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THE INEQUALITY OF FAMILY INCOME

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ABSTRACT

Using Gini measures computed on Husband's Income, Family Income, and Family Income Less Wife's Earnings distributions, we conclude that the employment of wives has only a very small effect on the inequality of family income in the United States. The rise in employment of wives over the past two decades also appears to have had little impact on the inequality of income.

Family income is considerably less inequitably distributed between the races than is the income of married males. This is shown to result from the disproportionate contribution of adults other than husband and wife rather than from the greater proportion of Negro wives in the work force.

The Employment of Wives and the Inequality of Family Income

In his 1960 Census Monograph, Income Distribution in the United States, Herman Miller reports that the incomes of families in which the wife is in the labor force are more evenly distributed than those of families in which the wife is not in the labor force.

Percent of Aggregate Money Income Received by Highest:	Wife Works	Wife Does Not Work
5% of families	13%	19%
20% of families	37%	43%
Gini ratio	.29	.38

Miller suggests that since the proportion of wives who are working has increased considerably in recent years, the effect has been to reduce family income inequality.¹ In discussion of the income inequality within urban areas, Wilber Thompson asserts, "The existence of jobs for women acts to reduce inequality (of family income) in that working wives come more proportionately from the lower income groups."²

In this paper we will describe the effects of the employment of wives on the distribution of family income in the United States and the possible reasons for the observed effects. We will then look at the trend in family income inequality in relation to the trend in labor force participation of wives and, finally, at the effect of the employment of wives on the inequality of income between blacks and whites.

As a statement of logical necessity, Miller's argument supposes that the dispersion of two combined samples is some sort of a weighted

average of their separate dispersions. Thus as more wives enter the labor force, their relative weight increases and the dispersion tends to move toward the within-class dispersion of families of working wives--i.e., the dispersion tends to become less. A simple example will demonstrate that this is clearly not necessarily the case. If one combines two samples each with a different mean and zero dispersion, the dispersion of the combined sample is clearly non-zero and may be considerable depending on the difference in means.

Although Miller does not assert that the lower income inequality of families in which the wife is employed is caused by the employment of the wife, it seems to be implicit in his discussion. It is equally plausible to hypothesize that among families in which the wife is employed there is initially less inequality in husband's income, and for that reason, less inequality in family income. Comparisons of the inequality of family income by themselves tell us nothing about the effect of wife's employment on the degree of family income inequality, unless we can demonstrate that there is a comparable degree of inequality to start with before adding in wife's income.

Since the employment of wives is related to a great variety of factors including age, education, color, husband's income, type of residence, and family composition, it is difficult to determine a priori how husband's income inequality would be related to wife's employment. To the extent that the employment of wives is inversely correlated with husband's income, we would expect that husband's income inequality would be less for working wives, simply on the basis of the systematic under-representation of families with high income husbands.

On the other hand, the association of wife's employment with the absence of young children in the family has an effect working in the opposite direction. Wives of young men are more likely to have young children and are thus less likely to work than are wives of older men. Young men are more likely to have low incomes and less dispersion in income because they consist disproportionately both of men in dead-end jobs and of men at the beginning of careers. As these latter men age, they will experience relatively rapid income increases, while the men in dead-end jobs will have smaller income increases. Thus dispersion in husband's income ought to be related positively to age. Data from the 1960 census indicate that older married men have greater income dispersion than younger men (Table 1).

In Table 2 we present Gini coefficients computed on each of three income measures: family income, husband's income, and family income minus wife's earnings. Our sample consists of 32,521 nonfarm married couples in which the wife is under the age of 60. It was drawn from the 1/1000 sample of the 1960 United States Census. Data are shown separately by color, and by presence or absence of children under 18. In each case the degree of inequality of non-Negro families is very little different for husband's income and family income minus wife's earnings. For Negro families, the contribution of family members other than the wife and husband tends to increase income inequality over the inequality of husband's income alone. This pattern is particularly pronounced for families with no children under 18. For non-Negro families, the effect of the employment of wives is to decrease income inequality somewhat

(from 32.9 to 30.9). For the Negro population, the employment of wives has almost no effect on income inequality. The effect of wife's employment on income inequality is greater for families with no children under 18 than for families with children. In the case of the Negro population, the employment of wives with no children under 18 reduces the degree of income inequality from 39.0 to 37.9, while the employment of Negro mothers raises the degree of inequality. Clearly the effect of employment of wives on income inequality is rather small and not invariant in direction.

In Table 3 we show Gini coefficients for the same three income variables computed separately for families in which the wife earned income in 1959 and for those in which she did not. Again the population is disaggregated by color and child status. Among non-Negro families there is less inequality in husband's income and family income minus wife's earnings in families in which the wife is employed (received income) than in those in which she is not. For the Negro population, the reverse tends to be true--the husband's income inequality tends to be greater for families in which the wife is employed. Miller's comparisons, then, are clearly distorted by systematic differences in dispersion of husband's income between men whose wives are in and those whose wives are not in the labor force.

