HIS AND HERS: GENDER DIFFERENCES IN
WORK AND INCOME, 1959-1979

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ABSTRACT

This paper describes changes in hours of work and income between
1959 and 1979 of women and men ages 25-64. It includes attempts to
measure and value nonmarket production and leisure as well as market work,
to take account of possible income-sharing within households, and to
allow for economies of scale in household production. The most important
empirical result is that, relative to men, women's access to goods and
services and leisure was lower in 1979 than in 1959. Changes in hourly
earnings, hours of work, and household structure contributed to this
result. The sex differential in hourly earnings is explored in detail.

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> In mythical stories, it seems,
> there were two ways to disaster.
> One of the ways was to answer an
> unanswerable question. The other
> was to fail to answer an answer-
> able question.
> —Williams, 1984

The past quarter century has witnessed extraordinary changes
in gender roles, relationships, and expectations. Better control
over fertility and the growth of service industries and
occupations contributed to a sharp rise in female employment. The
Equal Pay Act of 1963 outlawed separate pay scales for men and
women performing similar jobs; Title VII of the Civil Rights Act
(1964) prohibited all forms of discrimination in employment and
established the Equal Employment Opportunity Commission; and
Executive Orders in 1967 and 1969 prohibited sex discrimination
in employment by the federal government or by employers receiving
federal contracts and subcontracts.

Other factors affecting gender roles were also at work
during this period. Real earnings grew rapidly in the 1960s;
according to some economists, the growth of real earnings is a
major force pulling women into the labor force (Mincer, 1962).
Others believe that a sudden failure of real earnings to grow
(as in the 1970s) results in postponement of marriage and
childbearing and an increase in female labor force participation
(Easterlin, 1980). The expansion of government transfer programs
such as AFDC made it possible for some mothers to raise children

independently of support from the children's fathers. Finally, many observers believe that the feminist movement raised women's consciousness and led them to change their behavior with respect to work and family (Friedan, 1963).

While the exact effects of these diverse factors are still under dispute, there is no question that the two decades from 1960 to 1980 witnessed dramatic changes in U.S. labor markets and in American families. Women's share of the labor force grew from 33 to 43 percent; the participation rate increased particularly rapidly among married women with small children. The divorce rate rose from 9.2 to 22.6 per thousand married women; the general fertility rate fell from 118 to 68 births per thousand women 15-44; and the proportion of babies born to unwed mothers jumped from 5.3 to 18.4 percent.

Did these structural and behavioral changes make women better off relative to men? This seems to me to be an unanswerable question, and this paper does not court disaster from that quarter. Other questions, however, such as what changes have occurred in gender differences in hours of work, wage rates, income, and household size and structure are, in principle, answerable, and that is the major purpose of this paper. The approach is comprehensive, including attempts to measure and value nonmarket work and leisure as well as market work, to take account of possible income sharing within households, and to allow for economies of scale in household production. This paper does not attempt to solve these difficult theoretical problems of measurement, but the underlying assumptions and many intermediate

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measures will be presented. The reader can, therefore, make alternative estimates or can concentrate on those variables that require fewer assumptions.

The focus is on men and women ages 25-64, i.e., those adults who are most likely to be in the labor market and most likely to be responsible for children. Also, these are the ages when gender role differences are likely to be greatest. Within constraints imposed by space or sample size, results are reported separately for blacks and whites[1] because both cross-section differences and trends over time vary substantially by race; differentials across age and schooling groups are also examined. Section I describes major trends in various measures of work and income. Section II presents a more detailed examination of a key variable, the sex differential in hourly earnings. The paper concludes with a brief discussion of gender-related issues of public policy.

I. Work and Income, 1959-1979

This section describes major trends in the work and income of men and women ages 25-64 during the 1960s and 1970s. The calculations are based on data in the 1/1000 samples of the Censuses of Population of 1960 and 1980,[2] supplemented by data from the 1975-76 Time Allocation Study of the University of Michigan Institute for Social Research. (The calculation of each variable is described in the Appendix.) Hours of work data are presented first; income data follow, and the section concludes with several measures of "full income," i.e., an aggregation of income and leisure.

Hours of Work

Although both men and women work, the former devote most of their working hours to the market while nonmarket work accounted for almost two-thirds of women's work hours in 1979. It is, therefore, necessary to examine both types of work in order to make meaningful comparisons between the sexes.

Market hours. Market hours of work for each individual are estimated directly from the Census samples by multiplying hours per week by weeks per year. This method may introduce error for individuals because of differences between hours in the Census week and average weekly hours in the previous year, but the estimate for aggregates should be satisfactory. Total hours are divided by the total number of individuals in the group, regardless of work status, to obtain average hours.

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Table 1 shows a very large increase in the market hours of
women relative to men between 1959 and 1979. This increase is
attributable primarily to a jump in the proportion of women
working in the market, from 34 to 52 percent and, secondarily, to
a decline in the proportion of men working in the market, from 87
to 82 percent (see Table 2). The relative number of hours worked
per worker did not change appreciably. The increase in percent
working was particularly large for married women and for women
ages 25-34.

Nonmarket hours. Nonmarket work is defined as hours spent
on housework (including yardwork), shopping, and childcare. This
information is not available in the Census, but is imputed to
each individual with the aid of reduced form regressions run on
data provided by the University of Michigan Institute for Social
Research. The data were taken from time diaries of 674
individuals on four different days during the 12-month period
fall 1975 to fall 1976. Separate regressions for men and women
were run with minutes per week of nonmarket work as the dependent
variable and dummies for race, age, marital status, presence of
children under 5, part-time work, and full-time work as the
right-hand-side variables (see the Appendix).

The regression coefficients, transformed to annual hours,
are used to impute nonmarket hours for individuals in the 1/1000
Census samples cross-classified by the characteristics used in
the regressions. For example, a white married woman aged 25-44
who had a child under 5 years of age and who was not working in
the labor market was given 2,387 hours of nonmarket work per

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year. A white women of the same age who was single, without a small child, and working full-time in the market, was assigned 812 hours of nonmarket work.

The 1975-76 data probably provide a reasonable estimate for 1979. But what about 1959? Two estimates are presented. Under assumption A the same number of hours was assigned in 1959 as in 1979 for any given set of characteristics. This assumes that changes in the nonmarket work of women relative to men between 1959 and 1979 were attributable only to changes in marital status, presence of small children, participation in market work, and other measured characteristics. Some observers, however, believe that women's nonmarket hours declined relative to men's even if characteristics are held constant (Juster, forthcoming; Robinson, forthcoming). Table 1, therefore, provides an alternative estimate based on the assumption (B) that the nonmarket hours of women in 1959 were 10 percent higher than those calculated under assumption A.

