For Richer or for Poorer: Marriage as an Antipoverty Strategy

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This study examines the effects of changes in family structure on children's economic well-being. An initial shift-share analysis indicates that, had the proportion of children living in female-headed families remained constant since 1970, the 1998 child poverty rate would have been 4.4 percentage points lower than its actual 1998 level of 18.3 percent. We then use the March 1999 Current Population Survey to conduct a second analysis in which marriages are simulated between single mothers and demographically-similar unrelated males. The microsimulation analysis addresses some of the shortcomings of the shift-share approach by allowing us to account for the possibility of a shortage of marriageable men, to control for unobservable differences between married men and women and their unmarried counterparts, and to measure directly the effects of increases in marriage on the economic well-being of children. Results from the microsimulation analysis suggest that, had the proportion of children living in female-headed families remained constant since 1970, the child poverty rate would have been 3.4 percentage points lower than its actual 1998 level. Among children whose mothers participated in a simulated marriage, the poverty rate would have fallen by almost two-thirds.

Keywords: poverty, marriage, family formation

The public debate over family formation and child well-being has sharpened in recent years. This heightened interest is due in part to the well-documented "decline" of the traditional nuclear family in the United States. From 1970 to 1998, the proportion of children living in two-parent families fell from 85.2 percent to 68.1 percent. Over the same period, the proportion of children living in female-headed families increased from 10.8 percent to 23.3 percent (United States Census Bureau, 2001a). In this paper, we examine the effects of changes in family structure on the economic well-being of children. We begin by assessing the impact of these changes on the child poverty rate over the last thirty years. We then employ a microsimulation model to estimate the effect that higher rates of marriage would have on child poverty, and on other measures of economic well-being.

BACKGROUND

The poverty rate among single-parent families is more than four times as high as it is among two-parent families (Sawhill and Thomas, 2001). This is partially a function of the way that poverty thresholds are constructed. A single-parent family with two children had a threshold of $13,133 in 1998, while a two-parent family with the same number of children had a threshold of $16,530. According to this measure, a two-parent family therefore needs only about $3,400 more than a single-parent family to escape poverty, despite the fact that two-parent families presumably contain two adults capable of participating in the labor force while single-parent families contain only one.

The correlation between family structure and poverty status persists when examined over time. Lerman (1996) conducts a shift-share analysis and finds that almost all of the increase in poverty among children between 1970 and 1989 is associated with changes in family structure. Sawhill (1999) adopts a similar approach for the period 1970 to 1997 and arrives at much the same conclusion. We further update this work using a shift-share, or standardization, procedure that allows child poverty rates among female-headed families and all other family types to vary naturally over time, but that imposes the counterfactual assumption that the proportion of children living in female-headed families remained constant at its 1970 level.[1]

As Figure 1 shows, the thrust of our findings is generally consistent with that of previous work. We find that, had the proportion of children living in female-headed families remained constant since 1970, the child poverty rate in 1998 would have fallen by 1 percentage point, rather than rising by 3.4 percentage points, relative to the 1970 rate. Thus, the poverty rate is 4.4 percentage points – or 24 percent – lower as a result of assuming marriage patterns similar to those that existed in 1970.

However, one problem with a shift-share analysis is that it does not account for the possibility that single-parent families possess characteristics that disproportionately predispose them to poverty. Some studies attempt to control, at least partially, for such characteristics. Cancian and Reed (2000) conduct an analysis that resembles the one

[1] Thus, the counterfactual poverty rate for year t is equal to FH_t*.116 + NFH_t*.884, where FH_t equals the child poverty rate among female-headed families in year t, .116 is the proportion of children living in female-headed families in 1970, NFH_t equals the child poverty rate among non-female-headed families in year t, and .884 is the proportion of children living in non-female-headed families in 1970. The percentage of children living in female-headed families cited here is slightly different than the corresponding percentage cited in the first paragraph of the paper. This is because the percentage cited earlier was among all children in the CPS, whereas the percentage cited here is only among related children (that is to say, those children that are related to the head of their household).

described above, but they decompose changes in the poverty rate into those associated with changes in family structure and female labor force behavior. Eggebeen and Lichter (1991) adopt an approach that is similar to Cancian and Reed's, although they conduct separate analyses for black and white families. Gottschalk and Danziger (1993) decompose changes in the child poverty rate into changes in mothers' demographic characteristics (race, age, education level, and region of residence), changes in the proportion of children living in female-headed families, and changes in the sizes and incomes of families falling into each joint family-type/demographic subgroup.

