

# Gender Pay Gap and Employment Sector: Sources of Earnings Disparities in the United States, 1970–2010

Hadas Mandel · Moshe Semyonov

Published online: 23 August 2014  
© Population Association of America 2014

**Abstract** Using data from the IPUMS-USA, the present research focuses on trends in the gender earnings gap in the United States between 1970 and 2010. The major goal of this article is to understand the sources of the convergence in men's and women's earnings in the public and private sectors as well as the stagnation of this trend in the new millennium. For this purpose, we delineate temporal changes in the role played by major sources of the gap. Several components are identified: the portion of the gap attributed to gender differences in human-capital resources; labor supply; sociodemographic attributes; occupational segregation; and the unexplained portion of the gap. The findings reveal a substantial reduction in the gross gender earnings gap in both sectors of the economy. Most of the decline is attributed to the reduction in the unexplained portion of the gap, implying a significant decline in economic discrimination against women. In contrast to discrimination, the role played by human capital and personal attributes in explaining the gender pay gap is relatively small in both sectors. Differences between the two sectors are not only in the size and pace of the reduction but also in the significance of the two major sources of the gap. Working hours have become the most important factor with respect to gender pay inequality in both sectors, although much more dominantly in the private sector. The declining gender segregation may explain the decreased impact of occupations on the gender pay gap in the private sector. In the public sector, by contrast, gender segregation still accounts for a substantial portion of the gap. The findings are discussed in light of the theoretical literature on sources of gender economic inequality and in light of the recent stagnation of the trend.

**Keywords** Gender pay gaps · Public sector · Private sector · Gender discrimination

---

**Electronic supplementary material** The online version of this article (doi:10.1007/s13524-014-0320-y) contains supplementary material, which is available to authorized users.

H. Mandel (✉) · M. Semyonov  
Department of Sociology and Anthropology, Tel-Aviv University, Tel-Aviv, Israel 69978  
e-mail: hadasm@post.tau.ac.il

## Introduction

One of the most significant social changes in recent decades has been the changing economic status of women. Since the middle of the twentieth century, women have not only joined the economically active labor force in ever-increasing numbers but also enhanced their education and improved their occupational status and economic rewards. More specifically, during the last decades, women have surpassed men in overall rates of college graduation and have almost reached parity with men in rates of earning doctoral and professional degrees. In addition, levels of sex segregation have declined, and women have increased their representation in male-dominated occupations, particularly in managerial and high-status professional occupations (Blau et al. 2013; Charles and Grusky 2004; Cotter et al. 2004; DiPrete and Buchmann 2013; England 2010; Jacobs 1992; Weeden 2004). Consequently, earnings disparities between men and women have been gradually declining. The decline was especially evident after the mid-1970s, although its pace has slowed in the new millennium (Blau and Kahn 1994, 1997; Cotter et al. 2004; McCall 2007; O'Neill 2003).

Students of gender-linked gender inequality have attributed the gender earnings gap and its decline to a number of sources. The most notable sources are gender differences in labor market-relevant attributes (i.e., human capital), labor supply, occupational segregation, and employers' discrimination. Change in each of these sources can lead to a decline over time in the gender earnings gap. First, the decline may be a result of a relative improvement in women's human-capital resources (i.e., education, skills, work experience) or changes in the personal attributes of working women (i.e., marital or maternity status). Second, the decline may be a result of changes in the number of hours that women allocate to paid work. Third, the decline may reflect a decrease in earnings discrimination against women, or greater equality between men and women on unobserved characteristics. And fourth, the decline may be a result of a decrease in gender occupational segregation, reflecting the upward occupational mobility experienced by women (Cotter et al. 2004; Mandel 2012, 2013).

The impact of each of the sources, however, may change over time and may play a different role in different sectors of the economy. For example, with the growing educational attainment of women, differences in human-capital resources may cease to be one of the major sources of women's earnings disadvantage, as they were until the 1980s (DiPrete and Buchmann 2013). Similarly, the impact of human-capital resources on earnings attainment may vary across the public and private sectors. Because the wage structure in the public sector is more bureaucratically regulated, the impact of formal education on wages is expected to be more pronounced in the public sector than in the private sector of the economy (Asher and Popkin 1984; Gornick and Jacobs 1998; Grimshaw 2000; Maume 1985).

Although the literature on the causes and consequences of gender economic inequality and its long-term trends has grown and become substantial, no study has yet (to the best of our knowledge) systematically examined temporal changes in the sources of the gender earnings gap. Furthermore, no research has systematically examined whether and to what extent the decline in the earnings gap has assumed different patterns and different trajectories in the two economic sectors. The major goal of the present study, then, is to contribute to the existing literature on the decline in the gender pay gap by evaluating the change in the role played by different sources of the gap in

the public and private sectors during the last four decades. To do so, we first distinguish between the explained and unexplained portions of the gender pay gap in the two sectors and describe their dynamics over time. We then disaggregate the gap into the following components: those attributed to human-capital characteristics, personal attributes, labor supply, and gender differences in occupational distributions. Subsequently, we compare the components of the pay gap over time and across sectors.

The findings of the analysis reveal meaningful differences in the size and pace of the reduction in the gender pay gap between the two sectors as well as differences in the sources that account for the reduction in the gap. Personal attributes and human-capital resources account for only a limited portion of the gap in both sectors. By contrast, occupational segregation and working hours account for greater portions of the gender pay gap. The former is dominant in both sectors; the latter is substantial only in the private sector. In addition, the key factor accounting for the decline in the gender pay gap in both sectors is the decline in the wage penalty that women experience in the labor market (i.e., a decline in the unexplained portion of the gap).