Thompson argues that income inequality is reduced when the wife works because wives of low income husbands are more likely to work--i.e., the bottom end of the distribution of families in terms of husband's income are more likely to have their incomes incremented than the upper

end of the distribution. Thompson's argument would be logically valid if there were no variation among working wives in the amount earned. However, working wives of high income husbands tend to receive more income than working wives of low income husbands (see Table 4). The combination of a strong negative relationship between employment and husband's income and positive relationship between the earnings of employed women and husband's income results in only a small differential in the average amount of income per family (irrespective of whether or not the wife is employed) among various levels of husband's income. This means that while families toward the lower end of the husband's income distribution are being disproportionately moved upward in the distribution, the amount by which they move is relatively less than the movements achieved by families with employed wives in the middle and upper end of the husband's income distribution.

Trends

Figure 1 plots the time series of labor force participation rates of married women and Gini coefficients for various income measures as published in the U.S. Census Report, "Trends in the Income of Families and Persons in the United States, 1947-1964."³ The labor force participation rate has risen rapidly and regularly by almost one percentage point per year. The income inequality measures show little evidence of trend. To the extent that there is a trend of decline in the inequality of family income, it appears to be matched by a similar decline in the inequality of husband's income. It does not appear that the increase in labor force participation of wives that has been occurring over the past two or three decades has had any impact on the level of income inequality.

The effect on family income inequality of any increase in the employment of wives depends on at least three things: (1) the pattern of change in labor force participation of wives in relation to husband's income; (2) the pattern of change in the mean and dispersion of wife's earnings in relation to husband's income; and (3) the change in the shape of the distribution of husbands among income levels. Without attempting to specify exactly what has happened in recent history to each of these relationships, it does appear that the outcome of these changes has been neutral with respect to income inequality.

Income Inequality Between Black and White Families

Negro wives have considerably higher rates of employment than do white wives. A Negro husband-wife family is considerably more likely to have its total income result from the contributions of more than one earner than a white family, but the size of the Negro wife's contribution is on average considerably smaller than that of the white wife's. What effect do these differences have on the inequality of family income between the races?

To summarize the overall effect of differential employment and differential earnings of wives on the inequality or dissimilarity of the income distributions of the Negro and white populations, we have again used the Gini coefficient. In these comparisons a value of \$35,000 was used for the category \$25,000 and over. Other reasonable values were tried and produced no major change in results. Again, three separate income measures were used: (1) husband's income; (2) family income minus wife's earnings; and (3) total family income. Differences between

2 and 3 reflect the effect of differential contributions of other income recipients (and wife's nonearnings income) on income inequality between Negroes and non-Negroes.

Overall, the Gini coefficient for husband's income is 54.3 in comparison to a coefficient of 47.3 for total family income (Table 14). Quite clearly then, family income is less inequitably distributed than is husband's income. When family income is compared with family income minus wife's earnings, the differential is very small, 47.3 vs. 47.4, indicating that the effect of differential employment and earnings patterns of wives makes an insignificant difference to the inequality of distribution of income.

The differential in inequality between the total family income and husband's income results from the much greater incidence of earnings of adult family members other than the husband and wife, and may have nothing to do with family economic welfare. There are more earners, who may or may not pool their resources with those of other family members, and there are more adult consumers.

The employment rates of black wives are especially high relative to those of whites in the case of women with young children. Black mothers of children under six are 66 percent more likely to be working than their white counterpart. For mothers with children 6-11 and 12-17, the differentials are 45 and 5 percent respectively. Married Negro women without children have employment rates that are not much greater than those of white women, and in the case of women 14-29 with no children, the black employment rate is considerably lower than the white rate.

If we disaggregate the population into two categories, those couples with children and those with none and examine the separate Gini coefficients, we discover that the aggregate pattern presented above results from differential patterns within these two groups. For both categories income inequality is substantially reduced by virtue of the greater contribution of other family members. For childless couples (i.e., those with no children present), the racial inequality increases as a result of contributions by wives to family income, while for couples with children, inequality decreases somewhat. The effect of income of other relatives is greater, however, than that of income of wives.

Further disaggregation of couples in relation to age of youngest own child reveals that the wife's contribution in the case of couples with youngest own child aged 12-17 tend to slightly increase inequality, just as it does for childless couples. Thus in those groups with very much higher employment rates, the degree of racial inequality is slightly reduced by virtue of the income of wives. In groups where the black employment rates are only slightly higher, the degree of racial inequality of income is unaffected, or in some cases increased.

The effect of wife's earnings on the inequality of family income between the races is small because despite the higher rate of employment of Negro wives, their earnings are on the average considerably lower. Thus, a higher proportion of Negro families move up in the income distribution from where they would be in the absence of wife's income. The distance which they move in the distribution, however, is smaller, on average, than is the distance moved by white families with employed wives.