Under either assumption the women/men ratio of nonmarket hours declined from 1959 to 1979, but the decline was, of course, much larger under assumption B. The decline was slightly larger for blacks than for whites because of the large increase in the proportion of black women who were not married (see Table 2). The larger decline for married compared with non-married persons is attributable primarily to the rapid growth in female labor force participation of married women and, secondarily, to a rapid decline in the child/adult ratio for married women, while the ratio for non-married women was actually increasing (see Table 2).

Total hours. Total hours of work is the sum of market and nonmarket hours. Two estimates are presented corresponding to the two assumptions about nonmarket hours. Under either assumption women were working more hours relative to men in 1979 than in 1959. This trend was stronger for married than nonmarried persons, slightly stronger for blacks than for whites, and much stronger at the youngest and oldest ages than for persons 35-54. The increase in the ratio at ages 55-64 is attributable in large part to a substantial decline in the percentage of men working in the market.

Income

Income, viewed as a measure of access to goods and services, is measured here in a variety of ways. The imputed value of nonmarket production is added to money income to obtain the total income of each woman and man. Total effective income is estimated from total income by taking account of the size and structure of households under alternative assumptions about the sharing of income within the household. All dollar figures for 1959 have been inflated to 1979 dollars by the Consumer Price Index.

Money income. Money income is the pre-tax cash income received by individuals from all sources, including labor and nonlabor income and cash transfer payments.[3/] Table 3 shows a striking increase in the average money income received by women from $3,015 in 1959 to $6,227 in 1979, or, as a ratio to men's money income, from .22 to .34. This increase in relative money income is entirely the result of differential changes in market

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hours of work; average hourly earnings of women relative to men fell slightly between 1959 and 1979 (see Table 2). The results for whites are similar to the overall results. For blacks, however, an increase in women's hourly earnings relative to men's contributed to a particularly large increase in the money income ratio.

Nonmarket-income. Nonmarket hours of work are valued at the individual's hourly earnings if the individual worked at least 500 hours per year in the market. Other individuals were assigned an imputed wage based on the hourly earnings of individuals of the same sex, color, age, and education.[4]/ Two estimates of nonmarket income of women in 1959 are presented, corresponding to the two assumptions (A and B) about nonmarket hours of work in 1959. Under either assumption nonmarket income of women relative to men declined appreciably between 1959 and 1979.

Total income. The total income of each individual is the sum of his or her money and nonmarket income. Under hours assumption A the women/men ratio of total income rose from .587 to .623, but under assumption B there was a slight decline in this ratio. Under either assumption the ratio rose appreciably for blacks, primarily as a result of a sharp increase in the hourly earnings of black women relative to black men.

Total effective income. More than 90 percent of women and men ages 25-64 live in households with other persons. Membership in a multi-person household can affect an individual's access to goods and services in several ways. First, there are usually economies of scale realized in larger households; thus the effective income resulting from any given amount of money and

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nonmarket income tends to rise with household size (Lazear and Michael, 1980). Second, if there are children in the household, some income must be devoted to their care, thus reducing the effective income available to the adults in that household. Third, the adults in the household may, to a greater or lesser extent, pool their income, thus increasing or decreasing the effective income of individuals relative to their own total income.

To capture the effects of economies of scale and the presence of children, the number of "adult equivalents" for each household is calculated in the following manner. The first adult is given a weight of 1.0, the first child 0.4, each additional adult 0.8, and each additional child 0.3 (Lazear and Michael, 1983). To measure the effects of income pooling, two sets of estimates are calculated under alternative assumptions about sharing. Under the "sharing" assumption, the total income (money and nonmarket) of all adults in the household[5] is divided by the number of adult equivalents in the household, and the resulting figure assigned to each person in the household. Under the "no-sharing" assumption, the total effective income of each individual is their own total income multiplied by the adult/ adult equivalent ratio in the household. This ratio simultaneously reflects the gain in effective income resulting from economies of scale and the loss in effective income attributable to the presence of children. For instance, assuming no sharing, an adult in a household with two other adults and one child would have the same effective income as if he or she lived alone.

As can be seen in Table 3, under the sharing assumption the total effective income of women relative to men declined between 1959 and 1979, but under the no-sharing assumption it rose if one uses hours assumption A, and declined under hours assumption B. Under the sharing assumption black women experienced a loss in total effective income relative to black men, but under the no-sharing assumption they gained appreciably between 1959 and 1979.

Full Income

To summarize thus far: relative to men, women increased their hours of work between 1959 and 1979 (Table 1). The increase was substantial under assumption A, and small under assumption B. Again relative to men, the total effective income of women fell if income is shared (regardless of the hours assumption) and also fell if there is no sharing under hours assumption B (Table 3). It rose slightly for hours assumption A and no sharing, but not by as much as the increase in hours of work. As a summary measure of access to goods and services and leisure, it is useful to combine the changes in hours of work and total effective income.

Full income is defined as total effective income plus the value of leisure hours, which are set equal to total available hours[6/] minus total hours of work. Two methods of valuing leisure hours are presented. The first assumes that the value is equal to total effective income per total hour of work. Using this method the women/men ratio for a married couple with full sharing and equal total hours of work would be 1. That is, one would conclude that the woman and the man had equal access to goods and services and leisure. An alternative approach is to assume that the value

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of leisure hours is equal to the wage rate of the individual
(either observed or imputed). The advantage of this method is
that leisure hours are valued the same way as nonmarket hours of
work.

Although Table 4 shows that the assumptions about valuation
of leisure, sharing, and nonmarket hours of women in 1959 can
matter, the most striking conclusion is that the full income of
women relative to men _fell_ between 1959 and 1979 _for every_
_possible combination of assumptions._1/ In general the percent
decline in the women/men ratio of full income was greater for
hours assumption A than for B, and greater if leisure hours are
valued at total effective income per hour of work than at the
wage rate. The choice of assumptions is particularly important in
assessing what happened to black women relative to black men; the
results range from a 16 percent decline to an 11 percent increase
in the full income ratio.

The principal factors that affect full income are wage
rates, hours of work, household size and structure, and, to a
small extent, nonlabor income. The role of wages and/or hours
varies considerably, depending upon the assumptions. Consider a
simple model which ignores the effects of nonlabor money income,
economies of scale, and presence of children. In such a model the
women/men ratio of full income is determined solely by relative
wage rates for single persons. This is also true for married
persons if there is no sharing. For married persons with sharing,
the full income ratio is the inverse of the hours of work ratio
if leisure hours are valued at total effective income per total

hours of work.[8/] If leisure hours are valued at the individual's wage rate, then the women/men ratio of full income rises with an increase in women's relative wage and falls with an increase in women's relative hours of work.[9/]

The effect of changes in household structure on full income varies with the assumption about income pooling. In the sharing models, the women/men ratio tends to fall as the percent not married increases, because fewer women are sharing in the higher income of their husbands. Regardless of sharing assumption, an increase in the number of children being raised by not-married women lowers the women/men full-income ratio. Between 1959 and 1979 the increases in percent not married and in female-headed households with children were particularly large among blacks, tending to offset the gains in hourly earnings made by black women.

