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Economica, New Series, Vol. 63, No. 250, Supplement: Economic Policy and Income Distribution. (1996), pp. S119-S139.

Economica (1996) **63**, S119–S139

The Impact of the Changing US Family Structure on Child Poverty and Income Inequality

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Final version received 30 March 1995.

This paper analyses links between rising income inequality, child poverty and one-parent families in the United States from 1971 to 1989. One test reallocated weights so that 1989 proportions of children by mother's marital status resembled the 1971 distribution. A second method used: (1) simulated marriages among unmarried men and unmarried mothers in 1989 to reproduce 1971 marital patterns; and (2) earnings responses induced by the simulated marriages. The results indicate that the trend away from marriage accounted for almost half the increase in child income inequality and more than the entire rise in child poverty rates.

INTRODUCTION

Income inequality became a major public issue in the United States during the 1980s. Trends indicating rising inequality have been especially troublesome in the face of stagnant growth in incomes. The inequality issue has generated heated political debate as well as a large body of scholarly research and popular accounts (Phillips 1990).

Many researchers have analysed the increasing inequality of earnings.[1] Others have looked at the changing impact of taxes and transfers.[2] Recent papers by Gottshalk and Danziger (1993) and Lerman (1991) examined the impact of changing family structure on the poverty and inequality of children, while Cancian *et al.* (1993) estimated the effects of working wives on family income inequality. In a 1993 paper and other work, Karoly has presented a detailed description of earnings and family income inequality trends over time in the United States. More recently, Karoly (1994) estimated the changes in the impacts on inequality of an array of income sources. Although nearly all authors highlight recent increases in US income inequality, Slesnick's work (1993, 1994), based on changes in the distribution of consumption, casts serious doubt on the consensus of rising inequality in the 1980s.

The dramatic change in US family patterns is an important place to look for effects relevant to trends in inequality. Between 1970 and 1991, the proportion of children in one-parent families jumped from 15% to 28%. The proportion of children in families headed by never-married mothers—the group with the highest rates of poverty—jumped from 1% to 8%. Meanwhile, the married proportion of 25–29-year old men dropped from 81% to 53%.

The direct impact of family dissolution is clear: income inequality should rise as families become increasingly divided into groups with one earner and groups with two earners. The indirect effects can arise in a number of ways. If married men have a stronger commitment to work and to the effort required to find a good job, then the shift away from two-parent families might contribute to the bifurcation in the male earnings distribution. Alternatively, increasing earnings inequality might be an important cause of family dissolution and

the associated inequality effects.[3] A third possibility is that family structure changes are reinforced by changes in the earnings patterns of women. Married women may have less need for income than single women, but married mothers have easier access to help in their homes and are less likely to face the high marginal tax rates of means-tested welfare programmes.

This paper takes a step forward in the analysis of these interactions with family structure by asking: what would have been the levels of inequality and poverty in the United States in 1989 had marriage patterns among parents remained at 1971 levels? The paper begins by presenting data on the detailed changes in living arrangements of children and tabulations based on a shift–share analysis of the impact of family structure changes on poverty rates of children. Section II briefly reviews a more sophisticated approach developed by Gottschalk and Danziger. In Section III I describe the data and present the two approaches used in this paper. The first decomposes the Gini index of inequality by family type and family structure to determine contributions of within-group, between-group and stratification effects. This method highlights the distinction between concepts of stratification and inequality. The second approach involves simulating marriages among unmarried mothers and unmarried men in 1989 so that the simulated marriage patterns are at 1971 levels. In addition, I project the impact of induced earnings resulting from change in marriage states of women and men. Section IV presents an array of results on the impacts of family structure changes on the inequality, stratification and poverty of children. Since shifts in family structure were especially pronounced among blacks, the analysis provides separate estimates of family structure impacts by race.

I. Family Structure Effects on Poverty and Inequality

Changes in family structure

In the United States, the most troubling change in family structure over the last two decades is the increase in the incidence of children living away from at least one parent. Between 1970 and 1991, the proportion of children living in one-parent families rose from 41% to 64% among blacks and from 10% to 21% among whites. Table 1 shows the changes in the distribution of children.

Table 1

Distribution of Children by Family Type, 1970–1989

Parents in child's household	Proportion of children			Poverty rate
	1970	1979	1989	1989
Two parents	85·2	77·4	73·1	9·3
Mothers only	10·8	16·9	21·5	51·7
Divorced	3·3	6·8	8·2	36·8
Separated	4·7	5·6	5·3	60·4
Widowed	2·0	2·0	1·3	37·5
Never married	0·8	2·5	6·7	65·7
Father only	1·1	1·6	2·8	20·0
Neither parent	2·9	4·1	2·5	20·0
Total	100·0	100·0	100·0	19·0

Source: tabulations by author from US Bureau of the Census (1990a, b).

By 1989, about 27% of American children did not live in a two-parent family (including step-parent families); a much higher share—about 42% in 1990—were living away from at least one biological parent (Norton and Miller 1992).

The data in Table 1 reveal how living arrangements of children have changed over time, but not the changing location of adults. More husbands–fathers divorced their wives and moved away from their children—but to where? Did they form new families with children, start a separate household, or move in with other relatives? Similarly, the fathers of the rising numbers of children living with never-married mothers might have married another woman, stayed with their parents, resided with non-relatives or even lived with their children and their children's mothers outside of marriage. Unfortunately, data on the distribution of fathers are limited and difficult to link to trends involving the changing distribution of children.

The complexity increases manyfold when our interest is in the impact of family structure on the income distribution. We need to know which unmarried people would have been married had family patterns not changed and how marriage might have affected their incomes and their childbearing behaviour. At the same time, the influence of marriage on the labour supply and the childbearing of 'new' husbands and wives could affect market wage rates and induce additional behavioural responses. Thus, a full accounting of the impact of family structure on income inequality requires a general equilibrium analysis of economic and social behaviour. Although a general equilibrium effort is beyond the scope of this paper, I do simulate the role of changing marriage and labour supply patterns on the economic status of families with children.

Child poverty rates and family structure: a shift–share approach

This section presents a shift–share analysis that yields simple estimates of the effect of family structure on child poverty rates. Between 1973 and 1989, the official poverty rate of children under 18 living in families increased from 14% to 19%.[4] How much of this increase was due to changes in family structure?

