

#518-78

INSTITUTE FOR
RESEARCH ON
POVERTY DISCUSSION
PAPERS

DO WORKING WIVES INCREASE
FAMILY INCOME INEQUALITY?

Sheldon Danziger



UNIVERSITY OF WISCONSIN - MADISON

Do Working Wives Increase Family Income Inequality?

Sheldon Danziger

September 1978
(Revised, April 1979)

This research was supported by the National Science Foundation under Grant No. APR77-01603 and by funds granted to the Institute for Research on Poverty by the Department of Health, Education and Welfare. Any opinions, findings, or recommendations expressed here are those of the author and do not necessarily reflect views of the National Science Foundation. The author wishes to thank Jeannie Nakano and Nancy Williamson for valuable assistance, and Robert Haveman, George Jakubson, Robert Lampman, Timothy Smeeding, and Eugene Smolensky for comments on an earlier draft.

ABSTRACT

This note measures the contribution of wives' earnings to family income inequality in 1967 and 1974. The earnings of wives have a small equalizing impact on the distribution of family income that remained relatively stable between 1967 and 1974, despite rapid increases in the work experience of wives.

Do Working Wives Increase Family Income Inequality?

In 1951, about 23% of married women were in the paid labor force; by 1974 their labor force participation rates had more than doubled. During the early post World War II period, married women were more likely to work if family income from other sources were low. In such cases, the earnings of wives raised the incomes of families located at the bottom of the income distribution and reduced family income inequality. In recent years, due in part to the women's movement and to efforts to equalize opportunity, the negative relationship between wives' work experience and family income has weakened. The most rapid increases in work experience have been among women in families with higher incomes. Increases in earnings among wives in high income families increase family income inequality. Thurow (2, p. 12) has suggested that although wives' earnings were once a factor leading to an equalization of family incomes, they are now "becoming a source of family inequality."

This note uses microeconomic data from the March 1968 and March 1975 Current Population Surveys (CPS) to measure the contribution of wives' earnings to family income inequality in 1967 and 1974. The data allow computations not available from published studies, but restrict the analysis to the recent past. The results show that the earnings of wives have a small equalizing impact on the distribution of family income that remained relatively stable between 1967 and 1974, despite rapid increases in work experience by the wives of husbands with higher-than-average earnings.

Table 1 reveals the work experience of wives and their contributions to family income by the earnings class of the husband (in 1974 dollars). Between 1967 and 1974, the percentage of white wives who worked at any time during the year increased from 45 to 51%.¹ Although the most rapid increases in work occurred among the wives of husbands with earnings above \$20,000, the work experience of wives still generally declines as husbands' earnings increase.

This negative relationship between husbands' earnings and wives' work experience is also evident for nonwhite families. While the percentage of nonwhite wives who worked was about 61% in both years, increases in work experience among wives of husbands with high earnings offset decreases among the wives of husbands with low earnings. At a given level of husband's earnings, nonwhite wives are more likely to work than are white wives. The Appendix reports regressions in which the work experience of the wife is regressed on her own characteristics and the earnings of her husband. For both races, the probability that the wife works declines slightly as husband's earnings increase.²

Despite these changes in the work experience of wives, their earnings as a percentage of total family income in both years remained almost constant. In 1975, this contribution was about 13% for all white families and about 19% for all nonwhite families; for families where the wife works, these contributions were 27% and 33%, respectively. Although over half of all wives work, their contribution to family income remains modest.

Table 1
Working Wives and Family Income^a

| Husbands' Earnings Class ^b | Percentage of Husbands in Earnings Class ^c | | Percentage of Wives with Work Experience During Year | | Mean Earnings of Wives Who Worked ^d | | Wives' Earnings as a Percentage of Family Income ^e | |
|---------------------------------------|---|------|--|------|--|--------|---|------|
| | 1967 | 1974 | 1967 | 1974 | 1967 | 1974 | 1967 | 1974 |
| <u>Whites</u> | | | | | | | | |
| < \$2000 | 15% | 18% | 28% | 29% | \$2626 | \$4296 | 14% | 13% |
| \$2000 - 6000 | 13 | 11 | 54 | 60 | 2411 | 3761 | 19 | 20 |
| \$6000 - 10,000 | 25 | 19 | 54 | 64 | 2721 | 4182 | 15 | 18 |
| \$10,000 - 12,500 | 18 | 16 | 50 | 59 | 2909 | 4603 | 12 | 14 |
| \$12,500 - 20,000 | 22 | 24 | 42 | 53 | 2989 | 4833 | 8 | 10 |
| \$20,000 - 30,000 | 5 | 8 | 32 | 46 | 3565 | 5102 | 5 | 7 |
| > \$30,000 | 2 | 3 | 26 | 36 | 4361 | 5137 | 3 | 4 |
| All | 100 | 100 | 45 | 51 | 2810 | 4472 | 12 | 13 |
| <u>Nonwhites</u> | | | | | | | | |
| < \$2000 | 19 | 22 | 47 | 42 | 1285 | 3661 | 18 | 19 |
| \$2000 - 6000 | 30 | 19 | 66 | 67 | 1688 | 3232 | 18 | 21 |
| \$6000 - 10,000 | 31 | 27 | 69 | 70 | 2495 | 4472 | 18 | 21 |
| \$10,000 - 12,500 | 11 | 15 | 61 | 67 | 3327 | 5379 | 16 | 18 |
| \$12,500 - 20,000 | 8 | 14 | 64 | 60 | 4043 | 6561 | 16 | 15 |
| \$20,000 - 30,000 | 1 | 2 | 41 | 54 | 4360 | 8188 | 7 | 13 |
| > \$30,000 | 0.3 | 1 | 26 | 33 | 2753 | 7980 | 3 | 5 |
| All | 100 | 100 | 62 | 61 | 2294 | 4642 | 17 | 19 |

