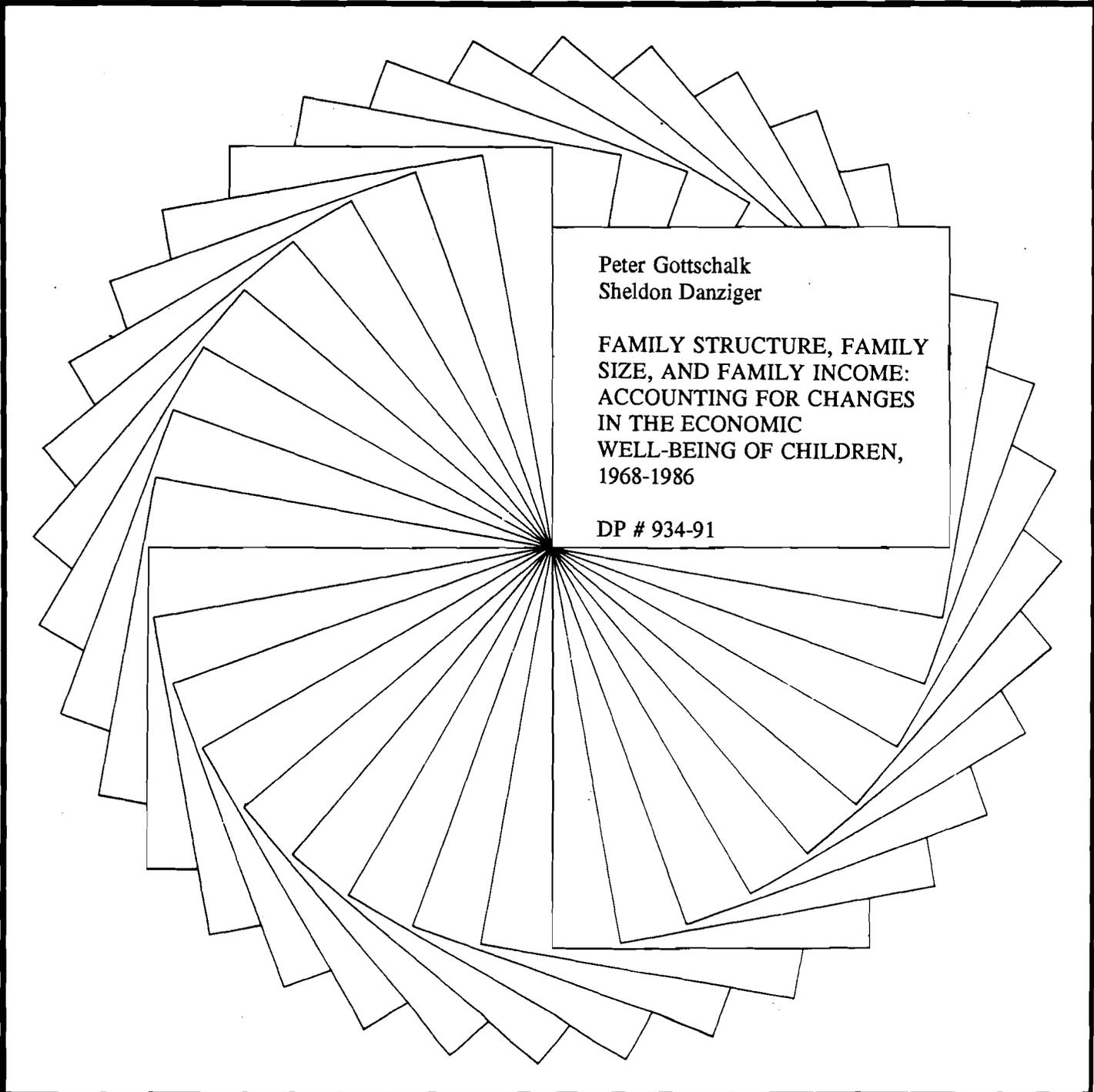




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Discussion Papers



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FAMILY STRUCTURE, FAMILY
SIZE, AND FAMILY INCOME:
ACCOUNTING FOR CHANGES
IN THE ECONOMIC
WELL-BEING OF CHILDREN,
1968-1986

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**Family Structure, Family Size, and Family Income:
Accounting for Changes in the Economic Well-Being of
Children, 1968-1986**

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Abstract

The poverty rate among children is higher today than it was in the late 1960s, a few years after the War on Poverty was launched. In 1969, 13.8 percent of all children lived in families with incomes below the poverty line; in 1988, 19.7 percent did. Whereas most studies of child poverty focus on the negative effects of deteriorating economic circumstances and the increasing percentage of children living in single-parent families, this paper considers two demographic factors which also affect measured poverty and family income inequality among children: reductions in the number of children per family, and the changing personal characteristics of women who have children. Using a reduced form model which describes how marital status, the number of children, and family income vary with a set of exogenous characteristics, we calculate how much of the changes in child poverty and the log variance of family income reflect changes in these demographic and economic factors.

We conclude that the relatively small changes in child poverty for blacks and whites since the late 1960s reflect large, but offsetting, demographic and economic changes. Decreases in the number of children per family and increased maternal educational attainment were poverty-decreasing and offset the poverty-increasing impact of the trend toward single parenthood. Economic stagnation and the increasing inequality of family incomes are important factors that also account for the disappointing trends in child poverty.

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I. INTRODUCTION

The percentage of children living in families with incomes below the official poverty line increased moderately between 1969 and 1979, from 13.8 to 16.0 percent, then rose sharply to 21.8 percent in 1983. During the recent economic recovery these figures have declined somewhat to 19.7 percent in 1988 (U.S. Bureau of the Census, 1989, Table 19). As a result, poverty rates for children in 1987 were at about the same level as in 1965, shortly after the War on Poverty was launched.

Not only are poverty rates among children higher today than they were in the late 1960s, but the poverty rate among children is now much higher than that among the elderly. Whereas poverty rates were 64 percent higher for the elderly than for children in 1966 (28.5 versus 17.4 percent), they were 39 percent lower in 1988 (12.0 versus 19.7 percent).

Families with children have experienced a lower-than-average growth in mean income and rising economic inequality in recent years (U.S. House of Representatives, 1989). Between 1973 and 1987, the mean income of families with children, adjusted for family size and inflation, increased by 13.2 percent, whereas the mean for all families increased by 17.2 percent. The adjusted income of the poorest 20 percent of families with children declined by 22 percent, while that of the richest 20 percent increased by 24.7 percent (U. S. House of Representatives, p. 989).

Some early studies (e.g., Preston, 1984; Danziger and Gottschalk, 1985) presumed the rise in child poverty over the past 15 years reflected deteriorating economic circumstances among families with children. This assumption, however, ignores a variety of demographic and other economic factors that affect both the mean and the dispersion of income for families with children.