In light of the sharp decline in gender earnings disparities between 1970 and 1990 and the slowdown of the trend toward the new millennium (Blau and Kahn 2006; Blau et al. 2006; England 2006), the results of this study allow us to join the ongoing debate on whether the “Golden Age” of gender equality reached its limit toward the end of the twentieth century. By doing so, the present article contributes to a better understanding of temporal changes in the sources of the gender pay gap in recent decades and the mechanisms that produce gender inequality in pay.

## Theoretical Considerations and Previous Research

### Sources of Gender Economic Inequality

Most studies on temporal changes in earnings gaps between men and women have been conducted by economists, who commonly divide the gender pay gap into two components: the portion of the gap that is “explained” by gender differences in work-related characteristics, and the portion of the gap that remains “unexplained.” The unexplained portion of the gap is often used as a proxy for discrimination or viewed as gender differences in unobserved predictors (Weichselbaumer and Winter-Ebmer 2005). In recent decades, the size of both components—the explained and the unexplained—has declined in the U.S. labor market, most pronouncedly from the mid-1970s until the mid-1990s and to a lesser extent during the 2000s (e.g., Cotter et al. 2004). Several changes explain this decline: changes in labor force–relevant attributes (such as education and work experience) as well as changes in earnings returns to such attributes. For example, O’Neill (2003) contended that change in the respective work experience of men and women and change in returns to work experience are the key factors underlying the decline in gender earnings disparities between 1979 and 2001. Not only have the disparities in work experience between men and women narrowed, but women’s returns to potential work experience have increased much more rapidly than men’s returns (see also O’Neill and Polachek 1993). Likewise, Blau and Kahn (1994, 1997) found that during the 1980s, changes in the qualifications of women—especially their labor market experience—contributed to the decline in the gender wage gap.

These changes were accompanied by changes in the two most important determinants of wages: working hours and educational attainment. The rise in women's work supply is reflected in the growth of average weekly working hours that women allocate to paid work, as well as in an increase in their overtime work (Cha and Weeden 2014). In addition, the educational qualifications of men and women have converged. In fact, since the 1980s, the gender gap in college enrollment in the United States has been reversed, in favor of women, because of an increase in women's educational attainment coupled with a slowdown in men's attainment of professional degrees (e.g., DiPrete and Buchmann 2013; Morris and Western 1999).

In addition to changes in human-capital attributes and work-related attributes, researchers have observed a significant decline in the size of the unexplained portion of the earnings gap. According to Blau and Kahn (1997, 2006), the decrease in the unexplained portion of the gap was the major factor accounting for the sharp decrease in gender earnings disparities during the 1980s. This decrease is attributed to both a decline in the unmeasured characteristics of men and women and a decrease in labor market discrimination against women (Blau and Kahn 2006).

Notwithstanding the convergence in work-related characteristics and the reduction in the size of the unexplained portion of the gap, gender-based occupational segregation has also declined in recent decades (Blau et al. 2013; Cotter et al. 2004; England 2006). Sociologists have long argued that occupational segregation is one of the most significant factors accounting for earnings disparities between men and women. According to this view, women's earnings are lower than men's because women are sorted (either denied access or self-selected) into female-typed low-paying jobs and occupations (Bielby and Baron 1986; Petersen and Morgan 1995; Treiman and Hartmann 1981). In recent decades, however, the American labor market has witnessed a steady decline in rates of occupational segregation (Blau et al. 2013; England 2006). England (2006), for example, reported a steady decrease in levels of occupational sex segregation between 1960 and 2000, which was evident, first and foremost, among highly educated workers. The major cause of this decline was the growing integration of women into new occupational domains, particularly women's increased participation in lucrative professional and managerial positions, occupations from which they were traditionally absent (Burriss and Wharton 1982; Cotter et al. 2004; Jacobs 1992; Mandel 2012; 2013; Weeden 2004).

In sum, the declining gender pay gaps in the United States in recent decades can be attributed to three major temporal trends: a sharp convergence in men's and women's wage-related measured and unmeasured characteristics, a convergence in occupational distributions of men and women (i.e., a decrease in the rate of occupational segregation), and a decline in pay discrimination against women. In what follows, then, we first develop theoretical expectations regarding sources of the temporal decline in earnings gaps between men and women in the private and public sectors and then empirically estimate our expectations in the labor market as a whole and separately in the private and public sectors. Finally, we discuss the findings in light of the theoretical expectations.

## Gender Earning Gaps in the Public and Private Sectors

The public sector of the economy has long been favored by women (and minorities) as a preferred locus of employment because of its greater commitment to universalistic criteria of recruitment, promotion, and allocation of rewards. The more bureaucratic nature of the public sector and its more regulated employment practices make it a more protected employment realm than other segments of the economy. The public sector is also more likely to rely on centralized pay arrangements and to adopt and enforce affirmative action policies that apply to women and minorities. That is, equal opportunities and antidiscrimination policy are more effectively implemented and used in the public sector. Consequently, the public sector has become one of the most attractive employment sites for women and racial minorities because of its protective nature and more egalitarian pay system (Asher and Popkin 1984; Gornick and Jacobs 1998; Grimshaw 2000; Maume 1985).

In addition to its egalitarian pay system and antidiscrimination policy enforcement, the public sector provides greater occupational opportunities for women. Gornick and Jacobs (1998), in an influential article, pointed to the relatively large supply of good jobs that the public sector offers women, especially in professional occupations but also in managerial and technical jobs (see also Kolberg 1991). Professional jobs, which attract women because of their relative high status and high earnings, are much more prevalent in the public than in the private sector. Moreover, professional jobs not only feature the smallest gender occupational segregation to begin with (Burris and Wharton 1982; Wharton 1989) but also have experienced the greatest decline in gender segregation in recent decades (Cotter et al. 2004).

