

Southern Economic Journal 2001, 67(4), 869-888

Trends in the Male-Female Wage Gap: The 1980s Compared with the 1970s

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Despite a more rapid increase in female work behavior in the 1970s than in the 1980s, the male-female wage gap in the 1970s narrowed one-eighth as quickly as in the 1980s. This paper uses 1972 through 1988 Panel Study of Income Dynamics data to explain why women's wages rose less quickly in the 1970s. It illustrates how new female labor market entrants in the 1970s brought down mean female wages, thereby driving down female wage growth. This decline played itself out in the 1980s as the relative growth in female labor market entrants diminished and as the proportion of women's potential work years actually worked increased.

1. Introduction

An interesting pattern emerges when contrasting men's and women's wage growth in the 1970s and 1980s. From 1979 to 1989, female wages grew 1.7% per annum faster than male wages. This wage growth in the 1980s resulted in a 17% narrowing of the gender wage gap. On the other hand, from 1969 to 1979 female wages grew at a rate only 0.39% per year faster than male wages, resulting in very little narrowing of the gender wage gap (Blau 1998). As noted by Smith and Ward (1989), these contrasting trends puzzled many because it is well known that female work behavior shot up more dramatically in the 1970s than in the 1980s. If female wage growth is related to increasing labor force activity, one would have expected the male-female wage gap to narrow more in the 1970s than in the 1980s. The purpose of this paper is to identify some of the reasons why the male-female wage gap narrowed more quickly in the 1980s than in the 1970s, despite a deceleration of the growth in female labor force activity in the 1980s.

What appears to be the case is that predominantly younger and less experienced females entered the labor force in the 1970s. The entry of women with relatively little human capital brought down the growth in women's average human capital (O'Neill 1985), so that despite the upsurge of women's labor force participation in the 1970s, women's average human capital relative to men's increased more slowly in the 1970s than in the 1980s. This relatively slower growth in women's human capital appears to have played itself out in the 1980s both because the number of women joining the labor force slowed and because women's labor force attachment as measured by the proportion of potential work years actually worked increased (Blau

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We thank three anonymous referees and Kathy Hayes for very helpful comments, Moon-Kak Kim for proficient research assistance, and June O'Neill for valuable discussion. The opinions in this paper are the authors' and do not represent those of the Health Care Financing Administration.

Received March 1998; accepted August 2000.

1998). With these trends, average female human capital increased in the 1980s, resulting in greater overall wage gains.

Because of the stark differences between the 1970s and 1980s, this paper concentrates on distinguishing the factors that contribute to men's and women's wage growth in the two decades. Despite the substantial literature on the male-female wage gap, the interdecade difference in the trend has not been adequately examined. In what follows, this paper uses the Panel Study of Income Dynamics (PSID) to illustrate the effects of the demographic changes alluded to above.¹ First, it presents wage trends for the 1970s and 1980s. Second, it provides direct measures of changes in human capital growth within each decade. Third, to illustrate the importance of these demographic trends, especially how new young labor market entrants bring down wages, it shows that the higher relative female wage growth in the 1980s is reduced and the relatively slower female wage growth in the 1970s is enhanced when one controls for individual human capital characteristics. These effects are illustrated first by including actual experience-type variables in a regression whose coefficients measure wage growth, and second by eliminating new entrants from 1970s and 1980s regression analysis. The paper shows that with these controls, increases in female average growth in both the 1970s and 1980s were more comparable than previously thought.

2. Recent Literature on Trends in the Male-Female Wage Gap

This is not the first paper to recognize the trend in male-female wage convergence. O'Neill (1985), Blau and Beller (1988), Smith and Ward (1989), Goldin (1990), Katz and Murphy (1992), Wellington (1993), O'Neill and Polachek (1993), Blau and Kahn (1997), and Blau (1998) all note that women's wages have risen relative to men.

Smith and Ward (1989) find that female relative wages rose between 1920 and 1980 when adjusting for worker skills. Goldin (1990), piecing together various data sources, finds a similar long-term narrowing. According to her, "the ratio of female to male earnings in the economy as a whole rose from 0.46 to 0.56 during the period 1890 to 1930, but was virtually stable from 1950 to around 1980" (p. 62). Several studies focus on the 1970s, a period of rapid growth in women's labor market activity. For example, Blau and Beller (1988), using Current Population Survey (CPS) data, find that the ratio of female-male earnings increases from 39.5 to 45.4% for all (full and part-time) workers between 1971 and 1981. These 5.9 percentage points (45.4 minus 39.5) amount to a 14.9% increase in relative female wages. The earnings ratio increases at a slower rate for full-time workers, from 58.1 to 61.0%, which is a 5% (or 2.9 percentage point) increase. They attribute the rise in female earnings to "declining gender role specialization and declining discrimination." O'Neill (1985), also using CPS data, attributes the modest rise from the mid-1970s until 1982 mostly to increases in female experience.

Other research covers substantial portions of both the 1970s and 1980s. Wellington (1993), using the PSID, finds that female relative wages increase 4 percentage points (from 61 to 65% of male wages) between 1976 and 1985, with about half the increase explained by changes in average job tenure and work experience. O'Neill and Polachek (1993) use CPS, National Lon-

¹ PSID data can be used to examine trends in the male-female wage gap well into the 1990s. Our goal is to examine the different trends in the male-female wage gap during the 1970s and 1980s, not to provide an analysis of the current status of women.

gitudinal Survey, and PSID data to identify the factors related to the decline in pay disparity from 1976 through 1987. The authors find that changes in schooling, the amount of experience, and returns to experience account for a majority of the decline in the wage gap.

Katz and Murphy (1992) examine a longer time frame, from 1963 through 1987, and also recognize the convergence of male and female wages. They note that in a simple supply-and-demand framework, the increased female labor supply would force women's wages downward. The authors present evidence that demand for female labor rises sufficiently over the 25 years to offset the increased supply. This result is perhaps consistent with O'Neill and Polachek's (1993) finding that women's rate of return to human capital increased.

Recent studies focus on the 1980s, a period of rapid female relative wage growth. For example, Blau and Kahn (1997) examine how demand-and-supply shifts contribute to the declining male-female wage gap in the 1980s. The authors use PSID data to show that women's relative wages rise 1.1% per year and did so despite relative supply-and-demand changes unfavorable to women. Improving relative qualifications for women and declining unionization among male-dominated blue-collar occupations lead to a narrowing of the gap. Finally, Blau (1998) uses CPS data to examine women's labor force participation rates and the gender wage gap from 1969 through 1994. Similar to prior studies, she finds that female labor force participation increases steadily since 1970. The male-female wage gap among full-time workers shows little convergence during the 1970s, but women's relative wages increase from 0.58 to 0.68 between 1979 and 1989. Women's relative wages continue to grow in the 1990s, but at a slower rate. Her study is unique, as it highlights the interdecade difference in wage convergence.