Despite the rising proposition of children living away from one parent, some authors have minimized the role of family structure in generating increased child poverty. An analysis prepared for the Committee on Ways and Means (1991) assigned little weight to the large shifts from two-parent to one-parent families. In a summary report on poverty and inequality across countries, McFate (1991) states explicitly that 'most of the families who became poor in the mid-1980s did so because of labor market changes, not solely as a result of a change in marital status . . .', and 'marital dissolution was a much less important factor in generating poverty in the United States than in any other country' (p. 12).

One simple way to analyse the issue is to assume that poverty rates remained constant over the period *within* categories and to calculate how much change in child poverty would have taken place if the only change was the proportion of children in each category. Even applying this method requires decisions on whether to use base-year on current-year poverty rates, whether to measure families or children, and whether to use pre-transfer or post-transfer income. Each of these choices can affect the results. The relevant tabulations appear in Table 2.

TABLE 2

SHIFT-SHARE ANALYSIS OF THE IMPACT OF FAMILY STRUCTURE ON POVERTY RATES OF AMERICAN CHILDREN, 1970–1989

Type of standardization	Poverty rates, projected and actual			Ratios of poverty rates within rows	
	1970	1979	1989	1979/1970	1989/1979
Poverty rate of children	14·9	16·0	19·0	1·07	1·19
Detailed categories					
Projected poverty using 1989 Subgroup poverty rates and actual family structures in each year	14·1	16·6	19·0	1·18	1·14
Projected poverty-based aggregate family structure categories					
Projected poverty, 1989 subgroup poverty rates	14·1	17·0	19·0	1·20	1·12
Projected poverty, 1979 subgroup poverty rates	12·6	15·3	17·3	1·21	1·13

Note: detailed categories distinguish between marital status groups within the female and male headship groupings of households.

Source: tabulations by author from US Bureau of the Census (1990a, b).

Using children as the unit of analysis and basing each child's poverty status on family income, we can project overall poverty rates backward to 1979 and 1970, by multiplying 1989 group-specific child poverty rates by each group's share of all children. Holding group-specific child poverty rates constant at either 1989 or 1979 levels, one finds virtually all of the increase in child poverty associated with changing family structure. Eggebeen and Licter (1991) adopt this approach and obtain similar results.

There is no real mystery behind these numbers. Assume that the child poverty rates of one-parent and two-parent families are 50% and 10%, respectively. Then, each percentage point shift of children from a typical two-parent family to a typical one-parent family would raise the aggregate poverty rate by $0{\cdot}5-0{\cdot}1$, or 0·4 percentage points.

The potential fallacy behind this exercise is the implicit assumption that changing the composition of families would have had no impact on poverty rates within each subgroup. For example, suppose we wanted to simulate what the poverty rates of children in one-parent families in 1989 would have been if the parents of those children had married and lived together: we cannot assume that these newly created two-parent families would have the same incomes and poverty rates as the average two-parent family. One of the purposes of this paper is to make explicit simulations of the incomes of the family units switching from one-parent to two-parent status.

II. FAMILY STRUCTURE, FAMILY SIZE AND INCOME INEQUALITY

Gottschalk and Danziger develop an elaborate analysis to distinguish the effects of family structure and family size from the effects of group-specific income levels and income inequality. They use reduced-form equations to project income levels and childbearing of black and white women who were either

spouses or heads of households.[5] Then, they project selected impacts by holding some values and parameters at their 1968 levels.

Their results indicate that changes in headship patterns accounted for a large increase in child poverty and for modest increases in income inequality. Had 1968 headship rates continued to 1986, child poverty rates would have fallen to 25·8% among blacks (instead of declining to 39%) and to 12% among whites (instead of rising to 15·1%). Using the log of the variance of incomes as their inequality measure, the authors find dramatic overall percentage increases in inequality (45% for blacks and 25% for whites). But they estimate that higher female headship was responsible for only 17% of the inequality increase among blacks and for only 13% of the increase among whites.[6]

The Gottschalk–Danziger paper is an important contribution, subject to some limitations. First, the end points (1968 and 1986) differed significantly in terms of overall employment conditions: the unemployment rate was 3·5% in 1968 and 6·9% in 1986. Since higher unemployment tends to raise poverty among two-parent families, the results might understate what the effects of family structure would be in good times. Second, grouping all female heads together may have understated the role of family structure changes. The category 'Female heads with children' became significantly more populated with 'Never-married mothers', a group with incomes significantly lower than those of divorced mothers.[7]

Another problem is that behavioural patterns and heterogeneity issues are submerged. For Gottschalk and Danziger, once women are categorized into heads or spouses, their incomes depend only on their characteristics and the relevant year's coefficients. Their approach assumes that the incomes of the women actually married in 1986 were no higher than the incomes of women with the same education, age and region who were assumed to have become spouses on the basis of 1968 norms. This, in turn, would generally require that the incremental husband would have generated as much income as the average husband (again, holding age, region, race and education constant). To the extent that the new fathers would have been less productive, the Gottschalk–Danziger results overstate the pure effects of family structure.

This paper takes direct account of the characteristics of men who would have been married in 1989 had the propensity to marry remained at the 1971 level.

III. The Methodology and the Data

The methodology in this paper requires several steps. The first involves decomposing the Gini coefficient among children by family type using actual 1971 and 1989 data. The results reveal the role of changes in inequality within groups, inequality between groups, group stratification, and relative incomes. By applying weights that reflect the 1971 marital status distribution to 1989 families and recalculating the decomposition of inequality, we obtain one estimate of the impact of changing family status on inequality and poverty.

The second step is to simulate marriages by linking unmarried men with unmarried mothers in 1989 so as to reproduce the marital patterns of mothers in 1971. I then recalculate family incomes among children using both static

and dynamic assumptions about how marriage would affect the income components of the individual partners. The static assumption is that mothers heading families who marry in the simulations lose their welfare income; a dynamic assumption is that the men who become married fathers in the simulation respond to their added responsibilities in ways similar to the responses of existing married men. Another potential dynamic effect—that the increased incidence of marriage might raise fertility—is beyond the scope of the paper.[8]

The final step is to calculate inequality, poverty and inequality decompositions from the newly generated income data.

The data

The data come from the March 1972 and the March 1990 Current Population Surveys (CPSs) of the US Census Bureau. The income figures are for the previous years, 1971 and 1989, years with very similar unemployment rates. In this version of the paper I have worked with only the first three rotation groups of the CPS. The income variable includes all cash income and the imputed value of food stamps.[9] To take account of differences in family size, we use the welfare ratio, which is family (or household) income divided by the poverty threshold for the relevant family (or household) size. To focus on inequality among children, I obtain the weight for each family's income or welfare ratio by multiplying the mother's weight times the number of own children in the family.

