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ABSTRACT

Gender Inequality in the Labor Market: Continuing Progress?*

This article examines the trends in women's economic outcomes in the United States focusing primarily on labor force participation, occupational attainment, and the gender wage gap. The author first highlights considerable progress on all dimensions prior to the 1990s followed by a slowing or stalling of gains thereafter, with a plateauing of female labor force participation trends and a slowing of women's occupational and wage convergence with men. She considers the likelihood of a resumption of progress in narrowing gender gaps in these areas, concluding it is unlikely without policy intervention. She then considers some new policy initiatives addressing work-family issues and labor market discrimination that may hold potential for increasing female labor force participation and narrowing gender inequities in the labor market.

JEL Classification: J16, J18, J21, J24, J31, J48, J71

Keywords: gender wage gap, gender, female labor force participation, occupational segregation, labor market discrimination, labor market policy

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Introduction

For a half century after World War II, U.S. women increased their participation in the labor market. Beginning in the 1970s, these labor force gains were accompanied by advancements in women's occupational attainment relative to men and, in the 1980s, the long-standing gender pay gap started to close. However, beginning in the 1990s, the female labor force participation rate began to plateau, and occupational and relative wage gains also slowed. The U.S. went from being a leader in female labor force participation rates among economically advanced nations, to having one of the lowest rates, and it continues to have one of the larger gender pay gaps. In this paper, I examine these developments and consider future prospects, including the importance of policies that might restore progress in increasing female labor force participation and narrowing gender inequities in the labor market. I also explain why I see further significant progress as unlikely without policy intervention.

In this consideration of women's economic progress, I focus mainly on two dimensions of attainment: women's participation in the labor market on the one hand and their relative labor market status, as measured by occupations and wages, on the other hand. Increases in women's labor force participation are crucial because they contribute to fundamental change in gender roles—a movement away from the traditional familial model of breadwinner husband and homemaker wife towards a model that incorporates two earners. As women become more continuously attached to the labor market, and as young women increasingly anticipate this, women's incentives to invest in education and training are enhanced and they are better able to pursue rewarding careers. At the same time, the rationale for statistical discrimination against women by employers diminishes. Thus, shifts in labor force participation may be considered a

fundamental engine of change in gender roles and women's economic outcomes. Another crucial driver of change is educational attainment and female gains have been significant in this area as well. In the interests of space, I do not delve as deeply into the education trends, but rather briefly summarize them. Women's occupational attainment and the gender pay gap are important as useful measures of women's labor market success and the extent of diminution in gender inequality in the labor market.

The focus of this paper is primarily on women as a group and how they fare compared to men. However, there are of course differences among women by education, race, ethnicity, immigrant status, etc., which may have important impacts on outcomes and trends (see, e.g., Blau and Winkler (2022) for data and references). Individuals also differ in terms of their sexual orientation and gender identity, which may also have important impacts (e.g., Carpenter, Eppink, and Gonzales 2020). Unfortunately, it is not possible in a review paper of this nature to do justice to this variation. However, a considerable literature charts a growing education divide in the U.S. between more and less educated individuals, among both women and men. I briefly note some of these differences and their implications for policy.[1]

The transformation in gender roles in the U.S. that occurred in the post-WWII period was all the more striking because it was the result, not of dramatic social upheavals, but rather of steady incremental and mutually reinforcing gains across many dimensions spanning labor force participation, educational attainment, occupational distribution, and wages. This is what Claudia Goldin has called a "quiet revolution" (Goldin 2006) and Ralph Smith (Smith 1979) a "subtle

[1] For fuller consideration on the impact of education as it affects work and family issues, see Blau and Winkler (2018).

revolution." Cumulatively these incremental changes have indeed been revolutionary. But if this may be viewed as a revolution, it is an unfinished revolution. Inequities and important gender differences remain and, unfortunately, while there have been some gains since the 1990s, as I noted at the outset, progress has notably slowed or stalled across multiple dimensions since then.[2]

Labor Force Participation

Long-run trends in female labor force participation in the United States are summarized in Figure 1. As the figure shows, female labor force participation rose steadily for nearly a half century after World War II before plateauing and even declining a bit beginning in the mid-1990s. Nonetheless, gains over the period as a whole were substantial, with women's participation rate increasing from 32 percent in 1947 to 57 percent in 2022. The *gender gap* in participation rates has been further reduced by the steady decline in male participation rates since the 1950s that may also be seen in the figure. In 1947, the male participation rate was fully 55 percentage points higher than the female rate, whereas by 2022 it was only 11 percentage points higher. As noted, in addition to plateauing in the 1990s, the figure shows some small decreases in female participation rates in recent years. These do not appear to represent the beginning of long-term declines, however, in that they parallel similar decreases among men and likely reflect the impact of the Great Recession and its aftermath, the COVID crisis, and the aging of the baby boom generation (Blau and Winkler 2022, Chapter 6).

[2] For an excellent summary of this slowing or stalling in the U.S., see England, Levine, and Mishel (2020). See Rubery (2015), for a discussion of the impact of austerity policies implemented in Europe after the financial crisis on the prospects for gender equality in Europe.

Some indication of the shift in the role of market work in women's lives that drove the long-term increases in female labor force participation may be gleaned from Figure 2, which shows female participation rates by age for 1940 and 2022. As may be seen in the figure, in 1940, the typical female worker was young and single. Married women and those with children tended not to participate in the labor force. Substantial changes occurred thereafter. Between 1940 and 1960, older married women with school-age or grown children began to enter or reenter the labor force in increasing numbers, while little change occurred in the labor force participation rates of women between the ages of 20 and 34, who were more likely to have preschool-age children at home. Between 1960 and 1980, female participation rates increased for all age groups. However, particularly notable was the increase in participation rates for women aged 20 to 34, which had not previously risen. This rise in part reflected declines in the birth rate and increases in the divorce rate, but most notable was the large increase in the participation rates of mothers with small children (under age 6). Between 1980 and 2000, there were further increases in labor force participation for all age groups of women 20 and over, further solidifying these gains. However, between 2000 and 2022, there was little evidence of further participation increases for any age group, as the overall increase in female labor force participation stalled.[3]

Nonetheless, as may be seen by comparing the 1940 and 2022 lines in the figure for women, when we take the period as a whole the shift in participation patterns by age has been dramatic and represents a fundamental change in gender roles. Today, the majority of women engage in market work throughout the life cycle, including those who are married or the mothers of small children. As one example, in 1960, only 19 percent of married women with a child under 6 worked outside the home; by 2018 this was true of 62 percent (Blau and Winkler 2022, p. 124).

[3] This summary draws on Blau and Winkler (2022), Ch 5, especially Figure 5-3, p. 97.

This increase in women's labor force attachment over the life cycle, and the anticipation of it, is an important factor in the rise of women's educational levels, as well as their gains in occupational attainment and wages relative to men. However, as seen in Figure 2, the increases in female participation have stopped far short of parity with men, particularly in the prime working years, 25-54.

A final point to note is that, in my work with Lawrence Kahn, we found that between 1980 and 2000, married women's wage and income elasticities declined substantially in magnitude (Blau and Kahn 2007). These elasticities measure the responsiveness of labor supply to the wage one could earn in the labor market and the level of income available from nonlabor sources, principally spouse's income. Traditionally, married men's wage elasticities were close to zero, while married women's elasticities were much larger in magnitude. This reflected women's status as secondary workers in the family—more likely than men to move in and out of the labor force as their labor market opportunities and family circumstances changed. Thus, the decrease in women's elasticities is of significance in that it has brought female elasticities closer to male elasticities, and, though a gender difference remains, this may be interpreted as an indicator that women are coming to more closely approximate men in terms of the role that market work plays in their lives (Goldin 2006; Blau and Kahn 2007).

A variety of factors have played a role in this major social development that transformed women's work roles, both here and abroad. One set of factors reflect women being drawn into the labor force by rising market opportunities and wages. This was driven in part by fundamental changes in the structure of the economy that favored the white collar and service occupations where women tend to be employed and the service industries where they are concentrated. There were also female gains in traditionally male occupations like law and medicine, due to the rising

educational attainment, labor force attachment, and skills of women as well as anti-discrimination laws and changes in social attitudes. Building on early analysis by Jacob Mincer (1962), numerous studies have continued to find that rising real wages (an indicator of market opportunities) for women have played a major role in explaining the rise in married women's labor force participation. The substitution effect leads women to substitute market time for nonmarket activities as female wages rise. This positive response of female participation to increases in female wages more than outweighed the negative income effect from increases in husbands' incomes that occurred during periods of rising male wages.[4] Moreover, during the 1970s and 1980s, husbands' real incomes stagnated overall and declined for less educated men. However, while unfavorable wage trends for men contributed to increases in women's labor force participation during this period, rising female wages continuing to play the more important role (Juhn and Murphy 1997; Blau and Kahn 2007).

Since 1980, there has been a substantial increase in wage inequality, which was associated with rising returns to skill (e.g., Autor, Katz and Kearney 2008). This is one reason why there has been a growing gap, among both women and men, between the labor force participation rates of college educated individuals and those with a high school education or less Blau and Winkler 2022, Figure 6-6, p. 130). For women, this has meant that increases in labor force participation rates for college-educated women were considerably larger than their less educated counterparts. For example, between 1970 and 2019, female participation rates increased from 60.8 to 81.4 percent (4 or more years of college) and from 51.0 to 73.3 percent (1-3 years of college) compared to from 51.3 to 63.3 percent (4 years of high school) and only from 43.0 to 44.7 percent (less than 4 years of high school). A similar development occurred among men,

[4] See, e.g., Blau and Kahn (2007) and references therein.

where the participation rates of more educated men also rose relative to their less educated counterparts, in this case reflecting more rapid *decreases* in participation rates for the less-educated groups. Since individuals tend to marry people with similar education levels, the adverse wage and participation trends for less educated men and women imply negative relative income trends for married-couple families headed by less educated individuals. Moreover, the declining economic fortunes of less educated men have contributed to a larger decline in marriage among those with less education compared to the more highly educated and a corresponding rise in single female headed families that tend to face greater economic challenges than their married couple counterparts (Blau and Winker 2018; Kearney 2023).