Each of these studies finds that the incidence of single parenthood has a considerable impact on the incidence of poverty. Cancian and Reed find that changes in family structure alone would have led to a poverty rate increase of 3.6 percentage points between 1969 and 1998 (the poverty rate actually rose by only nine tenths of a percentage point over this period). Eggebeen and Lichter's results suggest that, had there been no changes in family structure between 1960 and 1998, the black child poverty rate in 1998 would have been 28.4 percent rather than 45.6 percent, and the white child poverty rate would have been 11.4 percent rather than 15.4 percent. Gottschalk and Danziger find that, all things being equal, increases in female headship between 1968 and 1986 would have led to an increase in the child poverty rate of 12.9 percentage points among blacks, and of 3.0 percentage points among whites (the black child poverty rate actually declined by four tenths of a percentage point over this period, whereas the white child poverty rate increased by 4.8 percentage points). Table 1 summarizes these findings and provides brief descriptions of the analyses that generated them.

From a policy standpoint, this literature does not necessarily imply that increases in marriage among single parents would inevitably bring about reductions in poverty. There could be differences between currently-married men and women and their unmarried counterparts that these analyses fail to capture. For instance, there might be unobservable disparities between the earnings potential of married and unmarried adults, or between the work opportunities available to them. If so, poverty is less a function of family formation per se than of unobservable characteristics that affect both poverty status and family structure. Such arguments are consistent with Bane's (1986) hypothesis that the "feminization" of poverty partially reflects a "reshuffling" of already-poor families across family types, as opposed to the creation of newly-poor families as the result of increases in female headship. To the extent that this theory is correct, additional marriage may have less of an ameliorative effect on poverty than the literature reviewed above would otherwise suggest.

Another well-known thesis is that there are not enough suitable men to allow for substantial increases in marriage among female-headed families. Wilson and Neckerman (1987) argue that much of the growth in black female headship is the result of rising male joblessness and its correlate, the reduction in the available pool of "marriageable men." The authors create a "male marriageable pool index" (MMPI), which is defined as the ratio of employed men per 100 women of the same age and race. They show that the increase in black female headship since 1970 was accompanied by steep reductions in the MMPI among young and middle-aged nonwhites, and they suggest that the latter trend may have contributed to the former.

However, subsequent research has shown that declines in the employment and earnings of black men can explain only a small proportion – probably no more than a fifth – of the increase in black female headship (Ellwood and Crane, 1990; Lerman, 1989; Mare and Winship, 1991; McLanahan and Casper, 1995). And in more recent work, Wilson (1996) acknowledges that emerging evidence relating to the "marriageable male" theory is mixed. He suggests that cultural norms may play a greater role in family formation patterns than was originally thought. Nonetheless, the available evidence indicates that the size of the pool of marriageable men has had *some* impact on family structure, even if the magnitude of this effect is smaller than was initially suggested. Insofar as there is in fact a shortage of marriageable males, meaningful increases in marriage within low-income minority communities might not be possible, or may only serve to bring men with little or no earnings into families whose incomes are already insufficient to meet their needs.

Given the likelihood of unobservable differences between married and unmarried adults, as well as a possible shortage of marriageable minority men, it is difficult to predict the antipoverty effects of additional marriage using traditional research techniques. For this reason, we conduct a microsimulation that directly estimates the impact that higher marriage rates would have on child poverty. Using 1999 Census data, we simulate new marriages among eligible observations and recalculate family income and poverty status among these "newly-married" families. This approach allows us to account explicitly for possible shortages of marriageable males, and for any unobservable differences between the earnings capacity of married and unmarried adults. Lerman (1996) conducts a similar analysis using 1990 Census data and finds that increases in

marriage would produce a considerable reduction in child poverty. Our simulation process, while building on Lerman's pioneering work, improves upon it and extends it in new directions.[2]

Our microsimulation findings suggest that, had the proportion of children living in female-headed families in 1998 been the same as in 1970, the official 1998 child poverty rate would have fallen by 3.4 percentage points relative to its actual 1998 level. This is a somewhat smaller decline than the 4.4 percentage point drop estimated on the basis of the shift-share analysis. Among children involved in simulated marriages, however, the poverty rate falls by almost two-thirds. These antipoverty effects are greater for black than for white children, lending some support to the theory that there is a lack of marriageable minority males. Our findings are robust to a variety of alternative specifications regarding the treatment of cohabitors in our analysis.

