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The Changing Contributions of Men and Women to the
Level and Distribution of Family Income, 1968-1988

by

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Working Paper No. 62

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of Bard College

Working Papers No. 56-62 are the culmination of a major research project undertaken by the Institute, aiming at the re-examination of the causes underlying economic inequality in the United States. The papers focus on the analysis of the important issues of inequality, poverty, gender and special demographic groups household earnings, the role of health in earnings capacity and welfare participation, as well as the impact of inheritance, property incomes, taxes and transfers on patterns of aggregate income and wealth.

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Abstract

In the past twenty years, the labor force participation and earnings of women, especially married women, have risen dramatically. Over the same period, men's earnings have increased only modestly, and the distribution of family income has grown less equal. In this paper, we analyze the impact of changes in the level and distribution of earnings of men and women in the distribution of family income. We emphasize the contributions due to the increased work effort and real earnings of wives, as they account for a major portion of growth in family income over these two decades. Working wives have taken the place of economic growth as the factor that raises the standard of living of families across the entire income distribution.

We analyze Current Population Survey data for white, black and Hispanic families in 1968, 1978, and 1988. Our results show that the primary factor contributing to rising income inequality was the increased inequality in the distribution of husbands' earnings. Wives' earnings both raised family income and lowered inequality.

THE CHANGING CONTRIBUTIONS OF MEN AND WOMEN TO THE
LEVEL AND DISTRIBUTION OF FAMILY INCOME, 1968-1988

Maria Cancian, Sheldon Danziger and

Peter Gottschalk¹

INTRODUCTION

In 1968, the typical married couple had annual earnings of \$24,160 (in constant 1988 dollars)² from a husband who averaged 45.9 weeks of work, and \$4,725 from a wife who worked 20.4 weeks. By 1988, the typical husband earned somewhat more, \$27,449 per year, while working somewhat less, 44.8 weeks. The typical wife worked substantially more, 32.1 weeks, and earned substantially more, \$10,240. For the typical couple, real earnings increased by \$8804 per year, of which about 63 percent was attributable to the increased earnings of wives. The typical wife increased her weeks worked by more than 50 percent and earned almost 40 percent more per week.³

Income inequality also increased substantially between 1968 and 1988, with the Gini coefficient of total family income for all couples rising from .305 to .336. Growth in the mean earnings of husbands was even slower and the increase in inequality even greater between 1978 and 1988, than in the prior

decade. The largest single factor contributing to the increased inequality in family income was the rising inequality of husbands' earnings.

This experience of slow growth in husbands' earnings (an increase of only 16 percent in mean earnings over two decades) and rising income inequality contrasts sharply with the previous two decades, over which time real earnings almost doubled and inequality declined somewhat. During those decades, all families, throughout the income distribution, gained as economic growth and rising productivity raised real wages and hence, family income.

The past two decades are characterized by uneven growth, with inequality increasing during both recessions and economic recovery. In fact, many families had lower real incomes at the end of the 1983-1990 recovery than at the beginning. During these last two decades, the increased work effort of married women has taken over the role previously played by economic growth. Increased wives' earnings have accounted for a substantial portion of the rise in family income, and have prevented income inequality from rising to an even greater extent. Working wives, and not economic growth, have been

the "rising tide that lifts all boats".

In this paper, we focus on changes in the level and distribution of earnings of men and women and their impacts on the distribution of family income among married couples, and among all households. This topic has received a modest amount of attention over the past several decades. Economists and journalists have speculated that because a woman's decision to work is now less dependent on her husband's earnings, wives' earnings, which were once a factor leading to an equalization of family incomes, are now "becoming a source of family inequality (Thurow, 1975, p.12)."

This speculation seems to derive from a popular stereotype-- the increasing numbers of young couples in which both the husband and the wife earn very high salaries in a variety of professional, technical and managerial jobs. In this case, inequality increases relative to past decades when the highest-earnings husbands expected their wives not to work in the market. In the earlier period, two-earner couples were more typically ones in which the wife worked not to further her own career, but because her husband earned too little for her to remain at home. If this were true on a large scale,

then the increased labor force participation of wives married to highly-paid husbands might be a major cause of the recent increase in inequality.

While such dual-career high-earnings couples are clearly more common today than in the past, they are, as our empirical work shows below, still relatively rare. They are relatively rare, in part, because many of the wives who do work, work only part time, and, in part, because very few women are in highly paid jobs.⁴

Our primary focus is on changes in the distribution of income among married couples. However, to place these changes in context, we begin with an examination of trends in labor force participation for all women and men. In addition, we examine the impact of wives' earnings on the distribution of income among all families, since working wives affect inequality not only among couples, but also increase income differences between married couples and other households. We also analyze how these impacts differ for white, black and Hispanic families.

We use data from the March Current Population Survey (CPS) computer tapes for income years 1968, 1978, and 1988.⁵ Our sample includes persons 18 to

64 years old. We divide our sample into three mutually-exclusive demographic groups: married persons, heads of household, and other adults.⁶ We present data for all families (including whites, blacks, Hispanics, and others), but our discussion emphasizes disaggregation by race and ethnicity. For 1968, the CPS data are reported for whites and blacks; for 1978 and 1988, we examine white non-Hispanics, black non-Hispanics, and Hispanics.⁷

TRENDS IN MARRIAGE AND LABOR FORCE PARTICIPATION
RATES FOR MEN AND WOMEN

Table 1 shows the percentage of men and women who are married, household heads, or "others" for each of the three race/ethnic groups. For married persons and heads, we distinguish among those who have any young children present (less than 6 years of age), those who have only older children present (between 6 and 18 years of age), and those with no children residing with them.

Of particular importance for our analysis of changes in the level and distribution of husbands' and wives' earnings is the decline in marriage rates, especially for blacks. Table 1 shows that by 1988, about 60 percent of white women, about half of Hispanic women, and only about a third of black

Table 1

Percentage of Persons in Each Demographic Category,
by Gender, Race and Ethnicity

	All			White			Black			Hispanic		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
All Men	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married Men	73.7	64.3	58.6	75.5	66.8	61.9	57.4	45.1	40.1	62.0	51.7	51.7
w/children < 6	23.9	17.5	16.4	24.2	17.2	16.5	20.9	14.0	11.8	27.3	20.9	20.9
w/children 6-18	25.1	21.5	17.5	25.7	22.2	18.1	20.1	16.5	13.7	19.7	16.6	16.6
no children	24.6	25.4	24.6	25.6	27.4	27.4	16.4	14.6	14.7	15.1	14.2	14.2
Male Heads	8.8	16.1	22.0	7.9	15.2	21.1	15.5	23.2	28.1	17.5	22.9	22.9
w/children < 6	0.1	0.2	0.5	0.1	0.2	0.5	0.2	0.7	1.1	0.3	0.6	0.6
w/children 6-18	0.6	0.7	1.0	0.5	0.6	0.9	1.5	1.2	1.4	0.8	1.0	1.0
no children	8.1	15.2	20.5	7.3	14.4	19.7	13.7	21.3	25.5	16.4	21.3	21.3
Other Men	17.5	19.6	19.4	16.5	18.0	17.0	27.2	31.8	31.8	20.5	25.5	25.5
All Women	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married Women	70.1	62.5	57.6	72.6	66.3	61.8	49.2	36.1	32.9	59.4	54.8	54.8
w/children < 6	22.3	17.0	16.1	22.8	17.1	16.5	17.4	11.1	9.4	24.8	21.6	21.6
w/children 6-18	23.5	20.9	17.2	24.3	22.1	18.0	17.3	13.3	11.2	19.0	17.7	17.7
no children	24.3	24.6	24.2	25.5	27.2	27.3	14.6	11.7	12.3	15.5	15.5	15.5
Female Heads	15.7	23.2	27.8	14.1	20.6	25.1	30.1	42.3	46.4	23.3	26.7	26.7
w/children < 6	1.9	3.0	3.8	1.3	1.8	2.4	6.9	9.7	11.5	6.0	6.4	6.4
w/children 6-18	3.7	5.2	5.6	3.0	4.1	4.1	10.0	12.9	13.7	6.4	7.1	7.1
no children	10.2	15.0	18.4	9.9	14.7	18.6	13.2	19.7	21.3	10.9	13.2	13.2
Other Women	14.2	14.3	14.6	13.4	13.1	13.1	20.7	21.6	20.6	17.3	18.6	18.6

women between the ages of 18 and 64 were married and living with a spouse. This raises an important issue relevant to this and past studies that analyze the effect of wives earnings on the distribution of income among married couples.⁸ That is, this decline in marriage rates may have indirectly affected income inequality. If the women (or men) who are no longer married have above-average or below-average earnings, then the selection of who marries will affect inequality among married couples, even if the participation and wages of all women (all men) do not change. Selection issues are, therefore, potentially important if the trends in labor force participation and earnings of married women (men) differ significantly from those of other women (men).⁹

The percentage of men and women within each category who worked at some time during the year is shown in Table 2. Figures 1a and 1b illustrate these labor force participation rates for all men and all women, by marital status. For white men there was relatively little change in labor force participation--the percentage of married men working declined modestly from about 95 to 92 percent, while that of male heads and other men were about the same

Table 2

Percentage of Persons working Positive Weeks During
1968, 1978, 1988

	All			White			Black			Hispanic		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
All Men	92.7	90.4	88.9	93.1	91.6	90.6	90.2	80.9	78.5	90.6	88.2	
Married Men	94.7	92.4	91.2	94.9	92.7	91.9	93.5	88.7	84.3	93.3	91.7	
w/children < 6	95.3	95.1	94.2	95.4	95.7	95.5	95.4	91.0	86.0	94.5	93.6	
w/children 6-18	96.0	94.3	93.7	96.4	94.7	94.6	92.2	90.3	87.3	94.0	93.5	
no children	92.9	89.0	87.4	92.9	89.2	87.9	92.7	84.8	80.2	90.2	86.8	
Male Heads	90.4	89.0	89.3	90.5	90.6	91.0	90.4	79.9	81.3	91.6	88.0	
Other Men	85.6	85.0	81.6	86.1	88.4	85.2	83.3	70.6	68.5	81.4	81.4	
All Women	60.2	67.7	74.9	59.3	68.7	77.3	68.4	65.1	70.1	58.5	62.3	
Married Women	54.1	63.0	72.8	53.0	62.9	73.5	66.9	70.8	78.8	55.9	61.1	
w/children < 6	43.1	55.6	67.0	41.5	55.5	67.7	60.4	66.8	76.4	47.8	57.4	
w/children 6-18	57.5	65.3	77.0	56.4	64.7	78.2	70.9	75.6	83.5	59.2	62.5	
no children	60.7	66.2	73.7	60.1	66.0	73.9	69.7	69.0	76.4	65.0	64.5	
Female Heads	75.8	76.3	78.8	77.2	80.8	83.9	71.1	64.3	67.9	60.0	65.0	
w/children < 6	62.1	61.0	61.4	65.3	71.0	70.7	58.5	53.8	54.8	38.4	50.1	
w/children 6-18	71.2	73.9	77.7	72.7	80.2	84.3	68.6	64.2	71.7	53.1	62.4	
no children	79.9	80.1	82.7	80.0	82.3	85.4	79.6	69.5	72.6	76.0	73.7	
Other Women	73.7	74.3	75.7	74.7	79.0	82.4	68.3	57.4	61.0	65.6	62.2	