Another set of factors contributing to the rise in women's participation is related to the decline in the value of women's time in the home. This reflected demographic changes, including declining and more predictable fertility, in part due to the growing availability of contraception, and decreasing marriage rates as divorce rates increased and births outside of marriage became more common. Technological changes made housework less onerous and time consuming and substitutes for home production were increasingly available in the market.[5]

There also seems to be an important role for shifts in preferences and other unmeasured factors. Studies focused on conventional measurable factors (wages, nonlabor or husband's income, education, and demographic variables) for periods of rapid increase in female participation rates (i.e., prior to the 1990s) generally find that measured variables, including the key own wage and husband's income variables, cannot fully explain the observed increases.[6] Cotter, Hermsen, and Vanneman (2011) and Fortin (2015) provide some evidence on attitudes—

[5] See Blau and Winkler (2022) for a fuller discussion of the participation trends and references to relevant studies.

[6] See Blau and Kahn (2007) and references therein.

with gender role attitudes becoming more progressive hand in hand with increases in women's labor force participation, although establishing causation in this relationship is challenging, since people may adjust their attitudes in light of their labor force behavior and outcomes as well as vice versa.

In light of the plateauing of growth in women's labor force participation, we may ask, why has progress stalled? And, what are the prospects for a resumption of progress in the near future? The stalling of the growth in female labor force participation in the U.S. is puzzling to the extent that the past increases appear to have been driven by fundamental factors—like rising market opportunities and wages for women, declining fertility rates, and the greater availability of market substitutes for time in the home. To the extent that these fundamental shifts continued, we would have expected the increases in female participation to continue. And, indeed, as discussed below, female participation rates have continued to rise in other economically developed countries. While factors have been identified that may account for some of the slowdown, they seem unlikely to account for all of it, especially given that the U.S. experience seems to be an outlier internationally. For example, it has been found that husbands' income growth improved in the 1990s and early 2000s relative to the 1980s. But this appears to have played only a small role in explaining wives' slowdown in participation growth (Blau and Kahn 2007). Another factor is a rise in the cost of children since the 1990s, which may have discouraged further increases in mothers' participation rates. For example, the cost of childcare has been increasing and it has been argued too that social norms have moved in the direction of parents, especially well-educated ones, spending more time caring for young children (Kuziemko, Pan, Shen, Washington, 2018; Miller 2018b). A further possible factor relates to gender role attitudes: there has been little change in gender role attitudes since the mid-1990s,

the period when women's labor force participation rates began to plateau (Cotter, Hermsen, and Vanneman 2011; Fortin 2015). It is possible that the lack of further changes in gender role attitudes contributed to the plateauing of growth in women's labor force participation, although the lack of movement in attitudes may itself be due, at least in part, to the flatlining of the participation trends.

While these factors may have played a role, in assessing the reasons for the stagnation as well as the prospects for renewed increase, it is instructive to look at the experience in other countries. As I noted earlier, the U.S. has gone from a leader in female labor force participation rates among economically advanced countries to a laggard. Indeed, my research with Lawrence Kahn found that the U.S. experience contrasts with many other countries, where participation rates continued increasing—in 1990 the U.S. ranked 6 out of 22 OECD countries in female participation rates; by 2010 it ranked 17th (Blau and Kahn 2013). Family friendly policies (parental leave, right to part-time employment, childcare) in these other countries were considerably more generous, on average, than in the U.S. and we found that, over this period, these other countries expanded such policies further compared to the U.S. In our analysis, this expansion of family friendly policies explained a substantial share of the decline in participation in the U.S. compared to the other countries. Putting this somewhat differently, our analysis suggests that the U.S. female labor force participation would have increased more over this period if we had expanded the generosity of our family friendly policies (see also, Olivetti and Petrongolo 2017).

While we have been focusing on labor force participation rates, another dimension of labor supply worth considering is hours worked among the employed. Here there have also been some interesting trends with potential implications for women's employment outcomes and

family wellbeing. Moreover, we again see considerable divergence by education. Working hours of employed workers have increased for higher skilled workers—those with four or more years of college—but declined for workers with less than a high school education (Jacobs and Gerson 2004; Kuhn and Lozano 2008). However, both groups face challenges and constraints in obtaining their preferred hours configurations.

At the higher skill levels, long hours (50+ hours per week) work has become more prevalent. Such arrangements are particularly widespread and rewarded in law and management jobs (Goldin 2014; Boushey and Ansel 2016a). Given that women still tend to be responsible for more childcare and housework than men, they would on average find long hours work less desirable. This may have consequences for occupation and earnings gaps between women and men (as discussed below) but the inability to obtain preferred hours may also influence women's labor force participation decisions and contribute to the slowing growth of female labor force participation. Consistent with this, Cha (2013) found that mothers were more likely to leave predominantly male occupations when they had been working 50 hours or more per week but that this was not the case for men or for women who did not have children present. Moreover, she found that mothers tended to respond by exiting the labor force rather than moving to another occupation.

Lack of flexibility is an even greater problem for less skilled/less educated workers. The Council of Economic Advisors (2014) reports that the incidence of flexibility in the scheduling of hours is considerably less for high school graduates and those with less than high school than for workers with some college and college graduates. Low wage workers, who tend to be disproportionately female, tend to face rigid schedules—schedules determined primarily at the discretion of employers. In addition, for this group, unpredictable schedules constitute a major

concern. As Anne Winkler and I (Blau and Winkler 2018, pp. 413-414) note "Workers are often required to be available at a moment's notice, what has been referred to as 'open availability' or 'just in time' scheduling, so that the firm can avoid the costs associated with overstaffing. Workers may also be sent home earlier than expected when demand is slow, a practice that also leads to irregular shifts and unpredictable earnings." It has also been found that when low-wage workers request greater flexibility they are often offered shorter hours instead (Willaims, Blair-Loy, and Berdahl 2013; and Boushey and Ansel 2016b). [7] Issues with rigid or unpredictable schedules could deter labor force participation and may play a role in the especially slow participation growth of less educated workers I noted earlier.

Educational Attainment

Another important driver of change in women's labor market status is the impressive gains they have made in educational attainment. I briefly note them here. As may be seen in Figure 3, traditionally, men were considerably more likely than women to get a college education or an advanced degree. For example, in 1960 and 1970, young women received only about 40 percent of bachelor's degrees. This meant that men in the labor force were on average better educated than women. However, by 1980, young women had caught up to young men in college graduation rates, and in subsequent years began to surpass them. Hence, the situation has now completely reversed and young women are now substantially more likely than young men to get a college education or an advanced degree. Since about 2000, women have been receiving about 57-58 percent of bachelor's degrees. Women now also have the edge in advanced degrees as well. Particularly notable is that women now receive over half of first professional degrees, up

[7] This section draws on Blau and Winkler (2018); see additional discussion and references therein.

from just 3 percent in 1960. (First professional degrees are those awarded in post-college professional training programs, including medicine, law, dentistry, pharmacy, veterinary medicine, and theology). For example, women now receive half of medical degrees and 52 percent of law degrees, as well as 49 percent of master's degrees in business.[8] As these cohorts in which women are more highly educated than men entered the labor force, the balance has shifted and women are now more highly educated than men in the labor force as a whole (Blau and Kahn 2017).

These increases in women's relative educational attainment, including their gains in professional training in traditionally male fields like management, law, and medicine, have contributed to the narrowing of occupational differences between men and women and the decrease in the gender pay gap discussed below. Nonetheless, important gender differences remain when we consider fields of study (Blau and Winkler 2022). These are particularly pronounced in the Science, Technology, and Math (STEM) fields, mirroring and contributing to the continued occupational differences we observe in these areas.

It is unlikely that further increases in educational attainment of women can play much role in advancing women's participation or labor market status in the future. It is the case that as older cohorts in which men have an educational advantage continue to be replaced by younger cohorts in which women are better educated than men, some further increases in women's relative educational attainment in the labor market will occur. But now that women are the majority of college students and those receiving advanced degrees, we would not expect to see proportion women comprise of new graduates rise much further—indeed the current gender

[8] The Department of Education includes master's degrees in business under master's degrees rather than first professional degrees.

imbalance already constitutes a legitimate source of concern regarding men's economic status (Autor and Wasserman 2013; Reeves 2022). Gains in further reducing women's underrepresentation in predominantly male areas like STEM would be welcome, but the scope for such changes may be limited in that they have thus far proved quite stubborn.

Occupational Attainment

As in the case of labor force participation, there has been considerable progress in narrowing occupational differences between women and men, although this progress has also slowed considerably in recent years. The gains for the 1970-2023 period as a whole are illustrated in Figures 4 and 5, which show the distribution of women and men across major occupational categories in 1970 and 2023. Figure 4 presents the picture in 1970. We see that, compared to men, women were overrepresented in clerical/administrative and service jobs and underrepresented in managerial and blue-collar occupations, particularly "other manual" or nonproduction manual jobs.[9] Women were also slightly overrepresented in professional jobs, but there was a lot of segregation of women and men by detailed occupation within this category, with women concentrated in lower-paying, traditionally female professions. By 2023, as shown in Figure 5, women had substantially upgraded their occupational attainment, increasing their representation in managerial jobs—virtually eliminating the gender difference in representation in this category, and greatly increasing their overrepresentation in professional jobs relative to men. They substantially reduced their concentration in clerical/administrative positions, and, while they remained overrepresented in such jobs, the gender gap in clerical/administrative employment was noticeably reduced. These gains are indicative of considerable advances for

[9] The "other manual" category in the chart combines the following categories: construction and extraction occupations; installation, maintenance, and repair occupations; and transportation and material moving occupations. The small share of male and female workers in farming, fishing, and forestry occupations have been omitted from Figures 4 and 5.

women in the labor market, although it is important to note that glass ceilings (the underrepresentation of women at the highest levels) remained (e.g., Blau and Lynch forthcoming). And, while women made considerable inroads into traditional male professions like law and medicine, segregation within the professional category, was still prevalent, with women remaining overrepresented in traditionally female jobs like preschool and elementary school teacher and nurse and underrepresented in predominantly male STEM occupations, including engineering and some of the sciences. There was also virtually no increase in women's relative representation in traditionally male blue-collar jobs.