Matching partners

In 1971, of nearly 30 million households with children under 18, about 86% involved husband–wife families. By 1989, the proportion of parents who were married had fallen to only 72%. To return to the husband–wife proportions of 1971 would have required 52% of unmarried mothers in 1989 to find a marriage partner. Who would these marriage partners be?

If we project an extension of existing behaviour patterns, the first step is to look at the characteristics of wives and their husbands. Tabulations from the March 1990 Current Population Survey show that most wives marry husbands who are of the same race, have similar levels of education and are about two-and-one-half years older. About 98% of white and black wives married husbands of the same race. Hispanic and Asian wives also tended to marry within their groups, but about 16% married outside their ethnic groupings. All groups tend to marry within their educational category or an adjacent category.

Given the strong tendency for within-group mating by race, education and age, we expect unmarried mothers of each subgroup will also choose (and be chosen by) mates in similar categories. In addition, some of the mothers who were divorced or separated in 1989 would have remained married in 1971. Their most likely spouses are men who are currently divorced or separated. In this paper I have limited the scope of the matching of mothers by dealing only with black and non-Hispanic white mothers.

I randomly selected the mothers for matching so that the percentages of each subgroup that 'marry' allow the simulation to yield the 1971 distribution of mothers by marital status. To match these mothers with men, I sorted the mothers by age and by education (within each age group). In a similar way, I sorted eligible men by these characteristics. I then merged the two files so that

the mothers selected for mating automatically linked up with unmarried men. It turns out that, while the proportions of never-married and divorced mothers and separated black mothers increased over this period, the percentages in the separated category remained the same for whites. I raised the share of black mothers in the separated category by increasing their weight sufficiently to bring their proportions to 1971 levels.

Within each subgroup, women might have married the men with the most, least, or average income-generating capacity. In subsequent work, I will examine how the results may be sensitive to the way rankings are generated.

The income changes associated with simulated marriages

Once the matching process generated a new husband–wife family, I calculated a new family income level for each newly-married mother. In all cases, I subtracted welfare benefits from the mother's family income. I then created three income variables based on the income of the husband, his earnings response to marriage, and the response of wives to added income and marriage. *HW1* is simply the sum of the mother's family income plus the personal income of the new husband, assuming no income response (other than the loss of welfare income).

HW2 takes account of the fact that husbands living with their children earn more than never-married or divorced men. To generate an earnings response without flattening the initial earnings distribution of the newly married husbands, I derived and applied a marriage earnings adjustment as follows. I first estimated human capital earnings equations (using tobit procedures) for each race and marital status grouping using 1990 Current Population Survey data. Then, using each person's characteristics, I calculated two predicted earnings levels, one from the equation on married men and the other from the equation on unmarried men. The difference between the person's predicted earnings as married and his predicted earnings as unmarried constituted the marriage adjustment. The projected earnings of the new husbands are the sum of actual earnings plus the marriage adjustment. By adjusting the actual earnings of new husbands, the approach maintains the differences between the newly married and existing married men in *unmeasured* characteristics affecting the base level of earnings. However, the method does assume that induced effects from marriage on earnings are as large for the newly married as for existing married husbands with the same characteristics on other dimensions. To the extent that the pure motivational effect of marriage differs for the existing married and the newly married, the average marriage adjustment to earnings may be overstated or understated and the distribution of marriage adjustments may not fully capture the actual changes in the distributions of earnings. In addition, this procedure may flatten the earnings somewhat since it applies the same change in earnings to each individual with the same detailed characteristics.

HW3 captures the induced effects of marriage on the earnings of both men and women. To obtain the earnings response of new wives, I applied the same general procedure as for the new husbands. However, the female earnings equations by marital status and race also included the number of children and family income other than the female's own earnings. Other family income exerted a negative effect on the earnings of white women, but a positive effect on black women. As a result, the mean adjustment to the marriage (and associated

increased other income) was to reduce white mother's earnings and raise the earnings of black mothers.

The decomposition methodology

The decomposition methodology draws directly from Yitzhaki and Lerman (1991). In that paper, we derived a population decomposition of the Gini coefficient involving three terms: (1) within-group inequality, (2) between-group inequality and (3) a multiple that depends on the degree of group stratification.

The decomposition is:

$$(1) \qquad G=\sum S_i G_i+\sum S_i G_i Q_i(P_i-1)+G_b$$

where S_i is the wage share of group i, G_i is the Gini coefficient of group i, Q_i is the stratification index of group i (defined below), P_i is the population share of group i and G_b is the between-group Gini coefficient. The between-group Gini involves calculating the Gini across subgroups, using the subgroup means and assuming that the ranking of each subgroup is the average ranking of subgroup members in the overall population.[10] The first term is the weighted sum of within-group Ginis, the last term is the between-group Gini coefficient, and the middle term is a weighted sum of the stratification indices.

Although this and other Gini decompositions do not decompose neatly into exclusive, exhaustive categories of within-group and between-group inequality, the results are revealing. Of particular interest is the stratification index. Briefly, stratification captures the extent to which subgroups form separate strata with little overlap from other groups. Thus, husband–wife families may be stratified in the sense that members of other groups (say, mother-only and father-only families) do not have incomes that fall within the income distribution of husband–wife families. The more incomes of other groups overlap with those of husband–wife families, the less stratified is husband–wife families in terms of income. In addition, the stratification of a group declines, the closer are the outsiders to the centre of the group's distribution.

The properties of the Q index relate closely to layering. $Q_i=1$ if no members of other groups are in the range of the variate of group i. In this case, group i alone occupies a certain range in the distribution, thus forming a perfect stratum. Q_i declines as more members of other groups are in the range of the variate of group i and Q_i will be lower, the closer are the members of other groups to the mean of group i. $Q_i=0$ if the normalized ranks (or percentile in the cumulative distribution) of members of group i are identical to their normalized ranks in the overall population. Here, group i does not form a strata at all: each person is at the same percentile within his or her own group as well as within the overall population. $Q_i<0$ implies that the divergence within the rankings of members of group i in the overall population is greater than the divergence in their own group. In the extreme case, where $Q_i=-1$, group i is composed of two groups, the members of each group are identical, and those two groups are located at extremes of the overall distribution. That is, all members of other groups lie inside the range defined by group i.