Figure 1a

Percent of Men Working

by marital status, 1968, 1978, 1988

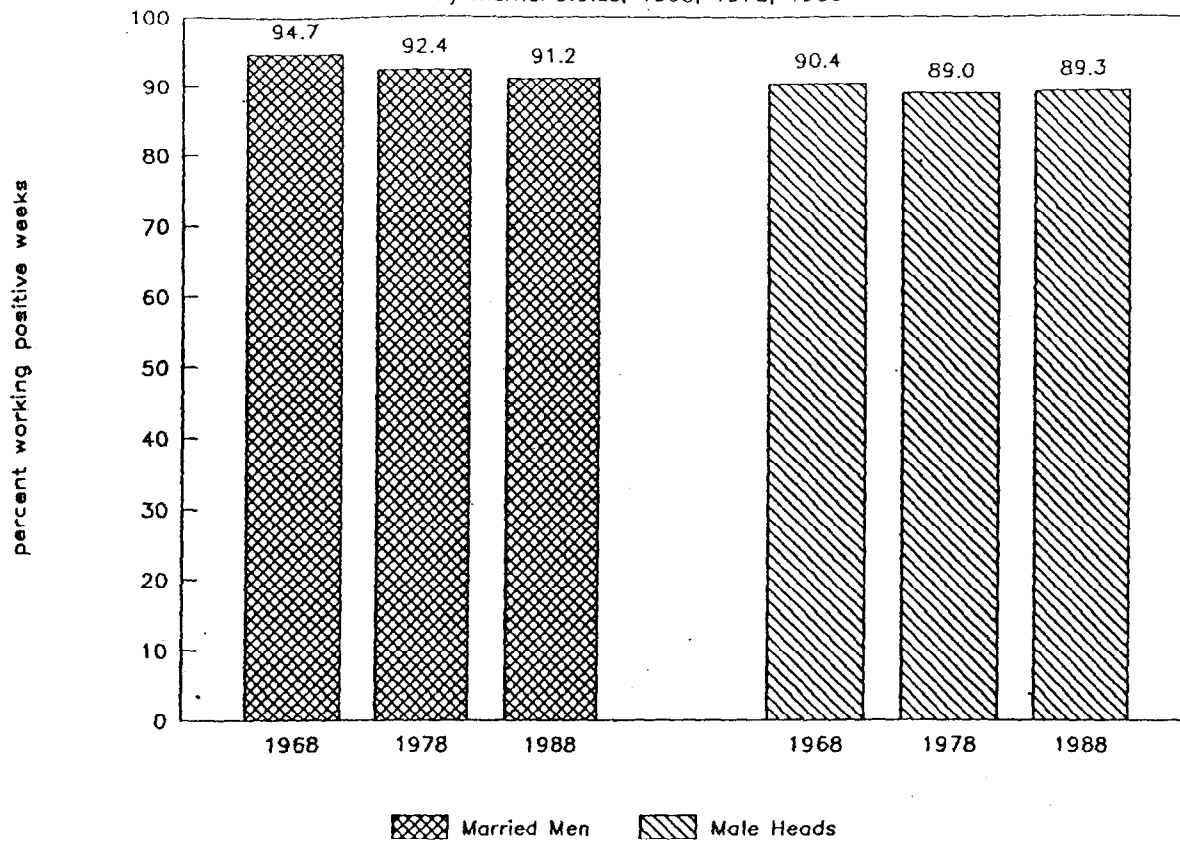
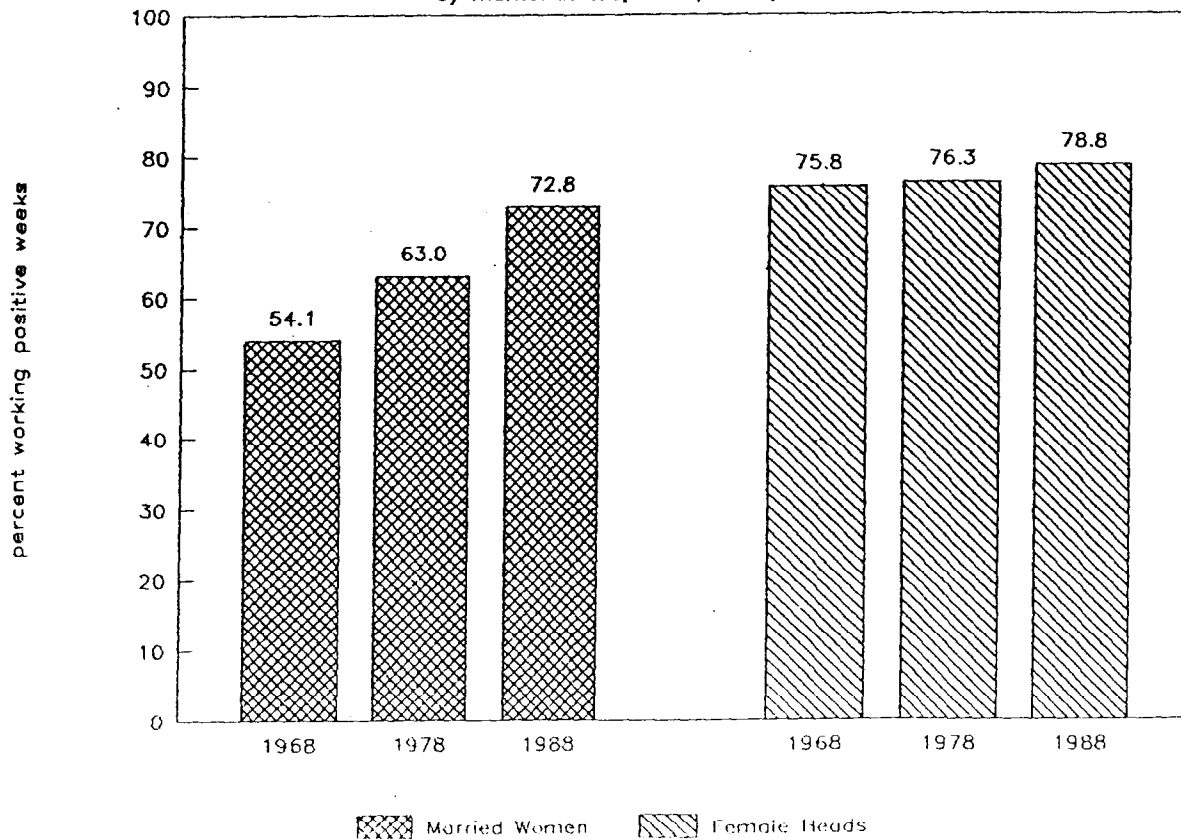


Figure 1b

Percent of Women Working

by marital status, 1968, 1978, 1988



in 1988 as in 1968.

For white women, labor force participation increased by a large amount for each category. The increase was especially large among married women--the percentage working increased from about half to about three quarters over the two decades.¹⁰ The gains were even larger for those with young children. In 1968, only 41.5 percent worked, but in 1988, 67.7 percent worked.

The fact that the labor force participation of both white married women and white female heads increased, suggests that for white women selection was probably not an important issue--if the increased work among married women reflected the fact that women not working were not getting married, then participation among unmarried women would have fallen. This did not happen.

The data in Table 2 also show a convergence in labor force participation rates for women with young children, and women with older children. Married mothers were substantially less likely to work than their unmarried counterparts in 1968, but by 1988 this was no longer the case.

For black men there has been a substantial decline in the percent working during the year. As

can be seen in Table 2, the participation of male heads declined between 1968 and 1978, and then stabilized, while the participation of married men fell over the entire period. But the declines for both groups were similar--about 9 percentage points. However, there was a 15 percentage point decline for other black men, indicative perhaps, of their inability to earn enough to either head their own household or support a family (Wilson, 1987). These trends imply that selection into marriage may make our analysis of trends in the income distribution for black couples problematic.

The trend in the percentage of black women working also varies substantially by marital status and raises the selection issue. Over the twenty-year period, the participation rate of married black women rose from 66.9 to 78.8 percent, while that of female heads fell from 71.1 to 67.9 percent. The rates for black mothers varied more by marital status in 1988 than in 1968. In 1968, mothers of young children were almost equally likely to work if they were married or female heads of household. The same was true of mothers with children between the ages of 6 and 17. However, by 1988 married mothers were substantially more likely to work.

This pattern is the opposite of that for white mothers, who showed substantially less variance by marital status in 1988 than in 1968. If those most likely not to work were the ones who did not marry, then the rise in the propensity to work among married women and the decline among female heads could reflect selection.

For Hispanics, data are unavailable for 1968. Between 1978 and 1988 there was a modest decline in the percent of Hispanic men working positive weeks.¹¹ Their participation rates in every year are much closer to those of whites than blacks. Participation among Hispanic women increased, but their rates are lower than those of white or black women. The largest increases were among married and unmarried women with children under six, and among unmarried women with children 6 to 17. For women with children, the difference in participation according to marital status narrowed somewhat over the period. Selection is, therefore, probably less of a problem for Hispanics than for blacks.

TRENDS IN ANNUAL EARNINGS FOR MARRIED MEN AND WOMEN

The data reviewed in the previous section suggest that selection into marriage may not bias an analysis of trends in the level and distribution of

income for white and Hispanic married men and women. However, we caution that changes in earnings within marital categories for blacks may reflect changes in who has married as much as marital-specific changes in earnings. Given this caveat, we now turn our attention to changes in the distribution of earnings for husbands and wives in married-couple families.

Table 3 and Figures 2a to 2h show the distribution of annual earnings in 1988 constant dollars for all married men and women by race and ethnicity.¹² We classify all persons into one of six categories--nonearners, those earning less than \$12,000 per year, those earning \$12-\$24,000, \$24-36,000, \$36-48,000, and those earning more than \$48,000 per year. For married women, we also show the percent with positive earnings who earn over \$36,000 per year. The earnings categories are arbitrary, but \$12,000 is about equal to the poverty line for a family of four, and \$24,000 is close to the mean annual earnings of married men.¹³

The earnings distribution for white married men has grown in both tails. As Table 3 and figure 2c show, the percent of white married men earning between \$12,000 and \$36,000 (in constant 1988 dollars) has fallen substantially, while the percent

Table 3

Annual Earnings of Married Men
Percent with earnings in each category
1968, 1978 and 1988

	All			White			Black			Hispanic		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
Annual Earnings												
zero	8.1	9.7	10.4	8.1	9.7	9.9	7.9	11.9	16.2		7.0	9.0
<12k	10.8	10.4	12.3	9.6	9.3	10.5	26.0	18.1	17.5		18.3	25.9
12k-24k	36.0	26.1	24.4	35.0	24.7	22.8	48.7	33.3	30.9		41.7	35.2
24k-36k	29.5	29.6	26.0	30.8	30.2	27.2	14.4	27.5	21.9		22.6	18.5
36k-48k	9.7	14.0	13.3	10.3	14.9	14.4	2.0	6.5	8.3		7.3	7.0
48k +	6.0	10.3	13.7	6.4	11.3	15.2	1.0	2.7	5.2		3.1	4.4
Mean Earnings	24160	26685	27449	24843	27672	28933	15911	19248	19653		20008	18817
CV Squared				0.451	0.437	0.528	0.406	0.435	0.615		0.427	0.667

Annual Earnings of Married Women
Percent with earnings in each category
1968, 1978 and 1988