METHODOLOGY AND DATA

The marriage microsimulation is performed on data gathered by the Bureau of the Census during the March 1999 administration of the Current Population Survey (CPS).[3] In order to obtain a more accurate sense of the actual level of families' disposable resources, we adjust the official CPS measure of income to take into account federal tax

[2] Lerman sorts his male and female samples by age and education level and then merges these samples in order to create matches. He conducts separate matching processes for black and non-Hispanic white observations (he deals only with these two racial groups). We use a process that places men and women into race, age and education categories and creates matches only among observations that match on all criteria. After marriages are simulated, Lerman subtracts the mother's entire welfare benefit from the new family's income. We recalculate a range of government benefits – including Food Stamps, Supplemental Security Income, cash assistance, and Earned Income Tax Credit payments – using a procedure that is somewhat more sophisticated (an appendix describing our benefit-recalculation process is available upon request). And finally, we test the sensitivity of our results to the increasing prevalence of cohabitation.

[3] The March CPS is used each year to calculate the official poverty rate. Income characteristics in the 1999 survey are for 1998. Family characteristics other than income refer to 1999.

liability, work-related child care expenses, and receipt of Food Stamp benefits and Earned Income Tax Credit (EITC) payments.[4] All income and poverty measures used in the microsimulation incorporate these adjustments unless otherwise specified.

Our objective is to set the proportion of children living in female-headed families in 1998 equal to the corresponding proportion in 1970. This requires that approximately 9.5 million children living in female-headed families be shifted to the two-parent-family category. In order to meet this goal, we assign marital matches to 5.8 million single mothers.[5] These mothers are matched with unrelated males.[6] We allocate marital partners using three characteristics as matching criteria: race, age, and level of education. This approach is in keeping with the findings of a number of studies that show evidence of marital sorting by race, age, and education (Blackwell and Lichter, 2000; Garfinkel et

[4] The tax liability and EITC adjustments are calculated by the authors using variables pertaining to family composition, earnings, and adjusted gross income. The Food Stamp adjustment is based on a CPS estimate of the value of families' Food Stamp benefits. Out-of-pocket child care expenses are calculated using a series of parameters estimated by the Census Bureau's Experimental Poverty Measures team. These parameters were generated over the course of the team's analyses of the Survey of Income and Program Participation. Additional details regarding the methodology used for calculating child care expenses is available upon request. A thorough discussion of this methodology can also be found in Short et al. (1999). Some studies also take into account housing costs and medical expenses. We do not do so here. For excellent summaries of both topics, see Short et al. (1999) and Citro and Michael (1995).

[5] We impose a constraint that an observation must be at least eighteen years of age in order to participate in a simulated marriage. The target number of children is based on a comparison of the proportion of children living in female-headed households in 1970 and 1998. In 1970, 11.6 percent of children lived in female-headed households. In 1998, this percentage was 25.1 percent. In order to equalize these percentages, we must shift 25.1 percent - 11.6 percent = 13.5 percent of children in 1998 from female-headed to two-parent families. There were 70.8 million children in the United States in 1998; our goal is therefore to shift 70.8 million*.135 = 9.5 million children. The female-headed families participating in the marriage simulation contain an average of 1.6 children. We therefore assign matches to 9.5 million/1.6 = 5.8 million mothers. The reader should bear in mind that the 1999 CPS actually reflects income characteristics from 1998 and family-composition characteristics from 1999. However, for purposes of convenience, we discuss both types of characteristics as though they are for 1998.

[6] Approximately 18 percent of the single parents in our data are men. In order to maintain consistency with the specification of the shift-share analysis, however, we assign marital matches only to single mothers. We have conducted sensitivity analyses in which single fathers are included in the matching process. This expanded focus does not substantively affect our results.

al., 2000; Kalmijn, 1991; Lerman, 1996; Qian and Preston, 1993; Spanier ,1983).[7] We divide observations into four race/ethnicity categories (white non-Hispanic, black non-Hispanic, Hispanic, and other), seven age categories (18 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 49, 50 to 64, and 65+), and five education categories (less than high school, high school graduate, some college, college graduate, and more than college).