In summary, the women/men ratio of full income was lower in 1979 than in 1959 for many reasons, including changes in household structure, an increase in women's market hours that was not fully offset by a decline in their nonmarket hours, and a decline in women's relative hourly earnings. The next section considers the earnings differential in greater detail.

II. Hourly Earnings, 1959-1979

Trends in relative hourly earnings, both actual and standardized for age and years of schooling, are shown in Table 5. The average for any group is obtained by dividing total earnings of the group by total hours worked. This shows the rate of earnings for the average hour worked and is equivalent to an average of the hourly earnings of each individual in the group weighted by hours worked. Standardization is accomplished by calculating earnings rates for 28 age-schooling cells. The wage rates of men(women) are standardized on the hours of women(men) and the mean of the two results is shown.10/

The diverse trends for whites and blacks are readily evident in both the actual and standardized ratios. Black women achieved major gains in relative earnings, partly through a massive shift in occupational distribution. In 1960, 36 percent of employed black women were working as domestic servants, but by 1980 the proportion so employed had dropped to 5 percent.

Among whites there was considerable diversity in trend, depending upon age and years of schooling. At ages 25-34 both the actual and standardized women/men ratios rose, but the actual ratio fell by 7 percentage points at ages 45-54 and 55-64 and even the standarized ratio showed declines at those ages. When whites are classified by years of schooling, all groups with 12 years or less show declines in the standardized ratio, while all the higher education groups show increases.11/ Overall, the standardized ratio was virtually identical in 1979 and 1959.

Wife/husband ratios. In Table 5, as in all of the preceding
tables, men and women have been compared in the aggregate,
without regard to their relationship at the individual level.
Thus the results for "married" compare all married women with all
married men and show the average change. It is also of interest
to look at the earnings and income of wives relative to husbands
when the ratios are calculated separately for each couple. Table 6
presents such results, limiting the analysis to couples where
both spouses are white and in the age range 25-64.

The trends in the wife/husband ratios are less favorable for
women than are the aggregate data. For the average (median)
couple in 1979 the wife's hourly earnings were 62 percent of her
husband's, down from 69 percent in 1959. This decline is not the
result of entry into the labor force of wives with relatively
less schooling. When couples are grouped according to the years
of schooling of the wife relative to her husband, we see that the
median ratio declined between 1959 and 1979 within each group. We
also see in Table 6 that the ratio declined at every age, albeit
less so for those couples where the wife was aged 25-34.

Not only did the median wife/husband ratio of hourly
earnings decline, but there was also a decrease in the percentage
of couples where the wife's hourly earnings exceeded her
husband's. There was, to be sure, an increase in the absolute
number of such couples between 1959 and 1979, but there was an
even larger increase in the number of two-earner couples where
the wife's hourly earnings were low relative to her husband's.

The trends in wife/husband ratio of total income were more
favorable to women than the trends in hourly earnings because

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wives increased their hours of work relative to their husbands.
Under assumption A about nonmarket hours of women in 1959, the
median total income ratio was unchanged at .533. Under hours
assumption B there was a decline from .580. Among couples with
wife aged 25-34 there was a substantial increase in the ratio
under assumption A and no change under assumption B. At that age
under either assumption there was a large increase in the
percentage of couples where the wife's total income exceeded her
husband's, primarily because the proportion of women working in
the market jumped from 27 to 56 percent.

In summary, among white couples, some wives were able to
increase their total income relative to their husbands' but this
was accomplished principally by working longer hours. The sharp
increase in market hours was not offset by a comparable decrease
in nonmarket work. The failure of hourly earnings of white women
to grow relative to white men is a major factor underlying many
of the trends discussed in this paper. Almost two decades of
anti-discrimination legislation, growing demand for female labor
in service industries and occupations, more reliable
contraception, and changes in social attitudes have apparently
had little effect on relative earnings. The explanation of this
stability is beyond the scope of this paper, but the next section
considers one possible line of analysis.

Number of children. Some economists believe that the
apparent stability in the standardized hourly earnings ratio is
the result of an influx into market work of women whose earning
power was less than that of the women already at work (Smith and

Ward, 1983). The lower earning power of the new entrants could be the result of less market experience, less aptitude and training for market work, or other factors. The Census data do not contain measures of these variables, but there is one variable available that may serve as an imperfect proxy for others--the number of children ever born. An increase in the number of children, for instance, can lower the earnings of women through effects on market experience and on the location and type of job chosen when in the labor market, or can serve as an indicator of relatively greater interest in family than in career.

When women are grouped by number of children ever born we observe major differences in many labor market variables, especially for whites (see Table 7).[12] Women who have never had any children are more likely to be in the labor market, and those in the market work more market hours per year. Among white women average hourly earnings systematically decline as number of children increases.

This differential in earnings is explored in greater detail in Table 8, which shows women/men ratios of hourly earnings for each group of women. Earnings were standardized by dividing the actual hourly earnings of the women in each group by "predicted" hourly earnings; the latter is the hourly earnings of men weighted by the distribution of hours across age-schooling cells of the women in the group.[13] Because each group of women in any row is being compared with the same men, comparisons within any row show the relationship between standardized earnings and number of children ever born.

To be sure, this relationship does not precisely measure the

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effect of children on earnings for at least two reasons. On the
one hand the earnings of those women with many children may be
biased upwards because a smaller percentage are participating in
the labor market and we therefore observe only those women who
select themselves for market work. On the other hand, those women
who had many children may have done so because their potential
for earnings in the labor market was below average. Despite the
latter potential bias, it seems to me reasonable to infer that
children do substantially depress women's earnings and that this
effect lasts throughout the life cycle. It is noteworthy that the
relationship is present at ages 55-64, when most mothers no
longer have any direct child-care responsibilities.[14]/

On average, hourly earnings of women who have had three
children are about 12 percent lower than those of childless
women. While women's disproportionate responsibility for children
contributes to gender inequality in earnings, it is not the whole
story. Childless women (white) earned only 71 percent as much as
men in 1979, and even among those 25-34 and childless, the ratio
was only .75.[15]/

The relationship between number of children and women's
earnings affects the 1959-1979 comparisons because the increase
in participation rate was greater for women with many children
(see Table 7). Although the average number of children ever born
to white women ages 25-64 was virtually the same in 1959 and 1979
(2.30 and 2.27, respectively), among those who were working the
average number of children rose from 1.70 to 1.97. At ages 45-54
the increase was particularly large among white working women,

from 1.79 to 2.76 children. At ages 25-34, however, for white working women the average number of children _declined_ from 1.32 to 1.03, and the proportion with a child under six also declined, from 35 percent to 29 percent.