The inequality of a subgroup captures the extent to which members of the subgroup are different from each other. By contrast, stratification reveals how

much members of a subgroup are similar to each other and different from other members of society.

The middle term in equation (1) is the sum of the products of subgroup stratification, Ginis, incomes shares and one minus the population shares. For any given distribution of population shares, income shares and subgroup Ginis, the middle term declines as stratification indices increase.

IV. The Results

Inequality decompositions over time by race and by household status

We begin by decomposing observed inequality in 1971 and 1989 across marital status categories using the Gini decompositions of family incomes, household incomes and welfare ratios. Table 3 shows the well-known facts that inequality rose significantly, as did the proportion of children living in families with

TABLE 3

DECOMPOSITION OF FAMILY INCOME INEQUALITY OF CHILDREN BY MARITAL STATUS, 1971 AND 1989

Marital status	Share of population (%)	Mean income[a] ($)	Group Gini	Q (Stratification)	Group mean as a ratio of the mean of other groups	Group average ranking in the rankings of other groups
Family incomes, 1989[a]						
Married, spouse present	0·756	45,363	0·319	0·554	2·706	0·862
Married, armed forces	0·021	33,941	0·301	0·159	0·882	0·466
Married, spouse absent	0·006	10,843	0·485	0·408	0·281	0·142
Widowed	0·013	21,466	0·391	0·135	0·556	0·296
Divorced	0·091	18,525	0·393	0·245	0·459	0·229
Separated	0·038	14,154	0·418	0·346	0·360	0·177
Never married	0·075	10,847	0·445	0·362	0·267	0·109
Total		38,385	0·385			
Within-group inequality			0·327			
Between-group inequality			0·107			
Stratification term			−0·049			
Family incomes, 1971[b]						
Married, spouse present	0·870	37,441	0·292	0·589	2·605	0·871
Married, armed forces	0·002	11,812	0·601	−0·065	0·254	0·097
Married, spouse absent	0·008	13,101	0·488	0·183	0·348	0·144
Widowed	0·024	18,561	0·375	0·105	0·572	0·256
Divorced	0·044	15,143	0·367	0·349	0·444	0·185
Separated	0·045	11,894	0·392	0·428	0·326	0·116
Never married	0·008	9,718	0·391	0·568	0·268	0·093
Total		34,412	0·329			
Within-group inequality			0·297			
Between-group inequality			0·059			
Stratification term			−0·027			

[a] Family income includes pretax cash income (except for capital gains) plus the bonus value of food stamps.
[b] The 1971 mean incomes are adjusted to 1989 dollars using the GNP deflator for Personal Consumption expenditures.

Source: tabulations by author from the 1972 and 1990 Current Population Surveys.

unmarried mothers. The largest change in a component was the nearly 5-point rise in between-group inequality. Given the much lower incomes of unmarried mothers relative to married mothers, a rise in their share of the population will give their component of the Gini more weight and thus cause an increase in the between-group term. Second, since within-group Ginis are higher among families with unmarried mothers than with married mothers, a rise in the proportion of unmarried mothers will raise the within-group component by more than the decline in within-group component of married mothers. The within-group term in this decomposition is the sum of each group's income share times the group's Gini. Thus, the within-group term captures not only the changing group Ginis but also the changing population shares and changes in their relative incomes. The third term results from a combination of changes in stratification, subgroup Ginis, income ratios and population shares.

The Q terms show a decline in the degree of relative stratification among divorced, separated and never-married mothers. The reduced stratification took place despite virtually no change in their average incomes relative to other groups in the population. The overlap among distributions rose partly because inequality increased within all three groups as well as within married-couple families. Note that each group of unmarried mothers ranked higher in terms of other groups in 1989 than in 1971. In part, these increased rankings resulted from the rising proportion of groups most likely to overlap with each group of unmarried women—other groups of unmarried women. The small decline in stratification of married-couple units was also the result of the group's increased inequality, causing a slight drop in its average ranking relative to the rest of the population. These changes were offset by a rise in the average income of married-couple units relative to the rest of the population.

Although nearly all analysts rely on family income when studying income patterns, poverty and the impact of mother-headed families, perhaps one quarter of mothers heading families (or subfamilies) lived with other related or unrelated adults. For people in these families, the indicator providing the most appropriate measure of their standard living may be household income. What differences in inequality patterns emerge from the use of household rather than family income?

As Table 4 shows, simply changing from a family to a household income definition reduces the Gini coefficient by 1·3 points. The major reason is that the narrowing of mean incomes among groups resulted in a decline of 4 points in the between-group inequality term. Mean income levels of unmarried mothers jump from 30% to 70% when measured on a household instead of a family basis, while income levels of married mothers are virtually unchanged. For example, children of never-married mothers lived in households averaging $18,258 in annual income, about $7400 higher than their mean family income.[11] The large drop in between-group inequality is offset by slightly higher within-group inequality and a higher (less negative) stratification term. Stratification declines substantially in shifting from the family to the household definition, especially for the unmarried mother groups. Their higher mean incomes, together with the increased Gini of married couples, raised their average rankings in the rest of the population and thus increased the overlap among groups.

Widening the primary family unit to encompass others in the household will increase household size as well as household income. A common procedure

TABLE 4

DECOMPOSITION OF HOUSEHOLD INCOME INEQUALITY OF CHILDREN BY MARITAL STATUS AND FAMILY TYPE, 1989

Marital status	Share of population (%)	Mean income[a] ($)	Group Gini	Q (Stratification)	Group mean as a ratio of the mean of other groups	Group average ranking in the rankings of other groups
Household income, 1989						
Married, spouse present	0·756	44,504	0·329	0·392	2·000	0·782
Married, armed forces	0·021	34,011	0·305	0·119	0·868	0·455
Married, spouse absent	0·007	18,466	0·567	−0·116	0·471	0·229
Widowed	0·015	22,911	0·387	0·095	0·583	0·302
Divorced	0·087	24,232	0·391	0·069	0·598	0·301
Separated	0·040	19,539	0·439	0·042	0·490	0·233
Never married	0·074	18,258	0·448	0·050	0·448	0·204
Total		39,080	0·372			
Within-group inequality			0·340			
Between-group inequality			0·063			
Stratification term			−0·030			

Source: Same as Table 3.

used to adjust for differences in unit size is to calculate *welfare ratios*, or incomes divided by the unit's poverty threshold. Surprisingly, the Ginis based on welfare ratios were similar to those based on incomes. The decompositions indicate that, while between-group inequality was lower using welfare ratios, within-group inequality was higher and the lower levels of group stratification caused the stratification term to rise (become less negative).