We assign matches using a methodology known as "hot-deck allocation."[8] For each single mother participating in the simulation, the hot-deck process searches for an unrelated male falling into the same race, age and education categories. When such an individual is identified, a match is created and both observations are excluded from subsequent mate searches. The matching process often identifies multiple observations that would be appropriate partners for a particular single mother. In such instances, a partner is randomly selected from among the qualifying observations. We initially create more suitable matches than are necessary to meet our target number of simulated marriages. From among the pool of available matches, we randomly select the appropriate number of marriages. It was easier to find good matches for white mothers than for black mothers. Thus, a disproportionate number of the matches we create are among white men and women.

Table 2 compares the extent of marital homogamy among our simulated marriages and existing marriages in the CPS. On all three matching criteria, our simulated couples are more homogamous than existing marital couples. Table 3 shows that, in terms of annual earnings, the spouses in simulated marriages are also more alike

[7] A drawback of our matching process is that it does not take into account the geographic location of spouses participating in simulated marriages. Thus, we are not able to ensure that matches are created between men and women living in the same area.

than spouses in existing marriages. The annual earnings differential between spouses, both in nominal terms and as a percent of the husbands' average earnings, is smaller among simulated than among existing marriages. Newly-matched couples earn about $12,000 less, on average, than existing couples. In addition, wives' annual earnings exceed their husbands' more often among simulated than among existing marriages.

The latter finding is largely attributable to the fact that we allow unemployed men to participate in simulated marriages. In order to test Wilson and Neckerman's (1987) "marriageable male" hypothesis, which defines the stock of marriageable men according to their employment status, we conducted a sensitivity test in which men were allowed to participate in the marriage simulation only if they had positive earnings. In another sensitivity test, we imposed a restriction that marriages could only be created among couples in which the man's earnings exceeded the woman's. In both instances, even after the constraint was imposed, the hot-deck process created more well-matched couples than were necessary to meet our target.

It could be argued that earnings differentials among many of our newly-matched couples would increase after marriage, since women are less likely to need to work, and since some studies suggest that men's earnings tend to increase as a result of marriage. For instance, Daniel (1995) and Chun and Lee (2001) find that men enjoy a so-called "marriage wage premium" upon marrying, in which their hourly wages increase after they marry. These findings are consistent with Becker's (1981) theory that marriage tends to allow for a more efficient division of household labor, which, in turn, enhances the husband's labor force productivity.

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[8] This is also the tool used by the Census Bureau to impute missing values for the CPS (Bureau of Labor Statistics, 2000, chapter 9).

However, Nakosteen and Zimmer (1987) find that marriage does not, in fact, directly affect men's wages, and Cornwell and Rupert (1997) suggest that the relationship between marriage and wages can largely be attributed to unobservable characteristics that are correlated with marital status, rather than to the phenomenon of marriage itself. In addition, Blackburn and Korenman (1994) find that the size of the marriage premium has declined over time. In light of such findings, we remain circumspect about the magnitude and precise causal nature of this relationship. We have therefore elected not to simulate any earnings changes after marriage.[9]

After selecting the appropriate number of marriages, we re-estimate the incomes and poverty thresholds of all families whose composition changes as a result of the simulation. We also recalculate a number of other variables that are affected by changes in family income, size and composition. Specifically, we re-estimate tax liability; work-related child care expenses; and four types of government benefits: EITC payments, Food Stamps, public assistance, and Supplemental Security Income (SSI). Child care expenses, tax liability, and EITC benefits are recalculated using the process described in footnote four. Our methods for recalculating Food Stamps, public assistance, and SSI benefits are detailed in an appendix that is available from the authors upon request. After adjusted family income is recalculated, poverty status is reassessed for all families affected by the simulation.[10]

[9] Lerman (1996) does, in fact, simulate earnings changes in some of his analyses; see his paper for a discussion of the possible distributional implications of such a phenomenon.

[10] We make the simplifying assumption that participants in the microsimulation were not cohabiting before getting married. If couples had been cohabiting, the implications of marriage for their family incomes would be different than our results suggest. In the next section, we supplement our initial findings with a range of estimates of the sensitivity of our results to alternative cohabitation assumptions.

