and Campbell 1993), income inequality (Lam 1986), and occupational achievement (Preston 1974). Our work falls within this tradition, focusing on poverty and single parenthood. It moves beyond the work of Garfinkel et al. by using new data to look more broadly at the processes governing the reproduction of poverty and family structure for both whites and blacks. It asks: To what extent does intergenerational inheritance affect the relative economic positions of single-parent and two-parent families over the long run?

TRENDS IN THE DISTRIBUTION OF POVERTY AND FAMILY STRUCTURE

We ask whether inheritance contributes to polarization of the population into poor single-parent families on one end of the economic spectrum and relatively advantaged two-parent families on the other. We start by examining change in the joint distribution of poverty and family structure; we focus

---

illustrate what we might expect combining mobility and fertility in a population-level model; they do not speak to the processes underlying differential fertility.

on four groups cross-classified by poverty status and female headship: 1) not poor two-parent; 2) not poor female-headed; 3) poor two-parent; and 4) poor female-headed. We examine historical evidence for increasing economic polarization in terms of change in the relative sizes of these groups, as well as change in the association between being poor and being in a female-headed family. If the economic circumstances of single-parent and two-parent families are diverging, data should show an increase in poor single-parent families and an increase in the association between poverty and single parenthood.

Table 1 presents data from the March Current Population Survey (CPS) spanning 1959 to 2001 (U.S. Census Bureau 2002a, Table A-1);[2] data are pooled over race in panel one and tabulated separately for whites and blacks in panels two and three, respectively. The first four columns give the distribution of the population across our four poverty/family groups. They show a marked redistribution of the population from poor two-parent families to nonpoor single-parent families: The share of poor two-parent families dropped from 15 percent of all families in the early 1960s to 5 percent in 2001; the

---

[2] Table 1 is based on published CPS data on persons in families. Poverty is measured according to the official thresholds, and data are tabulated for all families and for female-headed families. We use the difference between all families and female-headed families to estimate the number of two-parent families, although – in addition to two-parent families – this includes father-only families and any combination of relatives sharing a residence. We thus overcount two-parent families, which affects our comparisons over time to the extent that the share of father-only and co-resident relative families has changed. The share of father-only families has increased: Between 1960 and 1990, it rose from 1.4 to 3.1 percent of all families with children (Garasky and Meyer 1996). Although this is large in percentage terms, it represents a small absolute change and should not affect our analysis.

share of nonpoor female-headed families rose from less than 5 percent to 12 percent. Over the past thirty years, the share of nonpoor two-parent families decreased and that of poor single-parent families increased, although both of these trends show recent signs of reversal.

-- Table 1 about here --

The last two columns of Table 1 give measures of the association between poverty and family structure: differences in poverty rates between single-parent and two-parent families and odds ratios of poverty and family structure. Between the early 1960s and the early 1990s, the difference in poverty rates between female-headed and two-parent families fluctuated very close to 30 percentage points. This difference started dropping in the late 1990s to a low of 23 points in 2000-01. Odds ratios increased over the 1960s and 1970s to a high of more than 8 (i.e., odds of poverty over 8 times greater for single-parent than two-parent families); since then, they have dropped nearly consistently to just over 6 in the most recent period. Even with recent declines, both measures indicate a strong association between poverty and family structure.

These data show a striking race difference in levels of poverty and single parenthood, as is well documented in the literature. The association between poverty and family structure has been stronger over the years for blacks than whites: The difference in poverty rates between single-parent and two-parent families was greater for blacks in all years but 1959, when the majority of all blacks – irrespective of family structure – were poor; odds ratios have been consistently higher since the late 1970s. Despite sizable differences at the cross section, trends are similar for whites and blacks. For both groups, poor two-parent families declined and nonpoor female-headed families increased; the association between poverty and family structure fluctuated, rising in the 1960s and 1970s and falling recently.

In sum, historical data show no consistent, monotonic trend toward economic polarization by family structure. Over the past forty years, single-parent families increased in number, but increases in nonpoor single-parent families were much larger in both absolute and relative terms than increases in poor single-parent families. Differences in poverty rates between single-parent and two-parent families were fairly stable through the early 1990s but have since declined; odds ratios between poverty and family structure increased over the 1960s and 1970s but have also since declined.

METHODS AND DATA

One-Sex Model of Socioeconomic Reproduction

We next examine the implications of current patterns of intergenerational inheritance for trends in poverty and family structure over the long run. The core of our analysis is the transmission of poverty and single parenthood from mothers to daughters. We use a one-sex model of population renewal to combine rates of intergenerational mobility and demographic reproduction. The model can be written:

$$\mathbf{P_{t+1} = P_t\ F\ M}$$

where t is a generation, $\mathbf{P}$ is the joint distribution of poverty and family structure in the population in generation t, $\mathbf{F}$ is a fertility matrix specifying fertility rates for female children by poverty and family structure, and $\mathbf{M}$ is a joint intergenerational mobility matrix describing transitions across income classes and family types.[3] The fertility and mobility matrices – assumed to be invariant over time – govern

---

[3] We do not model age-specific fertility. This likely underestimates the effects of mobility on population transformation by not accounting for the shorter mean generation length of single mothers, who (particularly those with a nonmarital first birth) begin childbearing earlier than married mothers. This model also ignores differential mortality, since we have no reliable data on mortality by socioeconomic

population renewal.[4] They are iteratively applied to the population distribution until an equilibrium

distribution is reached (i.e., until the distribution is stable from one generation to the next). The

hypothetical equilibrium distribution represents the expected long-run distribution of the population,

given intergenerational mobility and differential fertility. This model is analogous to established models of

interregional mobility and population growth based on stable population theory (Rogers 1975). These

models assume closed populations, i.e., do not allow for immigration. Immigrants have changed the

underlying population and potentially the nature of intergenerational relationships; our model (and data)

do not capture these changes.

We examine the distribution of the population across four groups cross-classified by poverty

status and female headship: 1) not poor two-parent; 2) not poor female-headed; 3) poor two-parent; 4)

poor female-headed. Thus P is a 1 x 4 vector denoting the size of these four groups, F is a 4 x 4

diagonal matrix of group-specific fertility rates, and M is a 4 x 4 matrix expressing outflow rates from a

given poverty/family status in childhood to a given poverty/family status in adulthood. In this model,

when rates of intergenerational inheritance are high (i.e., mobility is low), fertility differentials drive the

population distribution to the highest fertility groups. The speed of transformation will depend on the

_____

status and family structure. Mare (1997) includes age-differentiated fertility and class-differentiated

mortality in aggregate-level analyses of education, and finds that neither has important effects on

education distributions.