It is possible to obtain a rough estimate of the effect on earnings of the increase in the number of children of working women by recalculating an average standardized earnings ratio for 1979 using the 1959 distribution of working women by number of children born. This recalculation provides a little support for the adverse selection explanation. It raises the 1979 ratio by about one percentage point overall and by two percentage points at ages 45-54. The ratio at ages 25-34, however, is lowered slightly by this adjustment because of the shift at that age toward working women with fewer children.

The argument that rising participation rates among women lowers observed earnings because of adverse selection is not limited to the matter of entry by women who had more children. If, holding number of children constant, the percent working rises from say 30 to 40 percent, it is certainly possible that the additional entrants earn less than the ones who were already at work, thus pulling down the overall average.

Changes in percent working varied considerably across groups of women defined by birth cohort and number of children ever born, as may be seen in Table 9.[16/] In some instances the percentage increased by one-fourth or more in a decade while in others the proportion actually declined as the cohort aged. If the increase in percent working signals the influx of workers whose earnings are substantially below that of those already at

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work, we should, _ceteris_ _paribus_, observe a negative relation between changes in earnings and changes in percent working across groups of women. Table 9 shows the standardized earnings ratios and Figure 1 presents a scatter diagram of changes in both variables. The ratio of the percent of women working in 1969(1979) to the percent in 1959(1969) is measured on the horizontal axis, while the standardized earnings ratio in 1969(1979) divided by the ratio in 1959(1969) is measured on the vertical axis. Changes over each decade at each age are easily identified.

Inspection of Table 9 and Figure 1 reveals that the percent of women working tends to rise from ages 35-44 to 45-54 while the women/men earnings ratio tends to fall. Between ages 45-54 and 55-64 the percentage working tends to fall and the earnings ratio to rise. Thus there is a simple negative correlation. More importantly, however, within each age transition (the solid marks for 35-44 to 45-54 and the open marks for 45-54 to 55-64) the correlation between the two variables tends to be _positive_.

These relationships can be seen more clearly with the aid of a few simple regressions whose results are reported in Table 10. When the change in the standardized earnings ratio ($\ln SE_2/SE_1$) is regressed on the change in the percent of women working ($\Delta WPCTWK$) alone, the coefficient is negative but the t value is only .72. The addition of dummy variables for the decade of change (DUMYR) and the stage of life-cycle (DUMAGE) makes the coefficient on $\Delta WPCTWK$ positive, albeit not significantly so. The age dummy is significant, as expected.

The third regression in Table 10 has as its dependent variable the change in women's earnings ($\ln WE_2/WE_1$) and the right-hand-side variables repeat the second regression. The coefficient for change in percent working is again positive, but not significant. The year dummy is very significant, reflecting the relative stability of earnings in the 1970s compared with rapid growth in the 1960s. These regressions represent only one limited experiment, but they certainly do not support the view that the increase in the percent of women working depressed women's earnings through adverse selection.

Policy Implications

The most important empirical finding in this paper is that women's access to goods and services and leisure, relative to men's, was lower in 1979 than in 1959. The extent of the decrease varies with assumptions about the valuation of leisure hours, the extent of income sharing within households, and estimates of women's nonmarket hours in 1959. Some decrease, however, is evident under every combination of assumptions.

This result cannot be automatically translated into a conclusion that women were "worse off" in 1979 than in 1959 relative to men. The full income measure used in this paper is far from a complete measure of utility. Women may, for instance, have gained independence and autonomy during those two decades, and these gains may have been worth more to them than the loss of some goods and services or leisure. Alternatively, it is possible that the decline in relative full income was not offset by other aspects of utility. Robert Willis, for instance, has suggested that a decrease in men's demand for marriage and children (i.e., for the type of work women traditionally specialized in) has adversely affected women's relative economic position.17/

Some observers believe that the women/men ratio of hourly earnings has been temporarily depressed as a result of an influx of women into the labor force who have below average work experience and aptitude. James Smith and Michael Ward (1983), for instance, write: "The late 1970s suggest that these sample composition effects which have camouflaged reality for some time have basically run their course. We expect that the story on

female wages during the next two decades will be far different than what has occurred to date. For the remainder of this century, we predict that female wages will rise much faster than those of males. The initial hints of this emerging trend have already occurred during the last half of the 1970s." They presumably believe that there is no need for public policy interventions.

Other observers interpret the data in a radically different fashion. They see little change in gender segregation by occupation, no increase in earnings relative to men, and they note that the fragmentation of families places additional economic burdens on women. They advocate major changes in the way wages are determined, favor affirmative action programs that come close to setting employment quotas, and urge large increases in paid maternity leave, day care services, and other subsidies for women.

Still another possible view is that the decline in women's relative full income is the result of social and legislative policies designed to reduce the differences between men and women. Those holding this view believe that encouragement of women to leave the home, to work in the market, and to raise children independently of men hurts them economically and has adverse social consequences as well. They advocate a return to the gender role differentiation characteristic of earlier decades.

Some interpretations and policy recommendations fall between these extremes. For instance, it is possible to believe that

market forces will eventually result in gender equality in earnings but that the narrowing will take place very slowly. One might, therefore, argue that current cohorts of women deserve some additional assistance (Cain, 1983). Or, while still believing in the capacity of the market to eliminate earnings inequality, public policy questions may be raised with respect to effects on fertility and childcare.

In order for women to earn as much as men in competitive markets, they will probably have to behave like men with respect to subjects studied in school, choice of jobs, post-school investment, and commitment to career. This could result in extremely low fertility or in large numbers of children receiving inadequate care.[18] A recent survey of women corporate executives, for instance, reported that 52 percent were childless; of those under age 40, almost two-thirds were childless (Wall Street Journal, 1984). In 1983 the U.S. general fertility rate dropped to 65 per thousand women 15-44. This may be only a temporary dip, or it may be a harbinger of even lower fertility in the future. Objective data concerning the care of children is difficult to obtain, but widespread stories about "latch-key" children, discipline problems in school, and high rates of drug addiction, alcoholism, and suicide among teenagers provide some cause for concern. Thus, even if one believes that women will eventually achieve earnings equality with men without any public policy interventions, there may be a case for policies that help women indirectly by providing child allowances, day-care services, and similar subsidies for children.