RESULTS

Table 4 shows that, after the marriage simulation, the unadjusted 1998 child poverty rate falls from 18.3 percent to 14.9 percent, which represents a 19.1 percent reduction in the total number of poor children. (Unadjusted poverty rates are calculated using the official measure of income, rather than the adjusted measure that takes into account tax liability, child care expenses, and receipt of government benefits.) This reduction is somewhat smaller than the drop from 18.3 percent to 13.9 percent elicited by the shift-share analysis. However, it is large enough to reduce the poverty rate to its 1970 level.

Row 1 of Table 5 shows that, as a result of the microsimulation, the adjusted child poverty rate falls from 16.9 percent to 13.5 percent, a 20.1 percent reduction. Additionally, our analysis indicates that 26.2 percent of poor white children and 16.8 percent of poor black children are lifted out of poverty. The CPS, like many other surveys, undercounts certain demographic groups – most notably, minority men (Bureau of Labor Statistics, 2000, chapter 16; Dalaker and Proctor, 2000). This fact clouds the interpretation of racial breakdowns of our results. Black single mothers are underrepresented among marriage simulation participants because there is a lack of potential black male partners in some age and education categories. This phenomenon is quite possibly a result of the aforementioned undercount combined with sampling error, but it could also be due to high rates of mortality and incarceration among minority men. Among whites, the number of unrelated males exceeds the number of single mothers in almost every age and education group. Consequently, whites are overrepresented among

our simulated couples and the microsimulation's antipoverty effects are larger for whites than for blacks.

The last five rows of Table 5 focus specifically on children living in families that participated in the marriage simulation. Rows 2 and 3 show that nearly two-thirds of poor children whose mothers participated in a simulated marriage are lifted out of poverty. In addition, the 200 percent poverty gap among families with children participating in the simulation falls by 47.4 percent. (The 200 percent poverty gap is calculated as the difference between a family's adjusted income and two times its poverty threshold; families with adjusted incomes above this amount are assigned a poverty gap value of 0.) Average per capita income among these children increases by 43.2 percent. Their mean income-to-needs ratio increases by 57.9 percent.[11] The fact that the percent increase in the income-to-needs ratio exceeds the percent increase in per-capita income suggests that these children's families are benefiting from the economies of scale that are factored into the estimation of federal poverty thresholds.[12]

SENSITIVITY TESTS

We have not yet accounted for the possibility that members of cohabiting couples would be affected differently by marriage than other microsimulation participants. The CPS does not treat cohabitors as members of the families with whom they are living, even though they are part of the larger household unit. As such, a cohabitor's income is

[11] The unit of observation for the computation of average per capita income and average income-to-needs ratios is the child, not the family. Families with relatively more children are therefore given relatively more weight in these calculations. Both types of averages are calculated using the adjusted measure of family income.

[12] Some families might benefit more than our analyses imply. Both Citro and Michael (1995) and Ruggles (1990) suggest that official poverty thresholds understate the economies of scale reaped by larger families.

not counted as available to the family that he is living with. In practice, however, a cohabitor might pool resources with other members of the extended household.[13] If this were the case, then a single mother who marries her cohabiting boyfriend would effectively experience no change in her economic well-being. For this reason, we conduct a series of sensitivity tests to examine the implications of alternative cohabitation assumptions for our results.

The March CPS includes a survey question that allows the respondent to list herself an "unmarried partner" of the householder. Based on responses to this question, we find that 5.7 percent of the single mothers participating in our simulation were cohabiting at the time of marriage.[14] However, analyses of other data sources suggest that responses to the CPS's survey question may substantially understate the actual extent of cohabitation in the United States (Casper et al., 1999). As such, we estimate a second cohabitation measure based on a methodology developed by Casper et al. (1999). Casper and her colleagues modify an existing measure of cohabitation known as POSSLQ ("Persons of Opposite Sex Sharing Living Quarters"), which infers cohabitation status based on household composition. Their Adjusted POSSLQ uses a broader – and, in our opinion, more appropriate – definition of cohabitation than does the original POSSLQ methodology.[15] According to the Adjusted POSSLQ definition, 13.5 percent of single

[13] Bauman (1999) suggests that this is true only to a limited extent. He finds that cohabitors are considerably less likely than related family members to contribute income towards their households' needs. In addition, one would expect the effects of cohabitation on income sharing to diminish over time, given that cohabiting relationships are typically less durable than marriages.