[4] Elsewhere (Musick and Mare 1999), we extensively examine the mobility matrix and find no change in

recent decades in intergenerational associations. In subsequent sections of this paper, we show

simulations to explore the implications of changes in fertility for population renewal.

magnitude of fertility differentials and the extent of redistribution required to attain equilibrium. When rates of inheritance are low (i.e., mobility is high), fertility has little impact on the distribution of the population. Intergenerational mobility sets limits on the effects of differential fertility on the population distribution (Lam 1986; Mare 1996, 1997): the greater the mobility, the smaller the effect of fertility.

Intergenerational Inheritance of Poverty and Family Structure

National Longitudinal Surveys. We estimate the joint intergenerational mobility matrix using data from the National Longitudinal Surveys (NLS, U.S. Bureau of Labor Statistics 2002). The lengthy panels of the NLS make it possible to examine the transmission of poverty and family structure from one generation to the next. Our analysis covers the experiences of two cohorts of women, the first reaching adolescence in the late 1960s and the second in the late 1970s. We follow each of these cohorts over an approximately 20-year period, until sample members are in their late thirties. We use data from two on-going surveys: 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. Past work with the NLS (Musick and Mare 1999) reveals no significant differences in the intergenerational mobility patterns of these cohorts, which allows us to pool data from the two surveys and analyze one single sample. 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 twenty years, and who have a child by the time we last observe them. This includes 1157 women in cohort one and 1552 in cohort two, for a total of 2709. 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.[5] 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.[6] Of all respondents living with their mother at first interview and still in the survey twenty

---

[5] Excluding girls over 18 results in very little bias due to early homeleaving. 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.

[6] Our rationale for excluding childless women is also tied to how we conceptualize families. Our two family types – female-headed and two-parent – assume the presence of a child. In excluding childless women from the mobility matrix, we assume that childlessness is not related to growing up with a single mother.

years later, we exclude 20 percent who had not yet had a child by the time of last interview.

Approximately 19 percent of women ages 40 to 44 were childless in 2000 (U.S. Census Bureau

2001b), suggesting that our study underrepresents to a very small degree women who are delaying

childbearing. Most of the childless women excluded from our sample do not 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 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. The difference in ages of mothers and daughters 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 means settling for a snapshot of women's income and

family experiences. Our measures capture flows in and out of poverty and single parenthood to only a

limited extent.

Measuring poverty. Poverty is measured by comparing total family income to the official

weighted poverty thresholds adjusted for family size (U.S. Census Bureau 2002b).[7] In the NLSYW,

---

[7] The official thresholds are differentiated by family size, composition, and age of head; the weighed

thresholds are differentiated by family size only. We use the weighted thresholds for ease of

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 more stable measure of

well-being that better reflects the permanent component of income (Mayer 1997; Solon 1992;

Zimmerman 1992).

　　　　The official poverty measure is a common way of operationalizing economic hardship. It

provides a well-understood benchmark against which historical comparisons can be made. Apart from

adjustments for inflation, however, the thresholds have changed little since the 1960s. They have not

kept pace with increases in median income and the expenses of low-income families, and thus may

underestimate economic hardship for some groups (Citro and Michael 1995). We replicated our

---

computation. Because the variation in thresholds is by far greatest by family size, this approximation

should not affect our results.

[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 three-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.

analyses using an alternative definition of poverty: income below 150 percent of the official thresholds. Because our findings with respect to population renewal were the same regardless of which poverty definition we applied, we present only those based on 100 percent of the official thresholds.

Measuring single parenthood. The bulk of the literature on the consequences of single parenthood focuses on divorce, despite the increasing share of single mothers who enter this state through nonmarital childbearing (Bianchi 1999; Bumpass and Raley 1995). Children born outside of marriage spend more of their childhood years in mother-only families than children of divorce, have less frequent contact with their fathers, are less likely to receive child support, and are less advantaged socioeconomically (Bianchi 1995; Bumpass and Lu 2000; Martinson and Wu 1992; Seltzer 1991; Wojtkiewicz 1992). Evidence to date suggests little variation in the effects of unmarried childbearing versus divorce on child outcomes (McLanahan and Sandefur 1994; Wojtkiewicz 1993), but research is limited. Generally, panels are too short and sample sizes are too small to fully investigate the diversity of new family forms. Here, too, data limit our ability to simultaneously examine single-parent families formed through divorce and nonmarital childbearing. Although our data span over twenty years, our panels do not extend far enough into the lives of respondents to capture fully their experiences of divorce. When we finally observe women in middle adulthood, their children's ages and their marital durations vary considerably. If we analyzed divorced women with children, we would be giving women who marry and have children earlier in life more of a "chance" to divorce than women who marry and have children later. Since we cannot simultaneously examine the different routes into single parenthood, we look separately at two dimensions.

In our main analysis, we define families 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 differentiate between single-parent and two-parent families, calling single-parent families those in which single motherhood is the dominant experience over three years. We use both 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. We replicate our analysis with a second definition of family structure, differentiating between "marital families" and "nonmarital families," or families in which childbearing occurs in or out of marriage. We look at whether mothers were married when their daughters were born, and whether daughters were married when their first child was born.

Our first definition of family structure assumes that the presence of two married parents is key to patterns of intergenerational inheritance; our second definition assumes that it is parents' marital status at birth that has enduring and important consequences for children. By necessity, both definitions simplify the complexity of family relationships, most significantly by not accounting for trajectories of marriage and remarriage over time and by not factoring in cohabitation (Wu, Bumpass, and Musick 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.

Joint mobility matrix. Table 2 shows the joint intergenerational mobility matrix for all races and for whites and blacks separately. The column marginals give the distribution of mothers (or origins) by poverty and family structure, the row marginals give the distribution of daughters (or destinations) by

poverty and family structure, and the cells within the table contain the outflow rates from a given poverty/family status in childhood to a given poverty/family status in adulthood. As was evident in the CPS data, the marginals show a redistribution of the population from poor two-parent families to nonpoor single-parent families over time. Between the mother and daughter generations, the share of women in poor two-parent families dropped from 8 to 3 percent, and the share of women in nonpoor single-parent families increased from 10 to 18 percent. This pattern holds for whites and blacks, but striking among blacks is the overall redistribution from poor families to nonpoor families, regardless of family structure.