Four economic, demographic, and public policy factors have a potential impact. First, as a result of slow productivity growth, economic growth has been, at best, sluggish since the early 1970s. Robert Lawrence (1988) reports that the output per worker grew by 1.9 percent annually between 1950 and 1973, fell by 0.2 percent annually between 1973 and 1979, and then increased by 0.8 percent annually between 1979 and 1987. As a result, real mean earnings per worker have increased little and the probability that a family relying primarily on earnings would be poor has not declined as it did in the two decades following World War II.

Second, the proportion of all children living in single-parent families has increased dramatically. With only one parent to raise the children and earn a living, the heads of single-parent households work fewer hours. Furthermore, because the single parent is usually a woman, and because the average wages of women are lower than those of men, the shift to single-parent families has reduced the pay per hour as well as the number of hours worked. Thus, even if the probability of being poor had remained constant for two-parent and single-parent families, the child poverty rate would have risen as the percentage of children living in mother-only families increased.

Third, the distribution of earnings of males has become more unequal (Dooley and Gottschalk, 1984; Henle and Ryscavage, 1980; Burtless, 1990; Moffitt, 1990). This increased inequality, *ceteris paribus*, has contributed to the rising rate of poverty (Gottschalk and Danziger, 1985).

The fourth factor reducing the resources available to children has been the reduction in government income transfers, particularly unemployment compensation and cash welfare benefits. As program rules were changed, and as states failed to adjust benefits sufficiently to match increases in the cost of living, the antipoverty impacts of cash transfers declined for both two-parent and single-parent families (Danziger, 1989).

Slow increases in the mean and the rising inequality of family income have been accompanied by two additional demographic factors which can affect measured poverty and family income inequality among children: the number of children per family and the characteristics of the women having children.

A reduction in the mean number of children per family will, ceteris paribus, reduce measured poverty, as family income is shared among a smaller number of persons. Such a demographic change lowers poverty rates by reducing a family's needs relative to its income. The normative implications of reduced needs are, however, ambiguous. While increases in productivity raise the income-to-needs ratio with no offsetting costs, reductions in family size involve an offsetting cost. If families reduce their size in order to protect themselves against deteriorating economic circumstances, then parents are trading off a desired family size against desired living standards. In this case, the costs associated with raising the income-to-needs ratio are not reflected in standard measures of poverty and economic well-being. The normative implications become even more ambiguous if an increased labor supply of wives and a reduced family size are a joint response to declining male earnings. In this case, the measured increase in family income does not reflect the additional costs associated with reduced home production or forgone leisure.

A second demographic factor that may affect child poverty is the changes in the characteristics of women having children. For example, in recent years families with a high earnings potential have experienced an above-average reduction in births (Connelly and Gottschalk, 1991). A decline in fertility among high-income women would increase the incidence of child poverty, defined as the ratio of the number of poor children to all children, by reducing the denominator of the poverty rate. As the following example makes clear, this is not, however, a necessary outcome. Consider a world of only two married-couple families. In the initial year, the first family earns \$30,000 and has three children; the second family earns \$15,000 and has four children. Because the official poverty

lines are roughly \$14,000 for a family of five and \$16,000 for a family of six, the second family is poor. The child poverty rate is thus 4/7. In a later year, there are also two families with children. They also have incomes of \$30,000 and \$15,000, but their sizes are smaller. The first family has one child, the second has three. With an income of \$15,000, the second family is not poor. There are now four children, but none are poor. Given the way the child poverty rate is measured, one cannot know a priori how changes in family size and composition affect the child poverty rate. Even though the reduction in the number of children was greater for the higher-income family, the child poverty rate fell.

The objective of this paper is to determine the quantitative importance of the various economic and demographic factors on three summary measures of the resources available to families with children: the mean family income, the variance of the logarithm of family income, and their poverty rate.¹ We develop a decomposition that allows us to answer counterfactual questions, such as "What would poverty rates have been if family size had decreased and no other economic or demographic change had taken place?" Although the answers to such questions quantify which factors are relatively important, the answers fall far short of a structural explanation of the changes in poverty. To the extent that the observed changes in family size, family structure, and family income are exogenous, then our decomposition measures the causal impact of each factor. But if they are endogenous, then our decomposition measures the direct impact (lower income increases poverty) but not the indirect impact (lower income lowers fertility, which reduces poverty across children). In the absence of a structural model of labor supply, family size, and family income, it is impossible to do more than decompose the changes.

Our approach is to estimate a reduced form model which describes how marital status, the number of children, and family income vary with a set of exogenous characteristics. The results are used to calculate how much of the changes in child poverty and the log variance reflect changes in the

demographic structure of women (the propensity to marry, the propensity to have children, and the number of children), and the economic structure of families (economic stagnation and increased inequality of family income), holding the demographic structure of women constant.

II. CHANGES IN FAMILY STRUCTURE, FAMILY SIZE, AND THE CHARACTERISTICS OF WOMEN HAVING CHILDREN, 1968-1986

We use the March 1969 and March 1987 Current Population Survey (CPS) computer tapes to account for changes in the distribution of well-being of children between 1968 and 1986. These are the earliest and latest years for which comparable data were available when we conducted our empirical work. Our sample consists of females under the age of 55 who were the head of a household or the spouse of the household head.² Separate analyses are conducted for blacks and whites.³

Since the CPS is a stratified random sample, means are calculated using appropriate sample weights. Our focus on the proportion of children who were poor requires that each observation be weighted by the product of the number of children in a given family and that family's sample weight. The characteristics of a mother, however, are weighted by her own person weight to yield estimates of the population of mothers.

Changes in Family Structure

Table 1 classifies all of the women in our sample by whether they are a household head or a spouse and whether or not a child resides with them (four mutually exclusive categories.)⁴ The proportion of women in our sample who were spouses with children present declined for both blacks and whites between 1968 and 1986. As is well known, this was partially the result of an increase in

Table 1

Distribution of Women, by Household Headship and Presence of Children

	<u>Black Women</u>		<u>White Women</u>	
	1968	1986	1968	1986
Female household head:	<u>27.94%</u>	<u>53.06%</u>	<u>6.93%</u>	<u>18.25%</u>
Children present	24.28	41.85	5.32	12.95
No children present	3.66	11.21	1.61	5.30
Spouse of household head:	<u>72.06</u>	<u>46.94</u>	<u>93.07</u>	<u>81.75</u>
Children present	53.24	31.62	66.63	52.05
No children present	18.82	15.32	26.44	29.70
All women	100.00	100.00	100.00	100.00
Total number of women (millions)	3.61	5.27	34.05	39.20

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes.

Note: Each woman is counted once in Tables 1 and 2. The data are weighted to reflect the population of women who are heads or spouses under the age of 55. Unrelated individuals (women living alone) are counted as single-person households. The number of observations for 1968 and 1987, respectively, are 26,318 and 26,041 for white women, and 2,711 and 2,986 for black women.

the proportion of women raising children in families where the father was not present. Table 1, however, shows that the decline in the percentage of women raising children in two-parent families also resulted from an increase in the percentage of women living without a spouse or a child.