Although their relative "full income" may have declined,

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women are gaining political power at a rapid rate. In 1980 there
were 10 percent more women than men voting; between 1975 and 1980
the number of women holding local and state offices more than
doubled, to 12 percent of the total, and in 1984 a woman was
nominated by a major party for vice president of the United
States. It seems likely that there will be increasing pressure in
this country for policies that help women economically, i.e.,
that in effect transfer income from men to women.

The current campaign for "equal pay for work of comparable
worth" is an example of a policy that would redistribute income
to women. Most economists recoil with horror at the prospect that
wages for large groups of workers (perhaps eventually all
workers) would be set by extra-market processes. They are
concerned about the inflationary pressures generated by such a
policy, as well as the potential efficiency losses through
distortionary effects on the demand for labor, the supply of
labor, and the relative prices of goods and services. Most
feminists favor this policy, but at least one opposes it because
it would perpetuate gender role differentiation (Barrett, 1982).

If "equal pay for comparable worth" is an inefficient way to
help women, are there more efficient ways? And, are there
policies that will be equitable for women with major differences
in attitudes, preferences, and behavior. Those women who wish to
follow a traditional pattern of concentration on family with
secondary commitment to paid employment are likely to want
different laws and social institutions than will those women who
put primary emphasis on a market career. During the balance of

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this century there are likely to be millions of women of each type.

Public policies with the same goal (i.e., helping women) can have very different social and economic effects. Some policies, e.g., equal pay for comparable worth, paid leaves for childbirth and infant care, would encourage more labor force participation by women. Others, e.g., direct payment to mothers who stay home and take care of their children, would encourage women to stay out of the labor force. Some policies would have positive effects on fertility; others the reverse. Depending on the method of financing, some programs would discourage employers from hiring women while others would not. In short, the transfer of income to women can be pursued in a variety of ways. Perhaps the greatest challenge currently facing economists concerned with labor markets and families is to try to understand the economic and social consequences of alternative policies. The national welfare may well depend more on **what** is done than on **whether** something is done.

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FOOTNOTES

1/Unless otherwise noted, "whites" includes nonwhites other than blacks.

2/Similar calculations were made using the 1/1000 sample for 1970. In nearly all instances the values for 1970 were in between those for 1960 and 1980.

3/In 1979 labor income as a percent of money income was 92.8 for men and 86.4 for women ages 25-64. In 1959 it was 96.0 and 87.0, respectively.

4/This is equivalent to regressing wages on these characteristics with all possible interactions and then using the regression coefficients to estimate wages for individuals. Two alternative calculations valued the nonmarket hours of "nonworkers" at 1.25 or .75 of the imputed wages. The trends in women/men differentials in income were not significantly affected.

5/Nonmarket hours of work were estimated by regressions on the time diary data for persons 18-24 and 65+ who were living in households with adults 25-64 and the imputed value of their nonmarket hours was included in total income. (See the Appendix.)

6/Following Ghez and Becker (1975), I assume that 10 hours per day are required for sleep and personal maintenance, leaving a total of 5110 hours annually for work or leisure.

7/Only hours assumption A is shown for no-sharing because the percentage change in the women/men ratio was virtually identical for A and B.

8/In this model if women increase their hours of work, total

effective income rises equally for both men and women (because of sharing), but women's leisure falls. Let W equal wage rate, H equal hours of work, K equal total available hours, and subscripts w and m equal woman and man. The woman/man full income ratio for a married couple

$$= \frac{\dfrac{W_w H_w + W_m H_m}{2} + \dfrac{W_w H_w + W_m H_m}{2 H_w}(K - H_w)}{\dfrac{W_w H_w + W_m H_m}{2} + \dfrac{W_w H_w + W_m H_m}{2 H_m}(K - H_m)}$$

which reduces to $\dfrac{H_m}{H_w}$.

[9] The full income ratio $= \dfrac{\dfrac{W_w H_w + W_m H_m}{2} + W_w(K - H_w)}{\dfrac{W_w H_w + W_m H_m}{2} + W_m(K - H_m)}$,

which reduces to $\dfrac{W_m H_m + W_w(2K - H_w)}{W_w H_w + W_m(2K - H_m)}$.

[10] The standardized ratio $R = (W_w/\hat{W}_w + \hat{W}_m/W_m)/2$ where

$$\hat{W}_w = \sum_{as}(W_{mas}H_{was})/\sum_{as}H_{was}$$

$$\hat{W}_m = \sum_{as}(W_{was}H_{mas})/\sum_{as}H_{mas}.$$

[11] This is not because women with less schooling had slower earnings growth than other women. In fact, between 1959 and 1979

their earnings tended to grow slightly more rapidly than the earnings of women with more schooling, but the differential growth by schooling was even greater among men so the women/men ratio tended to decrease for the lower schooling groups. An earlier study (Fuchs, 1974) reported an increase of a few percentage points in the standardized ratio between 1959 and 1969. That study included all ages but was limited to the nonfarm population. These differences in coverage appear to account for the different results reported in Table 5.

12/Part of this race difference in 1959 may be the result of measurement error. In the 1960 Census never-married women were assumed to have had zero children. This assumption was probably less justified for blacks.

13/It is the $W_w/\hat{W}_w$ term of footnote 10. The reverse standardization, $\hat{W}_m/W_m$, was not done because of difficulty in calculating hourly earnings for some of the age-schooling cells for some groups of women.

14/When women are young, the principal effect of children on earnings is probably through the effort that must be devoted to child care. When women are older, the principal effect is probably through earlier lost opportunities for post-school investment in human capital.

15/Expectations about children can still affect earnings, even for childless women. On the supply side, expectations can affect the subjects women study in school, the jobs they choose, and so on. On the demand side, prospective employers may be less willing to hire or to invest in a young woman (even though

childless) than a young man because of expectations regarding future children.

16/This table is limited to women 35 and older because at those ages most of them have completed their childbearing.

17/Private communication.

18/Unless men greatly increase their non-market hours of work.

APPENDIX: DESCRIPTION OF DATA AND VARIABLES

The basic data come from the 1/1000 Public Use Samples of the 1960, 1970, and 1980 Censuses of Population. Military and group-quarters individuals were excluded. All measures focus on adults ages 25-64, but adults 18-24 and $\geq$ 65 and children living in households with persons 25-64 were included in those measures that adjust for household.

The worker sample was restricted to individuals who worked at least one week during the previous year, at least one hour during the census week, and who reported nonzero earnings in the previous year. There were 48,294 workers in 1960, 55,463 in 1970 and 69,702 in 1980.

The "married" sample was restricted to individuals who were married with spouse present and who were either the head of the household or the spouse of the head. All other individuals were classified as "not married."

Non-market hours were estimated with the aid of time diary data collected by the University of Michigan's Institute for Social Research, "Time Use in Economic and Social Accounts, 1975-76." A representative sample of the adult American population reported their time use on four days during 1975-76; these were weighted to form a synthetic week.