The table shows the intergenerational associations between poverty and family structure. If intergenerational inheritance is contributing to economic divergence by family structure, data should show persistence in the joint statuses of poverty and family structure, i.e., persistence in the corner cells of the table. Fully 79 percent of girls born to nonpoor two-parent families end up in nonpoor two-parent families – 81 percent of whites and 52 percent of blacks. Yet only 23 percent of girls from poor single-parent families end up in poor single-parent families – 8 percent of whites and 32 percent of blacks. Because these outflow rates are influenced by the daughters' marginals, however, it is difficult to assess the strength of inheritance (or to compare the races) based on the raw percentages alone. The population renewal model puts mobility patterns into perspective by spelling out their implications for the long-run distributions of poverty and family structure.[9]

---

[9] Collapsing the matrices in Table 2 over family structure 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

-- Table 2 about here --

Completed Fertility Rates

To translate mobility rates into population-level change, we must combine them with fertility rates. We generate fertility rates specific to our four poverty/family groups using data from the 1995 National Survey of Family Growth (NSFG), a national fertility survey of women ages 15-44 conducted by the National Center for Health Statistics (Kelly et al. 1997). We approximate completed fertility by counting the number of female children born to mothers ages 35-44.[10] To the extent possible, we apply

---

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.

[10] We exclude childless women from our calculation of fertility rates. This is consistent with our estimation of mobility rates and is due to the difficulty of assigning childless women to our two family groups – female-headed and two-parent – which depend on the presence of children. Excluding childless women, we must assume that childlessness is equally distributed across families and socioeconomic groups. We count only female children since we are using a one-sex model of population renewal, and these are assumed to equal half of total fertility. We also somewhat underestimate total fertility by relying on women aged 35-44, not all of whom completed their fertility by the time of interview. Age truncation affects our results only to the extent that it affects group-level differentials. Simulations shown later in the paper varying assumptions about fertility differentials will

the same definitions of poverty and family structure to this sample as to the NLS sample, and we measure poverty and family structure when respondents are about the same age. Because the NSFG is not a panel, we do not average income and living arrangements over multiple years: We define poor families on the basis of single-year, current status income reports, and we define single-parent families on the basis of marital status at the time of interview.

Table 3 shows estimated fertility differentials by poverty and female headship. Poor single parents have the highest fertility overall, which could combine with intergenerational inheritance to generate growth in this group over time. The magnitude of differentials is nonetheless modest, at least on the dimension of family structure. Differentials by poverty status are larger: poor women have an average of .4 more female children than nonpoor women. Fertility levels differ by race, but patterns in differentials across poverty/family groups are the same for whites and blacks. Estimating fertility by poverty and family structure is complicated by the dynamic nature of these states; nonetheless, our estimates are consistent with patterns reported elsewhere. For example, the June CPS shows that women with family income less than $20,000 have the highest rates of children ever born (U.S. Census Bureau 2000, Table C). Wu and Martin (2002) find that women who are unmarried at the time of their first birth have lower duration- and parity-specific birth rates than married women. These women, however, start their childbearing earlier than married women and thus have longer exposure to the "risk" of childbearing. Morgan and Rindfuss (1999) report modestly higher completed fertility among recent cohorts of women who begin childbearing early.

---

help gauge the potential effects of how we measure fertility on the estimated population renewal process.

-- Table 3 about here --

Initial Population Distribution and Standardization of the Mobility Table

We use March CPS data on persons in families to generate initial population distributions and to standardize the mobility table (U.S. Census Bureau 2002a, Table A-1).[11] The initial distribution has no effect on the equilibrium distribution; it is merely a benchmark against which to compare where the population ultimately settles after successive iterations of the renewal model. We use two initial distributions as benchmarks: a recent distribution (2001) and a past distribution (1975). We adjust the mobility table so that the destination marginals match these distributions, i.e., so that the distribution of daughters across poverty/family groups matches recent and past distributions of persons across these groups. Our standardization procedure preserves the associations within the table while generating frequencies with the desired marginal totals (Agresti 2002:345-346).[12] It isolates the effects of mother-daughter associations on the population renewal process and allows us to compare the results of our renewal model to known and meaningful distributions. Basing the analysis on the 2001 distribution –

---

[11] For consistency with Table 1, the initial distributions include all persons in families (as opposed to women only). The initial distribution has no effect on the equilibrium distribution, but makes results easier to interpret in the context of earlier discussions.

[12] We calculate a multiplier for each column equal to $p_{.j} \times N/n_{.j}$, where $p_{.j}$ is the desired proportion in the jth poverty/family group in the daughter generation, N is the total sample size, and $n_{.j}$ is the observed (prior to adjustment) marginal count. We apply this multiplier to the cell frequencies in the jth category of daughter's poverty/family status. The new cell frequencies generate the desired marginal totals without changing the interaction structure of the table.

adjusting the table to match the 2001 distribution and comparing the results of the renewal model to this recent distribution – demonstrates the effects of current fertility and mobility patterns on the distribution of the population into the future. Basing the analysis on the 1975 distribution – adjusting the table to match the 1975 distribution and comparing the results of the renewal model to this past distribution – indicates how well our model is able to predict actual change in the population between then and now. We use 1975 to represent the past since this is about when measures of poverty and family structure were taken of the mothers in our sample. Adjusting the table to fit this distribution effectively assigns daughters the same distribution of poverty and family structure as mothers.

RESULTS

We apply mobility and fertility rates to the initial population distribution and compute the resulting equilibrium distribution. The difference between the initial and projected distributions represents the expected change in the population over time, given constant intergenerational mobility and differential fertility. First, we examine projected trends from current and past baseline distributions; next, we run simulations altering assumptions about mobility and fertility; finally, we estimate the renewal model using our alternative definition of family structure (i.e., marital status at birth, rather than current marital status).

Table 4 presents results based on current and past distributions for all races and separately for whites and blacks. The columns labeled "2001" compare the current population distribution to what is predicted for the future, given observed mobility and fertility. Our estimates provide little evidence that observed patterns of intergenerational inheritance increase single parenthood or poverty or contribute to economic polarization by family structure. The share of all single-parent families is projected to increase by less than one percentage point; among whites, the share of poor single-parent families increases by

half a point (two-parent poverty increases by the same amount), and among blacks, it *decreases* by two

points (two-parent poverty also decreases by about the same amount). The projected association

between poverty and family structure is very similar to the current association, as measured by the

difference in poverty rates between single-parent and two-parent families and the odds ratio of poverty

and family structure. The columns labeled "1975" compare the 1975 population distribution to the

projected distribution based on observed mobility and fertility. Since 1975, nonpoor single-parent

families among all races have grown substantially (over 3 points for whites and 10 points for blacks) and

poverty has declined among blacks (see Table 1 or compare 1975 and 2001 initial distributions in Table

4). The model predicts a trivial *decrease* in nonpoor single-parent families among whites and only

about one-tenth of the actual increase among blacks. It predicts a greater share of the decline in

poverty among blacks: nearly half the actual 9-point drop.