One way to assess the impact of family structure on inequality is to reallocate the weights so that the adjusted 1989 distribution of family types resembles the actual 1971 distribution. To obtain the appropriate 1971 weight, I first multiplied the actual 1989 weight of mothers in each group (say, married couples) by the ratio of each group's percentage in 1971 to its percentage in 1989. Next, I multiplied the new family weight by the number of own children in each unit. This approach resembles the shift–share approach in that it presumes that the new members of a group are similar to the existing members. Table 6 shows that the use of 1971 population weights lowers the overall Gini index from 0·385 to 0·365 (for family income) and from 0·396 to 0·375 (for welfare ratios). Using this approach, family structure change accounted for from 0·02–0·027 points, or for 36%–37% of the 0·054–0·057 point increases in the Ginis.

The inequality patterns moved in the same direction for blacks and whites, but at vastly different scales. First, note in Table 5 that inequality increased much more dramatically among blacks (from 0·364 to 0·457, or 26%) than among whites (from 0·313 to 0·350, or 16%). Second, the changes in family structure were more extreme among blacks. The proportion of black children living with divorced, separated or never-married mothers rose from about 30% in 1971 to 54% in 1989; the comparable increase for whites was from 5% to 8%. Third, adjusting 1989 income inequality by using 1971 population weights

TABLE 5

DECOMPOSITION OF FAMILY INCOME INEQUALITY AMONG BLACK CHILDREN BY MARITAL STATUS: 1971 AND 1989

Marital status	Share of population (%)	Mean income[a] ($)	Group Gini	Q (Stratification)	Group mean as a ratio of the mean of other groups	Group average ranking in the rankings of other groups
Family income, 1989						
Married, spouse present	0·402	36,511	0·327	0·531	2·691	0·854
Married, armed forces	0·024	29,137	0·325	0·337	1·288	0·647
Married, spouse absent	0·010	11,008	0·448	0·081	0·481	0·297
Widowed	0·025	18,518	0·368	0·146	0·809	0·477
Divorced	0·121	16,572	0·389	0·168	0·701	0·427
Separated	0·092	15,567	0·348	0·244	0·662	0·420
Never married	0·327	10,470	0·442	0·153	0·364	0·175
Total		22,782	0·457			
Within-group inequality			0·352			
Between-group inequality			0·193			
Stratification term			−0·088			
Family income, 1971						
Married, spouse present	0·613	27,560	0·285	0·471	2·356	0·825
Married, armed forces	0·006	9,133	0·458	0·030	1·045	0·547
Married, spouse absent	0·013	7,060	0·433	0·355	0·391	0·215
Widowed	0·060	13,727	0·304	0·210	0·652	0·364
Divorced	0·081	13,347	0·351	0·178	0·572	0·316
Separated	0·181	12,169	0·362	0·201	0·507	0·274
Never married	0·046	9,917	0·368	0·260	0·359	0·170
Total		21,606	0·364			
Within-group inequality			0·299			
Between-group inequality			0·119			
Stratification term			−0·054			

Note: See Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

exerted a much larger impact on black income inequality than on the inequality within the white population. On the basis of this technique, family structure changes accounted for 57% of the rise in black inequality and for only 20%–29% of the rise in white inequality.

Table 5 reveals details behind the large increases in within-group and between-group inequality that accounted for the jump in the inequality among black children. Note that the Gini coefficient rose from 0·364 to 0·457 in only 18 years. The within-group term rose from 0·299 to 0·352, mainly because of the rise in the Gini of married couple units. Between-group inequality increased even more, from 0·119 to 0·193. Income stratification declined for black never-married mothers, despite no improvement in their relative income positions, partly because the rising inequality among children in married-couple and divorced families led to a greater overlap among the subgroups. Children in black married couples became somewhat more stratified, mainly as a result of their increased incomes relative to children in other family types. The overall

TABLE 6

SUMMARY OF GINI DECOMPOSITIONS OF INCOME AND WELFARE RATIOS, 1971–1989

Race, income, welfare ratio	Family income			Household income	
	1971 (1989 $)	1989	1989 income, 1971 weights	1989	1989 income, 1971 weights
Total mean income	34,456	38,385	39,996	39,080	41,257
Gini coefficient	0.331	0.385	0.365	0.372	0.355
Within-group Gini	0·299	0·327	0·335	0·340	0·335
Between-group Gini	0·059	0·107	0·057	0·063	0·038
Stratification term	−0·027	−0·049	−0·027	−0·030	−0·018
Total mean welfare ratio	2·49	2·84	3·02	2·92	3·07
Gini coefficient	0.339	0·396	0·375	0·379	0·366
Within-group Gini	0·314	0·356	0·353	0·354	0·350
Between-group Gini	0·047	0·076	0·042	0·051	0·031
Stratification term	−0·022	−0·036	−0·021	−0·025	−0·015
Black mean income	21,606	22,782	27,904	26,249	30,041
Gini coefficient	0·364	0·457	0·404	0·418	0·386
Within-group Gini	0·299	0·352	0·337	0·363	0·344
Between-group Gini	0·119	0·193	0·125	0·100	0·075
Stratification term	−0·054	−0·088	−0·058	−0·045	−0·034
Black welfare ratio	1.47	1.77	2.11	1.92	2.18
Gini coefficient	0.377	0.453	0.410	0.419	0.395
Within-group Gini	0·332	0·376	0·361	0·371	0·361
Between-group Gini	0·087	0·143	0·090	0·087	0·063
Stratification term	−0·041	−0·066	−0·042	−0·039	−0·029
White mean income	36,362	41,573	41,905	43,007	42,942
Gini coefficient	0.313	0.359	0.350	0.343	0.342
Within-group Gini	0·292	0·322	0·331	0·322	0·329
Between-group Gini	0·039	0·069	0·037	0·040	0·024
Stratification term	−0·018	−0·032	−0·017	−0·019	−0·011
White welfare ratio	2.63	3.02	3.18	3.10	3.21
Gini coefficient	0.323	0.375	0.360	0.362	0.354
Within-group Gini	0·308	0·350	0·347	0·347	0·345
Between-group Gini	0·030	0·049	0·025	0·030	0·017
Stratification term	−0·015	−0·024	−0·012	−0·015	−0·009

Note: see Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

stratification term declined (became more negative) because of the rise in group inequality and group stratification.