The shift toward female household headship was much more rapid among black than white women. By 1986, about one-half of the black women in our sample headed their own households; the corresponding fraction for whites was less than one-fifth. The percentage of black women living with a husband and child declined by about 22 percentage points, from 53.2 to 31.6 percent; there was also a small decline in the percentage living with a husband but without children. The other two categories increased substantially--the percentage living with children but without a husband increased by 18 points (from 24.3 to 41.9 percent) while the percentage of women living on their own, without a husband or children, increased by 7.5 points (from 3.7 to 11.2 percent). This reflects the fact that in 1986 black women were less likely to be married, whether they had children or not.

In 1986 a majority of the white women in our sample lived with children and a husband. The percentage living in this category, however, was 14.5 points lower than in 1968 (66.6 versus 52.1 percent). Each of the other three categories increased somewhat. The 7.6 point increase in the percentage living with children but without a husband accounts for about half of the change in living arrangements. Of the remaining 6.9 point decline, the increase in the percentage living on their own accounts for 3.7 points and the increase in the percentage living with a husband but without children accounts for 3.3 points.

The number of women under 55 increased from 3.6 to 5.3 million, or by 45 percent, for blacks, and from 34.1 to 39.2 million, or by 15 percent, for whites. If there had been no change in the probability that a woman had a child and in the number of children per woman, this large increase in the number of women would have led to a corresponding increase in the total number of children.

However, as we show below, there was a decline in the propensity to have children and in the number of children among women who have them.

One goal of the model we estimate is to measure how the decline in the propensity to have children affected measured poverty. As suggested above, if most of these women would have been in nonpoor households, then the decline in the number of children would be poverty-increasing for children, in the same way that the trend toward female headship among the mothers of children increases child poverty.⁵

Changes in the Characteristics of Women

Although it is not possible with descriptive statistics to determine whether these childless women would have been poor had they had children, Table 2 is suggestive. It classifies all women by race, education, household headship, and the presence of children. For those with children, it shows the mean number of children.

A comparison of columns 1 and 2 for female heads and columns 4 and 5 for spouses shows that the educational attainment of women without children tends to be somewhat higher than that of women with children for both blacks and whites in each year. For example, in 1968, 5.1 percent of black female household heads without children had completed college (16+ years), compared with only 1.9 percent of those with children. Because women without children have above-average education, the increased percentage of women without children over the period, as shown in Table 1, may have tended to raise the child poverty rate.

Among women with children there were declines in the mean number of children for women in each education category. Higher education is associated with both higher income and fewer children. As a result, the changes shown, ceteris paribus, are poverty-decreasing and will tend to offset somewhat the poverty-increasing effect of the trend toward female headship, shown in Table 1.

Table 2

Distribution of Women by Household Headship, Presence of Children, and Education

Years of Schooling Completed	Female Household Head			Spouse of Household Head		
	No Children Present (%) (1)	Children Present (%) (2)	Mean Number of Children (3)	No Children Present (%) (4)	Children Present (%) (5)	Mean Number of Children (6)
<u>Black women</u>						
1968						
Less than 12	58.26	68.56	3.26	55.29	54.27	3.25
12	27.80	26.59	2.61	28.58	33.55	2.65
13-15	8.80	2.97	2.47	9.46	6.79	2.41
16+	5.14	1.87	2.55	6.67	5.39	1.83
1986						
Less than 12	30.14	29.24	2.37	27.44	15.65	2.44
12	37.72	48.24	1.94	43.14	46.50	1.93
13-15	21.30	16.32	1.69	14.47	23.15	1.96
16+	10.84	6.20	1.38	15.25	14.70	1.67
<u>White women</u>						
1968						
Less than 12	33.54	42.18	2.41	32.28	30.97	2.52
12	44.11	42.20	2.08	46.58	49.41	2.31
13-15	12.00	10.94	2.02	11.85	11.15	2.23
16+	10.35	4.68	2.11	9.29	8.47	2.27
1986						
Less than 12	19.56	23.36	1.94	13.67	13.80	2.06
12	40.56	43.38	1.65	47.66	47.45	1.86
13-15	19.96	19.65	1.61	19.71	20.27	1.88
16+	19.92	13.61	1.56	18.96	18.47	1.81

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes.

Note: "Mean Number of Children" refers only to those with children.

The largest changes in educational attainment occurred for blacks, especially for female heads. For example, in 1968, 68.6 percent of female heads with children had not completed high school; these women had an average of 3.3 children living with them. By 1986, the modal category for black female heads was high school graduates, averaging 1.9 children per woman. Even among those who had not graduated from high school, the mean number of children had declined by about one child per woman, to 2.4. A similar pattern occurred for black married women with children. The percentage without a high school degree declined from 54.3 to 15.7 percent, and the mean number of children for this group declined by about 0.8 (from 3.3 to 2.4). For both female heads and spouses, there were substantial increases in the percentage with some college and with college degrees.

For whites, the percentage of women who were high school graduates was very similar for female heads and spouses in the two years. The educational upgrading that took place is reflected in the large decline in the percentages of women without a high school degree and the large increase in the percentages with some college and with college degrees. On its own, this educational upgrading would have led to fewer children. In addition, all of the groups show a decline of about 0.5 children on average.

Changes in Family Size and Structure for Children

Table 3 shows the distribution of children by family structure and size. It shows the net result of the changes in family structure, the educational characteristics of women, the presence of children, and the mean number of children per woman documented in Tables 1 and 2. Between 1968 and 1986, the percentage of black children living with two parents declined from 67.8 to 42.8 percent; the percentage of white children, from 93.1 to 81.4 percent. Table 3 also shows a shift toward fewer children per family, for both races and for both types of families. For example, the

Table 3

Distribution of Children by Family Type and Number of Children per Family

Family Structure/ Number of Children Per Family	<u>Black Children</u>		<u>White Children</u>	
	1968 (1)	1986 (2)	1968 (3)	1986 (4)
<u>Husband-wife family</u>	<u>67.8%</u>	<u>42.8%</u>	<u>93.1%</u>	<u>81.4%</u>
One	6.4	8.6	12.3	17.3
Two	11.6	15.4	24.9	34.6
Three	11.9	10.3	23.3	19.5
Four or more	37.9	8.5	32.6	10.0
<u>Female-headed family</u>	<u>32.3%</u>	<u>57.2%</u>	<u>7.1%</u>	<u>18.3%</u>
One	2.7	12.0	1.3	5.5
Two	4.7	19.0	1.8	7.3
Three	5.2	12.7	1.5	3.6
Four or more	19.7	13.5	2.5	1.9
All children	100.0	100.0	100.0	100.0
Weighted number, millions	8.3	7.7	57.6	47.0

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes.

Note: Totals may not sum to 100.0 because of rounding. Each child is counted once in Tables 3 and 4. The data are weighted to reflect the population of children living in families in which a woman under the age of 55 was a head or a spouse.

percentage of all black children living in families with four or more children decreased from 57.6 to 22.0 percent; the percentage of all white children, from 35.1 to 11.9 percent.