-- Table 4 about here --

Table 5 presents results of our simulations. Because our race-specific simulations yielded

similar results, we present only results of the pooled sample. All results are based on the 2001

population distribution. The simulations help us to better understand the implications of observed

mobility and fertility, and they illustrate general properties of the population renewal model. We

examine five alternative assumptions about fertility differentials: 1) observed; 2) none; 3) by poverty

status only; 4) by family structure only; and 5) twice as large as observed. We also look at three

alternative assumptions about mobility: 1) observed mobility; 2) perfect mobility, i.e., daughters'

outcomes are completely independent of their mothers'; and 3) perfect immobility, i.e., daughters'

outcomes are completely determined by their mothers'. We apply each of these assumptions to the two

dimensions of poverty and family structure.

-- Table 5 about here --

Simulations 1-1d combine observed mobility with various assumptions about fertility. The projected distributions closely resemble the initial distributions, whether we apply observed fertility rates, average rates across groups, or rates differentiated by poverty status or family structure only. Even doubling the fertility ratios of all groups compared to nonpoor two-parent families yields a relatively small redistribution of the population of about six percentage points from nonpoor two-parent families to all other family groups. Simulations 2-2a show projected population distributions given perfect intergenerational mobility with respect poverty and family structure. Under perfect mobility, regardless of fertility differentials, initial distributions hold over the long run. The similarity of results under observed and perfect mobility underscores the relatively high degree of mobility inherent in current rates.

Under perfect *im*mobility, shown in simulations 3-3a, fertility rates drive the projected distributions. Given observed fertility differentials, the population converges to poor single-parent families, i.e., to the group with the highest fertility. The transformation takes many generations (over twenty-five in this case and others assuming perfect immobility), whereas under observed mobility, the population converges to equilibrium in just one or two. This difference is due to how far the initial population has to go to reach equilibrium under assumptions of high and low mobility: Under perfect immobility, there is a massive redistribution of the population; under perfect mobility, there is none.

When perfect immobility is combined with average fertility across all groups (i.e., no fertility differentials, see simulation 3a), the initial population distribution is reproduced from one generation to the next.[13]

NONMARITAL CHILDBEARING

The simulations based on the renewal model demonstrate a high degree of intergenerational mobility in family structure and poverty status, implying that differential fertility has little effect on the distribution of the population over time and equilibrium distributions closely resemble initial distributions. Are these results sensitive to how we measure family structure? We replicate our analysis using a definition of families based on marital status at childbirth, distinguishing between marital and nonmarital families, or families in which childbearing occurs in or out of marriage. We use data from five successive cycles of the NSFG to examine trends in the joint distribution of poverty and marital/nonmarital families from 1973 to 1995.[14] Over this period, we observe a substantial redistribution of the population from marital families (poor and nonpoor) to nonmarital families (poor and nonpoor). The association between poverty and family structure is higher in 1995 than in 1973, but the trend is not monotonic, and it differs by race: For whites, the association has increased in recent years; for blacks, it has decreased.

---

[13] In analyses not shown here we carried out additional simulations based on separate mobility assumptions for poverty status and family structure (e.g., observed mobility for poverty status and perfect mobility for family structure). The results of these simulations, which are available from the authors, yielded similar substantive conclusions to those reported in Table 5.

[14] We use data from the NSFG because it includes complete marital and fertility histories, which allow us to identify marital status at first birth for a sample of mothers ages 30-39. Tables are available from the authors upon request.

Differentiating families on the basis of marital status at childbirth as compared to current marital status, we find stronger – but nonetheless mixed – evidence of increasing economic polarization by family structure.

We generate new fertility rates and a new mobility matrix with our alternative definition of family structure (available from the authors upon request). We use a sample of mothers ages 35-44 from the 1995 NSFG to estimate the total number of female children born to women by poverty and marital/nonmarital family status. Fertility differentials are weak by family structure and strong by poverty status (as was the case based on our current status definition of families), and patterns are similar for whites and blacks. According to this definition, poor marital – as opposed to poor nonmarital – families have the highest fertility rates. We construct the intergenerational mobility matrix in much the same way as before, but apply our alternative family definition and rely on data from the NLSY only. We do not know mother's marital status at the time of the respondent's birth for the full NLSYW sample. In the NLSY, childhood residence histories indicate whether the respondent's father was in the household during her first year of life, from which we infer marital status.[15]

Table 6 presents results of the population renewal model pooled over race and separately for whites and blacks. Like Table 4, it shows projected trends from current (1995) and past (1973)

---

[15] Using residence as a proxy for marriage overestimates marital families to the extent that we count cohabiting fathers as married. Since births to cohabiting couples were a small share of all nonmarital childbearing when then NLSY girls were born (Bumpass and Lu 2000), overestimates should not affect our results.

baseline distributions.[16] The columns labeled "1995" indicate what the model predicts for the future: In the pooled sample, there is a redistribution of nearly nine percentage points from nonpoor marital families to all others – largely nonmarital families (poor and nonpoor). This implies more change between initial and projected distributions than was evident in the main analysis, in which the analogous redistribution was less than one percentage point. The net result is an increase in nonmarital families of eight points and an increase in poverty of four points, with similar patterns for whites and blacks. The columns labeled "1973" put these results in the context of historical change. Comparing the initial distributions from 1973 and 1995 gives the actual change in poverty and family structure over this period. Most notably, it shows a decline in the share of marital families (2 points among the poor and 13 points among the nonpoor) and an increase in nonmarital families (5 points among the poor and 10 points among the nonpoor). Comparing the projected and initial distributions based on the 1973 marginals gives the expected change in poverty and family structure. This model predicts more of the historical drift toward female headship than the analysis based on our current status definition of family structure, and projects greater increases in poverty than observed since the mid-1970s: It predicts 33 percent of the actual decline in nonpoor marital families, none of the decline in poor marital families (indeed, the model predicts an increase), 15 percent of the increase in nonpoor nonmarital families, and 33 percent of the increase in poor nonmarital families. The model predicts little change in the association between poverty and family structure, except among blacks, for whom it shows a decline in

---

[16] As in the main analysis, when we use 1973 as the initial distribution, we adjust the mobility matrix so that the destination marginals match the 1973 distribution; when we use 1995 as the initial distribution, we adjust the destination marginals to match the 2001 distribution.

the association as measured both by the difference in poverty rates of marital and nonmarital families and by the odds ratio of poverty and family structure. While the population is changing and poverty is increasing, the chances of poverty among nonmarital families are not rising relative to their married counterparts.

-- Table 6 about here --

CONCLUSIONS

In the historical data, we find little evidence of divergence in the socioeconomic experiences of single-parent and two-parent families. There has been a vast movement into single-parent families, but this has taken place among both the poor and nonpoor. And whereas there is a close association between poverty and family structure at the aggregate level, there is little to suggest that it is getting stronger over time. Our findings are in contrast to recent reports of increasing education differentials by family structure (Ellwood and Jencks 2002), likely due to the different nature of these indicators. For one, education is a relatively stable measure of socioeconomic status, whereas poverty is variable – over the lifecourse, from year to year, and in response to exogenous economic conditions. Second, poverty is a family-level measure that takes into account all economic resources available to get by. Although single mothers may be falling behind their married counterparts in human capital, they may be compensating by working more or longer hours for pay.