^aFamilies include only those households with both husband and wife present.

^bConstant 1974 dollars.

^cMay not add to 100% because of rounding.

^dCurrent dollars; the cost of living increased 47.7% between 1967 and 1974.

^eFor all families, including those with nonworking wives.

Source: Tabulations from the March 1968 and March 1975 Current Population Surveys.

Wives' earnings as a percentage of family income (last two columns of Table 1) depend on both the relationship between the work experience of wives and husbands' earnings, and the relationship between the earnings of working wives and husbands' earnings. The mean earnings of all white wives who worked was \$4472 in 1974 and that of nonwhite wives was \$4642, whereas the mean of white wives with husbands' earnings over \$30,000 was \$5137 and that of nonwhite wives was \$7980. Nonetheless, the variation in the earnings of wives across husbands' earnings classes is smaller than the variation in the earnings of husbands. For example, the ratio of mean earnings for husbands earning over \$30,000 to the mean for those in the \$2000 to \$6000 range is about 8 to 1, whereas the ratio of mean earnings for white wives in these categories is 1.36 to 1 (\$5137 to \$3761) and that of nonwhite wives is 2.47 to 1 (\$7980 to \$3232).

The wives of men with high yearly earnings do not earn high wages. The simple correlation between the earnings of husbands and the wage rates (yearly earnings/weeks worked) of their working wives is .11 for whites and .28 for nonwhites in 1974.³ The correlation coefficients were slightly smaller for families with husbands aged 25-34 even though more wives in this age group than in any other were working. The Appendix also reports regressions which reveal that, for both whites and nonwhites, the wage rates of wives increase only slightly with husbands' earnings.⁴ Although wives account for about 20% of family income at the lowest end of the distribution, they account for only about 5% at the top. For nonwhites, wives' contributions to family income is fairly constant across most of the distribution. The pattern in Table 1 is one in which the

absolute income gap between the family incomes of husbands with low earnings and those with high earnings is slightly widened by the earnings of wives, whereas the relative gap is slightly narrowed.

Table 2 summarizes the effect of the earnings of working wives on mean family income and family inequality for families with both husband and wife present. The Gini coefficient of family income is relatively constant for both whites and nonwhites in 1967 and 1974, even though the Gini coefficient of husbands' earnings (not shown) increased by about 8% for whites and 13% for nonwhites.⁵ In both years, white mean family income is about 16% higher and the Gini coefficient about 5% lower than it would have been if wives had not worked.⁶ For nonwhites, family income is raised by more than 25% by wives' earnings, but the Gini coefficient is not affected by their earnings.⁷ In 1974, nonwhite family income was 78% of whites; this ratio would have been only 71% if nonwhite wives had not worked more than white wives.⁸

Sweet (1) performed an analysis similar to the one presented here using 1959 incomes as enumerated in the 1960 Census. His results for 1959 are almost identical to those reported here: wives' earnings reduce family income inequality slightly for non-Black families and have almost no effect for Black families. He also found a decline in wives' labor force participation rates as husbands' incomes increased. Thus, the results presented here together with those of Sweet suggest no real change in the effect of wives' earnings on family income inequality in the entire 1959-1974 period, and do not confirm Thurow's hypothesis that wives' earnings have become a source of family income inequality.⁹ White wives exert a small equalizing impact on the distribution of family

Table 2

Working Wives and Family Income Inequality^a

| | Mean Income ^b | | Gini Coefficient | |
|---|--------------------------|----------|------------------|-------|
| | 1967 | 1974 | 1967 | 1974 |
| <u>Whites</u> | | | | |
| Total family income | \$9379 | \$15,554 | .323 | .323 |
| Total family income less wives' earnings | 8130 | 13,327 | .339 | .344 |
| Change due to wives' earnings | 15.4% | 16.7% | -4.6% | -5.9% |
| <u>Nonwhites</u> | | | | |
| Total family income | \$6702 | \$12,154 | .350 | .344 |
| Total family income less wives' earnings | 5319 | 9479 | .345 | .347 |
| Change due to wives' earnings | 26.0% | 28.2% | +1.4% | -1.0% |

Source: See Table 1.