Studies that combine both the 1970s and 1980s do not address an important issue: The earnings ratio data discussed in the introduction suggest that the narrowing took place mostly in the 1980s, with very little narrowing in the wage gap occurring during the 1970s. Although Blau (1998) documents the difference in wage gains between the 1970s and 1980s, the reasons for the difference have yet to be rigorously addressed. As discussed above, O'Neill (1985), Smith and Ward (1989), Goldin (1990), and Blau (1998) suggest that women's relative wages would have grown faster in the 1970s if not for the influx of lesser-skilled women into the labor market. This paper tests this hypothesis using data from the 1970s and 1980s.

3. Data

The data used to perform this analysis are the 1972-through-1988 waves of the PSID.² There are a number of issues regarding the data that are worth mentioning. The sample consists of a panel following individuals over 17 years. The statistical analysis includes respondents between the ages of 25 and 64 in each year they work full-time (at least 1500 hours). This paper confines itself to whites to avoid issues relating to racial discrimination, and 25-64-year-olds to exclude those in school and those moving in and out of retirement. The sample contains 20,531 observations from the 1970s, of which 27% are women. There are 24,452 observations from the 1980s, of which 33% are women.

Throughout this paper, wages refer to hourly wage rates. This is a self-reported wage when

² A detailed description of the PSID can be obtained from the Institute of Social Research (1984). We begin with 1972 because missing experience data resulted in small sample sizes for 1970 and 1971, whereas the sample period ends in 1988 to maintain a balanced sample for each decade.

workers are paid hourly, and one computed as annual earnings divided by annual hours worked for salaried workers. A key variable in the analysis is worker experience. Data on actual experience is not collected regularly by the PSID, but all respondents were asked in 1974 the number of years worked full-time since age 18. For continuing respondents, we update the variable in each subsequent year by augmenting experience if the individual worked full-time the previous year. Experience for 1972 and 1973 is computed by subtracting from 1974 experience. Other important variables include categorical variables denoting labor market entrants and leavers, and continuous workers. A labor market entrant is defined as someone who has zero labor earnings in year $t - 1$, but works full-time in year t . Thus, the individual (re)joins the workforce in year t , and works at least 1500 hours during the year. A labor market leaver works full-time in year t , but does not work in year $t + 1$. Thus, a labor market leaver stops working in year t , but not before accumulating at least 1500 hours. We define a continuous worker as someone who is employed, either part-time or full-time, in all 17 years of the panel. Thus, a continuous worker is employed in each year, but is part of the statistical analysis only in those years employed full-time. Although we limit the statistical analysis to full-time workers, we do not base the definition of a continuous worker solely on full-time work, since few women work full-time throughout the sample period. The variable denoting labor market entrants will enable us to identify individuals who joined the labor force during year t , and have been hypothesized to lower the average skill level of female workers and slow relative female wage growth. The Appendix contains more details on the data.

4. Interdecade Trends

From 1970 to 1980, women's labor force participation grew from 42.6 to 51.2% (U.S. Department of Commerce 1990, Table 625), and indices of occupational segregation decreased 6.6%.³ In addition, the proportion of women in professional schools increased from 5.4 to 26.6% (Anderson 1990), and enforcement of antidiscrimination laws increased 20-fold by some measures.⁴ On the other hand, in the 1980s affirmative action activities actually fell,⁵ the rise in female enrollment in professional schools tapered off (Anderson 1990), declines in occupational segregation also slowed slightly (Blau, Simpson, and Anderson 1997), and the growth in female labor force participation decelerated (U.S. Department of Commerce 1992, Table 609).

The slower growth in occupational equality and the decline in affirmative action both imply a less rapid rise in women's wages in the 1980s compared with the 1970s. Because occupational segregation limits women's wages, the greater declines in segregation should result in greater improvements in women's relative wages during the 1970s. Similarly, affirmative action programs are also argued to improve women's labor market status, and greater government enforcement of equal employment legislation should yield larger relative wage gains in the 1970s.

The interdecade differences in the remaining two trends mentioned above, female labor force participation and female professional school enrollments, have unclear implications for

³ Blau and Ferber (1986). Also see Beller (1984, p. 27) indicating that the proportion of male-dominated occupations decreased from 62 to 55%, and integrated occupations increased from 6 to 11%.

⁴ Computed from Smith and Welch (1984, p. 273), who indicate that in 1970 only 340 cases were filed in Federal Courts under Title VII, whereas 6250 were filed in 1981.

⁵ Smith and Welch (1984) show that the Office of Federal Contract Compliance's budget dropped from \$48.2 million to \$43.1 million just from 1980 to 1981.

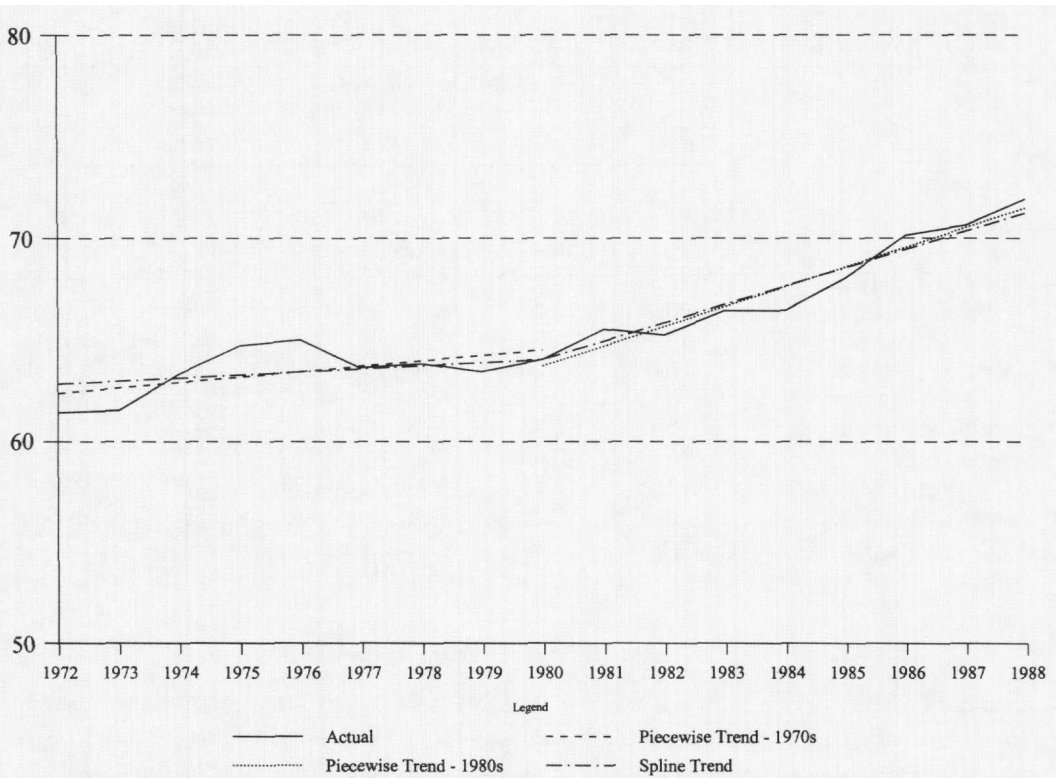


Figure 1. Female-male wage ratios. Data: Panel Study of Income Dynamics, white full-time workers, ages 25-64. Ratio of female mean to male mean hourly wages