Impact of family structure with simulated marriages and earnings responses

The impacts of simulated marriages on inequality are not obvious. If, as we suspect, unmarried men generally earn less than married men, then the addition of married men from the ranks of the unmarried might increase inequality within the married group and overall within-group inequality. However, to the extent that these earnings differences result from a marriage-induced response, then the adjustments for earnings responses should reduce or eliminate this effect on within-group inequality. A third impact is on between-group inequality. This should decline, mainly because of the lower weight placed on the much

TABLE 7

IMPACT OF SIMULATED MARRIAGES AND EARNINGS RESPONSES ON INCOME INEQUALITY OF BLACK CHILDREN, 1989

	Gini	Within-group Gini	Between-group Gini	Stratification	Mean	Share of population
Family income						
Total 1971 income (1989 $)	0·364	0·299	0·119	−0·054	21,574	1·000
Married, spouse present	0·285			0·471	27,519	0·613
Total 1989 income	0·457	0·352	0·193	−0·088	22,782	1·000
Married, spouse present	0·327			0·531	36,511	0·402
Divorced	0·389			0·168	16,572	0·121
Never-married	0·442			0·153	10,470	0·327
Simulated marriages						
No earnings response, *HW1*	0·458	0·415	0·081	−0·037	24,888	1·000
Married, spouse present	0·398			0·278	29,739	0·703
Divorced	0·505			0·116	13,940	0·089
Never-married	0·705			0·080	7,100	0·058
Husband's response, *HW2*	0·420	0·365	0·103	−0·048	27,122	
Married, spouse present	0·341			0·450	32,917	0·703
Husband–wife response, *HW3*	0·414	0·352	0·113	−0·051	28,531	
Married, spouse present	0·328			0·483	34,922	0·703
Welfare ratios						
1971 welfare ratio	0·377	0·332	0·087	−0·041	1·470	1·000
Married, spouse present	0·322			0·378	1·816	0·613
1989 welfare ratio	0·453	0·376	0·143	−0·066	1·770	1·000
Married, spouse present	0·348			0·433	2·669	0·402
Divorced	0·426			0·052	1·449	0·121
Never-married	0·454			0·068	0·924	0·327
Simulated marriages						
No earnings response, *HW1*	0·464	0·435	0·057	−0·028	1·870	1·000
Married, spouse present	0·413			0·256	2·178	0·703
Divorced	0·538			−0·047	1·275	0·089
Never-married	0·706			−0·019	0·666	0·058
Husband's response, *HW2*	0·427	0·386	0·076	−0·035	2·040	
Married, spouse present	0·358			0·399	2·414	0·703
Husband–wife response, *HW3*	0·421	0·375	0·085	−0·039	2·140	
Married, spouse present	0·345			0·425	2·562	0·703

Note: see Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

poorer families with unmarried mothers. The induced marriages should lower the stratification indices for children in married-couple families since those in simulated marriages are likely to have potential earnings lower than the earnings of married parents. Changes in the overall stratification term will depend on the interacting effects on within-group inequality, group stratification and population shares.

The largest impacts should occur among black families, where family structure changes were most pronounced. Surprisingly, as Table 7 shows, the pure effect of simulated marriages did not reduce inequality at all, with the Gini remaining at about 0·458. In part, this is because the simulated husbands earned (as unmarried men) considerably less than existing husbands. As a result, the

average income of children in married-couple families decline sharply from $36,511 to $29,739 (mean welfare ratios dropped from 2·669 to 2·178) and the inequality within married-couple families increases from 0·327 to 0·398 (0·348 to 0·413 for welfare ratios). A second reason for the absence of an effect is that the mothers randomly selected to become married in this simulation had higher initial incomes than the mothers who remained unmarried.[12] The increasing income spread of married-couple families reduced their stratification at the top of the income distribution. At the same time, the smaller share of children in one-parent families produced higher mean welfare ratios and incomes and a decline in between-group inequality.

The marriage-induced earnings responses of husbands (from *HW* to *HW1*) generates a lower overall Gini coefficient and obviously higher mean incomes of married-couple families. Since the income gains occur mostly among lower income married-couple families, inequality within the married-couple category falls. The higher mean income and lower inequality of the married-couple group increases the group's stratification. Between-group inequality rises, largely because of the increase in the income of married couples.

The shift to *HW3*, which takes account of the marriage-induced earnings responses of wives, adds to the pattern of effects generated by *HW2*. Children in married couple families have higher incomes, higher welfare ratios, lower inequality and higher stratification. Overall incomes rise and overall inequality falls further, as the decline in within-group and stratification terms exceeds the rise in between-group inequality. However, even after the simulated increases in the earnings of new husbands and wives, the average incomes and welfare ratios of married couple units are still lower than the averages of the smaller proportion of couples actually married.

Overall, on the basis of these simulations of marriages and earnings responses, family structure changes were responsible for 43%–46% of the 1971–89 increase in the Gini coefficient among black children.[13]

For white and black children together, who account for over 95% of children, the absolute size of the effects of family structure changes are smaller, in keeping with the much less dramatic shifts in the living arrangements of white children. But, as Table 8 shows, the proportion of total inequality increases associated with family structure (41%–46%) is virtually identical to the black experience. For whites alone (see Table 9), fully 53% of the increase in the Gini coefficient of welfare ratios (from 0·323 to 0·375) can be said to have resulted from the decline in marriage and directly associated earnings impacts. Unlike the case of blacks, simulated marriages lower inequality among whites (and for all children), even in the absence of any effect on earnings. For example, the Gini coefficient of white welfare ratios would have declined from 0·375 to 0·351 as a result of simulated marriages, or 47% of the 1971–89 increase. One reason for the larger pure effect of marriages is that newly added white married-couple families had a higher income relative to existing married-couple families (76%) than was the case for blacks (53%). The effects of induced earnings on white incomes and income inequality are small.