[14] We also find that a similar proportion of men participating in the marriage simulation had been cohabiting with a single mother before marrying.

[15] The original POSSLQ measure defines cohabiting households as those in which two unmarried adults of the opposite sex are sharing living quarters. Households containing *more than two unmarried adults* are excluded under this definition – even if the "third adult" is related to one of the other members of the household (all individuals over the age of fourteen are considered to be adults in this context). Thus, a residence containing a mother, her sixteen-year-old son, and her boyfriend would not be considered to be a

mothers participating in the marriage simulation had been cohabiting at the time of marriage.

We test the sensitivity of our results using both the direct survey measure and the Adjusted POSSLQ measure of cohabitation. If one assumes that cohabitors fully share resources, a cohabiting single mother's family would experience little or no change in its income or poverty status as a result of marriage.[16] We therefore "nullify" the marriages of any cohabiting women participating in the marriage simulation, thereby eliminating the changes in family income that they otherwise would have experienced. We then re-estimate the effects of the simulation on adjusted child poverty. Table 6 shows that incorporating the direct survey measure of cohabitation into our analysis reduces the antipoverty effects of the marriage simulation by two tenths of a percentage point. Taking the Adjusted POSSLQ measure into account reduces the simulation's antipoverty impact by half of a percentage point. Under either scenario, however, the general thrust of our findings remains unchanged.[17]

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cohabiting household according to the original POSSLQ measure. Casper and her colleagues expand this definition by allowing households containing more than two adults to be considered as cohabiting households, so long as there are only two *unrelated* adults in the household, and so long as those adults are of the opposite sex. Thus, the unrelated adults in the three-person household described above would be considered to be cohabiting under the Adjusted POSSLQ definition, since the third adult (the sixteen-year-old child) is related to one of the other household members. Our thanks to Lynne Casper and Philip Cohen for sharing with us the computer code that they developed to identify cohabiting households using this methodology.

[16] Certain income adjustments – including taxes owed and some government benefits – would change if cohabitors were to marry.

[17] An alternative means of addressing this issue would be to treat cohabiting couples as though they are already married. This would require that we recalculate the incomes of those living in cohabiting households by combining the resources of cohabiting couples and their families. Many of these households would be lifted out of poverty as a result. This approach would therefore affect the pre- and post-simulation poverty levels reported in Table 6. However, our estimates of the percentage-point impact of marriage on the poverty rate would remain unaffected.

CONCLUSION

Our analyses suggest that policies designed to engender marriage among single parents could have a considerable impact on child poverty. However, a number of caveats are in order. First, our analysis does not take into account the potential for behavioral shifts brought about by marriage. To the extent that labor force participation were to decline – or fertility were to increase – among mothers participating in the microsimulation, our results may overstate the poverty-reducing effects of marriage. Second, evidence that changes in social policy can have a significant impact on family formation patterns is limited, and many remain skeptical about its ability to do so (Ellwood, 2000; Harknett and Gennetian, 2000; Murray, 2001).[18] And finally, our analyses take into account only the economic effects of marriage. Ideally, one should evaluate a policy based on its ramifications for a broad range of measures of child welfare, of which economic welfare is only one. Nonetheless, assuming that one could craft policies with meaningful implications for family formation, our analysis suggests that such initiatives could have a large impact on child well-being.

[18] For some evidence that welfare reform may be having an impact on the proportion of children living in single-mother families, see Acs and Nelson (2001), Bavier (2001), Dupree and Primus (2001), and Sawhill (2002).