Description of Variables

1. Market hours of work--Hours worked in the market are estimated by multiplying the number of weeks worked in the

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previous year times the number of hours worked in the census week. This product is constrained to a maximum of 3500 market hours per year. Means are calculated for all individuals, not just workers.

2. <u>Nonmarket hours of work</u>--The effect of individual characteristics on hours of nonmarket work is estimated by regressions on data from the Institute for Social Research Study, "Time Use in Economic and Social Accounts, 1975-76." The results for men and women ages 25-64 follow (t ratio in parentheses):

<u>Variables</u>	<u>Men</u>	<u>Women</u>
Nonmarket (dependent)		
Intercept	929 (7.9)	1856 (19.0)
Age 45-64	141 (2.1)	-16 (.2)
Black	-256 (2.0)	-371 (2.9)
Married	85 (1.2)	313 (4.1)
Fulltime market work ($\geq$1200 minutes per week)	-487 (4.5)	-919 (11.7)
Part-time market work	-39 (.3)	-298 (3.0)
Child < 5	181 (2.5)	585 (6.1)
R^2	.16	.44
n	294	380

nonmarket = weekly <u>minutes</u> of nonmarket work (childcare for children of the household, meal preparation and cleanup, cleaning--indoors and outdoors, laundry, repairs, maintenance, gardening, pet care, obtaining nonpersonal goods and services-- shopping, banking, car repair, etc.)

Annual hours of nonmarket work (minutes per week times 52/60) are imputed for individuals in the census samples based on their characteristics. Under assumption B for 1959, the estimates for women are increased by 10 percent.

3. Total hours of work--Market hours (1) + nonmarket hours (2).

4. Money income--Money income from all sources in 1959, 1969, and 1979 as coded in the census samples. The maximum loss an individual was allowed was $-10,000. Mid-points of income classes were used and the open-ended class was given a value of $32,500 in 1959, $60,000 in 1969, and $85,000 in 1979. All dollar values for 1959 and 1969 were inflated to 1979 dollars by the CPI.

5. Nonmarket income--If an individual works 500 or more hours per year in the market, nonmarket hours are valued at his or her hourly earnings (total earnings divided by annual hours). If an individual works fewer than 500 market hours, nonmarket hours are valued at the average hourly earnings of all individuals of the same sex, race, age and schooling.

6. Total income--Money income (4) + nonmarket income (5).

7. Total effective income--Total income is adjusted for household size and structure under two assumptions about the pooling of money and nonmarket income within the household. Under the "sharing" assumption, total effective income of each individual in a household equals the sum of the total income of all adults (ages 18+) in the household divided by the number of adult equivalents. The latter is calculated by counting the first adult as 1, each other adult as .8, the first child (0-17) as .4

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and each other child as .3. Under the "no sharing" assumption, total effective income of an individual equals his or her total income multiplied by the ratio of number of adults to adult equivalents.

Nonmarket hours are estimated for people ages 18-24 and 65+ (N=47 men; 54 women) by regressions of data from "Time Use in Economic and Social Accounts, 1975-76." An individual's nonmarket hours are imputed based on sex, age, marital status and work status. For those individuals 18-24 and over 65 working 500 or more market hours, nonmarket hours are valued at own hourly earnings rate. If the individual works fewer than 500 market hours and is 18-24 years old, nonmarket hours are valued at the average hourly earnings rate of all 18-24-year-olds of the same sex, race, age and education. The nonmarket hours of 65-74-year-olds who work fewer than 500 market hours are valued at 80 percent of the average hourly earnings of 55-64-year-olds of the same sex, race, and education. For individuals ages 75 and over, nonmarket hours are valued at 60 percent of this rate.

8. Full income--Full income is the sum of total effective income and leisure, with leisure hours valued at total effective income per hour of work or, alternatively, valued at the individual's wage rate. Leisure hours are assumed to be equal to 5110 minus annual hours of work.

Table 1. Annual hours of work of women and men, ages 25-64, 1959 and 1979.

		Market		Nonmarket			Total		
		1959	1979	1959 A	1959 B	1979	1959 A	1959 B	1979
Women	All	572	873	1685	1854	1497	2257	2425	2370
	Whites	563	865	1723	1895	1540	2285	2458	2405
	Blacks	652	934	1340	1474	1152	1992	2126	2087
Men	All	1875	1764	601	601	595	2476	2476	2359
	Whites	1913	1804	616	616	611	2529	2529	2415
	Blacks	1490	1377	446	446	439	1936	1936	1816
Women/men	All	.305	.495	2.806	3.087	2.517	.912	.980	1.005
	Whites	.294	.480	2.797	3.077	2.521	.904	.972	.996
	Blacks	.438	.678	3.003	3.304	2.628	1.029	1.098	1.149
Married whites		.217	.392	2.979	3.277	2.674	.874	.945	.960
Not married whites		.685	.795	2.164	2.380	2.115	1.101	1.162	1.153
Whites 25-34		.219	.502	3.316	3.648	2.865	.938	1.015	1.060
35-44		.291	.474	3.122	3.435	2.794	.898	.965	.964
45-54		.357	.480	2.382	2.620	2.224	.869	.929	.928
55-64		.332	.453	2.277	2.505	2.099	.909	.977	1.015

(N = women 42,215 in 1959; 54,972 in 1979. Men 38,895 in 1959; 50,322 in 1979)

Assumption A: Nonmarket hours of women with given characteristics the same in 1959 as in 1979.

Assumption B: Nonmarket hours of women with given characteristics 10 percent higher in 1959 than in 1979.

Table 2. Selected labor market and family variables, ages 25-64,
by sex and race,[a] 1959 and 1979.

		Women		Men		Women/men	
		1959	1979	1959	1979	1959	1979
Percent not married	All	24.0	30.3	17.2	24.3	1.395	1.247
	White	22.1	27.2	16.0	22.5	1.381	1.209
	Black	41.5	55.1	30.0	41.2	1.383	1.337
Percent working in market	All	34.1	51.8	87.1	81.9	.392	.632
	White	33.1	51.5	87.9	83.1	.377	.620
	Black	44.1	54.4	79.4	70.0	.555	.777
White	Married	26.3	46.3	90.4	85.7	.291	.540
	Not married	56.8	65.5	74.7	74.2	.760	.883
Black	Married	37.7	56.4	84.4	77.5	.447	.728
	Not married	53.1	52.7	67.7	59.2	.784	.890
Average hourly earnings	All	4.23	5.56	6.73	9.03	.628	.615
($1979)	White	4.41	5.58	6.93	9.20	.637	.607
	Black	2.83	5.40	4.16	6.90	.680	.783
White	Married	4.31	5.49	7.12	9.56	.605	.574
	Not married	4.56	5.73	5.60	7.66	.814	.748
Black	Married	2.94	5.51	4.23	7.25	.695	.760
	Not married	2.71	5.31	3.93	6.19	.690	.858
Number of children	All	.679	.551	.673	.473	1.009	1.164
(<18) per adult	White	.657	.521	.664	.469	.989	1.111
	Black	.885	.793	.765	.518	1.157	1.531
White	Married	.719	.541	.757	.565	.950	.959
	Not married	.439	.466	.176	.139	2.493	3.363
Black	Married	.906	.681	.946	.707	.958	.963
	Not married	.856	.885	.343	.250	2.493	3.543

[a] "Whites" includes nonwhites other than black.