	All			White			Black			Hispanic		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
Annual Earnings												
zero	50.4	39.1	28.2	51.5	39.5	27.6	35.8	29.5	21.7		45.2	39.5
<12k	32.8	35.9	34.7	31.6	35.9	34.8	47.1	37.5	34.5		36.2	36.0
12k-24k	14.9	19.9	24.4	14.9	19.8	24.6	14.7	24.8	29.6		16.0	18.0
24k-36k	1.7	4.2	9.4	1.7	4.0	9.7	2.3	7.2	11.2		2.2	5.4
36k-48k	0.2	0.6	2.2	0.2	0.6	2.2	0.1	0.8	2.3		0.3	0.8
48k +	0.1	0.3	1.1	0.1	0.3	1.1	0.0	0.1	0.7		0.1	0.4
% earners of 36k+ *	0.6	1.4	4.5	0.6	1.5	4.6	0.2	1.3	3.8		0.7	2.0
Mean Earnings	4725	6774	10240	4682	6677	10375	5179	8690	11644		5387	7071
CV Squared				2.300	1.793	1.347	1.633	1.159	0.893		2.079	2.067

Figure 2a

Earnings of Married Men

Annual Earnings in \$1988

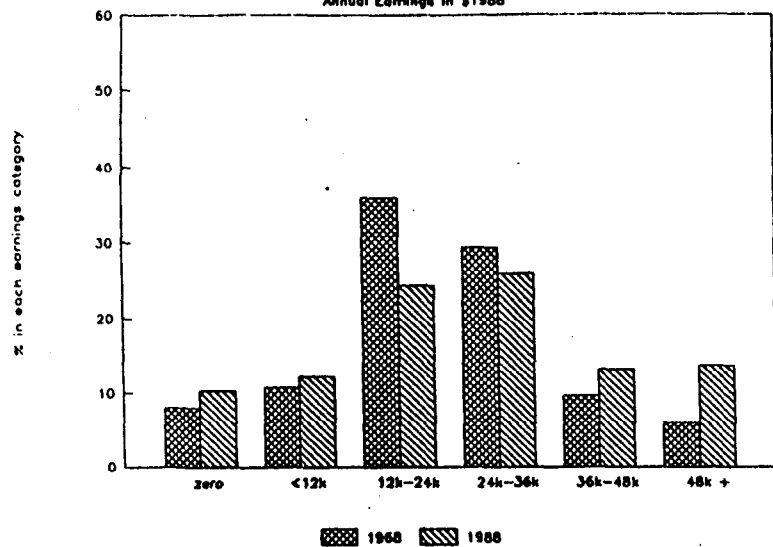


Figure 2c

Earnings of White Married Men

Annual Earnings in \$1988

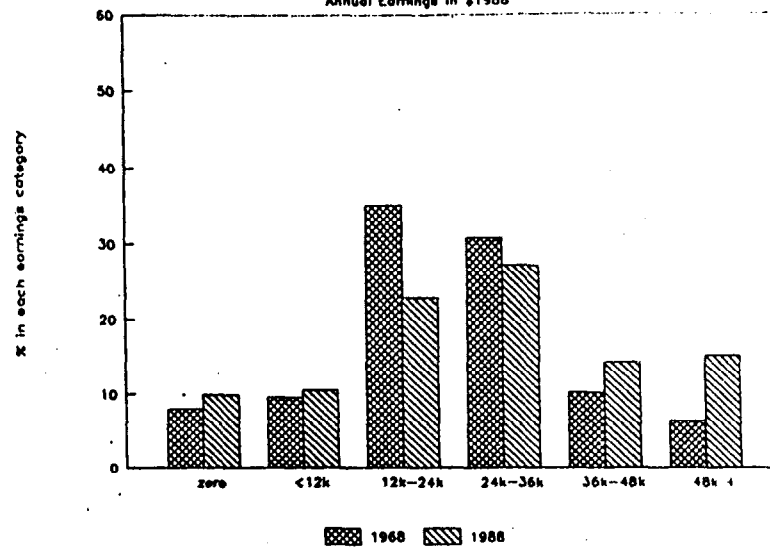


Figure 2b

Earnings of Married Women

Annual Earnings in \$1988

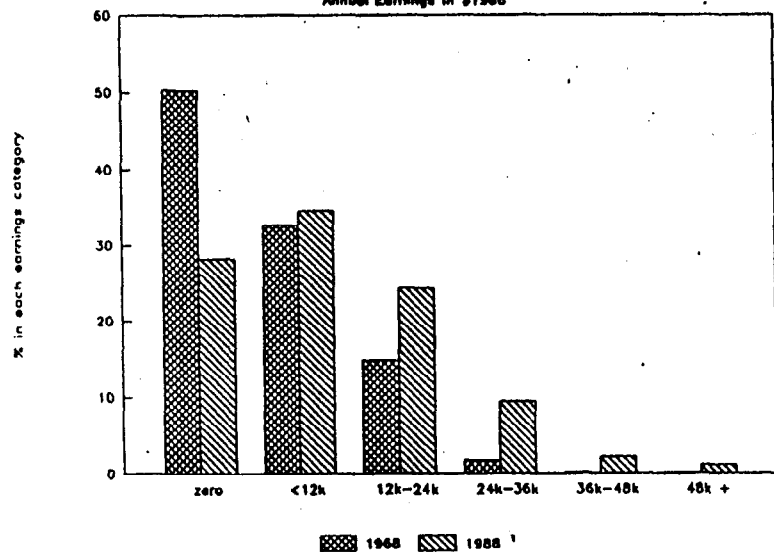


Figure 2d

Earnings of White Married Women

Annual Earnings in \$1988

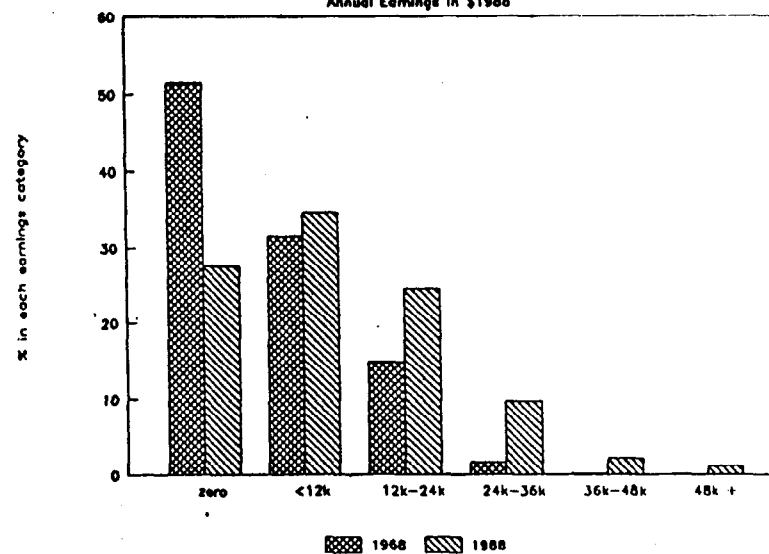


Figure 2e

Earnings of Black Married Men

Annual Earnings in \$1988

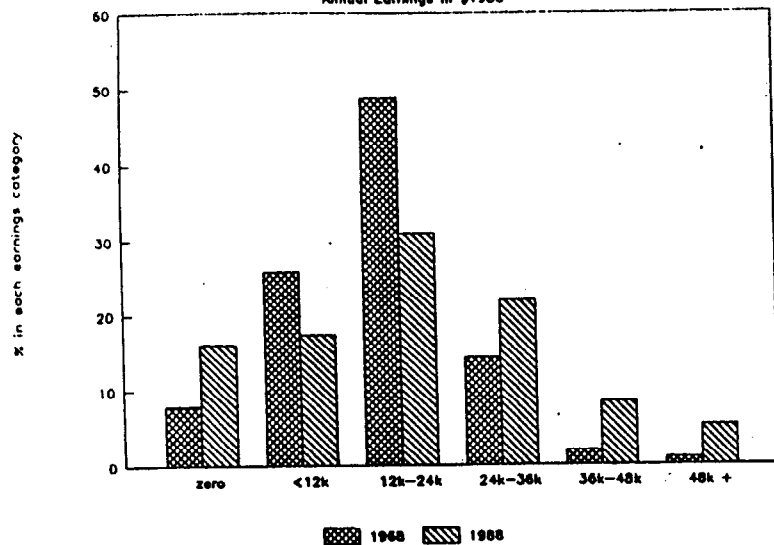


Figure 2g

Earnings of Hispanic Married Men

Annual Earnings in \$1988

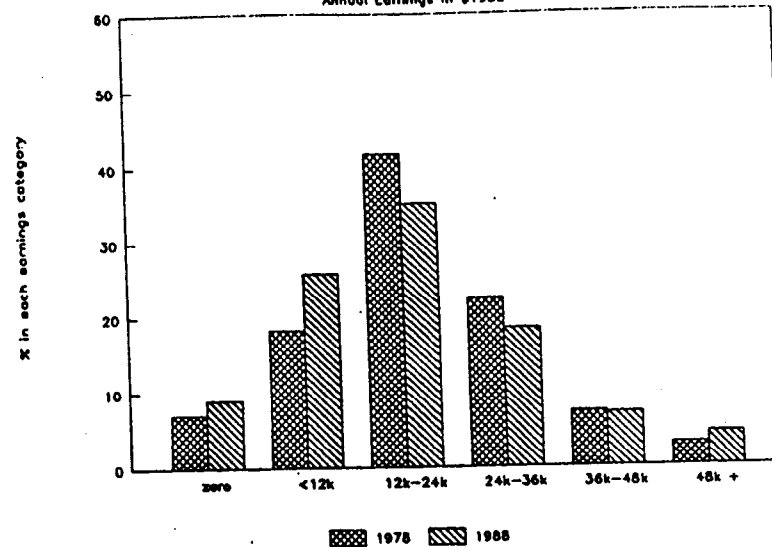


Figure 2f

Earnings of Black Married Women

Annual Earnings in \$1988

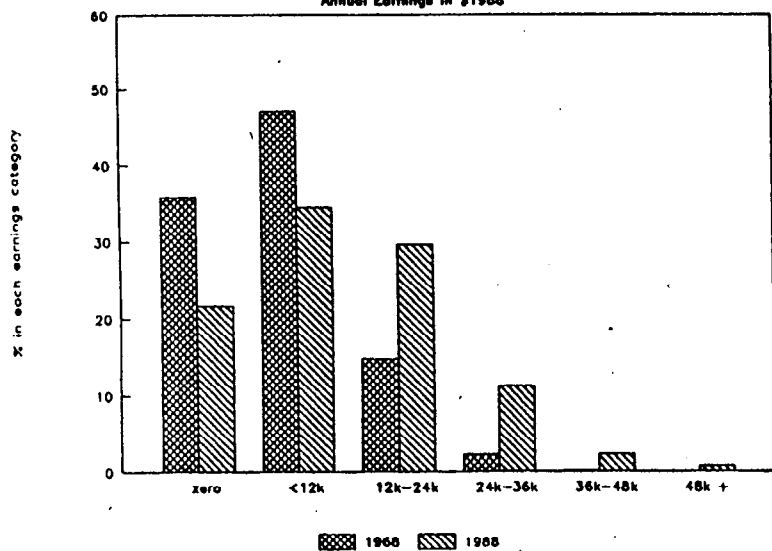
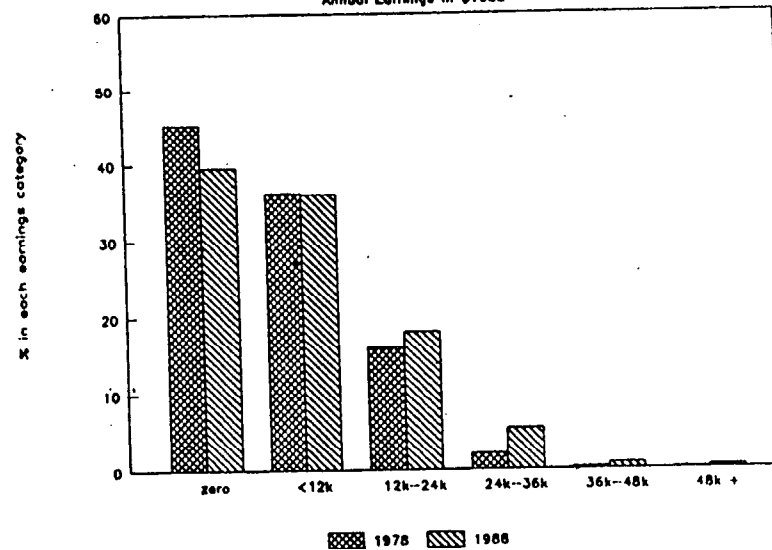