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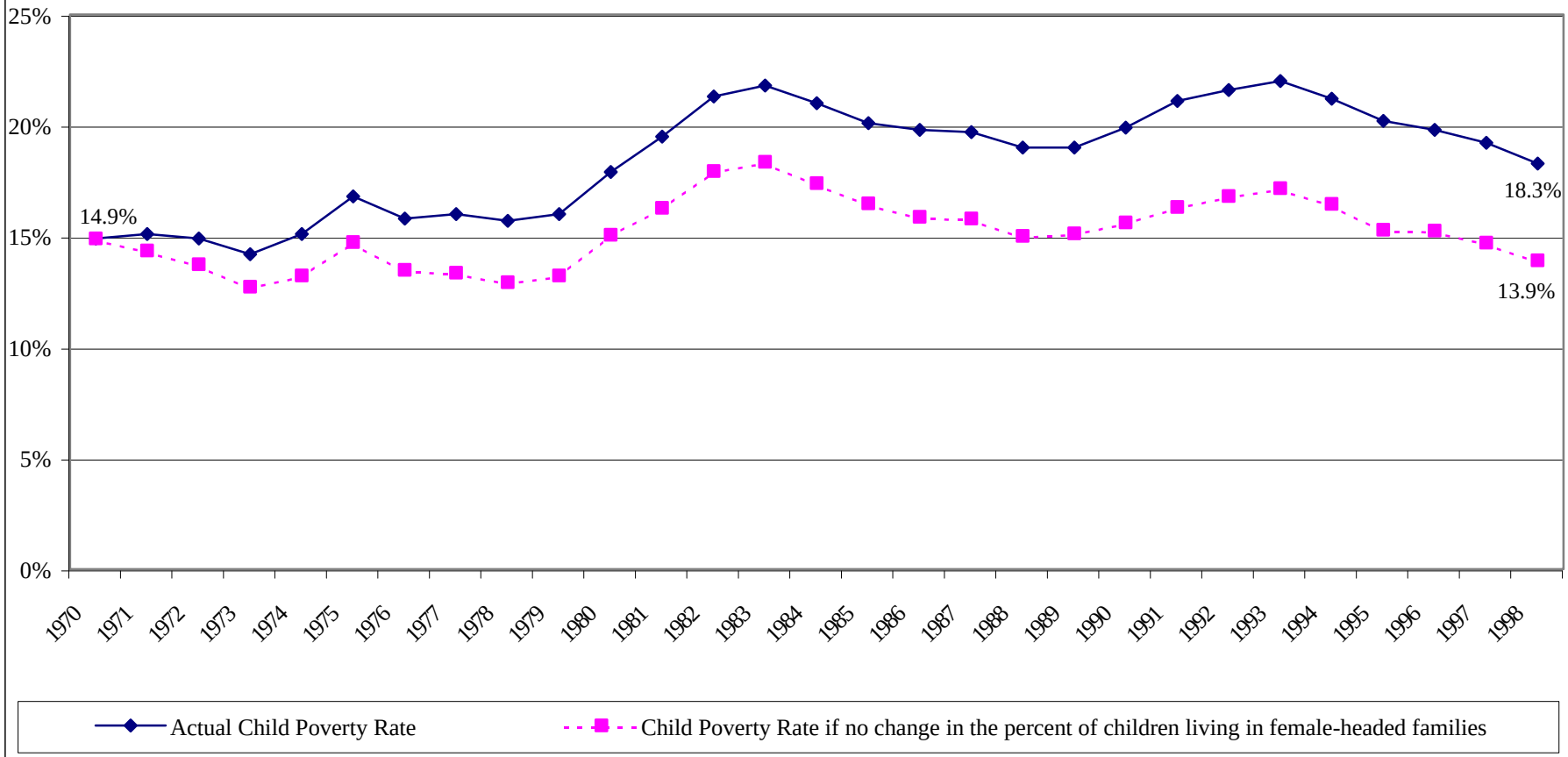
(2001)

Figure 1: The Impact of Changes in Family Structure on Child Poverty Rates



Source: Authors' tabulations of data from United States Census Bureau (2001).

Table 1: Previous Findings Regarding the Effects of Family Formation on Poverty

Study	Data Used	Methodology	Dependent Variable	Independent Variable of Interest	Control Variables	Key Findings
Cancian and Reed (2000)	March 1970 and March 1999 Current Population Surveys	Shift-Share Analysis	Poverty Rate	Distribution of the population across family types	Female labor force behavior considered in some analyses	Changes in family structure alone would have caused the poverty rate to increase from 10.8 percent in 1969 to 14.4 percent in 1998. This trend was largely mitigated by increases in female labor force participation. Thus, the 1998 poverty rate among the authors' sample was actually only 11.7 percent.
Eggebeen and Lichter (1991)	1960, 1970, and 1980 Decennial Census Extracts and March 1988 Current Population Survey	Shift-Share Analysis	Child Poverty Rate	Distribution of children across family types	Separate analyses conducted for black and white children	Had family structure not changed between 1960 and 1988, the poverty rate among white children in 1988 would have been 11.4 percent rather than 15.4 percent, and the poverty rate among black children would have been 28.4 percent rather than 45.6 percent.
Gottschalk and Danzinger (1993)	March 1969 and March 1987 Current Population Surveys	Regression Analysis	Child Poverty Rate	Proportion of households that are female-headed	Mother's age, race, education, and region of residence	All else held constant, observed increases in female headship between 1968 and 1986 would have raised the poverty rate by 12.9 percentage points among black children, and by 3.0 percentage points among white children. However, other determinants of poverty also varied over time. The black child poverty rate therefore actually fell by four tenths of a percentage point during this period, while the white child poverty rate increased by 4.8 percentage points.
Lerman (1996)	March 1972 and March 1990 Current Population Surveys	Microsimulation	Child Poverty Rate	Proportion of households with children headed by a single parent	Matching criteria: race, age and education	Had the proportion of households with children that are headed by a single parent not changed between 1971 and 1989, the child poverty rate in 1989 would have been 14.7 percent, rather than 17.1 percent.