TABLE 1

Income Inequality of Married Men Living In Urbanized Areas, by Age
 (1959 Income as Enumerated in 1960 Census)

Age of Husband	Gini Coefficients	
	Total	Nonwhite
Less than 18	47.2	44.7
18 - 24	28.8	31.1
25 - 34	26.6	27.4
35 - 44	28.2	29.1
45 - 54	30.9	30.9
55 - 64	35.0	35.6
65 - 74	45.8	44.3
75 and over	53.0	47.7
Total	33.1	32.3

SOURCE: Derived from data in 1960 United States Census, "Persons by Family Characteristics," Subject Report PC(2) 4B, Table 10b.

TABLE 2

Gini Coefficients on Three Income Measures: Husband-Wife
Families, Wife Under Age 60, Nonfarm

	Husband's Income	Family Income Minus Wife's Earnings	Family Income
Total	35.6	35.8	33.7
Negro	33.5	35.3	35.1
Non-Negro	34.7	35.1	32.9
Families with No Children	39.2	39.7	36.0
Families with Children	33.6	33.8	32.4
Families with Children Under 18			
Negro	31.9	32.5	32.9
Non-Negro	32.8	33.1	31.7
Families with No Children Under 18			
Negro	36.2	39.5	38.3
Non-Negro	38.5	39.0	35.1

Incomes of \$25,000 and over are coded as \$44,000.

SOURCE: 1/1000 Sample

TABLE 3

Gini Coefficients Computed on Three Income Measures: Husband-Wife Families, Wife Under Age 60, Nonfarm, by Color, Family Status, and Whether or Not Wife Received Income

	Husband's Income		Family Income Minus Wife's Earnings		Family Income	
	Wife with Income	Wife without Income	Wife with Income	Wife without Income	Wife with Income	Wife without Income
Total	32.6	36.6	33.3	36.0	30.2	36.0
Negro	34.1	32.8	36.3	34.0	34.6	34.0
Non-Negro	31.6	35.8	32.4	35.3	29.1	35.3

Incomes of \$25,000 and over are coded as \$44,000.

SOURCE: 1/1000 Sample

TABLE 4

Wife's Contribution to Family Income by Husband's Income and Age

Husband's Income	(1)	(2)	(3)	(4)	(5)
	N	%	Proportion of wives with income	Wife's Average income per recipient	Wife's Average income per family
TOTAL					
None	614	1.6	44.8	\$2424	\$1085
< \$1000	1941	5.2	51.0	1542	787
1000-1999	2736	7.3	50.3	1625	818
2000-2999	3463	9.3	49.5	1752	868
3000-3999	4493	12.0	48.7	1994	972
4000-4999	5471	14.6	47.3	2192	1036
5000-5999	5895	15.8	44.3	2312	1024
6000-6999	4192	11.2	40.8	2356	960
7000-9999	5350	14.3	35.9	2365	850
10000-14999	2006	5.4	31.2	2412	754
15000 +	1245	3.3	32.1	2613	838
Total	37406	100.0	43.8	2112	925

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SOURCE: 1960 U.S. Census, Sources and Structure of Family Income, Table 17

TABLE 5

Negro-White Income Inequality by Family Status
 for Three Income Measures
 (Gini Coefficients)

Family Status	Husband's Income	Family Income Minus Wife's Earnings	Family Income
Husband Wife Families with one or more children under 18			
Youngest 0-2			
3-5	56.2	48.8	45.9
6-11	61.6	55.7	50.2
12-17	60.4	56.1	51.4
Total	54.0	49.2	50.9
	<hr/>	<hr/>	<hr/>
Total			
	58.2	52.5	49.6
Husband-Wife Families with no Children Under 18			
wife 14-29	38.1	26.2	36.9
30-44	49.2	41.0	44.8
45-59	50.0	46.2	47.6
Total	<hr/>	<hr/>	<hr/>
	46.0	40.5	43.5
Husband-Wife Families Wife Under Age 60			
Total	54.3	47.4	47.3

SOURCE: 1/1000 Tabulations

FIGURE 1

Recent Trend in Income Inequality and Labor Force Participation Rates
of Married Women



SOURCE FOR FIGURE 1: U.S. Bureau of the Census, Trends in the Income of Families and Persons in the United States: 1947-1964. Technical Paper #17, 1967. Tables 2 and 37; U.S. Bureau of Labor Statistics, Statistics on Manpower: A Supplement to the Manpower Report of the President (1969) Table B-1.

REFERENCES

1. Herman Miller, Income Distribution in the United States, U.S. Bureau of the Census, 1960 Census Monograph (Washington, D.C.: U.S. Government Printing Office, 1966), p. 22.
2. Wilber Thompson, "Internal and External Factors in the Development of Urban Economics" in Harvey Perloff and Lowden Wingo, Jr. (eds.), Issues in Urban Economics (Baltimore: Johns Hopkins University Press, 1968). See also, Wilber Thompson, A Preface to Urban Economics, (Baltimore: Johns Hopkins University Press, 1965), pp. 106 ff.
3. U.S. Bureau of the Census, "Trends in the Income of Families and Persons in the United States: 1947-1964," Technical Paper #17, 1967, Tables 2 and 37; U.S. Bureau of Labor Statistics, Statistics on Manpower: A Supplement to the Manpower Report of the President (1969), Table B-1.