While, overall, women upgraded their occupational attainment, shifts in the occupational picture were less favorable for men. Men did increase their concentration in managerial and professional jobs (although not to the extent women did), but they lost high-paying production jobs and increased their representation in service jobs that tend to be lower paying.[10]

While women's occupational gains were substantial over the 1970-2023 period taken as a whole, the temporal pattern of the female occupational gains mirrors that of the growth in female participation rates, with a slowing of progress in recent decades. To see this, it is useful to have a summary measure of occupational segregation (i.e., the tendency of women and men to work in different occupations). One such measure is the Index of Segregation (Duncan and Duncan 1955). The Index ranges between 0 (no segregation) and 100 (complete segregation) and gives the proportion of women (or men) who would have to change occupations for the occupational distribution of the two groups to be the same. It is based on the over 500 detailed occupations for which the government provides data so it is also a more sensitive indicator than the major occupation breakdown shown in Figures 4 and 5. Results from numerous studies provide

[10] See Autor and Wasserman (2013) for a fuller discussion of the male trends.

convincing evidence that the degree of occupational segregation by sex was substantial and largely constant (at well over 60 percent) from 1900 to 1970 (e.g., Jacobs 1989; and Blau and Hendricks, 1979). However, as may be seen in Figure 6, drawn from my work with Peter Brummund and Albert Liu (Blau, Brummund and Liu 2013), beginning in 1970, the Index began to fall, but at a diminished pace with each successive decade and virtually plateauing in the first decade of the 2000s.[11] And, while the cumulative reduction of nearly 14 percentage points in the segregation index between 1970 and 2009 constitutes substantial change, the remaining level of occupational segregation remains high at 51 percent.

What are the prospects for further decreases in occupational segregation without new policy initiatives? I do not see them as very good since further change would require changes in areas which thus far have not changed much. We would need to bring more women into STEM fields and, although we have seen important change, progress remains slow. The same is the case for moving women up the hierarchy in management and other areas. Moreover, the major factor causing changes in sex composition of occupations up to this point has been the movement of women into formerly predominantly male jobs, particularly white-collar professional and managerial occupations. There has been little reverse movement of men into traditionally female jobs and, given that "female" jobs tend to pay less for workers with similar characteristics, it seems unlikely that much such movement will occur in the future. There has also been little progress in bringing less educated women into traditionally male blue-collar occupations and it would be necessary to do so to see further substantial decreases in segregation.

As in the other areas we have considered, policy intervention could make a difference in the occupational arena. Work-family issues may contribute to women's lower representation in some

[11] The data in the figure are for the 2000 census occupational classification system and a comparable set of occupations in each of the years. For similar results, see also, for example, England, Levine, and Mishel (2020).

occupations suggesting that more generous leave policies and greater availability and subsidy of childcare and pre-kindergarten programs could facilitate women's access.

The structure of the jobs themselves may also be a factor. Of particular note is that long hours are de facto required or heavily incentivized in some jobs (Goldin 2014, Cha and Weeden, 2014, Cha 2013). Goldin (2014) proposes a link between occupations that demand long hours and a gender gap in wages within such jobs. Since there are differences across workplaces in the value of long hours a compensating differential will result, with workers willing to provide longer hours or cover certain time periods receiving a wage premium. Due to the continued imbalance in the gender division of labor in the household, women are more likely than men to value flexibility and hence to incur a wage penalty relative to men. She finds this to be particularly the case in a number of highly skilled occupations like law and management.[12] While Goldin focuses on within occupation pay gaps, it seems plausible that the requirement of long hours in an occupation may also contribute to occupational segregation as women, particularly mothers or those who would like to have children, may avoid such jobs.[13] It is unclear how feasible or likely the restructuring of occupations to reduce long hours may be; we consider this issue further in our discussion of policy below. Here we note that the expansion of remote work with the COVID pandemic has likely increased flexibility and it may be possible to build further on this. However, the option to work remotely tends to be more available to for highly educated workers than for their less educated counterparts.

[12] For an empirical analysis of the impact of long hours on trends in the gender wage gap, see Cha and Weeden (2014).

[13] Consistent with this, as noted earlier, Cha (2013) found that mothers were more likely to leave predominantly male occupations when they had been working 50 hours or more per week but that this was not the case for men or for women who did not have children present.

Discrimination likely still plays a role in reducing women's access to certain areas. Such discrimination may take the form of overt, conscious actions, but is increasingly likely to be covert and even unconscious. Such subtle discrimination may pose a particular challenge to our anti-discrimination laws and regulations. I discuss this issue further below.

The Gender Pay Gap

Figure 7 shows the long-run trends in the gender pay gap over the 1956-23 period based on published on the median annual earnings of full-time, year-round workers. The trends tell a by now familiar story of great early progress that has slowed in recent decades. After many years with a stable female/male earnings ratio of roughly 60 percent, women's relative wages began to rise sharply in the 1980s, with a continued, but slower and more uneven rate of increase thereafter. But, again, the progress over the period taken as a whole has been substantial; by 2023, women full-time, year-round workers earned 83% of what men did.

To better understand the sources of the narrowing of the gender wage gap, it is helpful to look at the contribution of various measured factors to the gap across time. To do this, I draw on my work with Lawrence Kahn (Blau and Kahn 2017). We analyzed data from the PSID, which provides information on actual labor market experience (a crucial variable in gender analyses) for the full age range of the population. We focused on full-time workers and those with substantial labor force attachment (worked 26+ weeks) over the year in order to identify female and male workers with fairly similar levels of labor market commitment.

Some of our results are summarized in Figure 8, which uses regression techniques to adjust for gender differences in measured characteristics.[14] The Figure shows female to male log

[14] These are commonly referred to as Oaxaca-Blinder decompositions—see Blau and Kahn (2017) for further explanation.

wage ratios (i) unadjusted for characteristics, (ii) adjusted for human capital variables (i.e., education and experience) as well as other standard controls for race/ethnicity, region, and residence in a metropolitan area—the "human capital" specification[15] and (iii) additionally adjusted for occupation, industry, and collective bargaining coverage—the "full" specification.[16] The results for the unadjusted ratios in Figure 8 mirror the trends from the published data, showing a large increase in the female/male wage ratio over the 1980s, with continued but smaller gains in subsequent decades. Over the 1980-2010 period as a whole, the unadjusted ratio increased substantially from 62.1 to 79.3 percent. The adjusted ratios also rose considerably, from 71.1 to 82.1 percent in the human capital specification and from 79.4 to 91.6 percent in the full specification. However virtually all of these gains in the adjusted gaps occurred in the 1980s. This means that, while a reduction in the residual or unexplained gap (i.e., the portion of the gap that is not accounted for by gender differences in measured characteristics) played an important role in the narrowing of the gender wage gap over the 1980s, it has not been a factor since then.

Figure 8 also indicates that the difference between the human-capital adjusted ratio and the unadjusted ratio fell dramatically over the 1980-2010 period, reflecting women's increasing human capital levels relative to men's. In 1980, adjusting for the human capital variables (and the other variables included in this specification) raised the ratio from 62 to 71 percent, suggesting a substantial role for gender differences in human capital (especially labor market

[15] Specifically, the underlying regressions control for years of education, plus dummy variables for having exactly a bachelor's degree and an advanced degree; measures of both full-time and part-time labor-market experience and their squares; race and ethnicity using four mutually exclusive categories: white non-Hispanic (the excluded category), black non-Hispanic, other non-Hispanic, and Hispanic; dummies for three of the four census regions, and a dummy for residence in a metropolitan area.

[16] The underlying regressions additionally control for a series of fourteen industry and twenty occupation dummy variables, government employment, and a collective-bargaining coverage dummy.

experience) in explaining the gap at that time. By 2010, the human capital variables explained very little of the gender wage gap: the unadjusted ratio was 79% compared to the adjusted ratio of 82%. Our full analysis in Blau and Kahn (2017) indicates that this result represents to some extent countervailing factors: women are now *better* educated than men but they continue to lag (slightly) in actual labor market experience. But, again, human capital factors taken together explain little of the gap.

In the full specification, the adjusted ratio was considerably higher than in the human capital specification in both 1980 (79% compared to 71%) and 2010 (92% compared to 82%), suggesting a continued substantial role for occupation and industry in explaining the gender wage gap. (We found that gender differences in unionization, which were important in the earlier year, have now been virtually eliminated.) Indeed, we found that industry and occupation taken together are quantitatively the most important measurable factors explaining the gender wage gap—accounting for about half the gap.

Why should occupation and industry impact the gender pay gap, controlling for human capital related personal characteristics? One reason is that, as noted earlier, a substantial body of research suggests that predominantly female occupations pay less than predominantly male jobs for both men and women, all else equal (e.g., Levanon, England, and Allison 2009; Harris 2022). Further, research suggests that one category of predominantly female employment, care work, may be associated with an even larger wage penalty (e.g., England, Budig, and Folbre 2002; Budig, Hodges, and England 2019). Occupations in this category include those involving care, such as teaching, counseling, providing health services, or supervising children. Recently, Folbre, Gautham, and Smith (2023) have explored the industry dimension of care services, also

identifying a negative wage effect along this dimension.[17] Care work is expanding, its growth fuelled by the increase in female labor force participation, which has increased the need for childcare, as well as the aging of the population, which has raised the demand for elder services, among other factors (Wedenoja 2023).