Table 2: Measures of Marital Homogamy among Existing and Simulated Marriages

	Among Existing Marriages in the 1999 CPS	***Among Simulated Marriages***
Mean age difference between spouses	3.8	2.5
Mean difference in years of education between spouses	1.7	0.7
Percent marrying within their own racial/ethnic group*	94.7%	100.0%

* We assign observations to one of four racial/ethnic categories: white non-Hispanic, black non-Hispanic, Hispanic, and other. Mean differences reflected in this table are calculated as the average absolute value of the difference between the ages and years of education of the husband and wife.

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Table 3: Annual Earnings Differentials of Spouses in Existing and Simulated Marriages

	Among Existing Marriages in the 1999 CPS	***Among Simulated Marriages***
Average Annual Earnings of the Husband	$36,856	$25,227
Average Annual Earnings of the Wife	$15,908	$15,859
Difference in Average Annual Earnings	$20,948	$9,368
Average Earnings Differential as a Proportion of the Husband's Earnings	56.8%	37.1%
Proportion of Couples in which the Wife Earns More than the Husband	19.3%	30.9%

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Table 4: Comparison of the Effects of the Standardization and Microsimulation Analyses on Unadjusted Child Poverty

	1970	***1998***
Actual child poverty rate	14.9%	18.3%
Standardized to reflect 1970 family composition	14.9%	13.9%
Simulated to reflect 1970 family composition	14.9%	14.9%

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Table 5: Effects of the Marriage Microsimulation on Adjusted Poverty and Income*

		Pre-Simulation	Post-Simulation	Change	Percent Change
	Among all observations in the CPS				
1	Adjusted 1998 child poverty rate	16.9%	13.5%	-3.4%	-20.1%
	Among children whose mothers participated in the marriage simulation				
2	Adjusted 1998 child poverty rate	37.8%	13.1%	-24.7%	-65.4%
3	Number of poor children	3,491,054	1,207,219	-2,283,835	-65.4%
4	Family poverty gap (200%)	$55.5 billion	$29.2 billion	-$26.3 billion	-47.4%
5	Average per capita family income	$7,143	$10,232	$3,089	43.2%
6	Average family income-to-needs ratio	1.59	2.51	.92	57.9%

* Changes shown in this chart are calculated on a net basis; they take into account both increases and decreases in income and poverty. Average per capita income estimates and average income-to-needs ratio estimates are calculated as weighted averages among all children living in families that participate directly in the marriage simulation. The pre-simulation 200% poverty gap is calculated among the single-parent families participating in the simulation. The post-simulation poverty gap is calculated among the two-parent families created as a result of the matching process. Income measures have been adjusted to take into account tax liability, out-of-pocket child care expenses, and receipt of Food Stamps and the Earned Income Tax Credit.

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Table 6: Sensitivity of the Microsimulation Results to Alternative Cohabitation Assumptions

	Pre-Simulation	Post-Simulation	Change	Percent Change
Adjusted 1998 child poverty rates before cohabitation is taken into account				
Initial microsimulation results	16.9%	13.5%	-3.4%	-20.1%
Adjusted 1998 child poverty rates after cohabitation is taken into account				
Using the CPS's direct measure of cohabitation	16.9%	13.7%	-3.2%	-18.9%
Using the Adjusted POSSLQ measure of cohabitation	16.9%	14.0%	-2.9%	-17.2%

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