Table 4 shows the official child poverty rate for children, classified as in Table 3. The official poverty rate is derived by comparing a household's total money income (from all sources) to a poverty line that varies with family size. In 1986, the official poverty line ranged from \$5,701 for a single person to \$11,203 for a family of four to \$22,497 for a family of nine or more.⁶

The variance of the logarithm of family income is a widely-used measure of inequality. Like mean family income, but unlike the child poverty measure, it does not vary with family size. In other words, two families with equal incomes but different family sizes may differ in terms of their poverty status, but will be considered equivalent by conventional measures of family inequality.

As Table 4 shows, poverty declined slightly for black children, but increased substantially for white children. The official poverty rates for children living in two-parent families are much lower than those for children living in female-headed families in each year. In fact, a husband-wife family with four or more children is less likely to be poor than a female-headed family with only one child. Thus, the shift in family structure away from married-couple families was poverty-increasing.

Note, however, for whites that the group-specific rate shown for each of the eight groups in the table increased between 1968 and 1986. Thus, the white child poverty rate would have increased even if there had been no demographic changes. On the other hand, the group-specific rates for black husband-wife families declined.

Poverty rates for families of four or more are much higher than those for smaller families. Thus, the reduction in the number of children per woman and the trend toward smaller families, shown in Table 3, were poverty-decreasing. The model we present in the next section will systematically evaluate the net effects of these and other demographic and economic changes on the child poverty rate.⁷

Table 4

Official Child Poverty Rate and Variance of the Log of Family Income for
All Children, by Family Type and Number of Children per Family

Family Structure/ Number of Children Per Family	<u>Black Children</u>		<u>White Children</u>	
	1968 (1)	1986 (2)	1968 (3)	1986 (4)
<u>Husband-wife family</u>				
One	8.4%	5.5%	3.1%	4.2%
Two	12.9	8.8	3.6	5.8
Three	18.9	16.9	5.5	11.0
Four or more	38.0	25.1	13.2	23.9
<u>Female-headed family</u>				
One	43.3%	38.4%	21.6%	27.5%
Two	54.2	58.5	29.1	35.1
Three	66.1	72.0	47.1	51.9
Four or more	82.6	82.9	62.0	73.5
All children	42.1	41.7	9.9	14.7
Variance of the log of family income for all children	0.689	1.100	0.499	0.796

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes.

Table 4 also shows rising family income inequality. In each year, inequality among blacks is much higher than among whites. But over the period, the log variance of family income for each group increased by about 60 percent.

III. METHODOLOGY

By how much have each of the demographic and economic changes described above affected the child poverty rate? The essence of the estimation problem is that the number of children in a family, the family's income, and whether or not the family is headed by a woman are jointly determined. What we would ideally like to estimate is the impact of exogenous changes in family structure, family size, and family income on child poverty rates. However, if the weak economic conditions of the 1970s or changes in women's and men's earnings opportunities affected headship and childbearing decisions, then the observed changes in family size and structure partially reflect the induced effects of economic conditions. Likewise, part of the observed changes in family income may have been caused by exogenous demographic changes (changes in headship and childbearing decisions because of the women's movement or other changes in societal attitudes toward women's roles). As female headship increased, a greater percentage of all families had to rely on only one breadwinner.

Because estimating a full structural model would require implausible identifying assumptions, we limit our objective to estimating a reduced form model which is consistent with a linearized version of the underlying structural model. This approach does not isolate the degree to which demographic and economic changes were exogenous. It does, however, describe the relative importance of the observed changes in female headship, family size, and the distribution of family income on the child poverty rate. We believe that this reduced form approach addresses many

questions of interest to policymakers, who are interested in the result of economic and demographic changes, regardless of their source.

In the appendix we provide details on the method and the implicit assumptions behind the regression approach we use to decompose changes in child poverty. These procedures are conceptually similar to a decomposition based on a set of cross-tabulations. Because the latter are more easily understood, we describe our procedure in these terms. In essence, we create a set of cross-tabulations for both black and white women in 1968 and 1986. Each cell is defined by age, education, region, and marital status of the woman. For example, a cell might include black families with a female head, aged 16 to 19, with less than 12 years of education, living in the Northeast.

The entries in this cross-tabulation are used to decompose the change in the aggregate poverty rate into two broad categories: (1) the change that would have occurred if the cell-specific poverty rates had reached their 1986 levels, but the distribution of families across cells had been the same as in 1968 (e.g., there had been fewer female-headed families, but female-headed families would have experienced the 1986 poverty rates); and (2) the change that would have occurred if the cell-specific poverty rates had remained at their 1968 levels, but the distribution of families across cells had changed (e.g., the poverty rate among female-headed households had changed).

If this were the limit of our decomposition, the cross-tabulation and regression methodologies would be identical--that is, each aspect of a cell would be identified by a dummy variable. We, however, further decompose the change in the cell-specific poverty rates. This requires a regression framework. The appendix explains how we calculate four hypothetical poverty rates and decompose the observed change in cell-specific poverty rates into changes associated with these two economic and two demographic factors:

- a. Mean family income--If all families within a cell had experienced the same growth in family income, the mean of the cell-specific income distribution would

have increased, but the shape of the distribution would not have changed. The resulting increase in mean income, with no change in inequality or family size, would have been poverty-reducing.

b. Inequality of family income--Families did not all experience the same growth in family income. As we will show, families at the bottom of the (cell-specific) distribution experienced a below-average growth in family income. The resulting increase in inequality is poverty-increasing (holding the mean constant).

c. Mean family size--If all families (across all cells) had experienced the same decline in the number of children, then needs would have declined for all families. This would have resulted in a decline in poverty.

d. Who has children--Families, however, did not all experience the same reduction in family size. As we will show, the changing composition of those having children would have reduced poverty, even if family size and income had not declined.

The basic data in the cross-tabulations are the proportion of children falling in each cell in each year, the actual poverty rates in 1968 and 1986, and the four hypothetical poverty rates associated with changes in mean income, income inequality, the number of children per family, and who has the children. The aggregate poverty rate is calculated as a weighted average of the cell-specific poverty rates.

By proceeding in a set of intermediate steps we isolate the separate effects of changes in family structure, family size, and the mean and variance of family income. To do so, we estimate

regressions for black and white women in each of the two years that predict the probability that a woman is a female household head or a spouse, the income her family would have if she were a head (or a spouse), and the number of children she would have if she is a head (or a spouse).⁸ The coefficients from these regressions are used to produce a set of seven scenarios for whites and blacks.

Each scenario makes one successive change relative to the prior scenario. The first six scenarios are based on the women in the sample in 1986. For each scenario, the equations produce estimates of the probability that children will live in a two-parent family, the mean and variance of the logarithm of family income if the child lives in a one- or two-parent family, the mean number of children per family, and the child poverty rate.⁹

Scenario 1 reflects all of the economic and demographic conditions in 1986. It uses the 1986 estimated coefficients in all five equations.