In both the human capital and full specifications, a substantial amount of the gender gap remains unexplained (not accounted for by measured factors) raising the question of how we are to interpret the unexplained gap. It might be taken to be an estimate of the extent of discrimination—i.e., unequal pay for equally qualified workers. However, the unexplained portion of the gender pay gap may also include the effects of unmeasured productivity differences between women and men—potentially making it an overestimate of discrimination, to the extent that men are better endowed with respect to these unmeasured characteristics. Alternatively, if women are better endowed with respect to some unmeasured characteristics or if some of the explanatory variables such as industry or occupation are themselves affected by discrimination, the unexplained gap could underestimate discrimination. The residual could also reflect compensating differentials associated with the job making the gap an over- or underestimate of discrimination depending on whether men or women are in work settings that generate these premia.[18] Thus, the results for the unexplained gap in Figure 8 are consistent with a declining but continued role for discrimination in influencing the gender pay gap, although the ambiguities in using the unexplained gap as a measure of discrimination require us to be cautious in interpreting the results in this way. Nonetheless, as we argue in Blau and Kahn (2017), our

[17] Folbre, Gautham, and Smith (2023) include health, education, and social services. They argue that wages in this sector are depressed by relatively low market power due to limited consumer sovereignty, incomplete information regarding quality, and large positive externalities.
[18] Compensating differentials are wage premia associated with workplace disamenities.

review of research based on experimental evidence strongly suggests that discrimination cannot be discounted as playing a role in the unexplained gap.

Our regression-based approach yields insights on the factors influencing the gender pay gap at a point in time but also the contribution of various factors to the reduction in the gap over the period. Our analysis found that women narrowed the pay gap with men in part by reducing gender differences in measured characteristics. Specifically, women narrowed the human capital gap with men by increasing their education and experience relative to men. As a result, as we have seen, human capital factors now play a very small role in explaining the gender pay gap. Women also moved into higher paying occupations and the gender gap in unionization was virtually eliminated, also helping to narrow the gap. (There was little change in the extent of gender differences in industry distribution.) Working in the opposite direction to the narrowing of the gender gap associated with improvements in women's measured characteristics, we found that adverse price movements negatively affected women's gains, almost entirely due to rising relative returns to occupations in which women were underrepresented.[19]

In addition to the role of measured characteristics, over the 1980s, the unexplained gap also narrowed, possibly reflecting decreases in discrimination, as well as decreases in gender differences in unmeasured productivity. The decreases in the unexplained gap may also reflect overall demand shifts favoring women relative to men. This is plausible because manufacturing employment declined, particularly in the 1980s, and some evidence indicates that technological change produced within-industry demand shifts that favored white-collar relative to blue-collar workers in general. Given that men hold a disproportionate share of manufacturing and blue-

[19] The expansion of care work, in which are overrepresented, may help to explain this trend.

collar jobs, these shifts likely benefited women relative to men (Blau and Kahn 1997 and 2006).[20]

Finally, we also found that the gender pay gap closed more slowly at the top, even accounting for gender differences in measured characteristics, possibly reflecting persistent glass ceiling issues. The slower closing of the gender gap at the top may also reflect that men at the top are faring better than men at the bottom and middle in the face of the demand shifts away from manufacturing and blue collar employments.

What are the prospects for further reduction in the gender pay gap? My own view is that, in this area as in the others we have considered, the prospects for further change are fairly slim without further policy interventions, including changes in firms' policies. The human capital gains that were an important part of the story in the past are unlikely to play a major role going forward. As I noted earlier, further substantial gains in educational attainment for women compared to men are not likely now that women constitute the majority of students in higher education, although some further increases may be expected for the labor force as younger cohorts in which women are better educated than men replace older cohorts where the reverse was true. There is more scope for improvement in narrowing gender differences in more lucrative fields of study, like STEM, but such gender differences have proved quite stubborn. With respect to labor market experience, the progress that has already occurred leaves little scope for further change in that remaining gender experience gaps are small. Upgrading women's occupations relative to men has more scope for change, but progress in this area has been slow since the 1990s and our previous discussion suggests it may be unlikely to accelerate

[20] Cortés, Feng, Guida-Johnson, and Pan (2024) find that women in routine-intensive jobs like clerical work were also exposed to automation but were more likely than men facing such a threat to shift into high-skill, high wage occupations. This would mitigate the negative effects.

without further policy intervention. And, while gender differences in distribution by industry continue to contribute to the gender pay gap, we have seen little evidence of change in that area since 1980.

In considering prospects for future change, further decreases in the unexplained gap remain a possibility. To the extent that such decreases would reflect declines in discrimination, I am somewhat pessimistic about them without some new policy initiatives, especially since the unexplained gap has not decreased since the 1980s, but of course one cannot rule this out. As noted above, decreases in the unexplained gap may also reflect demand shifts benefitting women relative to men, given women's location (by occupation and industry) in the labor market. Such seems to have been the case in the past, particularly in the 1980s, however it may not be in the future. One of the big question marks is the impact of artificial intelligence (AI) and, while much is speculative at this point, it seems likely that, if anything, AI will cut into demands for more educated and white-collar workers—which would disproportionately negatively affect women.[21]

What kinds of policies could matter for the gender pay gap going forward? Not surprisingly, work-family policies could be important. Research indicates that a substantial portion of gender differences in pay are associated with the arrival of children, the so-called "child penalty" (Waldfogel 1998; Kleven, Landais, and Søgaard 2019; and Cortés and Pan 2023). Such a gap could be decreased by appropriate work-family policies, with availability and price of childcare being especially important. More generous parental leave policies would likely also be helpful but may raise some tradeoffs that I consider below.

[21] A Pew Report estimated that women, Asian, college-educated, and higher-paid workers are more exposed to AI in that they are in jobs in which the most important activities may be replaced or assisted by AI (see, Kochhar .2023). However, the report left open whether or not this would lead to job losses because AI could be used either to replace or to complement what workers in these jobs do.

As discussed above, changing employer policies to reduce de facto long hours requirements could also be helpful. I discussed earlier how long hours may discourage women entering certain occupations; to the extent these are higher paying jobs, this contributes to the pay gap. Further, even within the same occupation women may pay a wage penalty for shorter hours options, contributing to a within occupation pay differential.

Finally, additional anti-discrimination policies could also be helpful in reducing the gender pay gap by helping to narrow occupational differences, break though glass ceilings, and reduce pay differentials within the same job. I consider some possibilities below.

Policy Implications

One theme that has emerged in considering women's past and future progress in the labor market is that, while substantial gains have been made, further progress is likely to require further policy intervention. In this section, I consider in a bit more detail what might be done in two broad areas: work-family policy and anti-discrimination policy.

With respect to work-family policy, the U.S. does less than other countries to support families in meeting their work and home responsibilities. This has a disproportionate negative effect on women since women still bear a disproportionate share of housework and childcare (Blau and Winkler 2022. Ch. 4). For example, as of 2010, U.S. employers were required to provide 12 weeks of unpaid leave under the Family and Medical Leave Act (1993) compared to an average of over 57 weeks across 16 other OECD countries, with all the leave paid at some replacement rate (Blau and Kahn 2013). In addition, the right to request or even demand part-time work is available in many other countries, but not across-the-board in the U.S. And, the

U.S. spends less on childcare.[22] While these differences are striking, formulating optimal policy in this area is complicated, since there may be important trade-offs. As we have seen, the U.S. has been falling behind in female labor force participation compared to these other countries in the face of the increasingly more generous policies in these other countries. However, Blau and Kahn (2013) find that the U.S. does better than these other countries in female share of managerial and traditionally male professional jobs. This disparity highlights the issue of "mommy tracking" women, a risk when paid leave is very generous and of long duration.

While mommy tracking is a concern, at the current low U.S. levels, I believe that increasing leave time and providing paid leave would be unlikely to have significant adverse effects. In addition, there are policies that can mitigate this negative effect at least to some extent. The problem in part stems from the fact that, even when parental leave is available to both women and men, it is disproportionately taken by women. One approach that targets this problem is the provision of a fathers' quota, whereby a portion of the leave is available only to the father on a use it or lose it basis. This has been shown to increase fathers' leave taking (e.g., Patnaik 2019). This may reflect the family's desire not to forgo the leave, but also a reduction in stigma when some of the leave is labeled explicitly for fathers. However, the duration of leave taken tends to remain much lower for fathers than mothers (Blau and Winkler 2022).

Note too that expanding spending on and support for childcare and early childhood education is not subject to the possible trade-off with labor market outcomes that may occur with expanding leave policies. Moreover, both types of work-family policies are also desirable because they potentially benefit children and families as well as women. There is an economic

[22] Public childcare spending was .11 percent of GDP in the U.S. compared to .47 percent on average in 16 other OECD countries (Blau and Kahn 2013).

rationale for investments in children based on the public good argument. Society broadly benefits from investments in children in the form of more productive and engaged citizens, lower crime rates and transfer program costs, higher contributions to social security, etc. The resulting externalities—social benefits that exceed the private benefits that parents reap from having children—gives society a stake in subsidizing the costs of children. This rationale underlies public support for education and could equally be applied to government support for work-family programs.[23]

Another aspect of employment that potentially adversely affects both women's employment and earnings is lack of flexibility or the high wage or other penalties associated with obtaining it. Goldin (2014) argues that a key factor behind these penalties in high skilled occupations is a lack of substitutability between workers. So, for example, in a high-powered law firm, knowledge about the particulars of an important client's work may rest with one lawyer. This contrasts with the situation in pharmacy, identified by Goldin and Katz (2016) as an occupation that transitioned to one in which penalties for shorter hours are small, as is the gender wage gap. The computerization of this occupation, which increased substitutability across workers, appeared to play an important role in this evolution. This suggests that other fields could see similar changes. For example, the increasing computerization of medical records could play a similar role in the medical profession. In addition, a reorganization such that the provision of professional services is by teams rather than individual workers could have a similar effect. More broadly, any change that contributes to the codifying and distribution of knowledge across workers within the firm could be helpful in this regard.