Table 3. Income of women and men, ages 25-64, 1959 and 1979.

			Money	Nonmarket	Total	Total Effective	
						Sharing	No sharing
Women	1959	A	3,015	7,403	10,418	12,186	9,626
		B	3,015	8,145	11,158	12,542	10,294
	1979		6,227	8,630	14,858	16,998	14,169
Men	1959		13,678	4,081	17,756	12,816	16,295
	1979		18,300	5,554	23,855	17,845	22,957
Women/men	All	1959 A	.220	1.814	.587	.974	.591
		B	.220	1.996	.628	.979	.632
		1979	.340	1.554	.623	.953	.617
	Whites	1959 A	.215	1.813	.583	.980	.588
		B	.215	1.994	.625	.984	.629
		1979	.326	1.538	.609	.962	.607
	Blacks	1959 A	.346	2.029	.709	.948	.689
		B	.346	2.232	.753	.954	.731
		1979	.572	1.972	.880	.910	.826
	Married whites	1959 A	.148	1.886	.540	1.012	.546
		B	.148	2.075	.583	1.012	.588
		1979	.246	1.581	.552	1.016	.559
	Not-married whites	1959 A	.627	1.619	.893	.870	.832
		B	.627	1.781	.936	.892	.872
		1979	.670	1.471	.872	.819	.812
	Whites 25-34	1959 A	.189	2.546	.721	.978	.698
		B	.189	2.800	.778	.983	.752
		1979	.397	2.059	.774	.977	.749
	Whites 35-44	1959 A	.192	1.889	.542	.983	.564
		B	.192	2.078	.581	.985	.603
		1979	.299	1.593	.559	.948	.570
	Whites 45-54	1959 A	.240	1.415	.519	1.000	.547
		B	.240	1.557	.553	1.004	.582
		1979	.288	1.212	.505	.956	.522
	Whites 55-64	1959 A	.256	1.402	.562	.957	.563
		B	.256	1.542	.600	.964	.601
		1979	.309	1.249	.573	.952	.570

Table 4. Women/men ratios of full income[a] and percent change in the ratios, 1959 to 1979, alternative assumptions about hours, sharing, and valuation of leisure.[b]

| | | Leisure hours valued at total effective income ÷ total hours | | | Leisure hours valued at wage rate[c] | | |
| | | Sharing | | No sharing | Sharing | | No sharing |
		A	B	A	A	B	A
All	1959	.976	.906	.598	.808	.787	.644
	1979	.845		.559	.759		.620
Whites	1959	.995	.923	.601	.814	.793	.644
	1979	.869		.554	.760		.611
Blacks	1959	.776	.727	.578	.753	.738	.669
	1979	.655		.617	.771		.745

Percent change 1959 to 1979 in women/men ratio

	A	B	A	A	B	A
All	-13	-7	-7	-6	-4	-4
Whites	-13	-6	-8	-7	-4	-5
Blacks	-16	-10	+11	+2	+4	+11
Married whites	-11	-3	-9	-6	-3	-6
Not-married whites	-9	-6	-6	-7	-6	-6
Whites 25-34	-13	-6	-5	-8	-4	-5
35-44	-11	-3	-7	-7	-5	-6
45-54	-12	-5	-11	-8	-6	-9
55-64	-14	-7	-12	-6	-4	-5

[a] Full income is the sum of total effective income and leisure.

[b] Leisure hours per year = 5110 minus total hours of work.

[c] Own wage rate if worked more than 500 hours; otherwise imputed wage rate based on sex, race, age, and schooling.

Table 5. Women/men ratios of average hourly earnings, ages 25-64, 1959, 1969, 1979.

		Actual			Standardized[a]		
		1959	1969	1979	1959	1969	1979
All		.628	.608	.615	.620	.625	.638
White		.637	.605	.607	.628	.623	.629
Black		.680	.753	.783	.643	.708	.766
White	Married	.605	.569	.574	.607	.594	.602
	Not married	.813	.772	.748	.779	.767	.754
Black	Married	.694	.756	.760	.641	.698	.737
	Not married	.690	.799	.858	.658	.777	.843
White (age)	25-34	.698	.694	.713	.706	.703	.720
	35-44	.598	.554	.567	.610	.590	.598
	45-54	.614	.572	.543	.600	.596	.570
	55-64	.653	.623	.582	.616	.619	.604
White (years of schooling)	<9	.650	.629	.599	.646	.625	.598
	9-11	.605	.582	.593	.600	.580	.590
	12	.647	.618	.617	.642	.613	.616
	13-15	.614	.627	.633	.602	.621	.630
	16	.627	.656	.622	.602	.658	.640
	17	.753	.763	.720	.704	.754	.732
	≥18	.696	.679	.644	.666	.664	.668

[a] Standardized for age and years of schooling. For each of 28 age-schooling cells the wage rates of men(women) are standardized on the hours of women(men) and the mean of the two results is shown.

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Table 6. Wife/husband ratios of hourly earnings and total income, whites, ages 25-64, 1959 and 1979.

Hourly earnings[a]

	Median ratio		% wife > husband	
	1959	1979	1959	1979
All	.692	.617	26.1	22.0
Relative education				
wife > husband	.740	.711	30.2	29.6
wife = husband	.683	.610	23.3	20.2
wife < husband	.640	.556	22.7	18.0
Age of wife				
25-34	.718	.682	28.2	25.5
35-44	.675	.568	23.3	19.4
45-54	.681	.579	26.8	19.3
55-64	.737	.626	30.4	24.8

Total income[b]

	Median ratio			% wife > husband		
	A 1959 B		1979	A 1959 B		1979
	A	B	1979	A	B	1979
All	.533	.580	.533	16.4	18.9	18.6
Relative education						
wife > husband	.616	.664	.663	22.0	25.1	27.0
wife = husband	.532	.580	.533	15.2	17.5	17.5
wife < husband	.461	.504	.460	11.5	13.4	13.7
Age of wife						
25-34	.572	.625	.622	15.5	18.3	23.6
35-44	.513	.558	.489	15.2	17.4	16.8
45-54	.512	.554	.478	18.1	20.5	15.3
55-64	.518	.561	.509	18.9	21.7	15.8

[a]Both spouses working in the market.