Figure 2h

Earnings of Hispanic Married Women

Annual Earnings in \$1988



earning less than \$12,000 and more than \$36,000 has grown. Their mean annual earnings increased by 16 percent, from \$24,843 in 1968 to \$28,933 in 1988. As evidenced in the figure, inequality increased. The squared coefficient of variation of husbands' earnings for whites increased by 17 percent from .451 to .528.¹⁴

For white married women, the dominant factor was the decline in zero earners (see Figure 2d) from 51.5 to 27.6 percent. The greatest increases were in the categories between \$12,000 and \$36,000, from 16.6 to 34.3 percent. As a result of these changes, mean annual earnings of white married women more than doubled from \$4,682 to \$10,375. As discussed in the next section, this was due both to an increase in weeks worked and an increase in weekly earnings. However, the percentage of working married women who earned over \$36,000 remained remarkably low: only 4.6 percent 1988. By comparison, about one-third of married white men earned more than \$36,000. Inequality among all white wives also decreased substantially because of the decline in zero earners. The squared coefficient of variation fell by 41 percent, from 2.300 to 1.347.

For black married men, the percent with no earnings for the entire year rose from 7.9 to 16.2. However, there was also a substantial increase in the percent earning more than \$24,000, from 17.4 to 35.4 percent. These increases in the upper and lower tail caused earnings inequality to increase for blacks. In fact, both the mean and inequality increased more for black than white men. Mean earnings rose 23.5 percent, from \$15,911 to \$19,653, while the squared coefficient of variation increased by over 50 percent, from .406 to .615.

As with white married women, the earnings of black married women increased significantly. The percentage with zero earnings or earnings under \$12,000 fell from 82.9 to 56.2 percent, while the percentage in each category above \$12,000 rose. Nonetheless, only 3.8 percent of black married women with nonzero earnings earned over \$36,000 in 1988. Over the entire period, the mean more than doubled, from \$5,179 to \$11,644, and the squared coefficient of variation fell by 45 percent, from 1.633 to .893.

Figure 2g illustrates the changes in the distribution of Hispanic married men's earnings between 1978 and 1988. The percent with zero earnings increased, from 7 to 9 percent, those with

positive earnings less than \$12,000 increased, from 18.3 to 25.9 percent. There was a decline in the middle income ranges--from 12,000 to \$36,000--and not much change at higher levels. This recent decade was particularly difficult for Hispanic married men. Their mean earnings fell by 6 percent, from \$20,008 to \$18,817.¹⁵ In contrast, the mean for white men increased by about 5 percent, and that of black men, by about 2 percent over the decade. Their experience, although better than that of Hispanic men, was much worse than their respective gains in the 1968-1978 decade.

The level and distribution of earnings among Hispanic married women also changed less between 1978 and 1988 than among white and black women, though the differences were not as great as for men. The percent of married Hispanic women with no earnings fell from 45.2 to 39.5 percent. There were small increases (of two to three percentage points) in those earning between \$12,000 and \$36,000. As a result, mean earnings rose from \$5,387 to \$7,071, or by 31 percent over the decade. However, Hispanic women also gained less than black and white women, whose earnings rose by 34 and 55 percent, respectively.

In sum, the last two decades have been characterized by slow growth in mean earnings and rising inequality for husbands and rapid growth in the mean and falling inequality for wives. The rising inequality in earnings among husbands has been documented in a number of recent studies. As Karoly (1991:39) notes, "among men, [labor income] inequality has been increasing since the 1960s, with growing dispersion in both the lower and upper tail." The increased earnings inequality reflects increasing returns to education and experience (Katz and Murphy, 1990; Murphy and Welch, 1991; Acs and Danziger, 1991). The differential in earnings between high school and college graduates, and between blue collar and white collar workers has risen over time. Inequality of earnings among men has also increased within skill groups (Juhn, Murphy and Pierce, 1989; Karoly 1991).

There is also evidence of increasing returns to education for women (Katz and Murphy, 1990). However, the distribution of earnings among married women has grown more equal, due to increases in the percent of married women who work. Nonetheless, given substantial positive assortative mating based on education, these trends may have important

implications for the distributional impacts of married women's earnings. We now turn to an examination of whether changes in labor force participation and the earnings of wives differed for women married to men who were lower versus higher earners.

PARTICIPATION RATES AND WEEKLY EARNINGS OF MARRIED WOMEN: WHICH WIVES WORK?

As shown above, the labor force participation rates and annual earnings of married women have risen substantially. These increases are consistent with a pattern of rising labor force participation among married women since 1950. Several studies suggest that the increased work effort can be attributed primarily to substantial increases in real wages for women (Mincer, 1962; see Killingsworth and Heckman (1986), for a review of this literature). Analysis of long-term trends in participation by Claudia Goldin (1990) suggests, however, that increased labor force participation since 1960 is also due to such "supply-side" factors as "reduced numbers of children, increased probability of divorce, reduced barriers to various occupations, and changes in social norms." (Goldin, 1990:137)

We do not consider possible causal connections between changes in the wages and participation of men and women. However, there is little evidence that the increased participation of women was caused by the stagnation of male earnings or that it, in turn, substantially affected the rate of growth of male earnings. In particular, married women's labor force participation began to increase in the 1950s, considerably before men's wages began to stagnate. Moreover, the participation of women married to men with higher earnings has grown disproportionately, although their husbands generally experienced significant increases in earnings.

Katz and Murphy (1990) examine the changing relative wages of men and women. They find that among high school graduates, the gains of women relative to men reflect sharp declines in demand for production jobs typically held by low-skilled men, as well as substantial increased demand for jobs dominated by high school women. In the case of college graduates, they find smaller increases in demand for traditionally female college jobs, and note the substantial increase of women in traditionally male occupations and industries. Thus, the greatest impact of women substituting for

men should have been in college jobs, the sector which experienced relatively large wage gains.

To begin to understand how changes in labor force participation and earnings have affected family income inequality, we examine how married women's participation and earnings vary by husbands' earnings levels. Table 4 shows the percentage of white, black, and Hispanic couples with working wives, classified according to the level of husbands' earnings.¹⁶ In general, the higher was the husband's earnings, the lower was the probability that the wife worked, although the differences were not large in the two ranges in which most husbands were concentrated (positive earnings less than \$24,000). For example, the first number in Table 4 shows that in 1968, 41.9 percent of wives whose husbands' had no earnings worked at some time during the year. In contrast, only 29.7 percent of the wives whose husbands' earned more than \$48,000 worked.

Over the next two decades, there were substantial increases in the percent of married women working, regardless of their husband's place in the earnings distribution. The largest increases were in traditionally male occupations and industries. Thus, the greatest impact of women substituting for

Table 4

Percent of Married Women Working

All	1968	1978	1988	%pt chg	
				1968-78	1978-88
Husband Earns 0	41.9	45.1	49.0	3.2	3.9
Husband Earns <12k	58.0	65.1	71.8	7.1	6.7
Husband Earns 12k-24	55.2	67.8	77.7	12.6	9.9
Husband Earns 24k-36	48.1	64.2	75.9	16.1	11.7
Husband Earns 36k-48	39.4	57.1	71.8	17.7	14.8
Husband Earns 48k+	29.7	45.0	66.3	15.3	21.3
All Wives	49.8	61.0	71.9	11.2	10.9
White	1968	1978	1988	%pt chg	%pt chg
				1968-78	1978-88
Husband Earns 0	41.1	44.3	48.3	3.2	4.0
Husband Earns <12k	56.0	64.9	74.1	8.9	9.3
Husband Earns 12k-24	54.2	68.4	79.2	14.2	10.7
Husband Earns 24k-36	47.5	63.6	76.1	16.1	12.5
Husband Earns 36k-48	38.8	56.7	72.1	17.9	15.4
Husband Earns 48k+	29.6	44.8	66.0	15.1	21.3
All White Wives	48.6	60.5	72.5	11.9	12.0
Black	1968	1978	1988	%pt chg	%pt chg
				1968-78	1978-88
Husband Earns 0	47.5	55.6	62.8	8.1	7.2
Husband Earns <12k	67.9	72.6	75.8	4.7	3.2
Husband Earns 12k-24	64.0	71.4	81.4	7.4	10.0
Husband Earns 24k-36	63.6	73.1	83.3	9.5	10.2
Husband Earns 36k-48	66.8	70.2	78.6	3.4	8.4
Husband Earns 48k+	35.4	58.1	79.1	22.7	21.1
All Black Wives	63.9	70.3	78.3	6.4	8.0
Hispanic	1968	1978	1988	%pt chg	
				1978-88	
Husband Earns 0		38.4	40.6	2.1	
Husband Earns <12k		56.7	56.4	-0.3	
Husband Earns 12k-24k		57.2	63.1	5.9	
Husband Earns 24k-36k		60.0	65.4	5.4	
Husband Earns 36k-48k		49.3	59.0	9.7	
Husband Earns 48k+		45.5	58.8	13.3	
All Hispanic Wives		55.8	59.8	4.0	

of wives of men with high earnings. For example, over the entire 1968 to 1988 period, the percentage working in the lowest positive earnings category increased by 18.1 percentage points (from 56.0 to 74.1 percent), but by more than 30 points for wives whose husbands were in the two categories above \$36,000. Thus, the differences in participation between wives of low and high earning men narrowed considerably.

There was a similar convergence in participation rates for Hispanic wives of men with low and high earnings. The percentage of black wives who work does not vary as much by husbands' earnings level as it does for whites. There was also a very rapid growth in labor force participation for minority wives whose husbands earned more than \$48,000, but there are very few husbands in this category.

By 1988, white and Hispanic married women joined black married women in having labor force participation rates that varied relatively little with husbands' earnings. This suggests that the equalizing effect of their earnings on family inequality may have eroded, as the negative correlation between wife's work and husband's

earnings became much smaller. However, to this point, we have examined only the variation in participation, not how the earnings of wives vary with the earnings of their husbands. We now examine how the weekly earnings of working wives vary across the distribution of husbands' earnings.

Table 5 presents the mean weekly earnings of working wives (in constant 1988 dollars), classified by husbands' earnings level.¹⁷ There is relatively little variation in mean weekly earnings across the distribution. The mean for wives rises with husband's income, but at a much slower rate. For example, the men in the highest income category have mean earnings that are about 10 times those of men in the lowest category, but their wives earn less than twice as much as the wives of the lowest-earning husbands.

For whites, the positive relationship has increased somewhat over time, as the wages of wives of higher earning men have risen more rapidly than average. While the average white married woman's weekly wages rose by about \$78, they rose about \$89 for women married to men earning \$36,000-\$48,000 and by about \$92 for those married to men earning more than \$48,000.