women's wage growth. On the basis of life cycle models, human capital acquisition increases with the payoff period. One's payoff period is related directly to lifetime labor force participation, which in turn is dependent on one's labor market activities. Because labor market activities rose more sharply in the 1970s, one might expect a more rapid rise in human capital and hence wages during the 1970s. However, as indicated above, the large influx of unskilled workers may have actually lowered women's average experience in the 1970s, with the increased labor force attachment increasing human capital by the 1980s. Similarly, the influx of unskilled workers would slow wage growth if workers must pay the costs of general training or share in the costs of firm-specific training (Kuratani 1973; Hashimoto 1981). The increased professional school enrollments are not reflected in women's wages until the students become employed. Thus, the 1970s trends in labor force activity and professional school enrollments may have increased females' relative wage growth in the 1970s or 1980s.

To illustrate the wage trends, wage ratios are plotted pre- and post-1980. Figure 1 contains piecewise linear and spline functions using wage data from the PSID. From 1972 to 1980, the ratio of female mean to male mean hourly wages increases only slightly from 0.62 to 0.64, but from 1980 to 1988 it increases more quickly from 0.64 to 0.72. Both the linear piecewise and spline functions show that wage convergence is very modest in the 1970s but increases dramatically in the 1980s.

One explanation discussed in O'Neill (1985), Smith and Ward (1989), and Goldin (1990) for these results is that increases in women's labor market activities can bring down mean levels of women's human capital because new labor market entrants typically have low levels of human

Table 1. Average Levels of Male and Female Labor Market Characteristics

Characteristics ^a	Full-Time White Workers Ages 25–64, 1972–1988 Panel Study of Income Dynamics					
	Male			Female		
	1972	1980	1988	1972	1980	1988
Schooling	12.4	13.0	13.6	12.4	12.8	13.5
Age	40.6	38.6	38.8	42.9	39.0	38.5
Potential experience	22.1	19.6	19.3	24.6	20.2	19.0
Actual experience	20.8	18.4	18.3	14.8	11.9	12.5
Hours worked per week	46.2	44.7	45.5	38.4	38.1	39.7
Labor force entrant	0.002	0.003	0.007	0.019	0.018	0.011
Labor force leaver	0.005	0.005	0.006 ^b	0.012	0.014	0.014 ^b
Continuous worker	0.45	0.44	0.33	0.20	0.14	0.14
Married	0.94	0.90	0.85	0.63	0.72	0.76
Real wage (1983 dollars)	12.59	12.18	12.21	7.74	7.79	8.78
Number of individuals	1436	1852	2176	486	766	1239

^a Labor force entrant = 1 if the individual did not work in year $t - 1$ but worked in year t ; labor force leaver = 1 if the individual worked in year t but did not work in year $t + 1$; continuous worker = 1 if the respondent worked continuously throughout the sample.

^b 1987 value.

capital. In addition, given women's growing life-cycle labor force attachment, the new generally younger cohorts tend to have greater work expectations, eventually leading to enhanced wages relative to men, whose lifetime labor force participation has been shrinking. This paper provides evidence of how these assertions regarding labor force attachment and human capital explain the different trends in the 1970s and 1980s.

5. Labor Market Entrants and the Interdecade Trend

If it is true that much of the difference in male–female wage growth is explained by new labor market entrants as well as increased women's labor force attachment, one can assess whether the differences in growth rates between the 1970s and 1980s narrow once one controls for these factors. If the differences in wage growth diminish, then these factors play a role.

To pursue this empirical test, we analyze PSID wage data from 1972 through 1988. The analysis proceeds in several steps. First, we explore differences in men's and women's human capital levels for each decade. Second, we run wage regressions to see if adjusting for these different human capital levels explains the interdecade differences in wage convergence trends. Third, we test more directly whether new entrants have an effect.

Table 1 presents data on human capital attributes in three years (1972, 1980, and 1988). As is commonly found, several attributes associated with human capital accumulation are greater among men than women. Both men and women have about the same potential experience (approximately 20 years) defined in the standard way (age – schooling – 6). However, women have far less actual experience, about 12–14 years compared with 18–20 years for men. Men tend to work about five more hours per week, whereas women are more likely to move into or out of the labor force. We denote workers moving into the labor force to be labor market entrants and those moving out of the labor force to be labor market leavers.

Several differences across time are noteworthy. Despite the rapid increase in female labor

Table 2. Average Levels of Male and Female Labor Market Characteristics: Labor Force Entrants, Continuous Workers, and Labor Force Leavers

Characteristics	Full-Time White Workers Ages 25-64, 1972-1988 Panel Study of Income Dynamics					
	Male			Female		
	Entrants	Leavers	Continuous	Entrants	Leavers	Continuous
Schooling	12.6	11.9	13.3	12.2	12.3	13.1
Age	39.7	47.9	40.7	37.2	41.3	42.1
Potential experience	21.1	30.0	21.4	19.1	23.0	23.1
Actual experience	17.7	27.6	20.6	7.4	11.7	15.1
Hours worked	49.2	43.9	45.5	39.2	36.8	38.0
Married	0.93	0.92	0.91	0.85	0.83	0.75
Real wage	6.07	9.62	13.30	4.76	6.58	8.51
No. of individuals	144	224	886	201	189	237
No. of observations	158	248	13,232	220	203	2640

force participation during the 1970s, women's actual work experience as a percentage of potential experience remained approximately the same between 1972 and 1980 at 0.60. The proportion of years worked increased to 0.66 by 1988. The interdecade difference is caused by the influx of women into the labor market in the 1970s limiting the growth in average female experience. Consistent with this argument, women are much more likely than men to be labor market entrants in 1972 and 1980, with the difference narrowing substantially by 1988. The more rapid growth in female sample size is also consistent with the rapid growth in female labor force participation. For example, the male sample size increases by about 50% between 1972 and 1988, but more than doubles for women. The proportion of working women who are married also increases over time, reflecting the increased presence of married women in the labor force.

As seen in Table 2, individuals who enter or leave the labor force, especially females, have less education, less experience, lower labor force attachment, and a higher likelihood of being married than women continually at work. With the 1980s decreases in these less attached workers, and especially with the decline in the number of female labor market entrants, women's work experience increases relative to men's in the 1980s. It is interesting to note that almost as many women entered or left the labor market as worked continuously over the 17 years. Among men, far more were continuous workers than entrants or leavers.