[23] For a thoughtful consideration of the issues see, Folbre (1994).

Resetting company policies and norms regarding scheduling and flexibility would also be helpful (Blau and Winkler 2018). For example, norms could be established within companies regarding the length of work hours and limiting the sending of emails and other work requests to normal business hours. Workers could also be given more flexibility and say over when and where work is performed (e.g., Correll, Kelly, O'Connor, and Williams 2014). One might argue that, given the trends in women's education and labor force participation that I have outlined, employers have increasing incentives to consider such changes in the work environment. Female labor force participation has increased over the longer term and, importantly, due to their rising educational attainment, women comprise a substantial share of the skilled workforce. Attention to flexibility and hours constitutes a nonwage component of jobs that can be used in attracting female workers who are, on average, more concerned about the issue than male workers. Some evidence in support of this argument is that access to paid leave (for which we have data) has been increasing in the U.S., with 27 percent of workers having access in 2023 compared to 13 percent in 2014.[24] Of course, this is still considerably below other countries.

Government mandates are also a possibility. For example, as mentioned earlier some countries have legislated a right to demand part-time work (Blau and Kahn 2013). However, like extended parental leave, while such a policy may facilitate female labor force participation, it may tradeoff with female success in the labor force. Government policies may also regulate the length of work hours or when the work is performed. Pioneered by France in 2017, right to disconnect laws in several European countries protect employees from responding to work communications outside of work hours (Masih 2023). France also limits hours more directly,

[24] Statistics are from the U.S. Bureau of Labor Statistics, accessed at https://www.bls.gov/ebs/factsheets/family-leave-benefits-fact-sheet.htm (September 7, 2024).

setting a maximum of 48 hours per week (within a 12-week average of 44) and minimum hours for part-time workers of 24 hours per week.[25] Such limitations may be desirable in some respects but could have problematic side effects, for example, hampering a firm's ability to respond to urgent or unexpected requests.

As we have previously noted, flexibility poses an even greater problem for lower wage workers, who face greater rigidity in work scheduling, as well as last minute changes in their schedules. Regulation could address the latter problem, and a number of states and localities have enacted laws restricting employers' ability to impose unpredictable and last-minute schedules on their employees (Boushey and Ansel 2016b). While such limitations can help to address this problem, it should be noted that, like other hours regulation just discussed, they can also impose costs by constraining firms' flexibility.

Union bargaining could also be helpful in pursuing policies to address scheduling and other work-family issues, as well as reducing inequality and raising wages for both women and men. As we have noted, however, unionism has declined precipitously in the U.S., limiting union influence. Despite increases in union organizing activity, the unionization rate remains stubbornly low (Rosalsky 2023). Reform of labor laws might help to restart union growth in the future (e.g., Naidu 2022).

With respect to anti-discrimination policy, the situation is rather different from work-family policy. The U.S. was a leader in this area and has a long commitment to anti-discrimination policy dating to the mid-1960s. This includes the passage and implementation of Title VII of the Civil Rights Act, which broadly mandates nondiscrimination across the labor market, and

[25] Information on France from My Payroll Pro accessed at https://my-payroll-pro.com/resources/working-time-france/ (September 7, 2024).

Executive Order 11246, which is targeted on government contractors. Even here, however, there are issues which could be addressed that may limit the effectiveness of the legal apparatus. First, there are some issues with enforcement. The attention to and priority placed on enforcement has tended to fluctuate with changing administrations (Blau and Winkler 2022, Ch. 12). Moreover, the legal process can be very drawn out, which may discourage victims of discrimination from seeking legal redress.

There are some new initiatives in this area that may hold some promise to more expeditiously and proactively address the problem of discrimination. One is the implementation of salary history bans, and the other is the requirement of pay transparency. Each policy has strong arguments in favor, although possible downsides, as well. My view is that each is worthy of further consideration. I consider them both briefly here.

Let me begin with salary history bans. Quite a few states and localities have moved to ban employers from asking prospective workers about their salary history.[26] Proponents of this policy argue that employers often base starting salaries on previous earnings. Thus, if women and minorities earn less in their prior jobs, these gaps are likely to be passed on to their new jobs. To the extent that the earlier salary discrepancies reflect labor market discrimination, this discrimination will be perpetuated in the new job as well. For this reason, a 2018 federal court decision found that using an applicant's prior salary as a reason for paying a woman less than a man is illegal and a violation of the Equal Pay Act (Staley 2018).[27]

[26] For information on states and cities that have adopted a ban, see, "Guide: Salary History Inquiry Bans: States and Localities Taking a Stand for Pay Equity," Salary.com https://www.salary.com/resources/guides/salary-history-inquiry-bans/ For a useful overview of the issues, see Miller (2018a).

[27] The Appeals Court cited my paper with Lawrence Kahn (Blau and Kahn 2017) as part of the rationale for its decision (see, Rizo v Yovino, 9th Cir., April 9, 2018, en banc, pp. 51-52).

While salary history bans appear to be gaining considerable support, not all favor them. Some employers argue past salary information is useful to them because it enables them to avoid interviewing people who would be too expensive and avoid "overpaying" people who would be available for less (Miller 2018a). Of course, as we have seen, it is the intent of a salary history ban to forestall employers from paying women and minority workers less because, due to past discrimination and other factors, they are available for less. Employers may also value past salary as a productivity indicator. And some economists argue that salary history bans could hurt women. For example, without information on prior salary, employers may fall back on broad assumptions about the group driving down women's pay. Or employers may think that high earning women would be eager to volunteer that information and thus assume that, when a woman does not share her prior salary, that she was low paid (Miller 2018a). While there is not yet much empirical evidence available on the effects of this policy, studies of the early impact of state-wide bans suggest that salary history bans do increase the relative earnings of women and Blacks (Hansen and McNichols 2020; and Bessen, Denk, and Meng 2021).[28]

Turning to pay transparency, several states and localities have implemented pay transparency policies (Gedye 2022); there is also experience with pay transparency requirements in other countries.[29] How may pay transparency help to counter pay discrimination? At minimum, it may be helpful in facilitating women and minority workers learning that they are paid less than other similar workers at the firm and hence filing a discrimination complaint. More broadly, if employers know that such underpayment may be revealed, they may be less likely to do it. And, postings of firm-wide statistics on wages for women and minorities compared to advantaged

[28] For some interesting experimental evidence, see, Agan, Cowgill, and Gee (2021).

[29] For a valuable overview of pay transparency and its effects, see Cullen (2023).

groups, while not sufficient in and of themselves to establish whether discrimination exists (there may be nondiscriminatory reasons for pay differences), might exert reputational pressure on firms to reduce differentials. Finally, greater information on wages or wage bands in various job categories in posted job openings could provide useful wage data to potential applicants to help guide their search and assist them in negotiating with potential employers. Indeed, incumbent employees may also benefit in gaining insights into the fairness of their compensation and whether they should approach their employer for a raise and/or begin looking for a new job. More broadly, Cullen (2023) argues that such information can promote wage competition across firms to the benefit of workers, and that women and minorities may be more likely to benefit from greater information to the extent that their informal channels are more restricted or they or their employers tend to undervalue their contributions.

There are potential downsides to pay transparency as well, noted by Cullen (2023). She cites evidence that employers have responded to pay transparency by reducing average wages. A possible reason for this is that such policies could cause employers to bargain more aggressively since a favorable outcome for one employee will likely need to be extended to others. The result could be to lower average wages for the affected group. However, it might be argued that, if the source of the decrease in average wages is the reining in of outlier high wages often paid to nonminority men, such a decrease in the average could be considered to be consistent with the broad objectives of the policy. There may also be counterproductive peer comparisons that leave some lower paid works feeling disgruntled even when they are not being "underpaid." Cullen concludes that policies that are geared to co-workers at the same firm are prone to create these types of spillovers. She argues that polices aimed at reducing information frictions in the labor market can raise wages and promote equity. However, I would note that the within firm

application of these policies is potentially of central importance to directly addressing equity issues.

Conclusion

In conclusion, we are at something of a crossroads in the path towards gender equity in the labor market. After decades of progress across multiple and mutually reinforcing areas, progress towards gender equity in labor force participation, occupational attainment, and pay has slowed or stalled. In looking towards the future, it is possible that the status quo could persist – we may not lose ground. However, in my opinion, further substantial change is unlikely without additional policy interventions to ease work-family conflicts and reduce discrimination.