Table 5

Mean Weekly Earnings
of Working Married Women

All	1968	1978	1988	Change	
				1968-78	1978-88
Husband Earns 0	234	279	311	45	32
Husband Earns <12k	207	237	254	31	17
Husband Earns 12k-24	231	252	284	21	32
Husband Earns 24k-36	261	283	332	22	48
Husband Earns 36k-48	275	299	366	24	67
Husband Earns 48k+	318	335	415	17	81
All Wives	243	274	323	31	49
White	1968	1978	1988	Change	
				1968-78	1978-88
Husband Earns 0	246	281	319	35	37
Husband Earns <12k	223	243	266	20	23
Husband Earns 12k-24	233	252	284	18	33
Husband Earns 24k-36	259	279	325	20	46
Husband Earns 36k-48	273	291	362	18	71
Husband Earns 48k+	317	327	408	11	81
All White Wives	247	273	325	26	52
Black	1968	1978	1988	Change	
				1968-78	1978-88
Husband Earns 0	163	268	268	106	-1
Husband Earns <12k	136	216	231	81	15
Husband Earns 12k-24	213	261	307	48	46
Husband Earns 24k-36	290	329	382	39	53
Husband Earns 36k-48	351	389	380	37	-9
Husband Earns 48k+	353	459	488	106	29
All Black Wives	206	288	326	82	38
Hispanic	1968	1978	1988	Change	
				1978-88	
Husband Earns 0		255	296		41
Husband Earns <12k		216	205		-11
Husband Earns 12k-24k		236	253		17
Husband Earns 24k-36k		281	327		46
Husband Earns 36k-48k		292	368		77
Husband Earns 48k+		389	450		60
All Hispanic Wives		252	277		25

Among black couples, the gap between the earnings of women with high and low earning husbands is greater than for whites. However, this positive relationship weakened somewhat over the two decades. For example, the average black wife's weekly earnings rose by \$120, while they rose by approximately \$90 for the wives of men earning \$12,000-\$24,000 and \$24,000-\$36,000, and by only about \$28 dollars for those whose husbands earned \$36,000-\$48,000. The gains made by women with low-earning husbands are even more dramatic in percentage terms. Wives of the highest earning men had the highest wage increases, but the number of couples in this category is very small.

Among Hispanics, the greatest gains in weekly earnings were generally experienced by women married to men with higher earnings. Mean weekly earnings of women married to men with positive earnings less than \$12,000 actually fell.

THE IMPACT OF WIVES' EARNINGS ON FAMILY
INCOME INEQUALITY

Over a period when husbands' earnings rose very little, wives' earnings increased substantially. Between 1968 and 1988, married men's mean annual earnings rose 16.5 percent for whites and 23.5

percent for blacks, while married women's earnings more than doubled for both whites and blacks. Over the 1978 to 1988 decade, married men's mean annual earnings rose 4.6 percent for whites, 2.1 percent for blacks, and actually fell by 6.0 percent for Hispanics. At the same time, married women's mean earnings rose 55.4 percent for whites, 34.0 percent for blacks, and 31.3 percent for Hispanics.

As discussed above, the rise in married women's earnings reflects an increase in the proportion of married women who work as well as increased weekly earnings for working wives. In order to more fully understand the impact of married women's earnings on the distribution of family income, we first examine how they change the percentage of families living in various categories defined as multiples of the official poverty line. This provides a measure of how wives' earnings affect the absolute income levels of couples.¹⁸ Then, we examine their effects on measures of relative inequality, such as the Gini coefficient and the squared coefficient of variation (CV^2).

Table 6 shows the distribution of income in categories defined in terms of the official poverty line--that is, the percentage of families with

Table 6

Percent of Married Couples in Each Poverty Line Category

Total Family Income

times PL	All Couples			White Couples			Black Couples			Hispanic Couples		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
<1	5.8	4.5	4.8	4.9	3.7	3.4	16.9	8.5	8.8		10.8	14.2
1-2	20.5	13.5	11.7	19.3	11.8	9.8	34.9	22.7	18.6		30.2	24.6
2-3	26.9	20.6	15.3	27.2	20.0	14.5	22.9	24.5	18.2		25.0	21.2
3-5	31.0	35.2	30.5	31.9	36.2	31.5	19.6	30.4	28.6		25.0	24.7
5-7	10.6	16.3	18.6	11.0	17.4	19.9	4.3	10.3	14.9		6.6	9.4
7+	5.3	9.9	19.1	5.6	10.8	20.9	1.3	3.7	10.9		2.4	5.8
Mean:	33,329	40,154	44,595	34,037	41,301	46,391	24,359	33,201	36,883		29,557	31,481

Total Family Income, Less Wives' Earnings

times PL	All Couples			White Couples			Black Couples			Hispanic Couples		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
<1	9.2	7.9	9.2	7.9	6.6	7.0	25.1	16.4	18.2		16.6	21.3
1-2	26.4	20.0	18.4	25.3	17.8	16.3	39.8	33.2	28.3		37.5	31.8
2-3	30.0	25.5	21.1	30.6	25.6	21.2	23.0	25.7	21.8		25.3	20.8
3-5	25.4	31.5	29.7	26.6	33.3	31.5	10.6	20.8	22.2		16.5	19.3
5-7	5.8	9.8	12.1	6.2	10.7	13.3	1.1	2.8	6.2		3.2	3.9
7+	3.2	5.3	9.5	3.5	6.0	10.7	0.4	1.1	3.3		1.0	2.9
Mean:	28,594	33,229	34,425	29,352	34,463	36,104	19,127	24,396	25,375		24,258	24,587

Percentage Point Change due to Wives' Earnings

times PL	All Couples			White Couples			Black Couples			Hispanic Couples		
	1968	1978	1988	1968	1978	1988	1968	1978	1988	1968	1978	1988
<1	-3.3	-3.4	-4.4	-2.9	-2.9	-3.6	-8.1	-7.9	-9.4		-5.8	-7.1
1-2	-5.9	-6.5	-6.8	-6.1	-6.1	-6.5	-4.9	-10.6	-9.8		-7.3	-7.2
2-3	-3.2	-4.9	-5.8	-3.4	-5.5	-6.6	-0.1	-1.3	-3.5		-0.3	0.4
3-5	5.6	3.7	0.8	5.3	2.9	-0.0	9.0	9.6	6.4			
5-7	4.8	6.5	6.5	4.9	6.7	6.6	3.2	7.5	8.7			
7+	2.0	4.6	9.6	2.1	4.9	10.2	0.9	2.7	7.6		1.4	2.9
Mean:	4,735	6,925	10,170	4,685	6,838	10,287	5,232	8,806	11,508		5,299	6,894

incomes less than the poverty line, between one and two times the poverty line, etc. The highest category includes those with incomes greater than seven times the poverty line. Because the official poverty line increases with family size and is adjusted annually for inflation, this income measure adjusts both for changes in prices over time and for differences in family size.¹⁹ We define "the rich" as couples whose incomes exceed seven times their poverty lines. This is analogous to the official poverty definition which counts as poor those below a fixed threshold. Of course, any such measure for defining the rich is arbitrary (see Danziger, Gottschalk and Smolensky, 1989).²⁰

The proportion poor and rich are both affected by changes in the level and the shape of the income distribution. For example, if every wife worked and earned an amount equal to her husband's income, then the entire distribution would shift to the right. There would be fewer families in each of the lower income categories and more in the higher income categories. The mean would increase, but measures of relative income inequality would not change.

The first panel of Table 6 shows the distribution of total family income from all

sources. In addition to the earnings and self-employment income of husbands and wives, total family income, as reported in the Current Population Survey, includes the earnings of other family members, property income (interest, dividends, and net rents), government cash transfers (Social Security, welfare, etc.), and other income (private pensions, child support, etc.).²¹ The second panel shows the distribution of total family income less wives' earnings.²²

The first two numbers in the first column show that 5.8 percent of married couples had total family income less than the poverty line in 1968, and 20.5 percent had total family income between one and two times the poverty line. The equivalent numbers in the second panel show that without wives' earnings, 9.2 percent of families would have been below the poverty line, and 26.4 percent would have had income between one and two times the poverty line.

The change in the distribution of income due to wives' earnings is shown in the third panel, and illustrated by Figures 3a-3d. Figure 3a shows that in all three years, wives' earnings significantly reduced the percentage of all families with income below three times the poverty line, and increased

Change due to All Wives' Earnings

1968, 1978, 1988

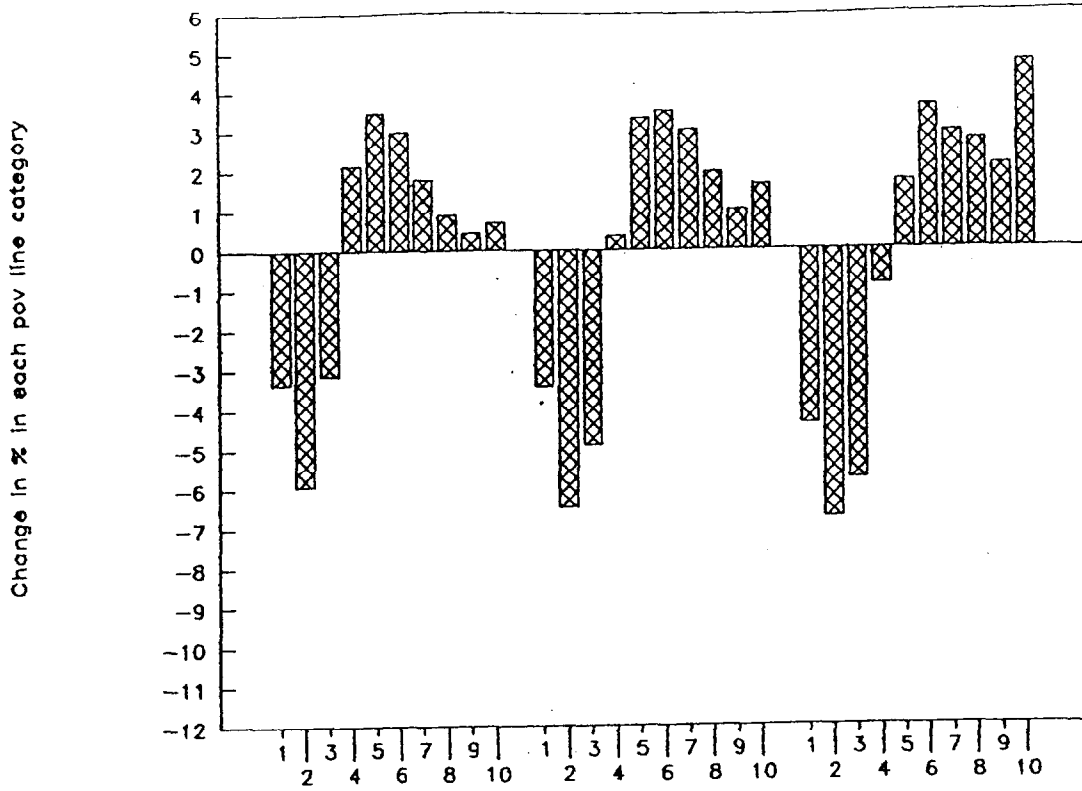
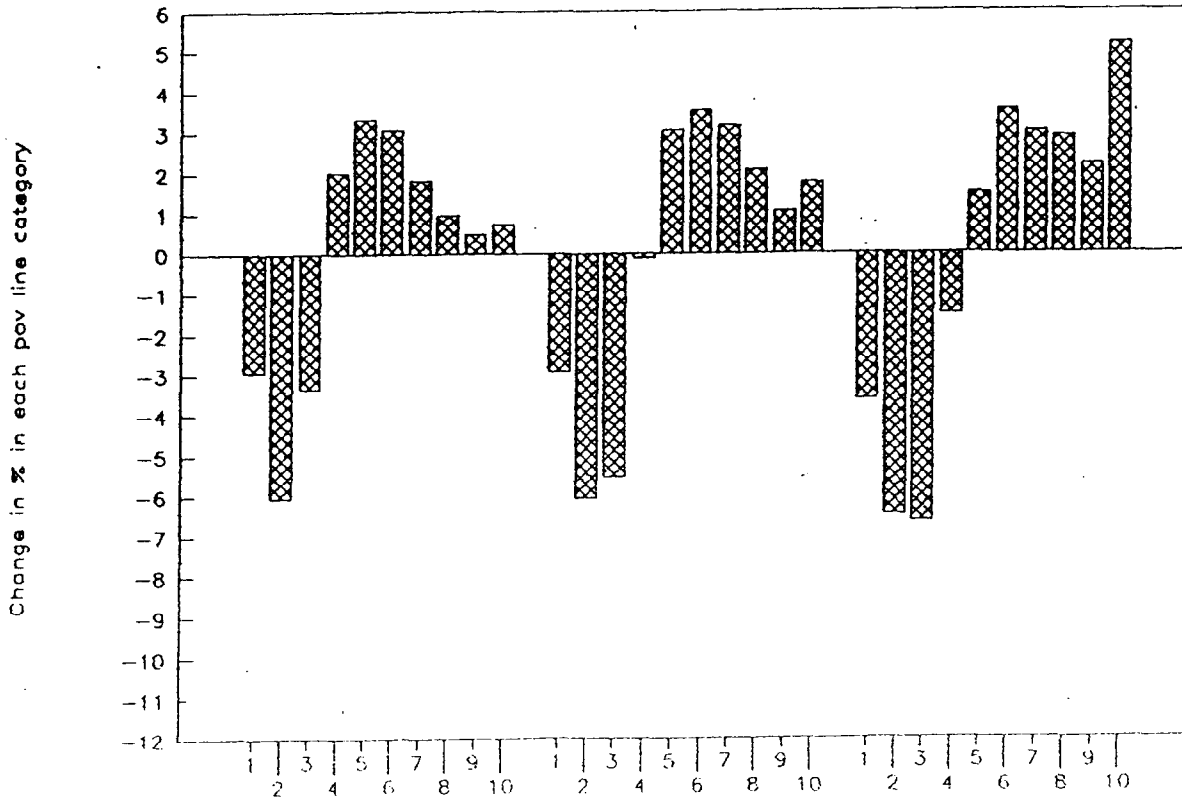