To corroborate these findings, Table 3 presents data on interdecade changes in male-female human capital variables. The trends are from spline regressions, estimated using individual data from 1972 through 1988, with each human capital variable regressed on time with a knot at 1980. In the 1970s, despite (or because of) increased female labor force participation, average experience levels fall 0.38 years annually for women and 0.27 years for men. However, in the 1980s they rise for women (0.10 of a year annually), but decline annually by 0.02 of a year for men. Similarly, although there is a slight increase in the number of males joining the labor force in the 1970s, the number of female entrants increases more rapidly. In the 1980s, the number of male entrants continues to rise, whereas the number of female entrants falls. Thus, women's average experience declines (both in absolute terms and relative to men) in the 1970s as the number of young less-skilled entrants increases throughout the decade. This is consistent with the surge of new female labor market entrants in the 1970s driving down mean human capital

Table 3. Average Annual Changes in Male and Female Labor Market Characteristics^a

Characteristics ^b	Male				Female			
	72-80 (1)	80-88 (2)	Change (2) - (1)	<i>t</i> -stat	72-80 (3)	80-88 (4)	Change (4) - (3)	<i>t</i> -stat
Schooling	0.0700	0.0681	-0.0019	0.20	0.0506	0.0889	0.0383	3.00
Potential experience	-0.2992	-0.0545	0.2447	6.01	-0.6050	-0.1066	0.4985	7.86
Actual experience	-0.2715	-0.0247	0.2468	6.33	-0.3751	0.0966	0.4717	9.94
Hours worked	-0.2022	0.1078	0.3100	8.09	-0.0299	0.1974	0.2274	5.76
Labor force entrant	0.00002	0.0004	0.0004	1.58	0.0001	-0.0014	-0.0015	2.23
Labor force leaver	-0.0001	0.0001	0.0002	0.55	0.0002	-0.0012	-0.0014	1.81
Home time	-0.0487	-0.0044	0.0443	4.55	-0.2356	-0.1871	0.0485	1.02
Proportion married	-0.0040	-0.0045	-0.0005	0.42	0.0109	0.0046	-0.0063	2.51

^a Average annual changes are computed from spline regressions where the relevant variable is regressed on time with a knot at $t = 1980$. *t*-Statistics are reported for the null hypothesis of similar trends in each decade.

^b Variable definitions: schooling = years of schooling; actual experience = years worked full-time since age 18; hours worked = total hours worked during the year; labor force entrant = 1 if the individual did not work in year $t - 1$, but worked in year t ; labor force leaver = 1 if the individual worked in year t , but did not work in year $t + 1$; home time = potential experience (age - schooling - 6) minus actual experience (constrained to be ≥ 0); proportion married = the proportion of the sample that is married.

levels. In the 1980s, the number of female entrants falls and average experience levels increase (both in absolute terms and relative to men).

There is further evidence of greater female labor force attachment as the proportion of labor market leavers and average years of home time (defined as potential experience minus actual experience) declines in both decades. Also, as noted above, the proportion of female workers who are married increases in both decades as more married women enter the labor market.

One approach to test whether these human capital changes are sufficient to explain the differential 1970s and 1980s patterns of male-female wage convergence is to use wage functions to see if the interdecade difference is reduced when one controls for gender differences in human capital levels. In contrast to past literature such as Mincer and Polachek (1974) and Goldin and Polachek (1987), this paper concentrates not on wage levels, but on wage growth. To avoid errors of measurement problems alluded to by Freeman (1984) and Polachek, Wunnava, and Hutchens (1987), and explicitly documented in Ashenfelter and Krueger (1994) that can plague fixed-effect (FE) first-difference and mean deviation analyses, wage growth estimates are obtained by interacting a time trend with the gender variable in a pooled cross-section time-series earnings function.⁶ The coefficient of this gender-time trend interaction term measures the time rate of change of relative female-to-male wages holding constant individual demographic characteristics.

One possibility is to estimate piecewise linear regressions for the 1970s and 1980s, and compare the gender-time trend interactions. However, such an approach would allow an inherent discontinuity in the year 1980. To eliminate such a discontinuity, spline functions are fit with a knot at year 1980.⁷ The specification is

$$\ln W_{it} = \beta_0 + \beta_1 t + \beta_2 F_i + \beta_3 F_i \cdot t + \beta_4 X_{it} + \epsilon_{it} \quad (1)$$

where W_{it} is the hourly wage for person i in year t , F_i denotes person i being a woman, $F_i \cdot t$ is the interaction term, X_{it} is a vector of exogenous characteristics for person i in year t , and ϵ_{it} is a normally distributed error term with the usual properties.⁸ Assuming that the ϵ_{it} terms are not correlated across time, and F_i and X_{it} are uncorrelated with ϵ_{it} , then ordinary least squares can be used under the usual assumptions concerning ϵ_{it} .⁹ The resulting estimates for β_3 are given

⁶ Worker tenure, one variable often important in typical earnings functions, is intentionally omitted to avoid errors of measurement biases inherent in the PSID tenure variable (Topel 1991).

⁷ We also estimated the linear piecewise regressions and found similar results.

⁸ Another alternative to FE is to assume that the individual effects follow a random distribution. Such a model would be specified as in Equation 1 but with the addition of an individual-specific term μ_i , typically assumed to be normally distributed and correlated with at least one of the regressors. Estimating such an earnings function would entail generalized least squares estimation with instrumental variables for the regressors correlated with μ_i . Similarly, another concern is that the independent variables may be correlated with ϵ_{it} , indicating endogenous regressors. Numerous studies have argued that labor market experience and home time may be endogenous, and determined in part by a worker's wages. Clearly, the decision to become a labor market entrant depends on wage offers, and becoming a labor market leaver is likely to depend on current wages. The problem with using such estimation techniques is that the parameters vary widely depending on the instruments (Kim and Polachek 1994).

⁹ Optimally, we would like to test and possibly correct for serial correlation. However, given that the sample is restricted to full-time workers, many women have relatively few observations in consecutive years. These gaps in years limit our ability to test and correct for serial correlation. This is particularly true for intermittent workers, the group in which we are most interested.