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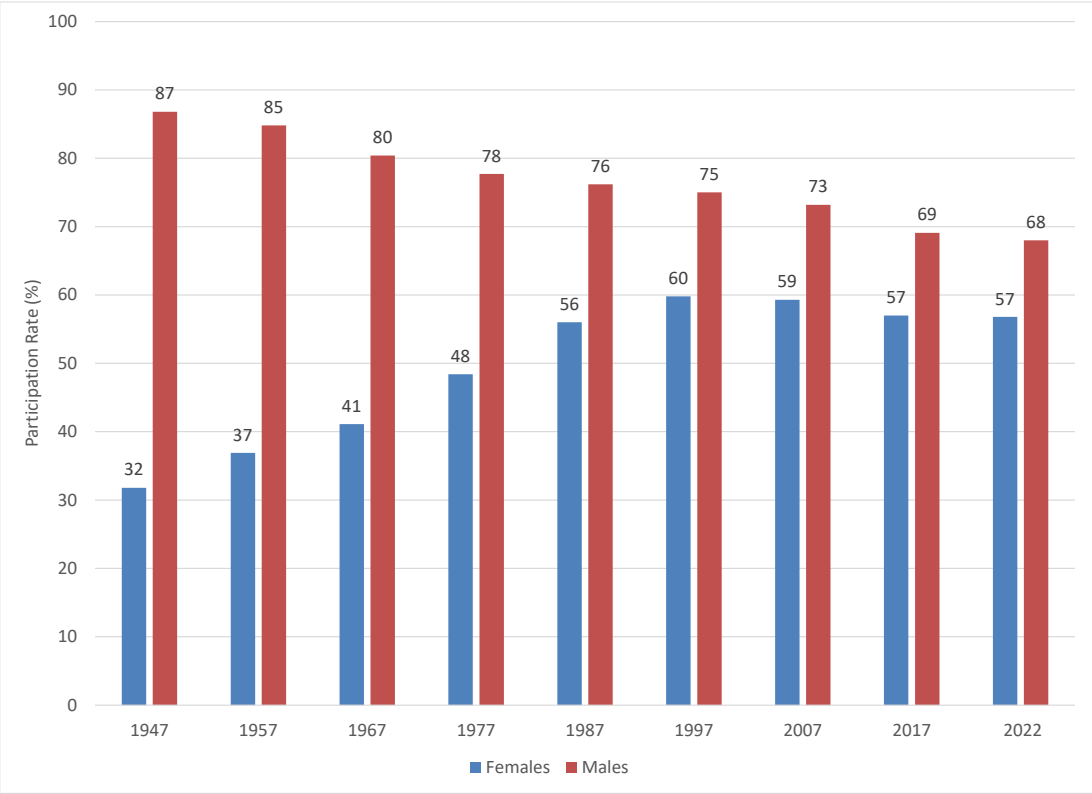
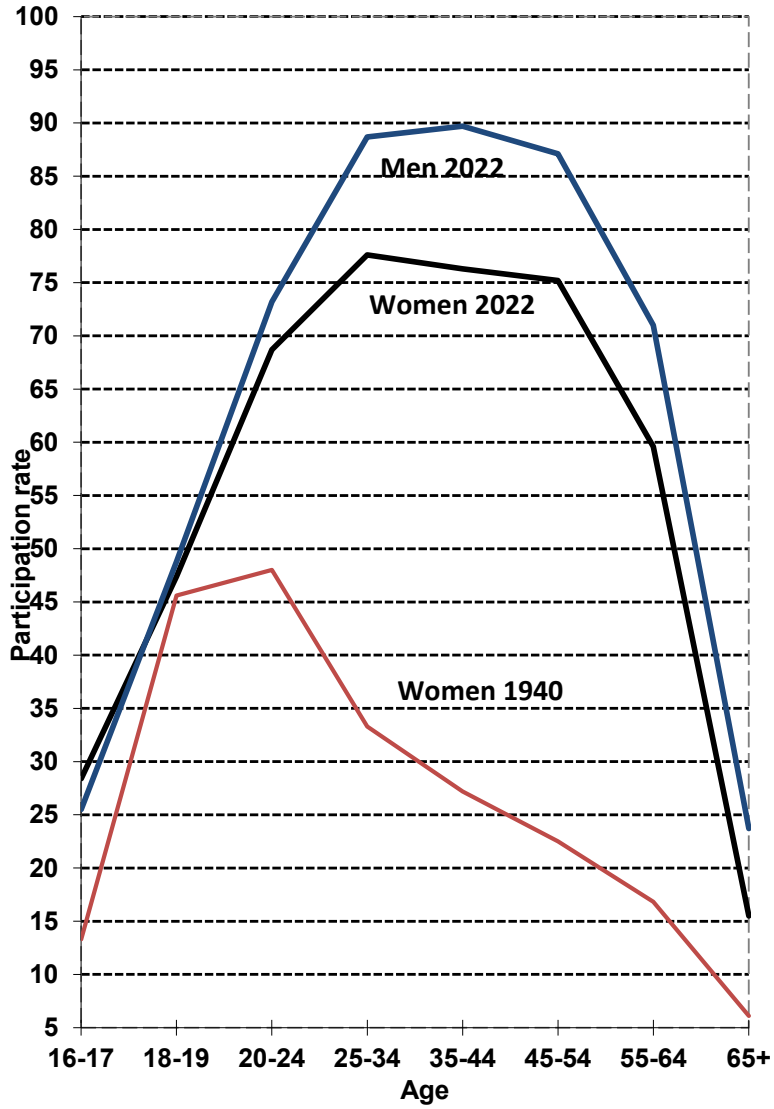
Figure 1. Labor Force Participation Rates, 1947-2022



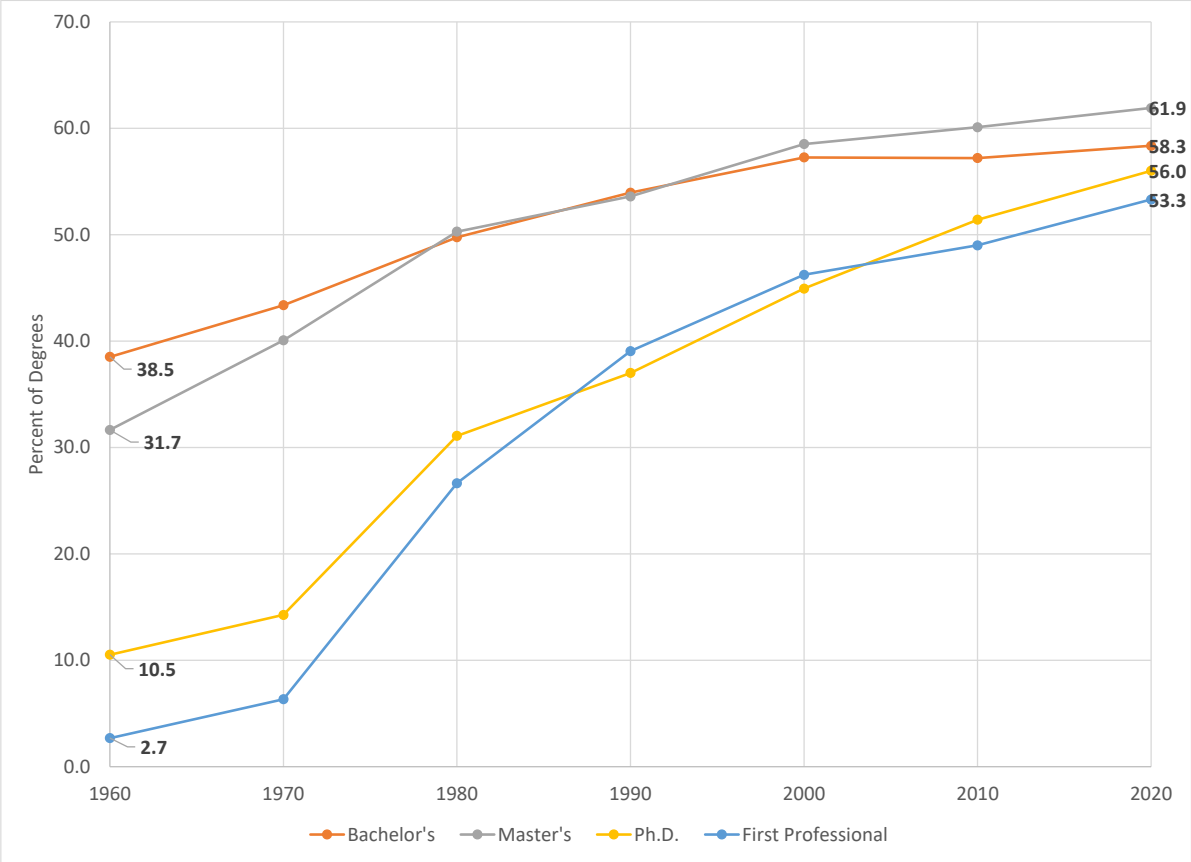
Source: 1947-1967 data: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States Colonial Times to 1970*, Bicentennial Edition, Part 1, 1975, pp. 131-2, available at https://fraser.stlouisfed.org/files/docs/publications/histstatus/hstat1970_cen_1975_v1.pdf (accessed October 29, 2024); U.S. Bureau of Labor Statistics, 1977 data: *Employment and Earnings* (January 1978), available at https://babel.hathitrust.org/cgi/pt?id=uiug.30112104098949&seq=1 (accessed October 29, 2024); and 1987-2022 data: U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," Annual Averages, Table 2, available at https://www.bls.gov/cps/cpsaat02.htm (accessed October 29, 2024).