Family structure impacts on child poverty rates

In principle, marriage should exert a large impact on child poverty. Even a relatively low-income father can often generate enough income to more than

TABLE 8

IMPACT OF SIMULATED MARRIAGES AND EARNINGS RESPONSES ON INCOME INEQUALITY OF WHITE AND BLACK CHILDREN, 1989

	Gini	Within-group Gini	Between-group Gini	Stratification	Mean	Share of population
Family income						
Total 1971 income (1989 $)	0·328	0·297	0·059	−0·027	11,767	1·000
Married, spouse present	0·292			0·588	12,805	0·869
Total 1989 income	0·385	0·327	0·107	−0·049	38,385	1·000
Married, spouse present	0·319			0·554	45,363	0·756
Divorced	0·393			0·245	18,525	0·091
Never-married	0·445			0·362	10,847	0·075
Simulated marriages						
No earnings response, *HW1*	0·370	0·344	0·050	−0·023	39,822	1·000
Married, spouse present	0·339			0·415	43,112	0·869
Divorced	0·427			0·286	17,330	0·042
Never-married	0·677			0·286	8,308	0·011
Husband's response, *HW2*	0·360	0·332	0·053	−0·025	40,615	1·000
Married, spouse present	0·327			0·468	44,024	0·869
Husband–wife response, *HW3*	0·359	0·330	0·053	−0·025	40,624	1·000
Married, spouse present	0·325			0·472	44,034	0·869
Welfare ratios						
1971 welfare ratio	0·335	0·310	0·046	−0·022	2·500	1·000
Married, spouse present	0·304			0·495	2·692	0·869
1989 welfare ratio	0·384	0·342	0·079	−0·037	2·960	1·000
Married, spouse present	0·333			0·437	3·420	0·756
Divorced	0·407			0·088	1·803	0·091
Never-married	0·461			0·218	1·018	0·075
Simulated marriages						
No earnings response, *HW1*	0·375	0·355	0·040	−0·019	3·030	1·000
Married, spouse present	0·350			0·344	3·256	0·869
Divorced	0·440			0·122	1·639	0·041
Never-married	0·677			0·162	0·760	0·012
Husband's response, *HW2*	0·366	0·345	0·042	−0·021	3·090	1·000
Married, spouse present	0·338			0·390	3·327	0·869
Husband–wife response, *HW3*	0·364	0·342	0·042	−0·020	3·090	1·000
Married, spouse present	0·336			0·393	3·326	0·869

Note: see Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

compensate for the family's greater needs (with one extra person) and push the family's income above the poverty line. The focus of this section is on the extent to which the rise in child poverty could have been prevented had marriage and marriage-related earnings patterns remained at 1971 levels.

Estimates of child poverty rates differ by income concept. Defining the household instead of the family as the relevant economic unit generally lowers poverty rates. Table 10 shows that 1989 household child poverty rates were substantially lower than family rates. Not surprisingly, the children most affected by reductions associated with the household definition were those living with never-married, separated, and divorced mothers.

Child poverty rates based on family income plus the bonus value of food stamps rose by 20% between 1971 and 1989, from 14·1% to 17·1%. Excluding

TABLE 9

IMPACT OF SIMULATED MARRIAGES AND EARNINGS RESPONSES ON INCOME INEQUALITY OF WHITE CHILDREN, 1989

	Gini	Within-group Gini	Between-group Gini	Stratification	Mean	Share of population
Family income						
Total 1971 income (1989 $)	0·313	0·292	0·039	−0·018	36,312	1·000
Married, spouse present	0·288			0·564	38,406	0·909
Total 1989 income	0·359	0·322	0·069	−0·032	41,573	1·000
Married, spouse present	0·317			0·501	46,240	0·828
Divorced	0·392			0·242	19,090	0·085
Never-married	0·448			0·345	11,928	0·023
Simulated marriages						
No earnings response, *HW1*	0·345	0·327	0·034	−0·016	42,874	1·000
Married, spouse present	0·325			0·406	45,238	0·904
Divorced	0·379			0·284	19,260	0·032
Never-married	0·454			0·206	16,151	0·002
Husband's response, *HW2*	0·341	0·322	0·035	−0·017	43,373	1·000
Married, spouse present	0·320			0·430	45,790	0·904
Husband–wife response, *HW3*	0·342	0·324	0·035	−0·016	43,095	1·000
Married, spouse present	0·321			0·422	45,483	0·904
Welfare ratios						
1971 welfare ratio	0·323	0·308	0·030	−0·015	2·630	1·000
Married, spouse present	0·301			0·455	2·767	0·909
1989 welfare ratio	0·375	0·350	0·049	−0·024	3·020	1·000
Married, spouse present	0·344		0·350		3·327	0·817
Divorced	0·402		0·070		1·848	0·083
Never-married	0·447		0·180		1·120	0·031
Simulated marriages						
No earnings response, *HW1*	0·351	0·339	0·023	−0·011	3·290	1·000
Married, spouse present	0·337			0·290	3·438	0·904
Divorced	0·392			0·062	1·998	0·032
Never-married	0·454			−0·012	1·711	0·002
Husband's response, *HW2*	0·347	0·335	0·024	−0·012	3·330	1·000
Married, spouse present	0·332			0·310	3·484	0·904
Husband–wife response, *HW3*	0·348	0·336	0·023	−0·011	3·310	1·000
Married, spouse present	0·333			0·304	3·459	0·904

Note: see Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

food stamps, the increase in poverty rates was even higher, rising to 19·1% in 1989 (see Table 2).

In general, the 1971–89 changes in family structure raised child poverty rates by more than the observed increases. Even ignoring any marriage-induced earnings effects, had marriage proportions remained at 1971 levels, the United States would have experienced reductions in child poverty rates instead of a growth in poverty. Among black children, poverty rates rose from 40% in 1971 to 43% in 1989; maintaining 1971 marriage rates would have resulted in black child poverty rates falling to 37%, assuming no induced earnings effects, and to 29%, assuming the effects of normal earnings changes induced by marriage. Thus, had these latter simulated child poverty rates prevailed, one-third of poor

TABLE 10

ACTUAL AND SIMULATED CHILD POVERTY RATES IN RESPONSE TO MARRIAGE AND INDUCED EARNINGS BY RACE AND MARITAL STATUS, 1971 AND 1989

Marital status, income concept	White children	Black children	White and black children
Family income in 1971	10·1	40·5	14·1
Married, spouse present	6·6	23·0	8·1
Divorced	37·1	63·5	46·3
Separated	64·9	66·0	65·2
Never-married	62·6	69·6	64·9
Family income in 1989	11·7	43·3	17·1
Married, spouse present	6·7	17·7	7·7
Divorced	31·4	44·4	34·3
Separated	51·7	57·5	54·1
Never-married	58·1	71·2	67·8
Household income in 1989	9·8	37·1	14·2
Married, spouse present	6·6	17·3	7·2
Divorced	20·6	40·1	24·8
Separated	39·6	51·7	44·5
Never-married	35·9	56·9	51·5
Simulated marriages			
No earnings response, *HW1*	10·3	36·6	14·7
Married, spouse present	8·0	27·6	10·7
Divorced	27·7	56·9	38·3
Separated	51·7	58·9	54·6
Never-married	51·9	75·8	72·7
Husband's earnings response, *HW2*	9·5	30·8	13·1
Married, spouse present	7·1	19·3	8·8
Husband–wife earnings responses, *HW3*	9·6	29·1	12·9
Married, spouse present	6·7	16·9	8·6

Note: see Table 3 for income definitions and inflation adjustments.