Indeed, researchers in a variety of countries have repeatedly demonstrated that the pay disadvantage for women is substantially smaller in the public than in the private sector. For example, Arulampalam et al. (2007) showed that in all 11 countries included in their study, the gender pay gap is more pronounced in the private than in the public sector. Panizza and Qiang (2005) found similar findings for 12 (of 13) Latin American countries. Country-specific studies have yielded similar results—Melly (2005) for Germany, Zweimiiller and Winter-Ebmer (1994) for Austria, and Tansel (2005) for Turkey—all of whom found gender pay gaps to be larger in the private sector relative to the public sector.

Notwithstanding the universal pay advantages of the public sector for women, Gornick and Jacobs (1998), comparing the gender pay gaps across seven countries, reported marked cross-country variation in the magnitude of the public sector's advantages for women. The major factor that accounts for the variation between countries in the public–private sectors' gender pay gaps is the size of the public sector; the smaller the public sector, the larger are women's relative economic advantages. Thus, whereas the effect of public sector employment on the gender wage gap is limited (or nonexistent) in countries with a large public sector (like Sweden), the effect is quite pronounced in the American labor market, where public sector employment accounts for less than one-fifth of the workforce (Gornick and Jacobs 1998). These findings suggest that variation between sectors in the gender pay gaps would be particularly evident in the U.S. labor market.

## Empirical Expectations

Based on the literature reviewed in the previous sections, we expect the impact of each of the sources of gender inequality to vary across economic sectors. Obviously, we expect gender pay disparities in the United States, as in most other countries, to be less pronounced in the public sector than in the private sector. Yet, expectations of a differential decline of the gender gap across sectors are neither trivial nor straightforward. On one hand, the large supply of professional occupations in the public sector as well as the rapid decline in rates of gender segregation in professional occupations might lead us to expect a more rapid decline of the gender pay gap in the public sector. On the other hand, a more rapid reduction might be expected to occur in the private sector because of the initial large gaps in this sector. Moreover, because much of the decline in the gender pay gap in recent decades is attributed to a reduction in the unexplained portion of the gap (i.e., gender discrimination), and given that gender discrimination is much more pronounced in the private than in the public sector, one might well expect a more pronounced reduction in the former than in the latter sector.

The impact of working hours on the gender pay gap is expected to be less dominant in the public than in the private sector. Because of its more rigid wage determination system and its higher regulation of employment conditions, the public sector is less able to enforce a long working day and extra hours. Thus, we expect working hours to have a weaker effect on the gender pay gap in the public than in the private sector. However, the convergence in men's and women's working hours may contribute to a more rapid reduction in the gender pay gap in the private than in the public sector.

One can arrive at two alternative expectations regarding the impact of human-capital attributes on the gender pay gap. First, because of adaptation of more universalistic criteria for promotion and allocation of economic rewards in the public sector, human-capital attributes may be more dominant determinants of pay levels (compared with other factors) in the public sector. However, with the convergence in human-capital attributes of men and women in recent decades, they may cease to be a major wage determinant in both sectors. Nonetheless, that convergence may contribute to a more rapid reduction in the gender pay gap in the public sector.

## Data Source and Variables

Data for the present analysis were obtained from the harmonized Integrated Public Use Microdata Series (IPUMS) between the years 1970 and 2010. The data for 1970 were derived from the 1 % census samples; the data for 1980, 1990, and 2000 were derived from the 5 % census samples; and the data for 2010 were obtained from the American Community Survey (ACS). The obvious advantages of the IPUMS data are that they provide a large number of sampled cases and that all variables are comparable over time.

The variables selected for estimating earnings equations are those traditionally used in models predicting earnings: gender (female = 1), age (in years), race/ethnicity (by five dummy variables: blacks, Hispanics, Asians, other races, and non-Hispanic whites (the omitted category)), marital status (married = 1), nativity status (foreign-born = 1), number of children, presence of a young child (presence of child under age 5 = 1), level

of education (four ordinal categories: less than high school, high school graduate, some college, and college graduate (the omitted category)), potential work experience and its squared term (age – years of schooling – 6), and weekly working hours. Occupations are measured in two-digit classification by the occupational variable OCC1990. The latter is one of two standardized occupational variables and the one recommended by IPUMS as preferable for analyses of the samples from 1980 onward.<sup>1</sup> Because occupational classification from 1970 and 2010 became more detailed, harmonizing the categories according to 1990 would involve some selection or aggregation of occupations, which can affect the results. However, because of a statistical consideration, we aggregated the variable OCC1990—originally in three-digit classification—to two-digit classification, creating about 80 occupational categories in each decade. This aggregation may reduce the problem of comparisons over time among occupational classifications, but it may also conceal part of the impact of occupations and therefore part of the explained portion of the gap.

Earnings, the dependent variable, is measured by pretax wages and salary income for the year prior to the survey divided by the number of weeks that a person worked in the year prior to the survey, adjusted for inflation. Estimation of the earnings equation is restricted to the population aged 25–59. The list of variables and their means, by gender, decade, and sector, are displayed in Table S1 in Online Resource 1.