Table 4. Annual Relative Female-to-Male Wage Growth^a

Row	Control Variables	Full-Time White Workers Ages 25-64, 1972-1988 Panel Study of Income Dynamics Spline Results ^b				<i>t</i> -stats	
		1972-1980		1980-1988			
1	F, t	0.14%	0.27% ^c	1.48%	1.39% ^c	2.93	2.45
2	F, t, s	0.26	0.41 ^c	1.35	1.29 ^c	2.54	2.04
3	F, t, s, p, p ²	0.39	0.55 ^c	1.38	1.31 ^c	2.32	1.79
4	F, t, s, p, p ² , hrs	0.54	0.68 ^c	1.38	1.31 ^c	2.05	1.54
5	F, t, s, a, a ² , hrs	0.59	0.72 ^c	1.24	1.20 ^c	1.61	1.20
6	F, t, s, a, a ² , hrs, H	0.52	0.66 ^c	1.12	1.10 ^c	1.51	1.09
7	F, t, s, a, a ² , hrs, H, E	0.54		1.06		1.30	
8	F, t, s, a, a ² , hrs, H, L	0.56		1.12		1.38	
9	F, t, s, a, a ² , hrs, H, E, L	0.58		1.06		1.20	
10	F, t, s, a, a ² , hrs, H, E, L, F·M	0.57		1.06		1.22	
11	F, t, s, a, a ² , hrs, H, E, L, P	0.57		1.04		1.17	
12	F, t, s, a, a ² , hrs, H, E, L, P, E·P	0.57		1.04		1.17	
13	F, t, s, a, a ² , hrs, H, E, L, P, F·M	0.58		1.02		1.09	
14	F, t, s, a, a ² , hrs, H, E, L, E·L	0.58		1.06		1.19	
15	F, t, s, a, a ² , hrs, H, E, L, E·L, F·M	0.57		1.05		1.21	
16	F, t, s, a, a ² , hrs, H, E, L, E·L, P	0.57		1.04		1.17	
17	F, t, s, a, a ² , hrs, H, E, L, E·L, P, E·P	0.57		1.04		1.17	
18	F, t, s, a, a ² , hrs, H, E, L, E·L, P, F·M	0.56		1.04		1.19	

Key: F = female; t = time trend; s = years schooling; p = potential experience (age - schooling - 6); p² = potential experience squared; hrs = hours worked per week; a = actual experience; a² = actual experience squared; E = labor force entrant; L = labor force leaver; P = continuous worker throughout the panel; M = a categorical variable, I denotes married; H = years of home time (p - a); F·M = interaction of female and marital status; E·P = whether a continuous worker after joining the panel; E·L = interaction of entrant and leaver.

^a Annual change in the wage gap; measured as the interaction of a time trend and a categorical variable denoting female in a pooled cross-section time-series earnings function. Wages are deflated by the consumer price index.

^b The two time periods are pooled and a single regression estimated that forces continuity at $t = 1980$. *t*-Statistics are reported for the null hypothesis that wage convergence is similar in each decade.

^c Annual change in the wage gap omitting labor market entrants and leavers from the sample.

in Table 4 for the various definitions of X as indicated.¹⁰ Table 4 also reports *t*-statistics to determine whether the interdecade trends in the wage gap are statistically different. The simplest specification (the one in which X is the empty set) is given in row 1. This is an estimate of the unadjusted time rate of change of female relative to male hourly wages in the two decades.

Adding human capital variables, as in rows 2 to 6 (columns 2 to 6 of Appendix Tables A and B), yields convergence rates adjusting for schooling and experience.¹¹ A detailed account of labor market entrants is contained in rows 7 to 18. Accordingly, row 2 presents an average convergence measure for individuals of the same schooling level, yielding 0.26% between 1972 and 1980, and 1.35% between 1980 and 1988; row 3 for individuals of the same potential

¹⁰ The complete coefficient set for all the variables is contained in Appendix Tables A and B. Each Appendix table column corresponds to the same row of Table 4 in the text. Thus in row 1 the 0.14% convergence of male-female wages is contained in column 1 of Appendix Table A.

¹¹ While we focus on experience acquired through full-time work and include a standard quadratic function in the specification, there are many alternatives. For example, Light and Ureta (1995) examine gender differences in early-career wage growth measuring experience through an array of variables denoting the fraction of time worked during each year. The authors find that estimated wage growth is greater for both men and women when using this detailed measure of work experience compared with quadratic functions of potential or actual work experience. We use experience measured in years because we do not have annual hours worked before 1971, only years of experience.

experience (age - schooling - 6), yielding 0.39% between 1972 and 1980, and 1.38% between 1980 and 1988; row 4 for individuals with the same hours worked, yielding 0.54% between 1972 and 1980, and 1.38% between 1980 and 1988.

The results in row 5 are for individuals with the same actual experience. The widening gap between male and female average experience levels in the 1970s suggests that controlling for experience should increase male-female wage convergence. Indeed, women's wages grow 0.59% between 1972 and 1980. Differences in male and female average experience narrowed in the 1980s, thus accounting for experience reduces the estimated male-female wage convergence to 1.24% between 1980 and 1988. Similar convergence rates (row 6) are found when, as in past segmented earnings function research (Mincer and Polachek 1974), potential work experience (p) is divided between years of actual experience (a) and home time (h).¹² One should note that the home time coefficient exhibits commonly found negative "atrophy" coefficients (Appendix Tables 1 and 2, column 6).

Explicitly adjusting for more detailed degrees of labor market intermittence, specifically whether the respondent works full-time in year t after being out of the workforce in year $t - 1$ (row 7), whether the respondent leaves in year $t + 1$ after working full-time in year t (row 8), and both joining and leaving combined (row 9), has an effect on convergence rates. These effects are over and above the effects captured by the usual human capital variables in rows 2 through 6, so that the additional "entrant" and "leaver" variables are picking up something more than past labor market experience.

Finally rows 10 through 18 take account of those who remained in the labor force each year between 1972 and 1988 (P), those who entered and immediately dropped out (E·L), and those who entered and worked through 1988 (E·P). A gender-marital status (F·M) interaction term, especially important in studies omitting actual experience, is also included.

A comparison of the 1970s and 1980s convergence rates is telling: When unadjusted rates are compared, women's relative wages unambiguously grow more quickly in the 1980s than in the 1970s (1.48% vs. 0.14% per annum). This difference falls as human capital variables are added to the specification. Holding schooling constant (row 2) reduces the differential from 1.34% (1.48 - 0.14) to 1.09% (1.35 - 0.26), adding potential experience (row 3) reduces the differential to 0.99%, whereas adding hours worked reduces the differential to 0.84%. Row 5 holds constant actual experience and indicates a 0.65% interdecade difference in male-female wage convergence for equally experienced men and women. When further accounting for individuals who enter or exit the labor force (row 9), the 1970s female relative wage growth (0.58%)¹³ is 0.48 percentage points below the 1980s wage growth (1.06%). Thus, accounting for human capital variables and identifying individuals who enter and exit the labor force explains 64% [(1.34 - 0.48)/1.34] of the interdecade difference in wage convergence.

Adding the marital status-gender interaction term, usually a strong determinant of male-female wage differences when using potential instead of actual experience, does little to narrow the interdecade difference. Similarly introducing the entrant-leaver (E·L) interaction term to account for new entrants who leave almost immediately (actually in the following year) and the

¹² Home time is defined as potential experience (age - schooling - 6) minus actual experience. Home time measures the total number of years an individual did not work since leaving school.

¹³ A t^2 term was included to adjust for potential nonlinearities in the overall time trend without significant change in the results.