Figure 3b

Change due to White Wives' Earnings

1968, 1978, 1988



Change due to Black Wives' Earnings

1968, 1978, 1988

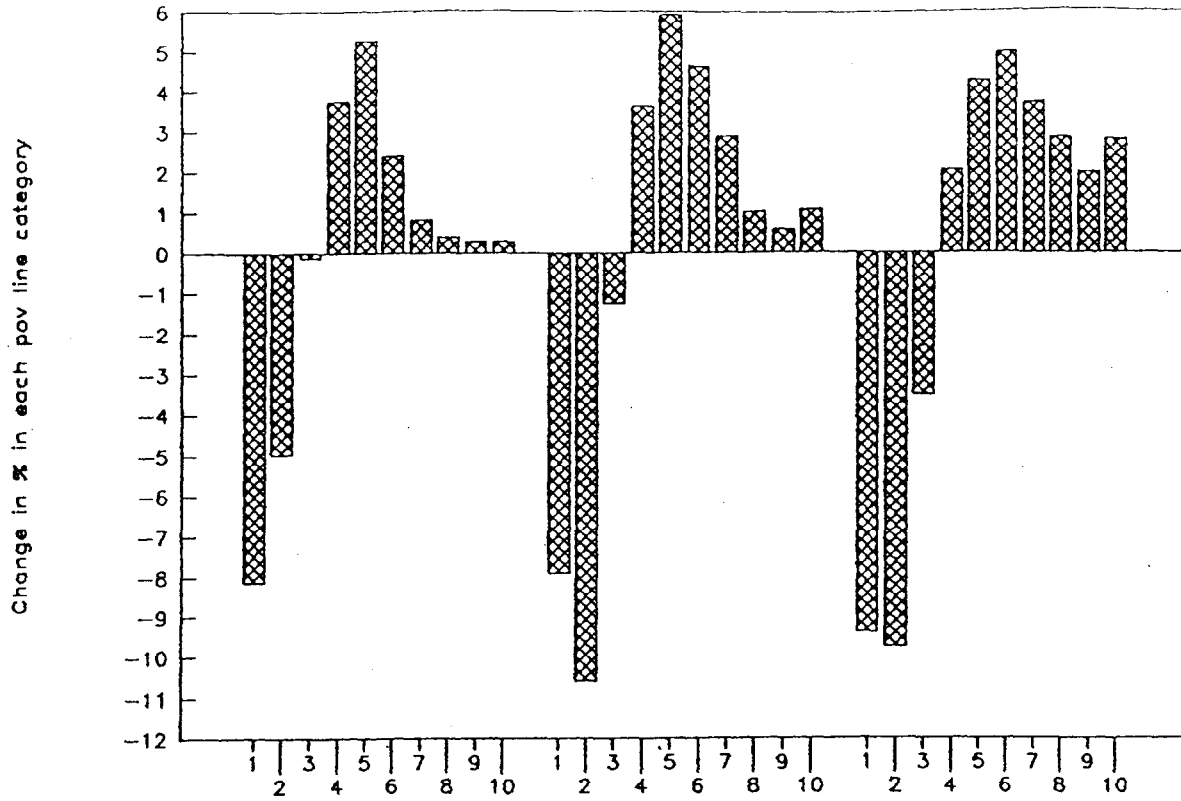
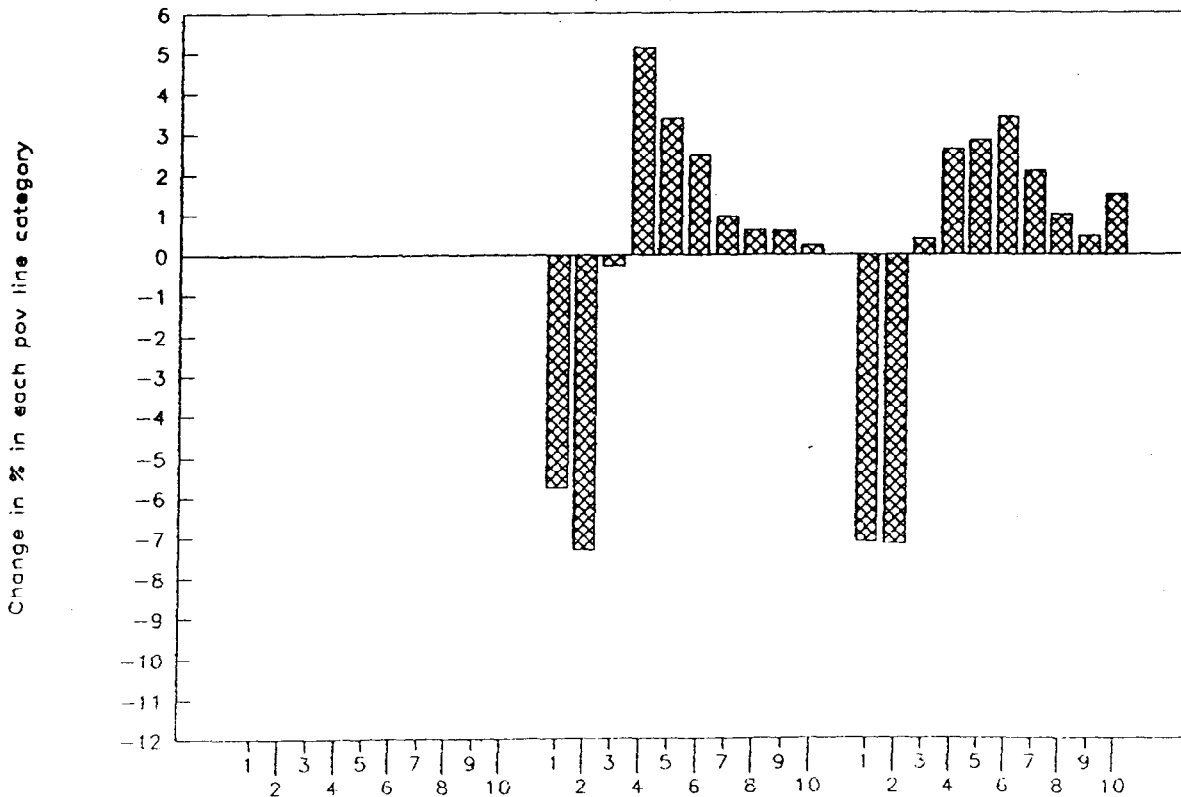


Figure 3d

Change due to Hispanic Wives' Earnings

1968, 1978, 1988



the percentage with incomes in the middle range, from three to seven times the poverty line.

The role of wives' earnings in moving families into the highest categories has grown over time. White wives increased the percent of families with earnings over seven times the poverty line by only 2.1 percentage points in 1968, but by 10.2 points in 1988. White wives increased the percentage of families above 9 times the poverty line by only 0.7 percentage points in 1968, but by 5.2 points in 1988. Thus, by 1988, wives were not only raising a greater percentage of lower-income families out of poverty and near-poverty into the "middle class", but they were also increasingly likely to move families out of the middle class and into the ranks of the rich.

Black married women had a similar impact on the distribution of black families' income, as illustrated in Figure 3c. They played an even greater role in reducing the number of low earning families, reducing the percent of families with income below three times the poverty line by 13.1 percentage points in 1968 and by 22.7 percentage points in 1988. As was the case for whites, black wives had a much larger impact on the percent of

families with higher income in 1988. In 1968, only 1.3 percent of all black couples had an income over seven times the poverty line, and 0.9 percentage points of this were due to wives' earnings. This figure increased to 10.9 percent by 1988, with 7.6 percentage points due to wives.

The earnings of Hispanic wives reduced the percent of Hispanic married couples with earnings below three times the poverty line by about 14 percentage points in both 1978 and 1988. Wives' earnings moved a substantial proportion of Hispanic families from the lower income categories to the middle range. Relatively few Hispanic married couples were rich--5.8 percent in 1988. This figure would have only been about one-half as large had it not been for wives' earnings.

Wives' earnings clearly play a major role in reducing the percent of married couple families with incomes below three times the poverty line. In later years they also increase the percent of higher earnings families, especially for whites and blacks. The earnings of married women have shifted the entire distribution of married couples' income to the right. Working wives have taken the place of economic growth as the engine of growth in family

income.

To summarize the overall impact of working wives' earnings on the relative distribution of family income, we turn to an analysis of two commonly-used summary measures of inequality, the squared coefficient of variation and the Gini coefficient. Table 7 presents the squared coefficient of variation (CV^2) and the Gini for total family income and for total family income less wives' earnings for all families and for married couples.²³ These two summary measures of inequality show similar trends for both income concepts.²⁴ As a result, our discussion emphasizes changes in the Gini coefficient.

Turning first to total family income, inequality increased for whites and blacks between 1968 and 1988 for all families and for married couples. Most of the increase occurred during the 1978 to 1988 decade.