## Methodology

There are several alternative techniques for decomposing pay gaps between groups via the use of regression equations. One of the most popular techniques is the procedure proposed by Oaxaca (1973) and Blinder (1973). This technique uses separate linear regression models for men and women and—in a counterfactual manner—distinguishes between two distinctive portions: (1) a portion that is explained by gender differences in work-related characteristics, such as education or work experience (the  $X$ s); and (2) the unexplained portion of the gap that cannot be accounted for by mean differences in wage determinants. The latter is attributed to differences in the intercepts and differences in returns to wage determinants' factors (the  $\beta$  s).<sup>2</sup>

The analysis is formulated as follows:

$$\bar{Y}_m - \bar{Y}_f = \sum (\bar{X}_m - \bar{X}_f) \beta_m + \left[ \sum \bar{X}_f (\beta_m - \beta_f) + (\alpha_m - \alpha_f) \right],$$

where  $\bar{Y}_m$  and  $\bar{Y}_f$  are weekly wages of men and women, respectively.  $\bar{X}_m$  and  $\bar{X}_f$  are means of all predictors, and  $\beta_m$  and  $\beta_f$  are the coefficients of these predictors for men and women, respectively.  $\sum (\bar{X}_m - \bar{X}_f) \beta_m$  is the portion of the gap that is

<sup>1</sup> More details are available online ([http://usa.ipums.org/usa-action/variables/OCC1990#description\\_tab](http://usa.ipums.org/usa-action/variables/OCC1990#description_tab)).

<sup>2</sup> The Oaxaca-Blinder decomposition also allows decomposing the gap into three components. The third component is the interaction term that accounts for the fact that gender differences in characteristics and coefficients exist simultaneously. To check this, we applied the triple decomposition to our data. The analysis yielded results that were very similar to those of the dual decomposition because the interaction term was found to be negligible. We therefore present the dual decomposition.



explained by gender differences in mean wage-related attributes.  $\sum X_f(\beta_m - \beta_f) + (\alpha_m - \alpha_f)$  is the portion of the gap attributed to gender differences in returns to wage-related attributes (on the left side) and gender differences in intercepts (right side). Given that this portion cannot be explained by wage-related attributes, it serves as a proxy for economic discrimination.

At the first stage, we compare the explained and unexplained portions of the gap, by decade, in the public and private sectors. We then compare the contribution of each component (i.e., weekly working hours, human capital, personal attributes, and occupations) after distinguishing between the explained portion (say, gender differences in education levels) and the unexplained portion (say, gender differences in returns to education) by decade and sector.

## Analysis and Findings

### Decomposition of the Gender Pay Gap Over Time: Explained and Unexplained Gaps

In Table 1, we display trends in the gender pay gaps over the last four decades. In column 1, we list the wage gap between average earnings of men and women. In columns 2 and 3, we list the two major components of the pay gap: the explained and unexplained portions of the gap (obtained by the Oaxaca-Blinder decomposition procedure).

The results show that the gross gender gap has substantially decreased over the years from  $-0.66$  log units in 1970 to  $-0.35$  log units in 2010—a reduction of 46 % over four decades. Although the decline in the gross gender pay gap began in the 1970s, the trend was especially prominent between 1980 and 2000—a 36 % decline in only two

**Table 1** Gross gender pay gaps and the Oaxaca-Blinder decomposition, 1970–2010

Year	Gross Gender Wage Gaps (1)	Explained (2)	Unexplained (3)
1970	0.657 (100)	0.133 (20)	0.524 (80)
1980	0.623 (100)	0.176 (28)	0.447 (72)
1990	0.497 (100)	0.177 (36)	0.320 (64)
2000	0.398 (100)	0.145 (36)	0.253 (64)
2010	0.356 (100)	0.150 (42)	0.206 (58)
% Change 1970–2010	–46	13	–61

*Notes:* Coefficients in columns 2 and 3 are presented in terms of log wage. Percentages are shown in parentheses.



decades. The coefficients presented in columns 2 and 3, which pertain to the explained and unexplained portions of the gap, are presented in terms of log wage and percentage (in parentheses). The data show that in addition to the sharp decrease in the raw pay gap, the explained portion of the gap has steadily increased over the years. More specifically, the portion of the gap that can be attributed to gender differences in wage-related characteristics (and hence can be viewed as the “legitimate,” or nondiscriminatory portion of the gap) doubled in four decades, rising from 20 % in 1970 to 42 % in 2010. Nevertheless, even for 2010, less than one-half of the gap (42 %) is explained by gender differences in work-related characteristics.

Differences in returns to wage-related characteristics ( $\beta$ ) and differences in initial starting points (intercepts) account for the other portion of the gap. These two components are attributed to unmeasured wage-related characteristics as well as to differential returns that men and women receive on their wage-related attributes (i.e., discrimination). As shown in the table, the unexplained portions of the wage gap have decreased substantially in both absolute and relative terms over the years. In 1970, the unexplained portion of the gap was 0.52 log units, 80 % of the total gap. Four decades later, the unexplained portion of the gap had shrunk by 61 %, to 0.20 log units, accounting for 58 % of the total gap.

To further explore the unique contribution of each component to the gender pay gap and the extent to which that contribution has changed over the years, we display in Table 2 the disaggregated components of the explained (left panel) and unexplained (right panel) portions of the gap. For the purpose of the presentation, earnings predictors are divided into four groups: measured indicators of human-capital resources (i.e., education, work experience), an individual’s sociodemographic attributes (i.e., marital/parental status, race/ethnicity), weekly working hours, and occupations (at the two-digit classification level). (See Table S1 in Online Resource 1 for the averages of the variables by gender and by sector.) The coefficients are presented in terms of log wage and percentage of the gross gender pay gap. The bottom row of the table displays changes in the coefficients throughout the period. Figure 1 provides a visual illustration of the decomposition results<sup>3</sup>; Table 4 in the appendix presents, for each decade, coefficients of the two separate regression equations (for men and women) on which the decomposition was conducted.<sup>4</sup>