Scenario 2 assumes that the probability of being a female household head (conditional on observed characteristics) was the same in 1986 as in 1968. It uses the 1968 coefficients from the headship equation. A comparison of the outcomes from scenarios 1 and 2, therefore, gives the impact of changes in family structure on the number of children, the mean and variance of family income, and child poverty.

Scenario 3 further assumes that the mean of the distribution of family income (conditional on observed characteristics) was at its 1968 level, but that the shape of the conditional distribution of income was the same as in scenario 2.¹⁰ A comparison of scenarios 2 and 3 shows the impact of changes between 1968 and 1986 in average economic circumstances, while holding the distribution of income at its 1986 value.

Scenario 4 further allows the shape of the distribution of family income (conditional on observed characteristics) to revert to its 1968 value.¹¹ Since the mean of the income distribution is the same as in scenario 3, this scenario measures the impact

on child poverty and the log variance of increased within-cell inequality of family income.

Scenario 5 holds the mean number of children per family constant at its 1986 level, but allows for changes in the characteristics of women who have children. It uses the coefficients from the 1986 equation determining who has children.¹²

Scenario 6 allows family size as well as who has children to change to the 1968 values.¹³ It therefore isolates the poverty-reducing impact of the reduction in family size.

Scenario 7 allows the characteristics of women to revert to their 1968 values. It uses the observations from the 1968 data tape and the estimated coefficients in all equations for 1968. A comparison of scenarios 6 and 7, therefore, measures the impact of educational upgrading and all other observed changes in the characteristics of women that were included as exogenous variables.

IV. RESULTS

Tables 5 and 6 report the results from using the regression coefficients to calculate the relevant outcomes for the seven scenarios for black and white children, respectively. Each row shows, for a specific scenario, the percentage of children living in two-parent families, the mean and the variance of the log of family income, the number of children per family, and the child poverty rate. The last column shows the aggregate number of children, in millions.¹⁴ Table 7 uses the data from Tables 5 and 6 to show the sign and magnitude of each demographic and economic effect on child poverty and the mean and variance of family income for blacks and whites.

A comparison of rows 1 and 7 in Table 5 shows the estimated changes in these economic and demographic outcomes between 1968 and 1986. Row 1 uses all of the 1986 estimated coefficients

Table 5

The Impact of Changes in Family Structure, Family Size, and Family Income on Child Poverty and the Variance of Log Income for Black Children

<u>Scenario</u>	% in Two-Parent Families (1)	Log Family Income (2)	Children Per Family (3)	% Children Poor (4)	Log Variance (5)	Millions of Children (6)
1. 1986 Economic & Demographic Conditions	44.7	9.586	1.59	38.7	1.156	8.40
2. Same as 1, but 1968 headship probability	75.9	9.903	1.56	25.8	1.078	8.20
3. Same as 2, but 1968 economic returns (mean income)	75.9	9.840	1.56	28.2	1.092	8.20
4. Same as 3, but 1968 income inequality	75.9	9.840	1.56	27.7	0.727	8.20
5. Same as 4, but 1968 propensity of women to have children	75.8	9.827	1.61	28.7	0.724	8.49
6. Same as 5, but 1968 mean family size	75.8	9.827	2.44	35.7	0.724	12.86
7. Same as 6, but 1968 characteristics of women	70.8	9.675	2.53	42.6	0.704	9.03

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes and estimated regression coefficients.

Table 6

The Impact of Changes in Family Structure, Family Size, and
Family Income on Child Poverty and the Variance of Log Income for White Children

<u>Scenario</u>	% in Two-Parent Families (1)	Log Family Income (2)	Children Per Family (3)	% Children Poor (4)	Log Variance (5)	Millions of Children (6)
1. 1986 Economic & Demographic Conditions	81.2	10.234	1.41	15.1	.768	55.1
2. Same as 1, but 1968 headship probability	93.2	10.345	1.42	12.1	.736	55.5
3. Same as 2, but 1968 economic returns (mean income)	93.2	10.333	1.42	11.0	.709	55.5
4. Same as 3, but 1968 income inequality	93.2	10.333	1.42	9.1	.518	55.5
5. Same as 4, but 1968 propensity of women to have children	93.2	10.338	1.37	8.1	.516	53.6
6. Same as 5, but 1968 mean family size	93.2	10.338	1.92	11.1	.516	75.3
7. Same as 6, but 1968 characteristics of women	92.8	10.241	1.90	13.7	.516	64.4

Source: Computations by authors using March 1969 and March 1987 Current Population Survey computer tapes and estimated regression coefficients.

Table 7

Decomposition of the Effects of Changes in Family Structure, Family Size,
and Family Income on the Well-Being of Children

	Black Children			White Children		
	Percentage Point Change in Poverty	Unit Change in Log Family Income:		Percentage Point Change in Poverty	Unit Change in Log Family Income:	
	(1)	Mean (2)	Variance (3)	(4)	Mean (5)	Variance (6)
Total change (Scenarios 1-7)	-3.9	-0.089	+0.452	+1.4	-0.007	+0.252
Owing to:						
Increased female headship (1-2)	+12.9	-0.317	+0.078	+3.0	-0.111	+0.032
Changing economic returns (mean income) (2-3)	-2.4	+0.063	-0.014	+1.1	+0.012	+0.027
Rising inequality within group(3-4)	+0.5	0.000	+0.365	+1.9	0.000	+0.191
Changing propensity to have children (4-5)	-1.0	+0.013	+0.003	+1.0	-0.005	+0.002
Declining number of children per woman (5-6)	-7.0	0.000	0.000	-3.0	0.000	0.000
Changing characteristics of women (6-7)	-6.9	+0.152	+0.020	-2.6	+0.097	0.000

Source: Tables 5 and 6.

and the 1986 data on our sample of women; row 7, all of the 1968 coefficients and the data for that year. While the means of predicted income and predicted number of children (shown in columns 2 and 3 of Tables 5 and 6) are very close to the observed means, the predicted poverty rates in rows 1 and 7 differ somewhat from the actual poverty rates reported earlier.¹⁵

Between 1968 and 1986, the percentage of black children living in two-parent families declined from 70.8 to 44.7 percent (Table 5, column 1, rows 7 and 1), and their mean log income fell by about 7 percent, from 9.675 to 9.586 (column 2). The mean number of children per family, however, fell by about a third, from 2.53 to 1.59 (column 3). As a result of these changes in family structure, family size, and family income, mean per capita income rose and the child poverty rate fell from 42.6 to 38.7 percent (column 4). Income inequality (column 5) increased substantially--the log variance increased from 0.704 to 1.156.

Scenarios 2 through 6 decompose this total change between 1968 and 1986 into the following components: the increased propensity of children to live in single-parent families; changes in economic returns; changes in the inequality of family income; changes in who has children; changes in the number of children per woman; and changes in the characteristics of women.