Our population renewal model demonstrates that the intergenerational inheritance of poverty and single parenthood has little effect on population-level trends in poverty and family structure, at least when we rely on a current marital status definition of family structure. The interplay between intergenerational inheritance and differential fertility does not account for important changes in the distribution of the population since the mid-1970s, in particular, the growth of single-parent families.

Moreover, the model implies a current population mix that is very close to equilibrium. These conclusions require some modification when we define families based on marital status at childbirth. Defining families on the basis of nonmarital childbearing, we find more important population-level effects. Observed intergenerational mobility and differential fertility explain more of the historical drift from marital to nonmarital families (especially *poor* nonmarital families), accounting for a fairly sizable share of the redistribution of families that actually took place over the past two decades. Regardless of how we define family structure, however, we do not find an increase in the association between poverty and family structure. Patterns of intergenerational inheritance contribute to population change, but their contribution is falling well short of recent historical change and is not exacerbating existing economic disparities by family structure.

We add two cautionary notes. First, as we have shown, our results are sensitive to how we define family structure. Defining families on the basis of current marital status, current distributions by poverty and family structure are very nearly at equilibrium. On the basis of nonmarital childbearing, however, intrinsic rates have not yet played themselves out; that is, mobility and fertility are generating growth in poverty and female headship. Much of what we know about single parenthood comes from imperfect data on the timing and sequencing of transitions into (and out of) marriage, cohabitation, and parenthood. Families are increasingly diverse, and, as our results suggest, differences between them may have important implications for processes of social stratification. We need to improve our ability to model this complexity.

Second, our results do not differ based on our alternative definition of poverty, i.e., 150 percent of the official thresholds. This may mean that socioeconomic mobility does not differ according to how economic hardship is defined. Or family income may simply not capture salient differences in, for

example, the quality of neighborhoods, social networks, schools, normative climates, and other social institutions that structure opportunities. The inheritance of poverty and family structure may be weak compared to the inheritance of deep poverty, social isolation, and detachment from the labor force (Wilson 1987). Understanding how social groups influence their individual members is critical to developing a model of the effects of intergenerational inheritance in particular social and economic environments.

These limitations notwithstanding, our findings demonstrate that intergenerational associations between poverty and family structure at the micro level do not necessarily translate into important population-level effects. Individual-level studies form the basis of our understanding of the inheritance of poverty and family structure. Intergenerational associations between poverty and family structure have been shown consistently across time and data sources and lead to questions about their consequences for future generations. But the consistency and strength of these associations cannot alone reveal how they affect aggregate population trends. Although intergenerational inheritance may contribute in a small way, changes in the relative numbers of persons in different family and socioeconomic statuses must be understood in terms of broader social, economic, and cultural developments, such as shifts in the relative economic positions of men and women (Becker 1991; Oppenheimer, Kalmijn, and Lim 1997; Ruggles 1997; Sweeney 2002), ideational changes (Axinn and Thornton 2000; Thornton 1989), and changes in the material aspirations of younger cohorts (Bumpass 1990). They must be understood, that is, in terms largely outside the micro-level effects of family structure on subsequent generations.

REFERENCES

Agresti, A. 2002. *Categorical Data Analysis, Second Edition*. Hoboken, NJ: John Wiley & Sons.

Astone, N. M. and S. S. McLanahan. 1991. "Family Structure, Parental Practices and High School Completion." *American Sociological Review* 56(3): 309-320.

Axinn, W.G. and A. Thornton. 2000. "The Transformation in the Meaning of Marriage." Pp. 147-65 in *The Ties That Bind: Perspective on Marriage and Cohabitation*, edited by L.J. Waite, C.A. Bachrach, M. Hindin, E. Thomson and A. Thornton. New York: Aldine de Gruyter.

Becker, G.S. 1991. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

Bianchi, S.M. 1995. "The Changing Demographic and Socioeconomic Characteristics of Single Parent Families."Pp. 71-97 in *Single Parent Families: Diversities, Myths and Realities*, edited by S.M.H. Hanson, M.L. Heims, D.J. Julian and M.B. Sussman. New York: Haworth Press Inc.

Bianchi, S. M. 1999. "Feminization and Juvenilization of Poverty: Trends, Relative Risks, Causes, and Consequences." *Annual Review of Sociology*. 25:307-333.

Biblarz, T. J. and A. E. Raftery. 1993. "The Effects of Family Disruption on Social Mobility." *American Sociological Review* 58(1): 97-109.

Bumpass, L. and H.H. Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts in the United States." *Population Studies* 54(1):29-41.

Bumpass, L. and R.K. Raley. 1995. "Redefining Single-Parent Families: Cohabitation and Changing Family Realities." *Demography* 32(1):97-109.

Bumpass, L.L. 1990. "What's Happening to the Family? Interactions between Demographic and Institutional Change." *Demography* 27(4):483-98.

Citro, C.F. and R.T. Michael, ed. 1995. *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.

Corcoran, M. 2001. "Mobility, Persistence, and the Consequences of Poverty for Children: Child and Adult Outcomes." Pp. 127-161 in *Understanding Poverty*, edited by S.H. Danziger and R.H. Haveman. Cambridge, MA: Harvard University Press.

Duncan, G.J. and W. Rodgers. 1991. "Has Children's Poverty Become More Persistent?" *American Sociological Review* 56(4):538-50.

Eggebeen, D.J. and D.T. Lichter. 1991. "Race, Family Structure, and Changing Poverty Among American Children." *American Sociological Review* 56(6):801-17.

Ellwood, D.T. and C. Jencks. 2002. "The Growing Differences in Family Structure: What Do We Know? Where Do We Look for Answers?" IRP Summer Research Workshop: Current Research on the Low-Income Population. June 24-27, University of Wisconsin-Madison.

Garasky, S. and D.R. Meyer. 1996. "Reconsidering the Increase in Father-Only Families." *Demography* 33(3):385-93.

Garfinkel, I., J. Hoem, S. McLanahan and D. Meyer. 1991. "Does a Growing Underclass Threaten to Undermine the Progress of Black Americans?" Discussion Paper No. 957-91. Institute for Research on Poverty, University of Wisconsin-Madison.

Kelly, J.E., W.D. Mosher, A.P. Duffer and S.H. Kinsey. 1997. "Plan and Operation of the 1995 National Survey of Family Growth." Vital and Health Statistics, Series 1, No. 36. National Center for Health Statistics, Hyattsville, MD.