In general, the data reveal that gender differences in human-capital resources and sociodemographic attributes do not account for the gender pay gaps. By way of contrast, working hours and occupations exert a significant effect on the gender pay gap. Specifically, Table 2 shows that gender differences in education and work experience explain only negligible portions of the pay gap. Although men benefit more than women from education and work experience in attainment of earnings (see Table 4 in the appendix), gender differences in human-capital resources actually conceal part of the gender earning gaps. The suppressive effect of human capital, although modest, has increased from 1990 onward, reaching  $-0.02$  log units (6 %) in 2010. This finding is not surprising in light of the higher rates of college graduation among women as of the

<sup>3</sup> The table shows the disaggregated coefficients of both the explained and unexplained portions of the gap. However, the figure displays only the disaggregated components of the explained portion. A visual demonstration of the disaggregated components of the unexplained portion of the gap is problematic because the intercept is dependent on the values of the coefficients and has no substantive meaning.

<sup>4</sup> The coefficients of occupations (about 80 in each decade) are not presented.

**Table 2** The Oaxaca-Blinder decomposition, by components, 1970–2010

	Explained					Unexplained						
	Gross Gap	Human Capital	Demographics	Hours	Occupations	Subtotal Explained	Constant	Demographics	Hours	Occupations	Human Capital	Subtotal Unexplained
1970	0.657 (100)	-0.005 (-1)	0.038 (6)	0.027 (4)	0.072 (11)	0.133 (20)	0.907 (138)	0.286 (43)	-0.951 (-145)	0.082 (12)	0.201 (31)	0.524 (80)
1980	0.623 (100)	0.002 (0)	0.023 (4)	0.053 (9)	0.099 (16)	0.176 (28)	1.208 (194)	0.284 (46)	-1.260 (-202)	-0.007 (-1)	0.221 (36)	0.447 (72)
1990	0.497 (100)	-0.003 (-1)	0.012 (2)	0.105 (21)	0.063 (13)	0.177 (36)	0.818 (165)	0.212 (43)	-0.886 (-178)	0.008 (2)	0.168 (34)	0.320 (64)
2000	0.398 (100)	-0.012 (-3)	0.008 (2)	0.104 (26)	0.045 (11)	0.145 (36)	0.667 (167)	0.165 (42)	-0.656 (-165)	0.013 (3)	0.065 (16)	0.253 (64)
2010	0.356 (100)	-0.020 (-6)	0.008 (2)	0.117 (33)	0.045 (13)	0.150 (42)	0.368 (104)	0.122 (34)	-0.407 (-115)	0.012 (3)	0.111 (31)	0.206 (58)
% Change 1970–2010	-46	339	-78	336	-38	13	-45	-57	-57	-86	-59	-61

*Notes:* Coefficients in columns 2 and 3 are presented in terms of log wage. Percentages are shown in parentheses.

1980s (see Online Resource 1, and DiPrete and Buchmann 2013), coupled with the positive correlation between educational level and earnings. This finding implies that the earnings gaps between equally educated men and women (with identical characteristics) are greater than the earnings gaps with no control for education.<sup>5</sup> Based on these findings, it would be reasonable to conclude that gender differences in level of education *per se* do not account for the gender pay gaps. Rather, the major source of the pay gap is in the kinds of education that men and women acquire, which is the relevant factor for the differential occupational profiles of the two gender groups.<sup>6</sup>

The data presented in Table 2 and Fig. 1 reveal that like human-capital resources, sociodemographic characteristics have a negligible effect on the gender pay gap; they accounted for 6 % and 4 % of the total gender pay gap in 1970 and 1980, respectively, and for only 2 % of the gender pay gap from 1990 onward. The data also show that men receive higher earnings returns on sociodemographic attributes than women in all decades. Nevertheless, the decline took place mostly because the two gender groups have become very similar in their sociodemographic attributes, owing to changes in the sociodemographic characteristics of women in recent decades (see Table 4 in the appendix, as well as the right panel of Table 2).

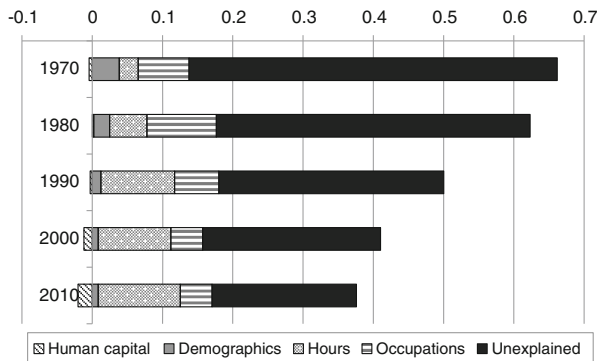
Unlike the negligible effects of sociodemographic attributes and human-capital resources, the effect of working hours on the gender pay gap has substantially intensified over time, in both relative and absolute terms.<sup>7</sup> The data in Table 2 show that gender differences in average working hours accounted for 4 % of the total gap in 1970 (less than sociodemographic characteristics and occupations). Only two decades later, in 1990, working hours accounted for one-fifth of the gross gap; and in 2010, working hours already explained one-third of the gross gender pay gaps. The increasing effect of working time is somewhat curious in light of the convergence in men's and women's working hours. Although mean weekly working hours decreased among men between 1970 and 2010, they steadily increased among women (from 33.8 (exp(3.52)) to 36.4 (exp(3.59))) (see Table 4). Nevertheless, the importance of working hours as a determinant of earnings—for men and women alike—has largely increased over the years (see Table 4, and also Cha and Weeden 2014). Thus, in spite of the overall decline, the remaining gap in the amount of time allocated to paid work by men and women has become costly to women in recent decades.