^aFamilies include only those households with husband and wife present.

^bCurrent dollars; the cost of living increased 47.7% between 1967 and 1974.

incomes; nonwhite wives, a negligible effect. For both groups, these effects became slightly more equalizing between 1967 and 1974.

The 1959 to 1974 experience suggests that changes in the work experience of wives are likely to have only a small effect on family income inequality. Consider a world with no differences by sex in work behavior, where the work experience of women and men and the inequality in the distributions of womens' earnings and mens' earnings were equal. The most unequal situation for family incomes in such a world would occur if the earnings of husbands and wives were perfectly and positively correlated. Then, given any relative measure of inequality, the degree of family income inequality would equal the degree of inequality in husbands' earnings (which would be the same as that of wives' earnings).¹⁰

In 1974, the Gini coefficient of husbands' earnings was about 10% greater than the Gini coefficient of the sum of the earnings of husbands and wives. Thus, in the long run, the equalization of earnings levels and distributions by sex would imply a maximum increase of 10% in the Gini coefficient. Given that the current correlation between the earnings of wives and husbands is quite small, foreseeable changes in the work experience of wives are not likely to become an important source of family income inequality.

Appendix

Table A

The Work Experience and Wages of Wives, 1974^a

| | Work Experience ^b | | Ln(Wage) ^c | |
|-----------------------|------------------------------|-------------------|-----------------------|-------------------|
| | White | Nonwhite | White | Nonwhite |
| CONSTANT ^d | 0.87 | 0.64 | 3.66 | 4.31 |
| HUSEARN (000's) | -0.006 (16.80) | -0.004 (2.67) | 0.002 (1.68) | 0.015 (3.93) |
| AGE | 0.007 (5.86) | 0.02 (4.22) | 0.06 (12.92) | 0.008 (0.70) |
| AGESQ | -0.0002 (17.94) | -0.0003 (6.25) | -0.0007 (13.24) | -0.0001 (1.10) |
| ED 0-7 | -0.12 (9.91) | -0.18 (5.62) | -0.24 (5.70) | -0.25 (3.24) |
| ED 8-11 | -0.08 (11.60) | -0.10 (4.12) | -0.12 (6.20) | -0.18 (3.52) |
| ED 15 + | 0.11 (12.01) | 0.06 (1.82) | 0.33 (14.33) | 0.47 (7.29) |
| NORTHEAST | -0.01 (1.26) | -0.15 (5.15) | 0.13 (5.89) | 0.26 (4.02) |
| NORTHCENTRAL | -0.0002 (0.04) | -0.06 (2.28) | 0.05 (2.51) | 0.27 (4.60) |
| WEST | -0.01 (1.09) | -0.08 (3.01) | 0.05 (2.02) | 0.14 (2.40) |
| CENTCITY | -0.0005 (0.07) | 0.004 (0.19) | -0.003 (0.19) | 0.01 (0.29) |
| NONMSA | -0.001 (0.20) | 0.058 (1.95) | -0.15 (8.31) | -0.18 (2.86) |
| BADHEALTH | -0.06 (4.50) | -0.20 (6.11) | 0.04 (0.99) | -0.12 (1.32) |

Table A--Continued

| | Work Experience ^b | | Ln(Wage) ^c | |
|-------------------------------|------------------------------|-----------------|-----------------------|-----------------|
| | White | Nonwhite | White | Nonwhite |
| KIDS03 | -0.20 (30.72) | -0.09 (5.02) | -0.15 (8.24) | -0.11 (2.57) |
| KIDS46 | -0.15 (22.83) | -0.07 (3.83) | -0.11 (5.52) | 0.08 (1.92) |
| KIDS717 | -0.03 (13.25) | -0.01 (2.01) | -0.09 (11.82) | 0.02 (1.23) |
| R ² | .172 | .129 | .069 | .180 |
| Number of Observations | 27,160 | 2,438 | 13,373 | 1,405 |
| Mean of Dependent Variable | 0.51 | 0.64 | 4.59 | 4.55 |

Source: March 1975 Current Population Survey computer tapes.