[b]All couples. Money plus nonmarket income.

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Table 7. Selected statistics for women 25-64 by number of children ever born, by race, 1959 and 1979.

		Children ever born					All
		0	1	2	3	>4	All
WHITE							
Percent of all women	1959	20.4	16.4	24.7	17.5	21.1	100.0
	1979	19.1	14.9	26.9	19.1	20.0	100.0
Average age	1959	44.7	43.3	41.8	41.3	43.9	43.0
	1979	37.8	39.9	41.8	44.1	47.7	42.4
Average years of schooling	1959	10.9	10.7	10.9	10.6	9.3	10.5
	1979	13.3	12.4	12.3	11.9	11.0	12.2
Percent working in market	1959	54.1	35.9	29.9	24.8	21.1	33.1
	1979	70.5	52.4	48.4	46.1	42.0	51.5
Average annual hours per worker	1959	1797	1634	1539	1469	1433	1618
	1979	1833	1673	1590	1594	1601	1669
Average hourly earnings ($1979)	1959	4.93	4.35	4.29	3.99	3.53	4.41
	1979	6.16	5.58	5.49	5.27	4.98	5.58
BLACK							
Percent of all women	1959	27.0	16.6	14.4	11.4	30.7	100.0
	1979	17.4	18.7	19.2	14.0	30.6	100.0
Average age	1959	42.8	42.1	40.8	40.5	41.3	41.7
	1979	40.9	39.1	38.2	39.9	45.2	41.2
Average years of schooling	1959	8.4	8.7	8.9	8.8	7.8	8.4
	1979	11.6	11.8	11.6	11.5	10.0	11.1
Percent working in market	1959	52.6	50.5	45.9	42.1	32.9	44.1
	1979	61.2	60.1	56.5	59.4	43.3	54.4
Average annual hours per worker	1959	1555	1459	1449	1412	1351	1459
	1979	1784	1720	1696	1762	1652	1718
Average hourly earnings ($1979)	1959	3.11	2.93	3.17	2.75	2.07	2.83
	1979	5.75	5.70	5.50	5.20	4.89	5.40

Table 8. Women/men ratios of standardized[a] hourly earnings, by number of children ever born, 1959 and 1979.

			Children ever born					
			0	1	2	3	≥4	All
	White	1959	.671	.623	.608	.583	.543	.625
		1979	.706	.654	.613	.578	.547	.629
	Black	1959	.697	.657	.726	.659	.511	.653
		1979	.808	.804	.790	.748	.700	.769
White (age)	25-34	1959	.739	.698	.652	.689	.599	.703
		1979	.750	.711	.665	.661	.631	.717
	35-44	1959	.658	.612	.609	.574	.525	.612
		1979	.661	.622	.591	.567	.545	.595
	45-54	1959	.640	.591	.595	.544	.543	.599
		1979	.630	.605	.582	.561	.528	.571
	55-64	1959	.653	.621	.592	.586	.539	.612
		1979	.638	.608	.627	.573	.569	.603
White (years of schooling)	<9	1959	.683	.701	.654	.604	.572	.646
		1979	.637	.631	.630	.583	.558	.599
	9-11	1959	.655	.580	.593	.575	.528	.598
		1979	.617	.573	.595	.603	.567	.589
	12	1959	.714	.605	.608	.590	.515	.639
		1979	.698	.638	.607	.568	.554	.615
	13-15	1959	.644	.584	.576	.542	.512	.596
		1979	.704	.674	.607	.580	.506	.629
	16	1959	.595	.683	.577	.518	.579	.597
		1979	.721	.699	.590	.576	.510	.652
	17	1959	.688	.653	.642	.824	.663	.681
		1979	.795	.812	.701	.591	.605	.738
	≥18	1959	.640	.702	.662	.965	.649	.660
		1979	.701	.681	.688	.578	.608	.675

[a]Standardized for age and schooling.

Note: Each group of women is compared with all men of same race.

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Table 9. Participation rates and earnings ratios of white women by birth cohort, age, and number of children ever born.

Birth cohort	Number of children ever born	Percent working in market			Women/men ratio of standardized[a] hourly earnings		
		Age			Age		
		35-44	45-54	55-64	35-44	45-54	55-64
1905-14	All		38.8	37.4		.599	.619
	0		52.0	44.7		.640	.662
	1		39.6	37.5		.591	.635
	2		37.9	39.0		.595	.586
	3		31.7	34.9		.544	.596
	>4		28.9	29.4		.543	.584
1915-24	All	35.2	46.8	36.8	.612	.595	.603
	0	58.6	56.6	41.6	.658	.675	.638
	1	40.2	48.0	36.9	.612	.581	.608
	2	33.8	48.1	37.5	.609	.590	.627
	3	28.7	45.1	36.5	.574	.571	.573
	>4	21.6	39.9	33.3	.525	.546	.569
1925-34	All	43.2	52.6		.587	.571	
	0	59.2	60.1		.658	.630	
	1	51.5	53.1		.621	.605	
	2	46.0	55.2		.572	.582	
	3	40.4	52.9		.561	.561	
	>4	34.7	48.0		.547	.528	

[a] Standardized for schooling.

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Table 10. Regressions of changes in earnings on changes in percent working and other variables across twenty groups of white women classified by cohort and number of children ever born. (t ratio in parentheses.)

Right-hand-side variables	mean s.d.	$\ln \frac{SE_2}{SE_1}$ mean = .012 s.d. = .045		$\ln \frac{WE_2}{WE_1}$ mean = .147 s.d. = .124
		(1)	(2)	(3)
Intercept	1.000 0.000	.040 (.99)	-.065 (.92)	.162 (1.85)
ΔWPCTWK	1.091 .295	-.026 (.72)	.046 (.94)	.077 (1.27)
DUMYR	.500 .513		-.013 (.64)	-.207 (8.35)
DUMAGE	.500 .513		.065 (2.46)	.009 (.28)
R^2		.028	.380	.876

SE_2/SE_1 = women/men ratio of standardized hourly earnings, $t_2 \div t_1$

WE_2/WE_1 = women's hourly earnings ($1979), $t_2 \div t_1$

ΔWPCTWK = percent of women working, $t_2 \div t_1$

DUMYR = 1969 to 1979 = 1, 1959 to 1969 = 0

DUMAGE = 45-54 to 55-64 = 1, 35-44 to 45-54 = 0

Figure 1. Scatter diagram of changes in percent of women working and women/men earnings ratio, twenty groups of white women classified by cohort and number of children ever born.