Lam, D. 1986. "The Dynamics of Population Growth, Differential Fertility, and Inequality." *American Economic Review* 76(5):1103-16.

Levine, D.I. and B. Mazumder. 2002. *Choosing the Right Parents: Changes in the Intergenerational Transmission of Inequality Between 1980 and the Early 1990s*. Working Paper Series WP-02-08, Federal Reserve Bank of Chicago.

Mare, R.D. 1996. "Demography and the Evolution of Educational Inequality." Pp. 117-51 in *Social Differentiation and Social Inequality: Essays in Honor of John Pock*, edited by J.N. Baron, D.B. Grusky and D.J. Treiman. Boulder, CO: Westview Press.

_____. 1997. "Differential Fertility, Intergenerational Educational Mobility, and Racial Inequality." *Social Science Research* 26(3):263-91.

Martinson, B.C. and L.L. Wu. 1992. "Parent Histories: Patterns of Change in Early Life." *Journal of Family Issues* 13(3):351-77.

Mayer, S.E. 1997. *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, MA: Harvard University Press.

Mazumder, B. 2001. *The Mis-Measurement of Permanent Earnings: New Evidence from Social Security Earnings Data.* Working Paper Series WP-01-24, Federal Reserve Bank of Chicago.

McLanahan, S.S. and G.D. Sandefur. 1994. *Growing up with a Single Parent*. Cambridge, MA: Harvard University Press.

McLanahan, S. and L. Bumpass. 1988. "Intergenerational Consequences of Family Disruption." *American Journal of Sociology* 94(1):130-52.

McLanahan, S.S. 1985. "Family Structure and the Reproduction of Poverty." *American Journal of Sociology* 90(4):873-901.

_____. 1988. "Family Structure and Dependency: Early Transitions to Female Household Headship." *Demography* 25(1):1-16.

Morgan, S.P. and R.R. Rindfuss. 1999. "Reexamining the Link of Early Childbearing to Marriage and to Subsequent Fertility." *Demography* 36(1):59-75.

Musick, K. 2000. *Nonmarital Childbearing and the Changing American Family*. Unpublished doctoral dissertation, University of Wisconsin-Madison.

Musick, K. and R. D. Mare. 1999. *Recent Trends in the Inheritance of Poverty and Family Structure*. CDE Working Paper No. 99-21, Center for Demography and Ecology, University of Wisconsin-Madison.

Oppenheimer, V.K., M. Kalmijn and N. Lim. 1997. "Men's Career Development and Marriage Timing During a Period of Rising Inequality." *Demography* 34(3):311-30.

Preston, S.H. 1974. "Differential Fertility, Unwanted Fertility, and Racial Trends in Occupational Achievement." *American Sociological Review* 39(4):492-506.

Preston, S.H. and C. Campbell. 1993. "Differential Fertility and the Distribution of Traits: The Case of IQ." *American Journal of Sociology* 98(5):997-1019.

Raley, R.K. and L. Bumpass. 2003. "The Topography of the Divorce Plateau: Levels and Trends in Union Stability in the United States after 1980." *Demographic Research* Vol. 8, Article 8.

Rogers, A. 1975. *Introduction to Multiregional Mathematical Demography*. New York: Wiley.

Ruggles, S. 1997. "The Rise of Divorce and Separation in the United States, 1880-1990." *Demography* 34(4):455-66.

Sandefur, G. D., S. McLanahan, R.A. Wojtkiewicz. 1992. "The Effects of Parental Marital Status During Adolescence on High School Graduation." *Social Forces* 71(1): 103-121.

Seltzer, J.A. 1991. "Relationships between Fathers and Children Who Live Apart: The Father's Role after Separation." *Journal of Marriage and the Family* 53(1):79-101.

Solon, G. 1992. "Intergenerational Income Mobility in the United States." *American Economic Review* 82(3):393-408.

Stevens, A. H. 1994. "The Dynamics of Poverty Spells: Updating Bane and Ellwood." *American Economic Review* 84(2): 34-37.

Sweeney, M.M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review* 67:132-147.

Thornton, A. 1989. "Changing Attitudes toward Family Issues in the United States." *Journal of Marriage and the Family* 51(4):873-93.

U.S. Bureau of Labor Statistics. 2002. *NLS Handbook*. Washington, DC.

U.S. Census Bureau. 1998. "Trap Door? Revolving Door? Or Both?" Current Population Reports Series P70-63. Washington, DC.

_____. 2000. "Fertility of American Women." Current Population Reports Series P20-526. Washington, DC.

_____. 2001a. "Table CH-5. Children Under 18 Years Living With Mother Only, by Marital Status of Mother: 1960 to Present." Released June 29. http://www.census.gov/population/socdemo/hh-fam/tabCH-1.txt.

_____. 2001b. "Table H1. Percent Childless and Births Per 1,000 Women in the Last Year: Selected Years, 1976 to Present." Released October 18. http://www.census.gov/population/socdemo/fertility/tabH1.txt.

_____. 2002a. "Poverty in the United States." Current Population Reports Series P60-219.

Washington, DC. (Also part of the P-60 package: Detailed Poverty Tables, Last Revised

September 23, http://ferret.bls.census.gov/macro/032002/pov/toc.htm.)

_____. 2002b. "Poverty Thresholds in 2000." Released August 22.

http://www.census.gov/hhes/poverty/threshld/thresh00.html.

Wilson, W.J. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*.

Chicago: University of Chicago Press.

Wojtkiewicz, R.A. 1993. "Simplicity and Complexity in the Effects of Parental Structure on High

School Graduation." *Demography* 30(4):701-17.

Wojtkiewicz, R.A. 1992. "Diversity in Experiences of Parental Structure During Childhood and

Adolescence." *Demography* 29(1):59-68.

Wu, L.L. and S.P. Martin. 2002. "Is There an Engine of Nonmarital Fertility?" Unpublished manuscript.

Center for Demography and Ecology, University of Wisconsin-Madison.

Wu, L.L., L. Bumpass, and K. Musick. 2001. "Historical and Life Course Trajectories of Nonmarital

Childbearing." Pp. 3-48 in *Out of Wedlock: Causes and Consequences of Nonmarital

Fertility*, edited by Lawrence L. Wu and Barbara Wolfe. New York: Russell Sage Foundation.

Wu, L.L. 1996. "Effects of Family Instability, Income, and Income Instability on the Risk of a Premarital

Birth." *American Sociological Review* 61(3):386-406.

Wu, L.L. and B.C. Martinson. 1993. "Family Structure and the Risk of a Premarital Birth." *American

Sociological Review* 58(2):210-32.