Figure 2. Labor Force Participation of Women and Men by Age



Source:1940 data: U.S. Department of Commerce, Bureau of the Census, *1940 Census of Population: The Labor force (Sample Statistics)*, 1943, available at https://www2.census.gov/library/publications/decennial/1940/population-labor-force-sample/41236810p1_ch1.pdf (Accessed October 30, 2024); 2022 data: U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," 2022 Annual Averages, Table 3, https://www.bls.gov/cps/cpsaat03.htm

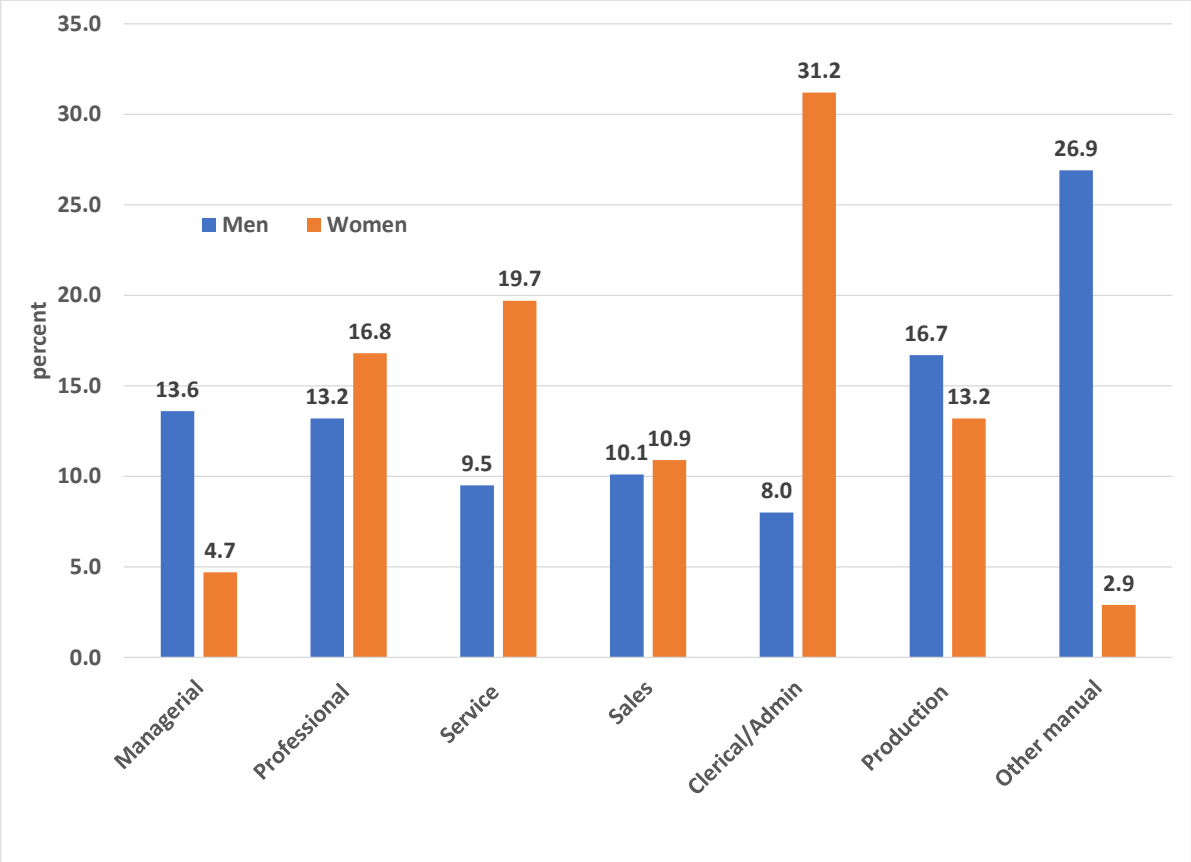
Figure 3. Percent of Degrees Awarded to Women by Educational Level, 1960 to 2020



Notes: Year references the beginning of the indicated academic year, e.g., 2020 refers to academic year 2020-21.

Source: Data are from Table 8-2 in Blau and Winkler (2022, p. 208); and, for 2020, from U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, List of Current Digest Tables, Tables 318.10 and 324.50, available at https://nces.ed.gov/programs/digest/current_tables.asp (accessed October 31, 2024)..

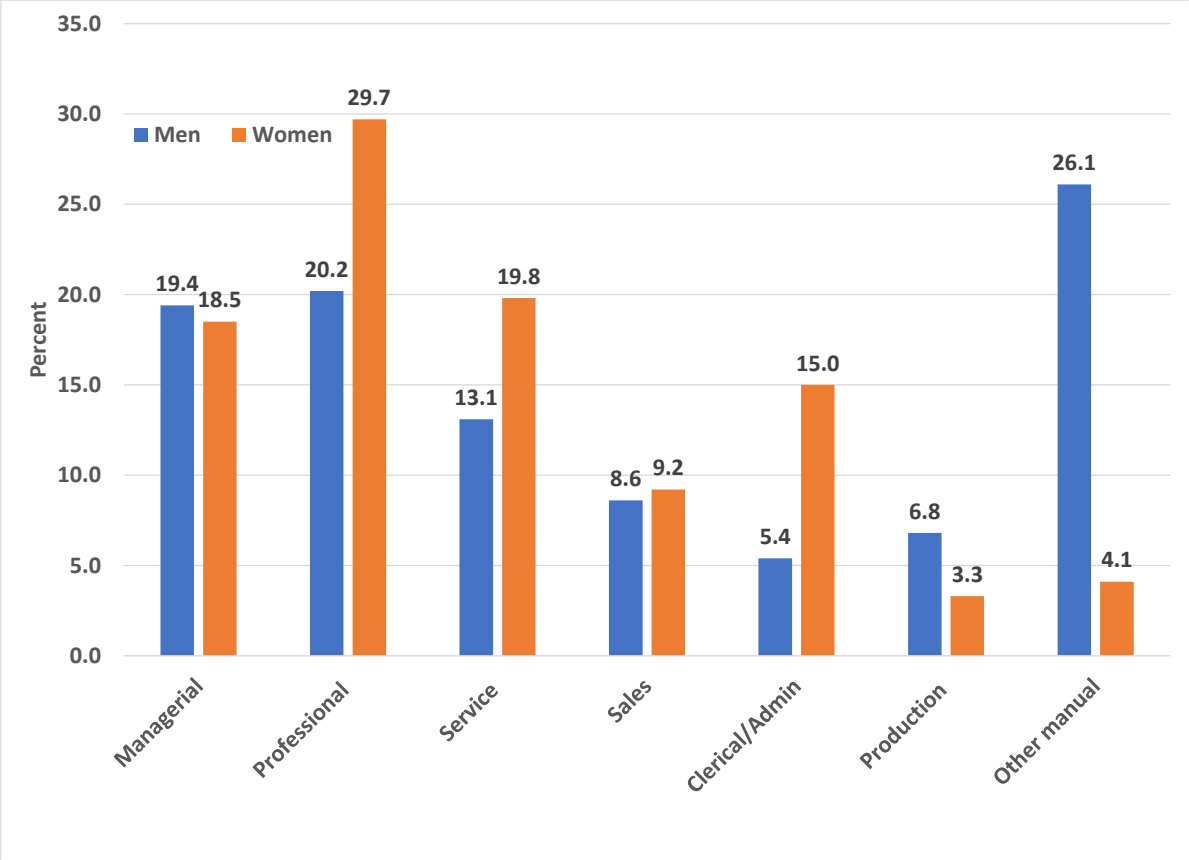
Figure 4. Occupational Distribution of Women and Men, 1970 (%)



Notes: There were substantial changes in the Census occupational categories in 2000. The 1970 microdata were converted to the 2000 occupational codes using a crosswalk developed in Blau, Brummund, and Liu (2013).

Source: Data are from Table 7.1 in Blau and Winkler (2022, p. 164).

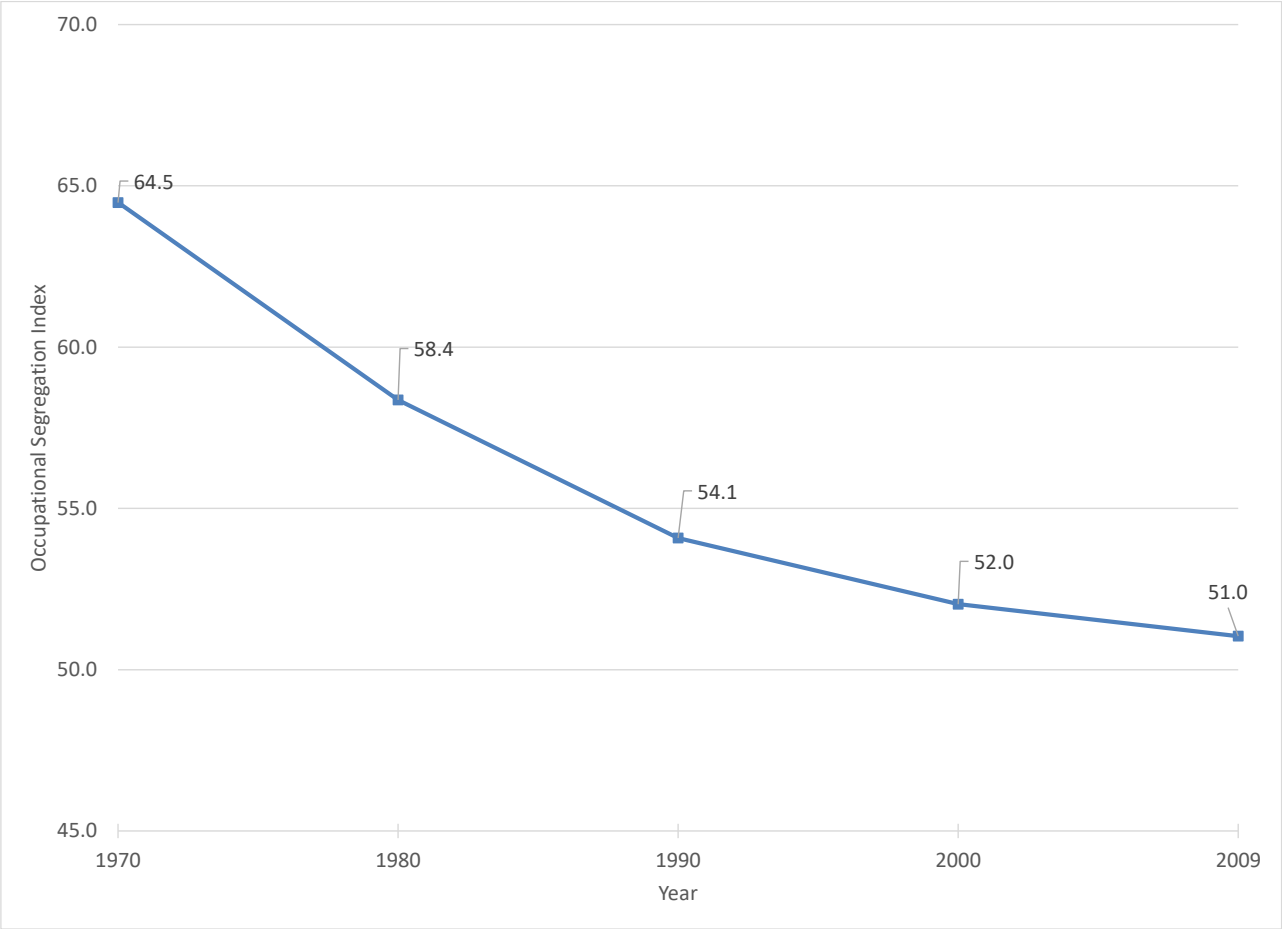
Figure 5. Occupational Distribution of Women and Men, 2023 (%)



Notes: Due to small changes in the Census occupational categories since 2000, data for 2023 are not strictly comparable to 1970.