The scenario in row 2 shows what would have resulted if family size and family income had remained at their 1986 levels and the probability that a woman in 1986 resided with a spouse was the same as it had been in 1968. In other words, we use the coefficients from the 1968 marital status equations, *ceteris paribus*, and find that the proportion of children living in two-parent families would have risen to 75.9 percent, mean log income would have risen to 9.903, and child poverty would have fallen from 42.6 percent in 1968 to 25.8 percent in 1986, instead of falling only to 38.7 percent. The log variance would have increased less, to 1.078, rather than to 1.156.

Row 3 shows what the situation would have been if the returns to characteristics had been translated into family incomes at the 1968 rates--what the mean and variance of the log of family

income and poverty would have been, given the characteristics in our 1986 sample and the income equation coefficients of 1968. By keeping characteristics constant and not allowing the variance of income within these fixed groups to change, we account for the change which would have resulted if everyone within a group had experienced the average growth for persons within this group. The groups are defined by the characteristics in the income equations. For example, this scenario assumes that all high school graduates of the same age in the same region experienced the same change in family income, but that persons with other characteristics had incomes which grew at their group-specific rates. In this sense, row 3 keeps the within-group variance constant, but allows between-group variance to change. A comparison of rows 2 and 3 shows that the changes in the income coefficients were income-increasing (the mean of the log income increased from 9.840 to 9.903, or by about 6 percent), inequality-reducing (the log variance fell slightly), and poverty-decreasing (from 28.2 to 25.8 percent) for black children.¹⁶

Row 4 shows the impact of using the 1968 residual variance and the 1968 coefficients of the income equations. This holds the groups' means constant at their levels shown in row 3, but allows within-group variances to change. Note that the effects of increased inequality include only the effects of changes in inequality among women of the same age and education who live in the same region. For example, if the gap in income between women 16 to 19 with a high school degree and living in the West declined relative to older women with more education, this would not show up as an increase in inequality, even though the gap in average incomes between the two groups had increased. In this example, it is only the increased inequality among women 16 to 19 with a high school degree and living in the West (or within other groups) that is included in this row.

Increases in inequality between 1968 and 1986 raised the log variance substantially (from 0.727 to 1.092) and raised the poverty rate for black children by about 0.5 percentage points (from 27.7 to 28.2 percent). This relatively small increase in poverty from a substantial increase in

inequality reflects the high poverty rate for black children. For example, if half the children were poor (and the distribution was symmetric), increases in inequality would have no effect on poverty. As we shall see, increases in inequality have a larger impact on white poverty rates, which are lower.

As discussed above, it is not a priori possible to know the size or the direction of the impact on child poverty of the declining number of children per woman. We decompose this demographic change into two components: the impact of changes in the probability that a woman of given characteristics has a child, and the impact of changes in the number of children per woman for those who have children.¹⁷

Our results show that the net effect of changes in who had children and in the mean number of children per woman was poverty-reducing for black children. A comparison of rows 4 and 5 shows that the shift in the composition of those who had children reduced the child poverty rate among black children by 1.0 percentage points (from 28.7 to 27.7 percent).

A comparison of rows 5 and 6 shows the dramatic effects of the reduction in the number of children per woman. If each mother had resided with as many children as observationally-identical women had in 1968, then the mean number of children per woman would have been 2.44 instead of 1.61 and the total number of children would have been 12.86 million instead of 8.49 million. The decline in mean family size reduced the child poverty rate by 7.0 percentage points (from 35.7 to 28.7 percent).¹⁸

Thus far, we have held the characteristics of women at their 1986 values. As shown above, there was a substantial upgrading of educational attainment between 1968 and 1986. The last row shows that changes in the characteristics of women were associated with rising incomes, somewhat smaller numbers of children per family, and a rise in the percentage of children living in two-parent families. Changes in characteristics were as important a factor in reducing child poverty as was the

decline in the number of children per woman, accounting for a decline in the poverty rate of 6.9 percentage points, but a small increase in the log variance from .704 to .724 (rows 6 and 7).

Table 6 presents the same scenarios for white children. In general, the directions of the effects are the same as for blacks, but the magnitudes of the changes are smaller (except for inequality, which has a larger impact). And, whereas the net impact of these changes was a decline in poverty for black children, poverty for whites rose by 1.4 percentage points (from 13.7 to 15.1 percent). As was the case for blacks, the trend toward female headship was a large factor, raising child poverty by 3.0 percentage points (from 12.1 to 15.1 percent).

White women with given characteristics, holding marital status and family size constant (compare rows 2 and 3), had lower family incomes in 1986, and hence child poverty was higher by 1.1 percentage points. Poverty also increased by 1.9 percentage points because of the increased variance within groups (compare rows 3 and 4). Because higher-income women increased their probability of residing without children more than lower-income women, mean income for children fell slightly and child poverty rose by 1.0 points (compare rows 4 and 5).

These four poverty-increasing factors were offset by two other factors. The predicted number of children declined by more than 20 million, from 75.3 to 53.6 million (compare rows 5 and 6), reducing poverty by 3.0 percentage points. Finally, changes in the characteristics of women were poverty-reducing, accounting for a 2.6 point decline (compare rows 6 and 7).

V. SUMMARY

The 1968-1986 period was one of significant changes in family size, family structure, and family income. The first conclusion we draw is that the relatively small changes in poverty observed over these eighteen years reflect large, but offsetting, demographic and economic changes. Poverty fell for black children (by 3.9 percentage points) and rose by a small amount (1.4 points) for white

children. As Table 7 shows, however, two of the six factors in our analysis were poverty-increasing for black children (column 1) and four were poverty-increasing for white children (column 4).

A second, and related, conclusion is that an exclusive focus on increased female headship neglects another important demographic trend that has prevented the poverty rate from being higher than it already is--namely, decreases in the number of children per family. To argue that poverty would be lower today if fewer children lived in female-headed families is undoubtedly correct.¹⁹ Increases in female headship, *ceteris paribus*, would have raised the poverty rates of black and white children by 12.9 and 3.0 percentage points, respectively. However, it is just as true that poverty rates would be higher today by 7.0 and 3.0 points, respectively, if women had not reduced their number of children. Changes in the characteristics of women were also associated with large reductions in poverty and large increases in mean incomes.

A third conclusion is that economic stagnation and increasing inequality are important factors accounting for the disappointing trends in child poverty. As columns 2 and 5 in the top row of Table 7 show, mean family incomes were lower and, as columns 3 and 6 show, the log variance of family income was higher for both black and white children in 1986 than they were in 1968. The income declines (about 9 percent for blacks and 0.7 percent for whites) are primarily due to the shift toward female household headship which was large enough to more than offset the substantial income-increasing impact of changes in the characteristics of women. The log variance increased substantially for blacks and whites, with most of the increase attributable to rising inequality within age-education cells.

The overall picture which emerges then is one of offsetting changes in the effects of both economic and demographic factors. It is certainly true that if female headship had not increased or if incomes had not become more unequal, we would have experienced substantial reductions in poverty.