Zimmerman, D.J. 1992. "Regression toward Mediocrity in Economic Stature." *The American

Economic Review* 82(3):409-2.

TABLE 1. TRENDS IN THE DISTRIBUTION OF POVERTY AND FAMILY STRUCTURE, 1959-2001 CPS

	Distribution of Persons in Families by Poverty and Family Structure				Poverty Rate by Family Structure			
	Not Poor Two-Parent	Not Poor Female-Headed	Poor Two-Parent	Poor Female-Headed	Two-Parent	Female-Headed	Diff. /1	Odds Ratio /2
All Races								
2000-01	78.3	11.9	5.0	4.8	6.0	28.5	22.5	6.22
1995-99	76.6	11.1	6.0	6.3	6.8	34.2	27.3	7.21
1990-94	76.8	10.2	6.5	6.4	7.8	38.6	30.8	7.43
1985-89	78.5	9.6	6.2	5.7	7.3	37.4	30.1	7.57
1980-84	78.2	8.9	7.2	5.7	8.5	38.9	30.4	6.88
1975-79	81.3	8.4	5.5	4.8	6.4	36.3	29.9	8.34
1970-74	82.7	7.0	6.1	4.2	6.8	37.8	31.0	8.25
1965-69	81.7	5.7	8.8	3.9	9.7	40.3	30.6	6.28
1960-64	76.2	4.7	14.8	4.3	16.3	47.9	31.6	4.71
1959	74.8	4.3	16.6	4.2	18.2	49.4	31.2	4.40
Whites								
2000-01	82.0	10.0	5.0	3.0	5.6	23.7	18.1	4.92
1995-99	82.0	9.0	5.0	4.0	6.2	28.9	22.7	7.29
1990-94	81.6	8.5	6.1	3.8	6.9	30.2	23.3	6.03
1985-89	82.7	8.2	5.7	3.4	6.4	29.8	23.4	6.09
1980-84	82.4	7.7	6.6	3.3	7.4	29.6	22.2	5.34
1975-79	85.1	7.2	4.9	2.7	5.5	27.1	21.6	6.38
1970-74	86.3	6.1	5.2	2.4	5.7	28.4	22.7	6.59
1965-69	85.4	5.2	7.1	2.3	7.6	31.6	24.0	5.26
1960-64	80.7	4.6	12.0	2.7	13.0	36.7	23.7	3.88
1959	79.2	4.3	13.7	2.9	14.7	40.2	25.5	3.89
Blacks /3								
2000-01	52.6	26.1	5.3	16.0	9.2	38.0	28.8	6.08
1995-99	54.0	23.0	5.0	18.0	10.5	44.2	33.7	8.45
1990-94	46.7	21.6	7.8	23.9	14.3	52.5	38.2	6.63
1985-89	49.8	19.9	8.2	22.0	14.2	52.5	38.3	6.67
1980-84	48.6	18.0	10.5	22.9	17.8	56.1	38.3	5.90
1975-79	52.7	17.2	9.4	20.6	15.1	54.5	39.4	6.70
1970-74	54.7	14.1	12.6	18.5	18.7	56.9	38.2	5.70
1966-69	53.6	10.5	19.7	16.3	26.8	61.0	34.2	4.23
1959	39.0	6.1	40.3	14.6	50.8	70.6	19.8	2.32

Notes:
1/ Difference in poverty rates between female-headed and two-parent families.
2/ Odds of poverty in female-headed versus two-parent families.
3/ For blacks, data are not available for 1960-65.
Source: Data from the U.S. Census Bureau (2002a, Table A-1).

TABLE 2. JOINT INTERGENERATIONAL MOBILITY MATRIX

Mother's Poverty and Family Structure	Daughter's Poverty and Family Structure						
	Not Poor Two-Parent	Not Poor Female-Headed	Poor Two-Parent	Poor Female-Headed	Daughter Totals	Mother Totals	Number of Cases
All Races							
Not poor two-parent	78.8	15.2	2.0	4.0	100	74.7	2023
Not poor female-headed	65.0	27.0	2.5	5.6	100	10.3	279
Poor two-parent	51.2	22.6	9.3	16.9	100	7.7	207
Poor female-headed	45.7	28.5	3.4	22.5	100	7.4	199
Daughter Totals	72.8	18.0	2.7	6.5	100	100	2709
Whites							
Not poor two-parent	80.5	13.9	2.1	3.6	100	81.7	1534
Not poor female-headed	72.4	21.4	2.7	3.5	100	9.7	182
Poor two-parent	57.2	17.6	12.2	13.0	100	5.2	97
Poor female-headed	75.0	13.9	3.0	8.1	100	3.5	65
Daughter Totals	78.3	14.8	2.7	4.2	100	100	1878
Blacks							
Not poor two-parent	52.4	35.6	1.7	10.3	100	32.2	267
Not poor female-headed	34.6	49.9	1.5	14.0	100	14.2	118
Poor two-parent	42.9	29.5	5.4	22.3	100	22.7	188
Poor female-headed	25.9	38.3	3.6	32.2	100	30.9	257
Daughter Totals	39.5	37.1	3.1	20.3	100	100	831

Note: Proportions and *N*'s are weighted.
Source: Pooled sample from the NLSYW (*N*=1157, *R*'s ages 14-18 in 1968) and the NLSY (*N*=1552, *R*'s ages 14-18 in 1979).

TABLE 3. FERTILITY DIFFERENTIALS BY POVERY AND FAMILY STRUCTURE

	All Races	Whites	Blacks
Not poor two-parent	1.07	1.05	1.11
Not poor female-headed	1.14	1.14	1.20
Poor two-parent	1.50	1.39	1.63
Poor female-headed	1.65	1.61	1.96
Overall average	1.17	1.15	1.27
Average for nonpoor	1.13	1.12	1.16
Average for poor	1.55	1.50	1.67
Average for two-parent families	1.17	1.12	1.28
Average for female-headed families	1.16	1.16	1.24
N	3189	2446	743

Note: Average number of female children born to women ages 35-44.
Averages are weighted; *N*'s are unweighted.
Source: Data from the 1995 National Survey of Family Growth (NSFG).