Moreover, Table 2 shows that working hours represent a much more important determinant of pay among working women than among working men because the

<sup>5</sup> The effect of work experience is negligible, perhaps because of the problematic use of age (minus education) as a proxy for work experience. Because women in the sample are slightly older than men in all decades, their work experience is slightly greater than that of men. The returns on work experience, however, are greater for men in all decades (see Table 4 in the appendix).

<sup>6</sup> Indeed, the suppressing effect of education is eliminated (and in some decades even reversed to a modest positive effect) after we control for occupations at the three-digit classification. Apparently, within detailed occupations, men have slightly higher education and greater experience than women. Unfortunately, we were not able to implement the Oaxaca-Blinder decomposition with the three-digit occupational classification because the matrix was too complicated.

<sup>7</sup> To verify the strong impact of working hours, we reanalyzed the data using hourly earnings as the dependent variable. We compared the results with those presented by the present analysis in which weekly wage is used as the independent variable. The results of the two strategies are very similar. Specifically, the contribution of working hours to the gender pay gap is very similar under the two alternatives, as is the contribution of each of the other components.



**Fig. 1** Components of the gender pay gaps, 1970–2010

variance in weekly working hours among men is relatively small (i.e., in all decades, more than 90 % of men work more than 40 weekly hours), whereas the variance among women is much larger (more than one-third of working women worked fewer than 40 hours). Note that a simple comparison between men's and women's returns may be somewhat misleading. Because of the interrelations between the intercept and the returns, higher returns for women relative to men should be evaluated in light of the higher intercept for men than for women.

Inclusion of occupations among the predictors of wage enables us to disaggregate the gender pay gap into a portion attributed to gender occupational segregation (explained) and a portion attributed to differential rewards to men and women employed in the same occupation. With only one exception (1980), the impact of occupations on the wage gap has remained constant in relative terms (ranging from 11 % to 13 % of the gap) but has declined in absolute terms (from 0.072 log units in 1970 to 0.045 log units in 2010: a decline of almost 40 %). The decline is hardly surprising given the reduction in the level of gender occupational segregation from 1970 onward (Blau et al. 2013; Cotter et al. 2004; Weeden 2004). Within occupations, however, men's earnings are still higher than women's, as the unexplained portion of the wage gap makes evident. Nevertheless, men's earnings advantage within occupations has been declining. The decline is quite evident in both absolute and relative terms (dropping from 0.082 log units to 0.012 log units between 1970 and 2010—a reduction of 86 %). However, occupations are not controlled in detailed categories but in two-digit classification—that is, in approximately 80 occupational categories in each decade.<sup>8</sup> This should lead to an underestimation of the role of segregation and an overestimation of the unexplained portion of the gap. Nonetheless, it ought not to affect the comparisons.<sup>9</sup>

Overall, Table 2 and Fig. 1 reveal that the effect of weekly working hours on the wage gap has become the dominant factor from 1990 onward, in both relative and absolute terms. Working hours and occupational segregation account for almost all the

<sup>8</sup> We used the two-digit occupational classification (instead of three-digit (300 to 400) detailed occupational categories) because the statistical software could not estimate the equation using the large matrix created by the detailed occupations.

<sup>9</sup> An advantage of using the two-digit over the three-digit occupational classifications, however, is that it offers a better adjustment between decades in the case of occupational crosswalks.

explained portion of the gender pay gap in 2010. Over the years, the sociodemographic attributes of working men and women have become more similar and thus ceased to be major determinants of the gender pay gap. Human-capital resources, by way of contrast, conceal part of the gap because of the higher level of education that women have attained in recent decades. The findings also show that at all points in time, the largest portion of the gender earnings gap cannot be attributed to any of the variables included in the regression equations.

### Cross-Sector Comparison

The data presented thus far suggest that the decline over time in earnings disparities between men and women can be attributed partly to the effect of working hours, partly to gender-linked occupational segregation, and partly to a decline in the size of the unexplained gap (economic discrimination). As noted at the outset in our theoretical section, these sources of the gap are likely to operate differently in the public and private sectors. To uncover differences across sectors, we apply the same method used in the previous section for each sector separately. Results of the analysis—the coefficients and the relative contribution (in percentage)—are presented in Table 3. The upper half of the table presents the explained portions of the gap, disaggregated into four components, and the lower half presents the same disaggregation for the unexplained portion of the gap. The bottom row of each panel displays changes in the coefficients between 1970 and 2010. Figure 2 illustrates graphically the contribution of each component in terms of the coefficients (log wage) in each sector.

In columns 1a and 1b of Table 3, we display the gross gender earnings gap in the private and public sectors, respectively. As expected, gender pay disparities in all decades are less pronounced in the public sector than in the private sector. Yet, the figure reveals a trend quite similar to the trend observed in the previous analysis: a systematic decline in the gender pay gap in both sectors, mainly resulting from a sharp decline in the unexplained portion of the gap. Likewise, in both sectors, the most pronounced decline in the gap occurred between 1980 and 1990.

Notwithstanding the similarities between the two sectors, the data show some meaningful differences too. First and foremost, the decline is much more pronounced in the private sector than in the public sector. Although the gender pay gap in the private sector has declined by almost one-half (46 %), it has correspondingly declined in the public sector by less than one-third (27 %). Apparently, during the last four decades, gender earnings disparities in the “less egalitarian” private sector have become more similar to those in the “more egalitarian” public sector. As suggested at the outset, a more rapid reduction is expected in the private sector, where the initial gaps were larger. Put differently, the relative stability of the gender pay gap in the public sector during the last four decades may reflect a ceiling effect, and this ceiling effect could be one of the causes of what England (2006) and others have referred to as a “bottleneck” of the gender revolution.