However, it is also true that without the decline in family size and the increased educational attainment of women, child poverty rates would have been substantially higher.

Appendix

Our reduced form model consists of the five following equations for black women and white women in each of the two years.

$$(1) \quad H^* = X\beta_t + \epsilon_h$$

$$\begin{aligned} \Pr(H = 1 \mid X) &= \Pr(H^* > 0) \\ &= \Pr(\epsilon_h > -X\beta_t) \end{aligned}$$

$$(2) \quad C^* = X\Gamma_{0t} + \epsilon_{c0} \quad \text{if } H = 0$$

$$(3) \quad C^* = X\Gamma_{1t} + \epsilon_{c1} \quad \text{if } H = 1$$

where $C = C^*$ if $C^* \geq 0$, and

$$C = 0 \quad \text{if } C^* < 0$$

$$(4) \quad I = X\Lambda_{0t} + \epsilon_{i0} \quad \text{if } H = 0$$

$$(5) \quad I = X\Lambda_{1t} + \epsilon_{i1} \quad \text{if } H = 1$$

where $H = 1$ if the woman is the head of a household, 0 if she is a spouse;

C is the number of own children who reside in the household;

I is the total family income from all sources and all persons in the household.

Equations (1), (2), and (3) define two latent variables, H^* and C^* , which describe the propensity of a woman to be the head of a household and the latent number of children in her family.

Equation (1) gives the probability that a woman is the head of a household in year t as the probability that the latent variable H^* exceeds zero. This probability is given by the cumulative density function (cdf) of ϵ_h evaluated at $-X\beta_t$, which is denoted as Φ_h . Equations (2) and (3), respectively, describe the number of children who would be in two-parent and single-parent households if the number of children were not a truncated variable. Instead, the latent variable C^* is set equal to the actual number of children, C , in two-parent and female-headed families in year " t " if C^* is non-negative, and zero otherwise. Equations (4) and (5) model the distribution of total family income for married and female-headed families, respectively, conditional on the variables in X .

We assume that all errors in the underlying structural model are normal random variables. This allows us to estimate equation (1) as a probit equation and equations (2) and (3) as tobit equations.

The fact that we start from a general reduced form model has two implications for estimation. First, all variables appearing in one equation appear in all other equations. Second, since all stochastic terms in the underlying structural model appear in all the reduced form equations, we cannot assume that the errors are uncorrelated across equations. This implies that, conditional on observables, headship may be correlated with the number of children the person has and the income she receives. Together, these two implications suggest that selectivity may be present. However, standard corrections for selectivity are severely limited--without exclusionary restrictions to identify the selection mechanism, the selectivity process can only be identified through functional form.

Rather than using weakly-identified corrections for selectivity and concluding that we have properly taken into account nonrandom selectivity in the two family headship categories, we accept the fact that the estimated coefficients may partially reflect selectivity. For example, the coefficient on education in the family income equation for female heads may have increased because the returns to education increased or because unobserved characteristics correlated with education (such as

ability) became more important in determining headship. In either case, the structure changed in such a way as to raise the relative income of educated women.

This is consistent with the reduced form approach which describes observed changes without trying to identify structural coefficients. When we did estimate income as a switching regression to account for selectivity, we were not able to reject the null hypothesis that there was no selection. Furthermore, the correction had imperceptible effects on the predicted income in the two states. We also tested whether e_c and e_h were correlated by estimating a bivariate probit model. Again, we could not reject the null hypothesis that the errors were uncorrelated.

Equation (1) was estimated over our full sample of women under the age of 55 who were heads of households and spouses. The equations for the number of children and family income were then estimated separately for heads and spouses. These five equations were then estimated in 1968 and 1986, yielding 20 sets of coefficients (five equations for each race for two years) that are available on request from the authors.

The 1968 estimated coefficients were then used to impute to each woman in 1986 the expected probability of marriage, the expected number of children, and the expected income she would have experienced if she had had the average experience of observationally identical women in 1968. These are obtained by substituting the characteristics of each woman in the 1986 sample into the 1968 coefficients estimated from equations (1) through (5). More precisely, for individual i in 1986 we calculate the following:

the probability of being a female household head if the process determining headship was the same in 1986 as it had been in 1968--

$$(6) \quad \Pr(H_i = 1 \mid X_i) = \Phi_h(-X_i \hat{\beta}_{68});$$

the probability of having a child if a head or a spouse--

$$(7a) \quad \Pr(C_i > 0 \mid X_i, H_i = 1) = \Phi_c(-X_i \hat{\Gamma}_{1,68}),$$

$$(7b) \quad \Pr(C_i > 0 \mid X_i, H_i = 0) = \Phi_c(-X_i \hat{\Gamma}_{0,68}); \text{ and}$$

the expected number of children if a head or a spouse--

$$(8a) \quad E(C_i \mid X_i, H_i = 1) = \Phi_c(-X_i \hat{\Gamma}_{1,68}) X_i \hat{\Gamma}_{1,68},$$

$$(8b) \quad E(C_i \mid X_i, H_i = 0) = \Phi_c(-X_i \hat{\Gamma}_{0,68}) X_i \hat{\Gamma}_{0,68}.$$

The predicted number of children in each state is equal to the conditional mean plus a random draw from the estimated distribution of $\hat{\epsilon}_{co}$ or $\hat{\epsilon}_{ci}$. The number of children, not conditional on headship, can then be obtained by weighting the predicted number of children by the probability of being in each headship category, as shown in (6):

$$(8c) \quad \hat{C}_i = \Phi_h(-X_i \hat{\beta}_{68}) [\Phi_c(-X_i \hat{\Gamma}_{1,68}) X_i \hat{\Gamma}_{1,68} + \hat{\epsilon}_{ci}] \\ + [1 - \Phi_h(-X_i \hat{\beta}_{68})] [\Phi_c(-X_i \hat{\Gamma}_{0,68}) X_i \hat{\Gamma}_{0,68} + \hat{\epsilon}_{co}]$$

Likewise, the expected family income of the household, not conditional on marital status, is given by

$$(9) \quad E(I_i | X_i) = \Phi_h(-X_i \hat{\beta}_{68}) X_i \hat{\Lambda}_{68} + \\ [1 - \Phi_h(-X_i \hat{\beta}_{68})] X_i \hat{\Lambda}_{0,68}.$$

And the log variance (conditional on X_i but not marital status) is given by

$$(10) \quad \text{VAR} (I|X_i) = [\Phi_h(-X_i\hat{\beta}_{68})]\sigma_{1,68}^2 + [1 - \Phi_h(-X_i\hat{\beta}_{68})]\sigma_{0,68}^2,$$

where $\sigma_{1,68}^2$ $\sigma_{0,68}^2$ are the variances of the family income regressions for heads and spouses, respectively, in 1968.