Source: Data are from U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey", 2023 Annual Averages, Table 10, available at https://www.bls.gov/cps/cpsaat10.htm (accessed October 31, 2024).

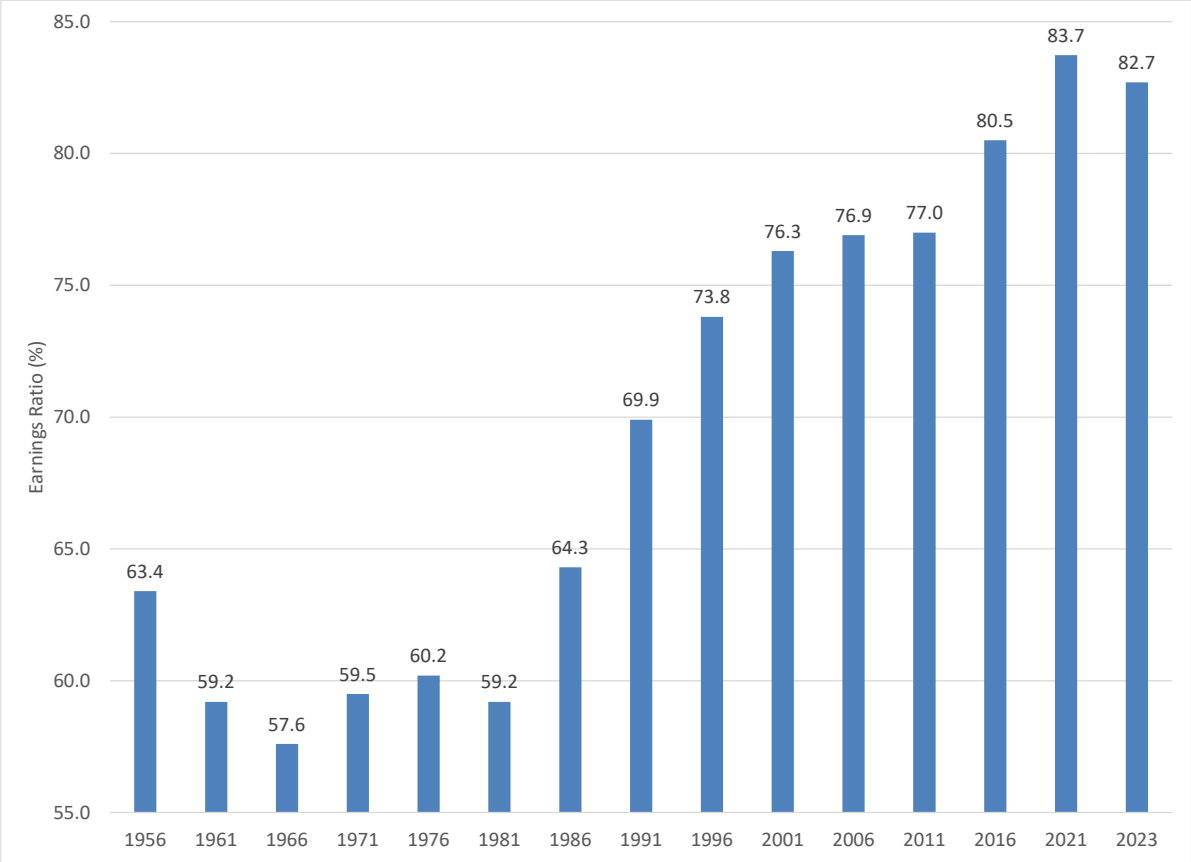
Figure 6. Trends in Occupational Segregation by Sex, 1970-2009



Note: Based on a consistent set of occupational categories across all years; see Blau, Brummund, and Liu (2013) for further details.

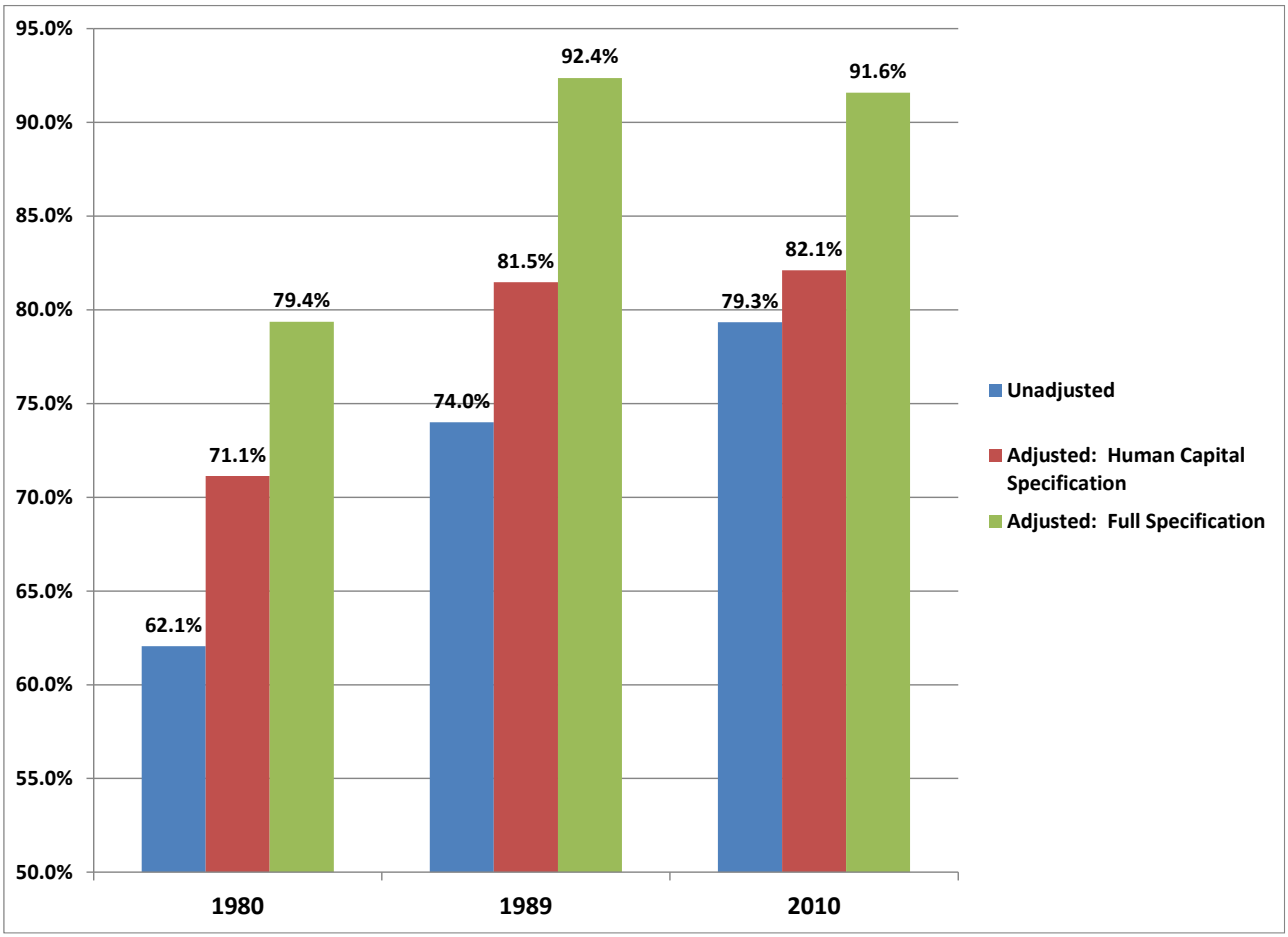
Source: Based on data from Blau, Brummund and Liu (2013), Table 2, p. 481.

Figure 7. Female/Male Ratios of Median Earnings (Full-Time, Year-Round Workers), 1956-2023



Source: 1956 data: U.S. Census Bureau, Current Population Reports, P60, Income of Families and Persons in the United States: 1956, Table 16, available at http://www2.census.gov/prod2/popscan/p60-027.pdf (accessed November 1, 2024); 1961-2023 data: U.S. Census Bureau, "Income in the United States: 2023" Report Number P60-282m Table A-7, available at https://www.census.gov/library/publications/2024/demo/p60-282.html (Accessed October 31, 2024).

Figure 8. Female/Male Wage Ratios, Unadjusted and Adjusted for Covariates



Source: Modified version of Fig. 2 "Female to Male log Wage Ratio, Unadjusted and Adjusted for Covariates (PSID)," Francine D. Blau and Lawrence M. Kahn, The Gender Wage Gap: Extent, Trends, and Explanations," *Journal of Economic Literature* 55, no. 3. (September 2017). p. 798. Copyright American Economic Association; reproduced with permission of the *Journal of Economic Literature.*