For all white families, the Gini coefficient rose by about 16 percent, from .347 to .401, between 1968 and 1988, with most of the increase occurring after 1978. The Gini coefficient for white couples rose from .300 to .325, by about 8 percent, over the two decades. For couples, this reflected a slight

Table 7

Percentage Change in the
Squared CV and Gini of Total Family Income
Due to Wives' Earnings

	All						Black				
	1968	1978	1988	% Change 68-88 78-88			1968	1978	1988	% Change 68-88 78-88	
All Families						All Families					
Squared CV of:						Squared CV of:					
Total Family Income	0.51	0.51	0.66	29.4	29.4	Total Family Income	0.58	0.72	0.84	44.8	16.7
Less Wives' Earnings	0.56	0.55	0.69	23.2	25.5	Less Wives' Earnings	0.53	0.63	0.77	45.3	22.2
%Change	-8.9	-7.3	-4.3			%Change	9.4	14.3	9.1		
Gini of:						Gini of:					
Total Family Income	0.359	0.381	0.422	17.5	10.8	Total Family Income	0.405	0.440	0.474	17.0	7.7
Less Wives' Earnings	0.366	0.384	0.420	14.8	9.4	Less Wives' Earnings	0.386	0.417	0.451	16.8	8.2
%Change	-1.9	-0.8	0.5			%Change	4.9	5.5	5.1		
All Couples						All Couples					
Squared CV of:						Squared CV of:					
Total Family Income	0.38	0.32	0.41	7.9	28.1	Total Family Income	0.35	0.35	0.38	8.4	7.0
Less Wives' Earnings	0.46	0.40	0.52	13.0	30.0	Less Wives' Earnings	0.37	0.38	0.48	30.2	26.8
%Change	-17.4	-20.0	-21.2			%Change	-5.4	-6.7	-21.2		
Gini of:						Gini of:					
Total Family Income	0.305	0.300	0.336	10.2	12.0	Total Family Income	0.322	0.302	0.339	5.1	12.3
Less Wives' Earnings	0.325	0.328	0.368	13.2	12.2	Less Wives' Earnings	0.319	0.317	0.368	15.4	16.1
%Change	-6.2	-8.5	-8.7			%Change	1.1	-4.7	-7.9		
	White						Hispanic				
	1968	1978	1988	% Change 68-88 78-88			1968	1978	1988	% Change 68-88 78-88	
All Families						All Families					
Squared CV of:						Squared CV of:					
Total Family Income	0.48	0.47	0.59	22.9	25.5	Total Family Income		0.55	0.83		50.9
Less Wives' Earnings	0.54	0.51	0.63	16.7	23.5	Less Wives' Earnings		0.53	0.83		56.6
%Change	-11.1	-7.8	-6.3			%Change		3.8	0.0		
Gini of:						Gini of:					
Total Family Income	0.347	0.364	0.401	15.6	10.2	Total Family Income		0.397	0.453		14.1
Less Wives' Earnings	0.355	0.370	0.401	13.0	8.4	Less Wives' Earnings		0.389	0.446		14.7
%Change	-2.3	-1.6	0.0			%Change		2.1	1.6		
All Couples						All Couples					
Squared CV of:						Squared CV of:					
Total Family Income	0.37	0.32	0.38	2.0	17.7	Total Family Income		0.34	0.58		70.6
Less Wives' Earnings	0.45	0.39	0.49	8.9	25.6	Less Wives' Earnings		0.38	0.68		78.9
%Change	-17.8	-17.8	-23.0			%Change		-10.5	-14.7		
Gini of:						Gini of:					
Total Family Income	0.300	0.295	0.325	8.2	10.2	Total Family Income		0.314	0.380		21.0
Less Wives' Earnings	0.320	0.323	0.358	11.8	10.8	Less Wives' Earnings		0.328	0.396		20.7
%Change	-6.2	-8.7	-9.2			%Change		-4.3	-4.0		

decline in the Gini in the first period, followed by a more substantial increase in the second.

Among all black families, the Gini coefficient of total family income grew by 17 percent over the two decades, from .405 to .474. Again, income inequality among couples increased by a smaller amount, from .322 to .339, about 5 percent. As was the case for white couples, this increase was a result of a decline in the first decade, offset by a greater rise in the second decade.

The greatest increase in income inequality in the last decade was among Hispanics. Between 1978 and 1988, the Gini coefficient for all families increased by about 14 percent, from .397 to .453. Over the same period, the Gini for married couples increased by 21 percent.

Between 1968 and 1988, wives earnings increased substantially, but the labor force participation of wives married to men with above-average earnings increased the most. What was the net impact of these changes on the distribution for all families and for couples?

One common measure of the impact of wives' earning on family income inequality is the percentage change in income inequality due to wives'

earnings.²⁵ Table 7 also shows the percentage change in the CV^2 and the Gini coefficient due to the inclusion of wives' earnings; that is, the distribution of total family income is compared to what it would have been if the earnings of all wives had been zero.²⁶ This calculation is made for all families and for married couples.²⁷ As discussed earlier, it is especially important to consider the impact of wives' earnings on the distribution of income of all families as the proportion of households headed by married couples has fallen over time.

The earnings of white married women have an equalizing impact on the distribution of income for all white families and for all white couples in each of the three years. The impact on married couples has grown modestly. In 1968, wives' earnings reduced the CV^2 by 17.8 percent and the Gini coefficient by 6.2 percent, while in 1988 these figures were 23.0 and 9.2 percent, respectively. However, over the same period, the equalizing impact among all families has fallen, from 11.1 to 6.3 percent when measured by the CV^2 , and from 2.3 to 0.0 percent when measured by the Gini.

Given the disproportionate increases in the

participation and earnings of women married to higher earning men, why has the equalizing impact of wives' earnings on the distribution of income of married couples risen over time? First, because the level of wives' earnings has risen dramatically (mean earnings of white married women more than doubled between 1968 and 1988, while those of white married men increased by only 16 percent.) Second, because the distribution of earnings among all white wives has grown more equal (the CV^2 of white wives' earnings fell from 2.300 to 1.347, see table 3).²⁶

For blacks, the equalizing impact of married women's earnings on the distribution of income among married couples has risen substantially. The earnings of black wives reduced the CV^2 of total family income of married couples by only 5.4 percent in 1968, but by 21.2 percent by 1988. Over the same period, wives' earnings went from increasing the Gini coefficient by 1.1 percent to decreasing it by 7.9 percent.

In contrast, black wives' earnings increased the inequality of income among all black families, between about 9 and 14 percent when measured by the CV^2 , and about 5 percent when measured by the Gini coefficient. This difference is due to the fact

that black married couples are a much more advantaged group than black female-headed families, and this advantage has increased over the two decades at the same time that the percentage of couples has fallen and the percentage of female headed families has increased.²⁹

Hispanic wives equalized the distribution of income among couples, but made the distribution among all families somewhat less equal. For Hispanic married couples, wives' earnings decreased the CV² by 10.5 percent in 1978 and by 14.7 percent in 1988; they decreased the Gini coefficient by about 4 percent in both years. The impact of married women's earnings was relatively minor for the distribution of income among all families, increasing the CV² by 3.8 percent in 1978, and the Gini by 2.1 percent in 1978 and 1.6 percent in 1988. Their earnings had no effect on the CV² for all families in 1988.

SUMMARY

Married women are more likely to work and are likely to earn more when they work, than they were twenty years ago. This growth in married women's earnings has been very important because it coincided with a period of relatively stagnant

earnings for married men. To place this period, and the role of working wives, in historical context, consider the following scenario which suggests the extent to which the growth of wives' earnings "have made up" for the slow real earnings growth for husbands.

Between 1968 and 1988, the mean earnings for husbands and wives combined grew (in 1988 dollars) by \$8,804. If husbands' earnings had grown as fast in these two decades as they did between 1949 and 1969, the annual real growth rate would have been about 3 percent, and their earnings alone would have increased by almost \$20,000. Thus, even if wives had not worked and earned more, family income in 1988 would have been substantially higher than it was. From this perspective, the increased mean earnings of wives, about \$5000 over the 1968-88 period, were only able to offset a small part of the decline in the growth of their husbands' earnings.

Thus, family income growth is likely to remain modest unless there are unforeseen changes in the structure of labor markets that would accelerate earnings growth for men or lead more women to work in different occupations or increase the wages paid for "women's work." In addition, at least two

trends suggest that we cannot depend primarily on the growth of wives' work effort, as a substitute for higher wages, to increase family income. First, the proportion of all adults living in married couple households continues to decline. Thus, fewer families can benefit from the earnings of two spouses. In addition, the participation of married women cannot increase indefinitely.

Some writers have expressed concern that changes in the participation and wages of married women would cause their earnings to have less of an equalizing impact on the distribution of income among married couples. The data above suggests that the opposite is true. While income inequality among couples increased over the past twenty years, it would have increased to an even greater extent were it not for the increased earnings of wives.

Nonetheless, as married couples came to represent a smaller proportion of all households, the impact of wives' earnings on the distribution of income among all families has changed. Income inequality among all families has increased for all groups. However, the impacts of married women's earnings were different for whites, blacks and Hispanics. For whites, inequality would have been

greater in the absence of married women's earnings. However, married women's earnings actually increased the inequality of income among all black families. Their impact on the distribution of income among Hispanic families was relatively minor.

We have shown the importance of increases in wives' earnings on the level and distribution of family income. Without increases in market work by wives, family income gains would have been much smaller and income inequality would have increased considerably more than it actually did.

REFERENCES

- Acs, G. and S. Danziger (1991). Educational attainment, industrial structure, and male earnings, 1973-1987. Institute for Research on Poverty Discussion Paper #945-91, University of Wisconsin-Madison.
- Bean, F. D. and M. Tienda, (1989). *The Hispanic population of the United States*. New York: Russell Sage Foundation.
- Bergmann, B.R., et al. (1980). The effect of wives' labor force participation on inequality in the distribution of family income. *Journal of Human Resources*, 15:452-56.
- Betson, D. and J. van der Gaag (1984). Working married women and the distribution of income. *Journal of Human Resources*, 19:532-43.
- Bumpass, L. and J. Sweet (1989). *American Families and Households*. New York: Russell Sage Foundation.
- Blackburn, M. and D. Bloom (1987). Family income inequality in the United States: 1967-1984. *Industrial Relations Research Association Series, Proceedings of the thirty-ninth annual meeting*, 349-356.

- _____ (1990). Changes in the Structure of Family Income Inequality in the U.S. and Other Industrialized Nations During the 1980s. Unpublished paper.
- Blank, R. (1989). The role of part-time work in women's labor market choices over time. *American Economic Review*, 79(2):295-299.
- Cancian, M. and S. Danziger and P. Gottschalk (1991). Working wives and the distribution of family income. In S. Danziger and P. Gottschalk, *Increasing Income Inequality: What Matters and What Doesn't*, New York: Russell Sage Foundation.
- Danziger, S. (1980). Do working wives increase family income inequality? *Journal of Human Resources*, 15:444-51.
- _____ (1989). Education, earnings, and poverty. *Institute for Research on Poverty Discussion Paper*, #881-89, University of Wisconsin-Madison.
- Danziger, S. and P. Gottschalk and E. Smolensky (1989). How the rich have fared, 1973-1987. *American Economic Review*, 79, May:310-314.