E-P interaction term to account for those who enter and remain in the labor market in each subsequent year also has no effect on wage convergence.¹⁴

The spline results imply that interdecade differences in labor force experience, most likely coming about because of the rise in new labor market entrants, represent an important factor explaining the difference in male-female wage growth. One reason for decreased female relative experience in the 1970s is that relatively more women joined the labor market in the 1970s, thus lowering mean experience levels. However, the younger women entering the labor force in the 1970s tend to have greater work expectations, eventually leading to enhanced wages relative to men, whose lifetime labor force behavior is shrinking.

If the effects of labor market entrants are as important as indicated, then their effects should be discernable with other empirical tests. In what comes next, two alternative tests are presented. Test one reestimates the 1970s and 1980s spline regressions presented in Table 4, but eliminates individuals who enter or exit the labor force. If females who enter and exit the labor force disproportionately bring down women's wages, then eliminating them should yield a wage narrowing closer to that observed in the 1980s. This is done in the columns denoted by footnote b in Table 4. Indeed, omitting individuals who enter or exit the labor force yields convergence rates in rows 1 through 6 that explain an additional 12 to 16% of the 1970s and 1980s differential.¹⁵ These results also suggest that the effect of labor market entrants and leavers on trends in the wage gap is more than simply an "experience effect." For example, when including entrants or leavers, accounting for schooling, experience, hours, and home time (row 6) reduces the interdecade difference in relative wage growth to 0.60% (1.12 - 0.52). Excluding entrants and leavers reduces the difference to 0.44% (1.10 - 0.66).

Test two is more complicated. Many studies (e.g., Oaxaca 1973) predict female wages on the basis of the female wage structure and male characteristics, with the difference between women's actual wages and the predicted wage being the explained portion of the wage gap. Instead of comparing male and female wages, we use this approach to examine male and female wage growth by predicting 1970s wage growth on the basis of the 1970s wage structure and 1980s changes in characteristics. In essence, we determine what female relative wage growth would have been if workers in the 1970s behaved like workers in the 1980s.

To perform the test, we first estimate separate male and female spline regressions. The 1970s coefficients are reported in column 1 of Table 5. Next we determine how the 1970s changes in male and female characteristics in column (2) (from Table 3) contribute to actual wage growth (column 3). The contributions to wage growth are computed by multiplying each coefficient by the 1970s trend in the characteristic, and summing the variables' contributions to provide total male and female wage growth during the time frame. Consistent with the analysis above, the combined effect of labor market entrants and leavers is responsible for female wage growth falling 0.008% annually. Declining average experience results in a wage growth decline of 0.28% (-0.75 + 0.47) for women, and 0.31% for men. Women's wages increase 9.30% per year, whereas men's wages rise 8.99%, implying that the wage gap closes by 0.31% (9.30 - 8.99) annually between 1972 and 1980.

¹⁴ Sample selection issues may be important given women's lower labor force participation rates. Thus, we included selection controls for women's labor force participation. Two tests were performed, the first including selection controls for women's participation in the labor market and the second including selection controls for women's participation in the full-time labor market. The results were very similar to those reported in the text.

¹⁵ Entrants are eliminated in the year they join. No doubt eliminating them for a greater number of periods would explain more. However, at one point reentrants catch up (Mincer and Ofek 1982).

Table 5. 1970s Wage Growth with 1980s Annual Trends^a

	1972-1988 Panel Study of Income Dynamics, Full-Time White Workers Ages 25-64					
	1970s Coefficients (1)	1970s Trends (2)	Contribution to Wage Growth (3)	1980s Trends (4)	1970s Wage Growth with 1980s Trends (5)	Difference [(5) - (3)] (6)
Women						
Constant	0.3740			1		
Time trend	0.0909	1	0.0909		0.0909	0.0000
Schooling	0.0708	0.0506	0.0036	0.0889	0.0063	0.0027
Actual exp	0.0200	-0.3751	-0.0075	0.0966	0.0019	0.0094
Exp ²	-0.0003	-15.5	0.0047	1.76	-0.0005	-0.0005
Home time	-0.0046	-0.2356	0.0011	-0.1871	0.0009	-0.0002
Hours	-0.0109	-0.0299	0.0003	0.1974	-0.0022	-0.0025
Joiner	-0.3662	0.0001	-0.00004	-0.0014	0.0005	0.0005
Leaver	-0.1877	0.0002	-0.00004	-0.0012	0.0002	0.0003
Total			0.0930		0.0980	0.0050
Men						
Constant	0.7331					
Time trend	0.0847	1	0.0847	1	0.0847	0.0000
Schooling	0.0758	0.0700	0.0053	0.0681	0.0052	-0.0001
Actual exp	0.0409	-0.2715	-0.0111	-0.0247	-0.0010	0.0101
Exp ²	-0.0007	-11.4	0.0080	-3.48	0.0024	-0.0055
Home time	0.0008	-0.0487	-0.00004	-0.0044	-0.0000	0.00003
Hours	-0.0154	-0.2022	0.0031	0.1078	-0.0017	-0.0048
Joiner	-0.5111	0.0002	-0.0001	0.0004	-0.0002	-0.0001
Leaver	-0.4126	-0.0001	0.00004	0.0001	0.00004	-0.00008
Total			0.0899		0.0894	-0.0005

^a Column 2 is from Table 4; column 3 is computed as column 1 multiplied by column 2; column 4 is from Table 4; column 5 is column 4 multiplied by column 1; column 6 is computed as column 5 minus column 3. Totals may not match because of rounding.

For women, if it is true that new workers' low human capital values drive down wages in the 1970s, then greater wage growth would be observed if women of the 1970s were more like women of the 1980s. We predict what wage changes would occur if male and female characteristics were to change as they did in the 1980s. The 1980s trends in the characteristics are reported in column 4, with the variables' contribution to predicted wage growth in column 5. In the 1980s, since the number of labor market entrants and leavers is falling, instead of wages falling by 0.008%, wages would rise annually by about 0.07%. Increasing average experience would increase wage growth by 0.14 for women. If men and women behaved in the 1970s as they did in the 1980s, predicted wage growth would be 9.80% for women and 8.94% for men, implying a 0.86% closing of the wage gap.

The difference between the growth rates in columns 3 and 5 estimates how much more (or less) quickly wages would have risen in the 1970s were worker characteristics to change as they did in the 1980s. Combining the effects of each variable indicates that wages would rise 0.50% per year more quickly for women in the 1970s, but 0.05% per year more slowly for

men. Both equations together imply a 0.55% per year convergence of male–female wages. This is about 44% of 1.34% difference in the interdecade rates of convergence.¹⁶

6. Conclusions

The implications of this paper are clear: Female and male wage differences narrowed in the 1970s and 1980s. However, in the 1980s this narrowing far exceeded the narrowing in the 1970s, despite the more dramatic progress made by women in the 1960s and the 1970s compared with the 1980s regarding labor force attachment. The rapid number of new entrants driving down the growth of mean human capital values in the 1970s causes much of these interdecade differences. By eliminating these labor market entrants of the 1970s and by taking account of interdecade human capital changes, the difference in relative female-to-male wage growth is substantially reduced.