Another difference between the two sectors concerns the ratio between the explained and unexplained portions of the gap and their changes over time. As noted, the accelerated reduction in the private sector is mainly due to the sharp decline in the unexplained portion of the gap. The reduction in the gap in the public sector, however, is also due to a larger increase in the explained portion of the gap (from 14 % to 44 %).

Table 3 The Oaxaca-Blinder decomposition, by components, in the private and public sectors, 1970–2010

Explained	Gross Gap		Human Capital		Demographics		Hours		Occupations		Subtotal	
	Private (1a)	Public (1b)	Private (2a)	Public (2b)	Private (3a)	Public (3b)	Private (4a)	Public (4b)	Private (5a)	Public (5b)	Private (6a)	Public (6b)
1970	0.723 (100)	0.427 (100)	0.005 (1)	-0.028 (-7)	0.041 (6)	0.024 (6)	0.026 (4)	0.029 (7)	0.085 (12)	0.037 (9)	0.156 (22)	0.062 (14)
1980	0.678 (100)	0.452 (100%)	0.007 (1)	-0.009 (-2)	0.023 (3)	0.016 (4)	0.056 (8)	0.041 (9)	0.113 (17)	0.059 (13)	0.199 (29)	0.107 (24)
1990	0.543 (100)	0.363 (100%)	0.006 (1)	-0.017 (-5)	0.013 (2)	0.008 (2)	0.109 (20)	0.081 (22)	0.068 (13)	0.051 (14)	0.196 (36)	0.123 (34)
2000	0.432 (100)	0.314 (100%)	-0.002 (0)	-0.020 (-6)	0.008 (2)	0.007 (2)	0.108 (25)	0.080 (25)	0.046 (11)	0.053 (17)	0.160 (37)	0.120 (38)
2010	0.387 (100)	0.312 (100%)	-0.007 (-2)	-0.029 (-9)	0.009 (2)	0.008 (3)	0.127 (33)	0.083 (26)	0.041 (11)	0.076 (24)	0.170 (44)	0.137 (44)
% Change 1970–2010	-46	-27	-244	3	-78	-67	389	185	-52	103	8	122
Unexplained												
1970	0.884 (122)	0.781 (183)	0.211 (29)	0.219 (51)	0.290 (40)	0.253 (59)	-0.912 (-126)	-0.933 (-218)	0.094 (13)	0.045 (11)	0.567 (78)	0.365 (86)
1980	1.179 (174)	1.178 (261)	0.254 (38)	0.214 (47)	0.290 (43)	0.237 (52)	-1.257 (-185)	-1.220 (-270)	0.013 (2)	-0.064 (-14)	0.479 (71)	0.345 (76)
1990	0.727 (134)	1.132 (312)	0.200 (37)	0.145 (40)	0.219 (40)	0.162 (45)	-0.819 (-151)	-1.185 (-327)	0.019 (4)	-0.014 (-4)	0.347 (64)	0.240 (66)
2000	0.634 (147)	0.755 (241)	0.085 (20)	0.108 (34)	0.170 (39)	0.125 (40)	-0.632 (-146)	-0.786 (-251)	0.015 (4)	-0.008 (-2)	0.272 (63)	0.194 (62)
2010	0.324 (84)	0.498 (160)	0.114 (29)	0.154 (49)	0.123 (32)	0.100 (32)	-0.353 (-91)	-0.603 (-193)	0.010 (3)	0.025 (8)	0.218 (56)	0.174 (56)
% Change 1970–2010	-63	-36	-46	-30	-57	-61	-61	-35	-89	-44	-62	-52

Note: Percentages are shown in parentheses.

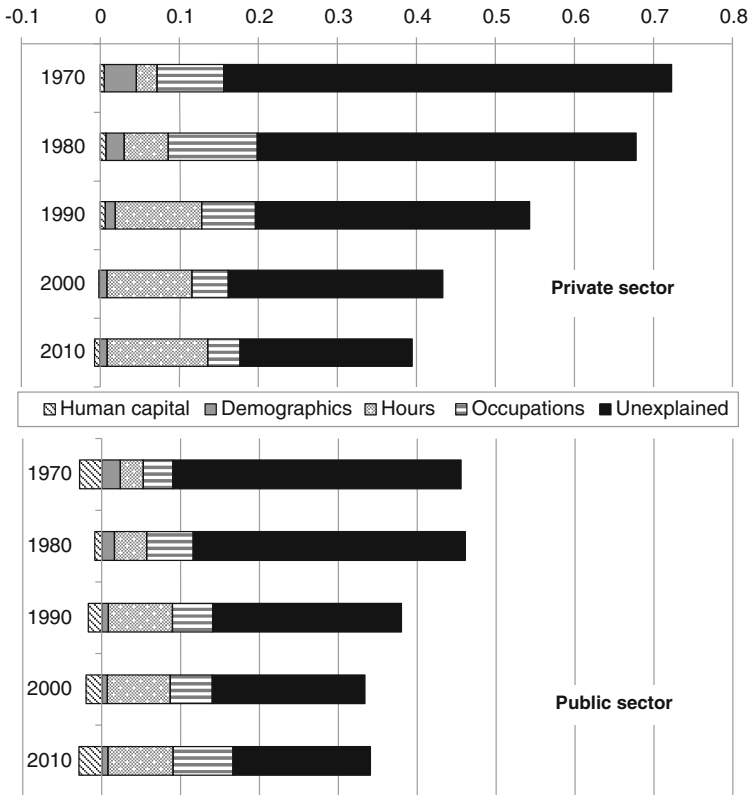


Fig. 2 Components of the gender pay gaps, by sectors, 1970–2010

The greater reduction of the unexplained portion of the gap in the private sector is expected because the unexplained portion of the gap serves as a proxy for employers’ discrimination, which is more pronounced in the private than in the public sector. In light of the reduction in gender discrimination in recent decades as well as the more pronounced level of discrimination in the private sector at the first place, these findings are expected. What is surprising, however, is the initially large size of the unexplained portion of the gap in the public sector (86 % in 1970) despite its regulated wage structure.