The probability that the household would have had income less than its family-size specific poverty threshold, T_i , is given as

$$(11) \quad \Pr(I_i < T_i \mid X_i) = \Phi_h(-X_i\hat{\beta}_{68}) \Phi_1[(T_i - X_i\hat{\Gamma}_{1,68})/\sigma_{1,68}] + \\ [1 - \Phi_h(-X_i\hat{\beta}_{68})] \Phi_1[(T_i - X_i\hat{\Gamma}_{0,68})/\sigma_{0,68}].$$

By weighting the predicted probability from equation (10) by the number of children in each household, we obtain estimates of the child poverty rate.

Thus, this set of equations estimated with the 1968 data and applied to the entire 1986 sample yields the child poverty rate that would have existed in 1986 if nothing had changed between 1968 and 1986 except the characteristics of the women.

Notes

¹ We examine changes in total family income, but do not separate out changes in mean incomes due to productivity changes, earnings of other family members, or income transfer policy changes.

²The 1969 CPS reports incomes for 1968; the 1987 CPS reports incomes for 1986. We refer to the year for which we have income data. It would be technically correct to say that we have income information for 1968 and demographic information for 1969.

In 1968 all female household heads were unmarried. In 1986, 4.9 percent of all white female heads reported themselves as married with their spouses present; the corresponding figure for blacks was 6.7 percent.

A small number of households were excluded because they reported nonpositive incomes or persons in the family or negative numbers of their own children under 18 years of age. We excluded women who were neither the head nor the spouse because subfamilies were not consistently coded in the two years.

³Persons who reported their race as neither white nor black were excluded from the study. A separate analysis could not be done for this 18-year period for white non-Hispanics, black non-Hispanics, and Hispanics, as information on Spanish origin has only been asked in the CPS since 1974.

⁴The CPS gathers data not on whether or not the woman has ever had children, but whether or not a child under the age of 18 now lives with her. Thus, a woman who had her only child when she was 20 and who is now 40, will appear in our sample as childless. Similarly, a divorced woman who has a 15-year-old child living in a different household with his or her father will also be classified as childless. Since our focus is not on fertility but on the child poverty rate and the characteristics of the mothers who have children living with

them, this does not pose a serious problem for our analysis. Our child poverty rate, however, does not include children who live in single-parent families headed by men.

⁵The low family income which is associated with out-of-wedlock birth or the decline which normally accompanies marital disruption are some of the main mechanisms by which the trend toward female headship has affected childhood poverty (see Smith, 1989).

⁶The poverty line is increased each year by the Consumer Price Index (CPI), so that it remains constant in real terms. We inflate all incomes to 1986 constant dollars using the CPI, so the same thresholds can be used for both years.

⁷In our empirical work we examine the poverty rate separately for blacks and whites, as their family structure and economic situations differ dramatically. Note from Table 3, however, that the number of black children declined from 8.3 to 7.7 million, or by 7.2 percent, whereas the number of white children declined by 18.4 percent, from 57.6 to 47.0 million. Thus, the percentage of children in our sample who are black increased from 12.6 to 14.0 percent. Because minorities have poverty rates that exceed those of white non-Hispanics, the rising percentage of all children who are minorities is poverty-increasing. This is particularly evident in the published census data on child poverty for all children. In this paper, we do not account for the effect on child poverty of changes in the racial-ethnic characteristics of children.

⁸Family income is summed over all sources of money income and all persons in the family.

⁹We estimate the income equations using the logarithm of family income as the dependent variable rather than family income, since the distribution of income is better approximated by the lognormal than the normal.

¹⁰The conditional variance in scenario 2 is calculated by squaring and summing the

difference between each observation's actual log income and its predicted log income, as given in equation (9) in the Appendix (with $\hat{\beta}_{86}$ replacing $\hat{\beta}_{68}$). This residual variance is added to the variance of the predicted log incomes in scenario 3 (where the $\hat{\Lambda}$'s also take their 1986 values).

¹¹The conditional variance of log income now takes on its 1968 value, which is calculated by summing and squaring the difference between actual 1968 income and the predicted 1968 income (using the 1968 values of $\hat{\beta}$ and $\hat{\Lambda}$).

¹²The 1968 coefficients and standard errors in the children's equation are used, but the predicted number of children per family is scaled down by a constant factor across all families in order to keep the average number of children at the 1986 mean. The aggregate number of children increases between scenarios 4 and 5 even though the number per family is unchanged. This results because using the 1968 coefficients changes the women who are predicted to have children, which in turn changes the weights.

¹³The 1968 coefficients in the children's equation are used and the scaling is eliminated. Hence, the mean number of children per family as well as family composition is changed to the 1968 level.

¹⁴Each entry in Tables 5 and 6 is weighted by the family weight times the predicted number of children from the respective equations used for each scenario. To deal with discontinuities in predicted family size, we interpolate between the actual values for families of different sizes. For example, consider the following hypothetical output from one of the scenarios. We predict that a woman has an 80 percent chance of being a spouse and a 20 percent chance of being a female family head, and that she will have 2.6 children if married and 1.8 children if a female family head. Then her expected family size is $.8 (2 \text{ parents} + 2.6 \text{ children}) + .2 (1 \text{ parent} + 1.8 \text{ children}) = 4.24$. The poverty line we use for this case

then is one which is equal to the poverty line for a family of four plus 24 percent of the dollar value of the difference between the lines for families of four and five persons.

¹⁵Our estimates are that child poverty fell from 42.6 to 38.7 percent for blacks and rose from 13.7 to 15.1 percent for whites. The actual sample means (Table 4) show a decline from 42.1 to 41.7 percent for blacks and a rise, from 9.9 to 14.7 percent, for whites. These differences arise because some of the regressions are not linear and because we account for variance in our predictions only in the income and children's regressions, but not in the headship regression. Furthermore, our calculations assume that the stochastic elements from the children's and income equations were uncorrelated.

¹⁶Because each higher-numbered row in the table differs from the row above it in only one dimension, the values for some columns in successive rows will remain unchanged. Thus, there is no difference between rows 2 and 3 in the percentage of children living in two-parent families or the number of children per family.

¹⁷Because no research has been done on the labor supply of remarried women, we are not sure if their labor supply responses are more like married women or like single women. Row 5 uses the 1968 coefficients from the children's equation to impute how many children would have lived in the 1986 sample member's family. This changes both the probability that a woman has a child, and the mean number of children per woman. We then scale back each woman's predicted number of children so that the mean number of children per woman remains at its 1986 value. Row 6 then allows the number of children to increase back to the 1968 level.

As a result, the mean number of children per woman is approximately the same in rows 4 and 5. The difference arises because the variance in the children's equation is added back separately for each scenario.

¹⁸The log variance is the same in rows 5 and 6 because we measure the inequality of family income and not the inequality of family income adjusted for family size.

¹⁹Smith (1989) also finds that increased female headship has a large impact on the poverty rate. In fact, he concludes that the increase in female headship completely explains the rise in the child poverty rate. Our framework shows that although this factor is important, it is but one of several counteracting factors.

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