¹⁶ Reversing the process using the 1980s equations yields pretty much the same results. Applying the 1970s data to the male 1980s equation raises wage growth 0.10% per annum, but applying the 1970s data to the 1980s female equation lowers wage growth 0.54%. The net effect is a 0.64% per annum decline in male–female wage convergence. Forty-eight percent of the interdecade difference in convergence is explained.

Appendix A
1970s Regression Results

	1	2	3	4	5	6	7	8	9
Constant	1.419 (0.009)	0.6119 (0.019)	0.1337 (0.025)	0.7914 (0.029)	0.7611 (0.027)	0.8108 (0.028)	0.8208 (0.028)	0.8189 (0.028)	0.8275 (0.028)
Female	-0.4255 (0.019)	-0.4228 (0.018)	-0.4372 (0.018)	-0.5485 (0.016)	-0.4739 (0.017)	-0.4457 (0.018)	-0.4432 (0.018)	-0.4461 (0.018)	-0.4438 (0.018)
Time trend	0.0850 (0.002)	0.0833 (0.001)	0.0845 (0.001)	0.0820 (0.001)	0.0825 (0.001)	0.0825 (0.001)	0.0825 (0.001)	0.0825 (0.001)	0.0825 (0.001)
Female*	0.0014 (0.003)	0.0026 (0.003)	0.0039 (0.003)	0.0054 (0.003)	0.0059 (0.003)	0.0051 (0.003)	0.0054 (0.003)	0.0056 (0.003)	0.0058 (0.003)
Time trend		0.0641 (0.001)	0.0769 (0.001)	0.0781 (0.001)	0.0763 (0.001)	0.0736 (0.001)	0.0734 (0.001)	0.0734 (0.001)	0.0732 (0.001)
Schooling									
Potential experience			0.0256 (0.001)	0.0266 (0.001)					
Potential exp. sqrd.			-0.0004 (0.00002)	-0.0004 (0.00002)					
Actual experience					0.0358 (0.001)	0.0355 (0.001)	0.0344 (0.001)	0.0348 (0.001)	0.0339 (0.001)
Actual exp. sqrd.					-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)
Hours worked				-0.0146 (0.0003)	-0.0149 (0.0003)	-0.0150 (0.0003)	-0.0149 (0.0003)	-0.0151 (0.0003)	-0.0149 (0.0003)
Home time						-0.0037 (0.0007)	-0.0034 (0.0007)	-0.0034 (0.0007)	-0.0032 (0.0007)
Labor force entrant							-0.4104 (0.036)		
Labor force leaver								-0.3309 (0.031)	-0.3024 (0.031)

	10	11	12	13	14	15	16	17	18
Constant	0.8264 (0.028)	0.8228 (0.028)	0.8231 (0.028)	0.8376 (0.028)	0.8278 (0.028)	0.8266 (0.028)	0.8230 (0.028)	0.8234 (0.028)	0.8222 (0.028)
Female	-0.4486 (0.020)	-0.4349 (0.018)	-0.4348 (0.018)	-0.4385 (0.019)	-0.4435 (0.018)	-0.4483 (0.019)	-0.4347 (0.018)	-0.4345 (0.018)	-0.4385 (0.019)
Time trend	0.0825 (0.001)	0.0824 (0.001)	0.0824 (0.001)	0.0824 (0.001)	0.0825 (0.001)	0.0825 (0.001)	0.0824 (0.001)	0.0824 (0.001)	0.0824 (0.001)
Female*	0.0057 (0.003)	0.0057 (0.003)	0.0057 (0.003)	0.0058 (0.003)	0.0058 (0.003)	0.0057 (0.003)	0.0057 (0.003)	0.0057 (0.003)	0.0056 (0.003)
Time trend	0.0733 (0.001)	0.0728 (0.001)	0.0728 (0.001)	0.0731 (0.001)	0.0732 (0.001)	0.0732 (0.001)	0.0728 (0.001)	0.0728 (0.001)	0.0728 (0.001)
Schooling	0.0339 (0.001)	0.0326 (0.001)	0.0326 (0.001)	0.0333 (0.001)	0.0339 (0.001)	0.0339 (0.001)	0.0326 (0.001)	0.0325 (0.001)	0.0325 (0.001)
Actual experience	0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)	-0.0006 (0.00003)
Actual exp sqrd.	-0.0149 (0.0003)	-0.0150 (0.0003)	-0.0150 (0.0003)	-0.0151 (0.0003)	-0.0149 (0.0003)	-0.0149 (0.0003)	-0.0150 (0.0003)	-0.0150 (0.0003)	-0.0150 (0.0003)
Hours worked	-0.0031 (0.0007)	-0.0030 (0.0007)	-0.0029 (0.0007)	-0.0033 (0.0007)	-0.0032 (0.0006)	-0.0032 (0.0006)	-0.0030 (0.0006)	-0.0030 (0.0007)	-0.0030 (0.0007)
Home time	-0.3807 (0.036)	-0.3714 (0.036)	-0.3766 (0.036)	-0.3780 (0.036)	-0.3909 (0.038)	-0.3916 (0.038)	-0.3806 (0.038)	-0.3865 (0.038)	-0.3812 (0.038)
Labor force entrant	-0.3029 (0.031)	-0.2933 (0.031)	-0.2930 (0.031)	-0.3200 (0.031)	-0.3102 (0.032)	-0.3108 (0.032)	-0.3000 (0.032)	-0.3001 (0.032)	-0.3005 (0.032)
Labor force leaver	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0079 (0.014)	0.0062 (0.014)
Panel									
Female*									
Married									
Entrant*									
Panel									
Entrant*									
Leaver									

N = 24,177 for all regressions.