TABLE 4. PROJECTED POVERTY AND FAMILY STRUCTURE DISTRIBUTIONS

	All Races				Whites				Blacks			
	2001		**1975**		**2001**		**1975**		**2001**		**1975**	
	Initial /1	**Equil.** /2	**Initial** /3	**Equil.** /4	**Initial**	**Equil.**	**Initial**	**Equil.**	**Initial**	**Equil.**	**Initial**	**Equil.**
Distribution of Poverty and Family Structure												
Not poor two-parent	78.1	77.5	81.4	80.9	82.1	81.3	85.0	85.1	52.3	54.0	53.7	57.0
Not poor female-headed	12.0	12.3	7.7	8.3	9.8	9.7	6.6	6.5	26.3	28.3	16.2	17.1
Poor two-parent	5.1	5.2	6.3	5.7	4.9	5.4	5.6	5.8	5.7	4.2	10.9	9.0
Poor female-headed	4.8	5.0	4.6	5.2	3.1	3.6	2.8	2.6	15.7	13.5	19.2	16.9
Total	100	100	100	100	100	100	100	100	100	100	100	100
Poverty Rate by Family Structure												
Two-parent	6.2	6.3	7.1	6.6	5.7	6.3	6.1	6.4	9.8	7.2	16.9	13.7
Female-headed	28.6	28.9	37.5	38.7	24.3	26.8	29.4	28.5	37.4	32.3	54.3	49.8
Difference /5	22.4	22.6	30.4	32.1	18.6	20.5	23.2	22.1	27.6	25.1	37.4	36.1
Odds Ratio of Poverty and Family Structure /6	6.10	6.01	7.80	9.00	5.33	5.47	6.36	5.84	5.51	6.13	5.84	6.26

Notes:
1/ The initial distribution is based on data from the 2001 CPS.
2/ The equilibrium distribution is derived from the population renewal model, with the mobility matrix adjusted so that the destination marginals match the 2001 CPS distribution.
3/ The initial distribution is based on data from the 1975 CPS.
4/ The equilibrium distribution is derived from the population renewal model, with the mobility matrix adjusted so that the destination marginals match the 1975 CPS distribution.
5/ Difference in poverty rates between female-headed and two-parent families.
6/ Odds of poverty in female-headed versus two-parent families.
Sources:
Initial population distributions from U.S. Census Bureau (2002a,Table A-1).
Mobility matrix based on pooled sample from the NLS Young Women (N=1157, ages 14-18 in 1968) and the NLSY (N=1552, ages 14-18 in 1979).
Fertility rates based on the 1995 NSFG (N=3293).

TABLE 5. PROJECTED POVERTY AND FAMILY STRUCTURE DISTRIBUTIONS UNDER ALTERNATIVE ASSUMPTIONS ABOUT FERTILITY AND MOBILITY, ALL RACES

		Mobility /2		Projected Population Distribution				Poverty Rate			
Simulation	Fertility /1	Family	Poverty	Not Poor Two-Parent	Not Poor Female-Headed	Poor Two-Parent	Poor Female-Headed	Two-Parent	Female-Headed	Diff. /3	Odds Ratio /4
Initial Population Distribution -- 2001 CPS				*78.1*	*12.0*	*5.1*	*4.8*	*6.1*	*28.6*	*22.4*	*6.13*
1	Obs.	Obs.	Obs.	77.5	12.3	5.2	5.0	6.3	28.9	22.6	6.01
1a	Avg.	Obs.	Obs.	79.1	11.8	4.9	4.3	5.8	26.7	20.9	5.91
1b	Pov.	Obs.	Obs.	77.9	12.1	5.2	4.8	6.3	28.5	22.3	5.98
1c	Fam.	Obs.	Obs.	79.1	11.8	4.9	4.3	5.8	26.7	20.9	5.91
1d	Diff.x2	Obs.	Obs.	72.8	14.2	6.3	6.8	8.0	32.4	24.4	5.53
2	Obs.	Mob.	Mob.	78.1	12.0	5.1	4.8	6.1	28.6	22.4	6.13
2a	Avg.	Mob.	Mob.	78.1	12.0	5.1	4.8	6.1	28.6	22.4	6.13
3	Obs.	Immob.	Immob.	0.0	0.0	0.0	100.0	--	100.0	--	--
3a	Avg.	Immob.	Immob.	78.1	12.0	5.1	4.8	6.1	28.6	22.4	6.13

Notes:

1/ Fertility column: obs.=observed differential fertility; avg.=average fertility for all women; pov.=fertility differentiated by poverty status only; fam.=fertility differentiated by family structure only; diff.x2=fertility differentials twice as large as obsered differentials.

2/ Mobility columns: obs.=observed mobility patterns; mob.=perfect mobility between mothers and daughters; immob.=perfect immobility between mothers and daughters.

3/ Difference in poverty rates between female-headed and two-parent families.

4/ Odds of poverty in female-headed versus two-parent families.

TABLE 6. PROJECTED POVERTY AND FAMILY STRUCTURE DISTRIBUTIONS, MARITAL VERSUS NONMARITAL FAMILIES

	All Races				Whites				Blacks			
	1995		1973		1995		1973		1995		1973	
	Initial /1	Equil. /2	Initial /3	Equil. /4	Initial	Equil.	Initial	Equil.	Initial	Equil.	Initial	Equil.
Distribution of Poverty and Family Structure												
Not poor marital	68.6	60.0	81.5	77.3	75.8	69.6	87.3	85.0	26.1	20.0	37.6	31.7
Not poor nonmarital	17.4	21.7	7.1	8.6	12.8	15.3	4.2	4.8	44.7	47.8	29.0	32.0
Poor marital	6.4	6.9	8.5	9.6	6.5	8.0	7.4	8.7	5.7	5.9	16.3	15.4
Poor nonmarital	7.7	11.3	2.9	4.5	5.0	7.2	1.2	1.4	23.6	26.2	17.2	21.0
Total	100	100	100	100	100	100	100	100	100	100	100	100
Poverty Rate by Family Structure												
Marital	8.5	10.3	9.4	11.0	7.9	10.3	7.8	9.3	17.8	22.8	30.2	32.6
Nonmarital	30.6	34.3	29.4	34.4	28.0	32.0	21.7	22.9	34.6	35.4	37.2	39.7
Difference	22.1	23.9	20.0	23.4	20.1	21.7	13.9	13.6	16.7	12.6	7.0	7.0
Odds Ratios of Poverty and Family Structure	4.76	4.53	4.01	4.23	4.56	4.12	3.25	2.89	2.43	1.86	1.37	1.36

Notes:
1/ The initial distribution is based on data from the 1995 NSFG (N=3293).
2/ The equilibrium distribution is derived from the population renewal model, with the mobility matrix adjusted so that destination marginals match the 1995 NSFG distribution.
3/ The initial distribution is based on data from the 1973 NSFG (N=3487).
4/ The equilibrium distribution is derived from the population renewal model, with the mobility matrix adjusted so that destination marginals match the 1973 NSFG distribution.
3/ Difference in poverty rates between nonmarital and marital families.
4/ Odds of poverty in nonmarital versus marital families.
Sources:
Mobility matrix based on data from the NLSY (N=1453, ages 14-18 in 1979).
Fertility rates based on the 1995 NSFG (N=3293).