- Fuchs, V. (1988). *Women's Quest for Economic Equality*. Cambridge, MA: Harvard University Press.
- Goldin, C.D. (1990). *Understanding the gender gap: and economic history of American women*. New York, NY: Oxford University Press.
- Juhn, C., K.M. Murphy, and B. Pierce (1989). Wage inequality and the rise in returns to skill. Mimeo, University of Chicago.
- Katz, L.F. and K.M. Murphy (1990). Changes in relative wages, 1963-1987: supply and demand factors. Mimeo, Harvard University.
- Kakwani, N.C. (1980). *Income Inequality and Poverty: Methods of Estimation and Policy Applications* (esp. chapter 5, Measures of Income Inequality). Oxford: Oxford University Press.
- Karoly, L.A. (1991). The trend in inequality among families, individuals and workers in the United States: a twenty-five year perspective. In S. Danziger and P. Gottschalk, *Increasing Income Inequality: What Matters and What Doesn't*, New York:

Russell Sage Foundation.

Killingsworth, M. and J. J. Heckman (1986).

Female labor supply: a survey. In O.C. Ashenfelter and R. Leyard, eds., *Handbook of Labor Economics*. Amsterdam: North Holland.

Lehrer, E., and M. Nerlove (1981). The impact

of female work on family income distribution in the United States:

Black-white differentials. *Review of Income and Wealth*, 27(4):423-431.

_____, (1984). A lifecycle analysis of family

income distribution. *Economic Inquiry* 22:360-374.

Lundberg, S. (1988). Labor Supply of Husbands

and Wives: a simultaneous equations approach. *Review of Economics and Statistics* 52:224-235.

Mincer, J. (1962). Labor force participation

of married women: a study of labor supply. In H. Gregg Lewis, ed., *Aspects of Labor Economics*. Universities-National Bureau Committee for Economic Research.

Princeton, NJ: Princeton University Press.

Murphy, K.M. and F. Welch (1991). Industrial

change and the rising importance of skill.

In S. Danziger and P. Gottschalk,
*Increasing Income Inequality: What
Matters and What Doesn't*, New York:
Russell Sage Foundation.

Smith, J. (1979). The distribution of family
income. *Journal of Political Economy*
87:S163-S192.

Thurow, L. (1975). *Generating Inequality:
Mechanisms of distribution in the U.S.
economy*, New York: Basic Books.

Treas, J. (1987). The effect of women's labor
force participation on the distribution of
income in the United States. *Annual Review of
Sociology* 13:259-288.

Wilson, W. J. 1987. *The Truly Disadvantaged*,
Chicago: University of Chicago Press.

Wion, D.A. (1990) Working wives and earnings
inequality among married couples, 1967-84.
Review of Social Economy 48:18-24.

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2. All dollar figures in the text and the tables are in constant 1988 dollars using the CPI-X1.

3. The Current Population Survey data do not provide good enough information on hours for us to decompose the change in annual earnings into changes in hours and changes in hourly wage rates. Some portion of the increased weekly earnings of wives is due to increased hours worked per week. This issue is discussed further in endnote 17.

4. In fact, most previous studies (e.g., Smith, 1979; Danziger, 1980; Bergmann et al., 1980; Lehrer and Nerlove, 1981 and 1984; Treas, 1987; Wion, 1990) found wives' earnings to be inequality-reducing.

5. See Cancian, Danziger and Gottschalk (1991) for a related analysis which includes five observations over the same period: 1968, 1973, 1978, 1983, 1988. That analysis reveals little cyclicity in wives'

participation or earnings.

6. Married persons live with a spouse and head a family or unrelated subfamily, or are the spouse of a head of a family or unrelated subfamily. Heads of families do not have a spouse present, but are the head of a family or unrelated subfamily that contains relatives. We also include unrelated primary and secondary individuals as heads; in effect, they head a single person family. Persons who do not live with a spouse and do not head their own family are classified as "other." Most people in this category would be adult children living with their parents, or persons living with other relatives.

The CPS counts two nonmarried individuals who share a housing unit as two unrelated individuals. We did not attempt to simulate which of these cases were cohabiting couples, who might more appropriately be classified as married persons. Declines in marriage rates over the period discussed here may, in part, be due to increased cohabitation. However, Bumpass and Sweet (1989) demonstrate that cohabitation is a short-lived state, with a median duration of only 1.3 years. Thus, "despite the high levels of lifetime experience, cohabiting couples are a small proportion of all

couples" (1989:620). Moreover, given their short duration, it is questionable whether these unions involve the same economic relationships as marriage. For example, one might expect labor force participation of women who are cohabiting, to be less dependent than that of wives' on their partners' earnings.

7. In the text and tables that follow, "whites" ("blacks") refers to all whites (blacks) in 1968, and to white (black) non-Hispanics in 1978 and 1988. Non-Hispanic persons who respond "other," rather than white or black (for example, Native Americans or Asian Americans), are included only in "all."

In Tables 1-3, persons are categorized according to their own race/ethnicity. In Tables 4-7, couples are categorized according to the husband's race/ethnicity.

8. Blackburn and Bloom (1987) is an exception.

9. Over the period, the proportion of white and black married women without children present has also increased. However, by 1988, the labor force participation rate of these women was not very different from that of married women with children.

10. Wives have increased their work effort despite

the disincentives of federal income tax policies. Women are discouraged from entering the labor market, as they must earn not only enough to offset the loss in home production, but also enough to pay the taxes on their market earnings (plus any additional work expenses, such as child care). Two families with equal ability to pay face different taxes levies depending on whether or not the spouse works in the market. Consider two families with similar consumption patterns but different money incomes. In one family, the wife works in the home. In the second, the wife works in the market where she earns just enough income to buy the same goods that the first wife produces at home. The members of each family work an equal number of hours and would consume at the same level were it not for the tax system. The tax system, however, does not treat the two families equally. While the first family does not pay taxes on the home production, the second must pay Social Security tax and federal and possibly state income taxes on the wife's market earnings.

11. The Hispanic category is very heterogeneous. It includes persons of Mexican, Cuban, Puerto Rican, Central and South American origins. Analysis of

Census data (see Bean and Tienda, 1989) reveals very different patterns of work and family structure among the various Hispanic subgroups. However, the CPS sample size is not large enough to analyze the groups separately. As a result, any given trend for all Hispanics, as shown here, may mask different trends for the various subgroups.

12. We include wages, salaries and non-farm self-employment income as earnings in table 3. Because these figures do not include farm self-employment income, some individuals with only farm self-employment income may be listed as zero earners.

13. Danziger (1989) classifies those earning less than \$12,000 per year as low earners, as on their own they earn too little to keep a family of four out of poverty.

14. The squared coefficient of variation is the ratio of the variance to the squared mean.

15. The fall in earnings can, in part, be attributed to the relatively large proportion of Hispanic men with low education levels, and the growing proportion of less educated men that have low earnings (see Acs and Danziger, 1991). Mean earnings may also have been affected by the arrival of immigrants with low earning

potential, or by changes in the extent to which these immigrants were sampled by the CPS.

16. In tables 4 and 5, women are considered to be working if they report positive weeks worked and positive earnings. Husbands' and wives' earnings include wages, salaries, farm and non-farm self-employment.

Tables that present data on the percent of wives working and mean weekly wages for the subsamples white, black, and Hispanic couples with children under six are available from the authors on request.

17. Weekly earnings are computed as the ratio of annual earnings to annual weeks worked. Fuchs (1988) found that among married women aged 25 to 64 who worked, 22 percent worked less than 30 hours per week in 1960, while 25 percent worked less than 30 hours per week in 1986. Blank (1989) finds a similar proportion of all working women worked part time throughout the 1980s. Thus, the weekly wage figures presented here understate the mean weekly wage for full-time workers.

When we examined the data presented in Tables 4 and 5 only for those wives who worked full-time full-year, the magnitude of this downward bias did not vary

substantially over the period.

18. Implicit in our analysis is the assumption that changes in husbands earnings are independent of wives'. For a discussion of alternative models of husbands' and wives' labor supply see Lundberg (1988).

19. In 1988, the poverty line for a couple was \$7958, while it was \$12,092 for a family of four and \$24,133 for a family of nine or more. Consider, for example, three couples, with identical incomes of \$24,000, but with zero, two and seven children. They would be counted in Table 6 in three different categories. The couple with no children would be categorized with income between 3 and 4 times the poverty line; the one with two children, as between one and two times the poverty line; and the one with seven children, as less than the poverty line. We use the CPI-X1 to adjust these measures back in real terms to the earlier years.

20. Danziger et al., in an analysis of all families, defined the rich as those families whose incomes exceed 9 times the poverty line. We use 7 times the poverty line here because so few black and Hispanic families have incomes above 9 times the line.

21. The CPS does not gather information on noncash

income, such as Food Stamps, Medicare, or employer-provided health insurance, capital gains, or taxes paid.

22. Implicit in this simple subtraction of wives' earnings is the assumption that the distribution of the remaining sources of income would not change if wives did not work. While this assumption might be questioned for any single year, it will not effect our analysis of changes over time, if the responsiveness of the other incomes sources to wives' earnings was stable over the entire period.

23. Unrelated individuals are considered one-person families. The category "all families" includes couples, unrelated individuals and families headed by nonmarried men and women.

24. The CV^2 is equally sensitive to transfers at all income levels, while the Gini coefficient is more sensitive to transfers near the mode (Kakwani, 1980:87).

25. This analysis treats two families with equal money incomes as equal. Because we use money income as a proxy for economic well-being several caveats are in order. Increased market work for wives typically comes at the expense of home production and/or

leisure. For example, consider two couples, A and B. Husband A earns \$40,000, while wife A does not work in the market; husband B earns \$25,000, while wife B works full time and earns \$15,000. Both families have \$40,000 total earnings, but A may be better off since wife A may provide child care, housework, etc., which family B may need to purchase. On the other hand, family B may benefit if the participation of the wife leads to a preferable distribution of resources within the family, and/or increases the wife's labor market opportunities in the event of divorce. Moving beyond a comparison of money income to a comparison of economic well-being is beyond the scope of this paper.

26. The percentage change in the CV^2 (Gini) of due to wives' earnings is calculated by computing the CV^2 (Gini) of total income less wives' earnings, and comparing this with the CV^2 (Gini) of total income. This measure of wives' impact is an upper-bound estimate, because the implicit counterfactual is that wives do not work and that husbands' earnings are not responsive to changes in wives' labor force participation or earnings.

27. The inequality measures in Table 7 are not adjusted for family size, as the data were in Table 6.

Thus, a single individual and a family of 9 earning \$24,000 are considered to have an equivalent income. Because families headed by married couples are larger on average, the figures may understate the equalizing (or overstate the disequalizing) impact of wives' earnings on the distribution of income among all families. To see whether our analysis was sensitive to differences in family sizes, we prepared a similar table for our measure of income divided by the poverty line. Using this adjusted measure, the equalizing impact of wives' earnings is stable over time for all white families, while for all black families, the disequalizing impact shown in table 7 is substantially reduced. See endnote 29.

28. A formal decomposition of the change in the CV2 of total family income shows that the equalizing impact of growth in mean wives' earnings and the fall in the CV2 of wives' earnings, more than compensates for the inequality-increasing impact of the rising correlation of spouses' earnings. See Cancian, Danziger, and Gottschalk, 1991.

29. However, when incomes are adjusted for family size using the poverty line (see the discussion of table 6), the disequalizing impact for blacks is

substantially reduced. In this case, black wives' earnings increase the CV^2 by 5.5, 0.0, and 1.3 percent, and the Gini by 3.1, 1.4, and 1.8 percent, in 1968, 1978 and 1988.

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