Appendix B
1980s Regression Results

	1	2	3	4	5	6	7	8	9
Constant	1.858 (0.020)	0.8275 (0.026)	0.4485 (0.029)	0.7914 (0.029)	0.8985 (0.029)	0.9912 (0.031)	0.9954 (0.030)	0.9987 (0.031)	1.002 (0.030)
Female	-0.5494 (0.045)	-0.5238 (0.042)	-0.5238 (0.041)	-0.5990 (0.040)	-0.5068 (0.039)	-0.4518 (0.039)	-0.4425 (0.040)	-0.4514 (0.040)	-0.4423 (0.040)
Time trend	0.0389 (0.002)	0.0373 (0.001)	0.0357 (0.001)	0.0377 (0.001)	0.0376 (0.001)	0.0382 (0.001)	0.0384 (0.001)	0.0380 (0.001)	0.0383 (0.001)
Female*	0.0148 (0.003)	0.0135 (0.003)	0.0138 (0.003)	0.0138 (0.003)	0.0123 (0.003)	0.0112 (0.003)	0.0106 (0.003)	0.0112 (0.003)	0.0106 (0.003)
Time trend		0.0785 (0.001)	0.0892 (0.001)	0.0913 (0.001)	0.0892 (0.001)	0.0842 (0.001)	0.0838 (0.001)	0.0841 (0.001)	0.0837 (0.001)
Schooling									
Potential experience			0.0207 (0.001)	0.0215 (0.001)					
Potential exp sqrd.			-0.0003 (0.00003)	-0.0003 (0.00003)					
Actual experience					0.0340 (0.001)	0.0329 (0.001)	0.0322 (0.001)	0.0325 (0.001)	0.0319 (0.001)
Actual exp sqrd.					-0.0006 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)
Hours worked				-0.0127 (0.0003)	-0.0132 (0.0003)	-0.0134 (0.0003)	-0.0133 (0.0003)	-0.0134 (0.0003)	-0.0133 (0.0003)
Hometime						-0.0078 (0.0006)	-0.0073 (0.0006)	-0.0077 (0.0006)	-0.0072 (0.0006)
Labor force entrant							-0.5247 (0.033)		-0.5113 (0.033)
Labor force leaver								-0.2325 (0.032)	-0.2004 (0.032)
R ²	0.9366	0.9440	0.9457	0.9494	0.9510	0.9512	0.9516	0.9514	0.9518

	10	11	12	13	14	15	16	17	18
Appendix B									
Extended									
Constant	1.001 (0.030)	1.023 (0.031)	1.023 (0.031)	1.124 (0.033)	1.003 (0.030)	1.002 (0.030)	1.024 (0.031)	1.024 (0.031)	1.024 (0.031)
Female	-0.4437 (0.040)	-0.4332 (0.039)	-0.4332 (0.039)	-0.4287 (0.040)	-0.4416 (0.040)	-0.4432 (0.040)	-0.4326 (0.039)	-0.4326 (0.039)	-0.4312 (0.040)
Time trend	0.0382 (0.001)	0.0387 (0.001)	0.0387 (0.001)	0.0308 (0.001)	0.0383 (0.001)	0.0383 (0.001)	0.0387 (0.001)	0.0387 (0.001)	0.0387 (0.001)
Female*	0.0106 (0.003)	0.0104 (0.003)	0.0104 (0.003)	0.0102 (0.003)	0.0106 (0.003)	0.0105 (0.003)	0.0104 (0.003)	0.0104 (0.003)	0.0104 (0.003)
Time trend	0.0837 (0.001)	0.0827 (0.001)	0.0827 (0.001)	0.0832 (0.001)	0.0837 (0.001)	0.0837 (0.001)	0.0827 (0.001)	0.0827 (0.001)	0.0827 (0.001)
Schooling	0.0319 (0.001)	0.0290 (0.001)	0.0290 (0.001)	0.0296 (0.001)	0.0319 (0.001)	0.0319 (0.001)	0.0290 (0.001)	0.0290 (0.001)	0.0290 (0.001)
Actual experience	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)	-0.0005 (0.00003)
Actual exp sqrd.	-0.0133 (0.0003)	-0.0133 (0.0003)	-0.0133 (0.0003)	-0.0132 (0.0003)	-0.0133 (0.0003)	-0.0133 (0.0003)	-0.0133 (0.0003)	-0.0133 (0.0003)	-0.0133 (0.0003)
Hours worked	-0.0072 (0.0006)	-0.0077 (0.0006)	-0.0077 (0.0006)	-0.0076 (0.0006)	-0.0072 (0.0006)	-0.0072 (0.0006)	-0.0077 (0.0006)	-0.0077 (0.0006)	-0.0077 (0.0006)
Home time	-0.5114 (0.033)	-0.5012 (0.033)	-0.5011 (0.033)	-0.5015 (0.033)	-0.5289 (0.035)	-0.5290 (0.035)	-0.5175 (0.035)	-0.5175 (0.035)	-0.5174 (0.035)
Labor force entrant	-0.2004 (0.032)	-0.1832 (0.032)	-0.1833 (0.032)	-0.1886 (0.032)	-0.2169 (0.033)	-0.2170 (0.033)	-0.1986 (0.033)	-0.1986 (0.033)	-0.1985 (0.033)
Labor force leaver	0.0537 (0.008)	0.0536 (0.008)	0.0536 (0.008)	0.0494 (0.008)	0.0494 (0.008)	0.0494 (0.008)	0.0534 (0.008)	0.0534 (0.008)	0.0535 (0.008)
Female*	0.0022 (0.012)			0.0004 (0.012)		0.0025 (0.012)			-0.0022 (0.012)
Married									
Entrant* Panel					0.2391 (0.127)	0.2395 (0.127)	0.2209 (0.127)	0.2209 (0.127)	0.2205 (0.127)
Entrant* Leaver					0.9518	0.9518	0.9518	0.9518	0.9518
R ²	0.9518	0.9518	0.9518	0.9518	0.9518	0.9518	0.9518	0.9518	0.9518

N = 29,086 for all regressions.

Appendix C: Data

This study uses the PSID family data because it is one of the few data sets containing wage, experience, and demographic information for comparably aged men and women over the 1970s and 1980s. The sample consists of male and female heads of household and spouses from 1972 to 1989. By using the family sample, we require sample members to be part of the survey in 1989; however, individuals may enter the survey and become part of our sample in any year between 1972 and 1988.

Wages and hours worked per week in year t were defined on the basis of the PSID variables, average hourly earnings, and total hours worked reported in the following year. Thus wages for 1988 were reported in the 1989 wave. This is a wage already computed in the data set on the basis of labor income consisting of wage income, farm income, business income, bonuses overtime and commissions, earnings from professional practice and trade, earnings from gardening, and roomers and boarders divided by total actual hours worked in the same year. Individuals are deleted from the sample if their real wage (in 1983 dollars) is less than \$1.50. Hours worked per week is computed as total annual hours worked divided by 52.

Workers are distinguished between those who worked in every period from 1972 through 1988 (denoted in the data set as $P = 1$) and those who did not work in every year from 1972 through 1988 ($P = 0$). Workers in any year who joined the work force (worked in year t but not $t - 1$) are denoted as joiners ($J = 1$) and those who worked in year t but not in year $t + 1$ are denoted as leavers ($L = 1$).

Potential experience is measured as age minus schooling minus six. Data on actual experience is not collected regularly by the PSID; however, in 1974 all respondents were asked the number of years worked full-time since age 18. After 1974 it is computed in each year for continuing sample members by augmenting experience by whether one worked full-time (at least 1500 hours) in the previous year. Experience for 1972 and 1973 is computed by subtracting from 1974 experience. New heads of households and wives are asked to report years of experience in the year they become a new head of household or wife. Thus, new heads of household or wives after 1974 were asked their level of experience when they entered the panel. Home time is measured as potential experience minus actual experience.

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