^aOrdinary least squares regressions; t-statistics appear below the regression coefficients.

^bDummy variable: 1 if wife was in the labor force at all during 1974; 0, if not.

^cLn(Yearly Earnings of Wife/Weeks Worked) for wives who worked during 1974.

^dHusband's yearly earnings (in thousands); all other variables refer to the characteristics of the wife. These include her age, educational attainment, region of residence, metropolitan location of residence, health status, and number of children of various ages. The constant refers to a woman with 12 years of schooling, living in the south, in a suburb, whose health does not impair her ability to hold a job. All variables are dummies, except for husband's earnings, wife's age, and the number of children in the three age classes (less than 3, 4 to 6, and 7-17 years).

NOTES

¹The percentage of wives with work experience exceeds that of wives in the labor force (the data usually cited) because it refers to wives who worked at any time during the calendar year; the labor force participation rate refers only to those who were employed or unemployed during the survey week.

²For example, the probability that a white (nonwhite) wife will work at any point during the year is 0.52 (0.57)--for a wife who has completed twelve years of schooling, is in good health, lives in a suburb in the Northeast region, is of average age, has the average number of children, and a husband who earns the average yearly earnings of \$10,650 (\$7,484). For a similar white (nonwhite) wife whose husband earns twice the average (100% higher), the predicted probability declines slightly to 0.46 (0.53). A similar regression for 1967 shows that the negative relationship between the probability that a wife worked and her husband's earnings was slightly greater for whites in the earlier year, but about the same for nonwhites.

³These correlation coefficients are based on the microeconomic observations.

⁴For example, the predicted weekly wage of a white (nonwhite) wife who worked at any point during the year, who has completed twelve years of schooling, is in good health, lives in a suburb in the Northeast region, is of average age, has the average number of children, and a husband who earns the average yearly earnings of \$10,905 (\$7,954) is

\$111 (\$117) in 1974. For a similar white (nonwhite) wife, whose husband earns twice the average (100% higher), the predicted weekly wage is only 2.0% (13.0%) higher. A similar regression for 1967 shows that the positive relationship between the wife's weekly wage and her husband's yearly earnings actually declined somewhat between the two years.

⁵The analysis shown in Table 2 was repeated using the share of total income received by each quintile as the measure of inequality. The results were quite similar. Additional tables that excluded (1) farm families and the aged or (2) income other than husbands' and wives' earnings, or (3) examined inequality among all families (including those with only one parent) were prepared, but did not reveal significantly different patterns. In each case wives' earnings either had no effect on family inequality, or a slight negative effect.

⁶This assumes that a husband's labor supply is not affected by changes in the earnings of his wife.

⁷In Table 1, the last column shows that the average rate of wives' contributions to family income is 13% for whites and 19% for nonwhites in 1974. In Table 2, the change in mean income due to the wives' earnings is 16.7% for whites and 28.2% for nonwhites in 1974. This difference arises because in Table 1 the denominator of the fraction is the mean income, while in Table 2 the denominator is the mean income less the earnings of the wife.

⁸The mean earnings of white wives who worked increased from \$2810 to \$4472 (by 59%), whereas the mean earnings of nonwhite wives increased from \$2294 to \$4642 (by 102%).

⁹ The analysis presented here does not take into account possible behavioral responses that may have occurred as a result of the increased labor market opportunities for married women. For example, changes in both family composition and the work effort of husbands are ignored. Suppose that a woman's increased earnings reduced her financial dependence on her husband and allowed her to leave an unhappy marriage. In such a case, the Census would record a husband-wife family in the first year but two other units in the second. Neither of these units would be included in our analysis of husband-wife families in the second year. Or suppose that a woman's increased earnings caused her husband (assumed to be the median earner) to reduce his own earnings by a similar amount. In such a case the family's income would be identical in the two years, but the data would show only the equalizing effect of the wife's earnings, and not the offsetting disequalizing effect of the husband's labor supply response.

¹⁰ In this case, all men and women would work and earn the same wages for the same tasks. A husband with earnings of X would have a wife with earnings of X , and a husband with earnings of $2X$, a wife with earnings of $2X$. The ratio of family incomes ($4X$ to $2X$) would be the same as the ratio of husbands' earnings ($2X$ to $1X$). This represents a constant degree of relative inequality in husbands' earnings, wives' earnings, and family incomes even though the absolute income gap between the two families has increased because of the earnings of the wives.

REFERENCES

1. Sweet, James. 1971. The employment of wives and the inequality of family income. Proceedings of the American Statistical Association.
2. Thurow, Lester. 1975. Lessening inequality in the distributions of earnings and wealth. Prepared for the Institute of Advanced Study, Princeton, N.J.