Source: same as Table 3.

black children would have escaped poverty.[14] Of black poor children living with never-married and divorced mothers who become married in the simulations, about 80% were projected to move out of poverty as a result of the pooling of incomes and the marriage-induced earnings; 43% would rise above poverty even without any changes in earnings.

Maintaining 1971 marriage patterns would have meant reductions in poverty among white children as well. Instead, white child poverty rates rose by 17%, from 10·1% to 11·7%. On the basis of the simulated marriages and earnings responses, about 18% of poor white children would have escaped poverty in 1989 if 1971 marriage patterns had prevailed. Marriage and induced earnings would have moved 67% of the poor white children affected by simulated changes in family status out of poverty.

The impacts on overall poverty rates followed nearly the same patterns as among black and white children. The increased income pooling from maintaining the 1971 marriage rates would have averted virtually all of the rise in

child poverty. With the marriage-induced earnings effects, overall child poverty would have declined to 12·9%, or about 25% below the 1989 poverty rates and almost 10% below the 1971 poverty rates.

V. Conclusions

The increase in US income inequality and the rise in US child poverty rates took place over the same period as a decline in marriage rates and an increased rate of mother-headed families. In this paper, I have examined the connection between these two major social phenomena.

Unlike earlier efforts to analyse these issues, I have attempted to examine what would have taken place if existing unmarried mothers had married from the pool of currently unmarried men and if both men and women had changed their earnings patterns in response to their new family obligations and income. Then I applied the Gini decomposition technique to capture within-group and between-group inequality and stratification terms. Finally, I projected new poverty rates for each group.

In short, family structure changes were of major importance to changes in poverty and inequality. On the basis of projections of simulated marriages and marriage-induced earnings effects, *the 1971–89 trend away from marriage among parents accounted for nearly half the increase in income inequality and more than the entire rise in child poverty rates.* These estimated effects are similar to those projected by Gottschalk and Danziger with respect to poverty, but much higher than their estimates of family structure impacts on inequality.

The changes in family structure raised inequality and poverty among white as well as black children. However, black children were hurt most by the weakening ties to marriage among parents. Had 1971 black marriage patterns prevailed in 1989, one-third of poor black children would have escaped poverty. The overall poverty rate would have declined from about 14% to 13% instead of increasing to 17%. Income inequality among black and white children would have increased in the absence of family structure changes, but only by half as much as the actual increase.

The primary extensions of this approach involve testing the sensitivity of the results to alternative marriage simulations and to alternative estimates of marriage-induced earnings; and simulating other induced effects, including effects on fertility, on households without children, and on the composition of extended family households.

NOTES

1. See e.g. the chapters in Burtless (1990) and the review article by Levy and Murname (1992). Also see recent articles by Freeman (1993), Murphy and Welch (1993) and Karoly and Klerman (1993).
2. For two recent papers using special data linking population surveys with federal tax information, see Gramlich *et al.* (1993) and Kasten *et al.* (1992).
3. Wilson (1986) argued that the declining employment among black young men was a prime cause of the growth in black mother-headed families. Berlin and Sum (1988) make the point that earnings reductions among young men with no more than a high school education deteriorated so much that they can no longer support a family. I myself (Lerman 1989) have been sceptical of this explanation on the grounds that declines in marriage were as significant among

the college-educated as among the high-school-educated and that the declines in marriage took place before the reductions in earnings.

4. For a definition of the official US poverty thresholds and data on poverty rates, see US Bureau of the Census (1990a).
5. Limiting the sample of women to heads and spouses is a potential problem because women living with other relatives are ignored. Many of these women might have been spouses in 1968 but heads of families with children in 1986.
6. Gottschalk and Danziger use a similar methodology to capture the effects of shifts in incomes, income inequality and childbearing taking place *within* each subgroup, but headship, education and regional characteristics. The declining numbers of children between 1968 and 1986 would have lowered poverty rates, just as shifts toward female headship raised them.
7. Between 1970 and 1989, children of never-married mothers rose from 7% to 31% of all children living with female heads. In 1989 the poverty rate of never-married mothers was 66%, far above the 46% rate among divorced and separated mothers. Using the Gottschalk–Danziger methodology, this shift in the composition of the female headship category would show up as a decline in income within the female headship group.
8. A positive impact on fertility induced by any additional marriages could cause the results in this paper to overstate the impacts of marriage on poverty rates and on income adjusted for family size. In addition, any rise in fertility may have also influenced the earnings of husbands and wives.
9. The food stamp imputation comes from the US Census: see US Bureau of the Census (1990b). Since food stamps was not a national programme in 1971, the absence of imputed food stamp benefits for 1971 should not bias the results.
10. Another way to calculate between-group inequality is to use the order of the groups as the rankings. For five groups, the rankings would be 20%, 40%, 60%, 80% and 100%. In this paper, each group's ranking is the average percentile in the overall population among members of the group.
11. Of the children in unmarried units, those gaining from the shift to household income look much poorer in terms of family income than those not gaining. For example, children living with never-married mothers in larger households had lower family income ($7271 *v.* $12,459) but much higher household income ($27,907 *v.* $12,459).
12. Note in Table 7 that the mean incomes of all divorced and never-married mothers were $16,572 and $10,470. For those remaining in these categories after the simulated marriages, mean incomes were $13,940 and $7100.
13. The simulations indicate that, of the 0·093 total rise in the Gini from 0·364 in 1971 to 0·457 in 1989, 0·043 would not have taken place had family structure remained at 1971 levels. For welfare ratios, the simulations project that 0·033 of the total 0·087 total rise in the Gini (from 0·454 to 0·377) was associated with family structure.
14. The simulated impacts on the effects on black poverty are strikingly similar to the results obtained by Gottschalk and Danziger. They projected a drop from 38·7% to 25·8% if black families had the same headship probabilities in 1986 as in 1968. Their estimates yield the same conclusion that about one-third of poor children would have moved out of poverty had marriage rates remained constant.

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Notes

[1] **U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations**

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[3] **Employment Opportunities of Young Men and Family Formation**

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