When dividing the gap into explained and unexplained portions, it is important to distinguish between absolute and relative changes. The data reveal that in the public sector, the explained portion of the gap has dramatically increased both in absolute and relative terms. In the private sector, by comparison, the explained portion has increased mostly in relative terms because of the reduction in the unexplained portion of the gap. Whereas the explained portion of the gap has remained relatively stable in absolute terms in the private sector (increasing by only 8 %, from 0.156 to 0.170 log units), it more than doubled in the public sector (increasing by 122 %, from 0.062 to 0.137 log units). These different trends are mainly the result of the initially large size of the unexplained gap coupled with the drastic reduction in the unexplained portion of the gap in the private sector.



A decomposition of the gender pay gap into components raises similarities as well as differences between the sectors. First, similar to the findings observed in Table 2, gender differences in sociodemographic attributes do not play a major role in explaining the gender pay gap in either sector. In both sectors, sociodemographic characteristics have become more similar among working men and women. Yet, men still receive higher returns on sociodemographic characteristics in both sectors. Second, the suppressive effect of human-capital resources viewed in the previous analysis (for the labor force as a whole) is observed mostly in the public sector: only in 2010 does this effect appear to some degree in the private sector. In both sectors, men receive higher returns for their human-capital characteristics (not shown). However, in the private sector, there are almost no differences between the two gender groups in human-capital characteristics. By contrast, in the public sector, differences in educational levels between men and women have increased over the decades in favor of women; in the public sector, the percentage of college graduates reached 55 % among women versus 46 % among men in 2010. Thus, in 2010, the gender pay gaps are 9 % larger in the public sector when education is controlled for. Apparently, the gender pay gaps observed in the public sector exist despite the higher educational levels of women.

Third, working hours has become the most important determinant of the gender pay gap in both sectors, mostly because of the growing returns to working hours regardless of sector. Between 1970 and 2010, the effect of working hours on the gender pay gap almost doubled in the public sector and increased almost fourfold in the private sector. By 2010, differences between men and women in the amount of time allocated to paid work accounted for one-third of the total gap in the private sector (33 %) and for one-quarter (26 %) of the gap in the public sector. A possible explanation for the greater effect of working hours on the gender pay gap in the private sector may lie in the rising cost of overtime work. Despite the increase in women's average weekly working hours in both sectors, overtime work is still much more prevalent among men, and the cost of overtime work has largely increased in recent decades (Cha and Weeden 2014). At the outset of this article, we suggested that because of the less regulated working conditions in the private sector, overtime work is less prevalent in the public than in the private sector. Indeed, the gap between average working hours of men and women is higher in the private than in the public sector at all decennial points. (In 2010, the numbers were 5.1 as opposed to 3.6 hours, respectively; see Online Resource 1.)

The impact of occupational segregation also differs across sectors. Whereas the impact of occupational segregation decreased by one-half (52 %) in the private sector, it has doubled in the public sector, becoming a major determinant of the gender pay gap. In 2010, occupational sex segregation accounted for one-quarter of the total gender pay gap in the public sector, compared with only one-tenth in the private sector. Once again, the difference between the sectors could be related to the regulated occupational wage structure in the public sector, which limits employers' ability to pay differential salaries to men and women who are employees in the same occupation. Moreover, although women have increased their share in professional and managerial occupations in the public sector, they are still heavily concentrated in female-dominated occupations, such as elementary school teachers, librarians, and nurses (Cotter et al. 2004; Wharton 1989).

## Discussion and Conclusions

Aiming at understanding the convergence in men's and women's earnings throughout the last four decades, we examined the sources of the gender pay gap between 1970 and 2010 in the American labor market as a whole, and in the public and private sectors separately. We decomposed the gap into the portion of the gap that can be attributed to differential human-capital characteristics, personal attributes, labor supply, gender occupational segregation, and the portion of the gap that remains unexplained (i.e., unmeasured factors and economic discrimination). Decomposition of the gender pay gap enabled us to estimate the unique contribution of each component as well as its fluctuations over the years in the labor market as a whole and in each of the two major sectors.

The findings show that working hours have become the most dominant factor accounting for the gender pay gap, followed by occupational segregation. Personal attributes and human-capital resources account for a very small portion of the gap, especially in recent decades. Moreover, the key factor accounting for the decline in the gender pay gap in both sectors is the decline in the wage penalty that women experience in the labor market. Although the decline in the size of the wage penalty component can partly be attributed to unmeasured characteristics, it also reflects a decline in gender-based earnings discrimination.

Differences between the two sectors of the economy are primarily in the size and pace of the reduction. First, the gender pay gaps and the unexplained portion of the gap are considerably larger in the private than in the public sector. Second, the reduction in the gross gender pay gaps was larger in the private sector than in the public sector (one-half compared with one-quarter, respectively). Third, the reduction in the private sector continued consistently to 2010, but it halted completely in the public sector in 2000. Fourth, although working hours have become the most important factor for gender pay inequality in both sectors, their effect is much more dominant in the private sector. Apparently women's growing allocation to paid work is not sufficient to overcome the wage gap in light of the growing significance of working hours for determination of pay (Cha and Weeden 2014). Declining gender segregation over time (Cotter et al. 2004; England 2010) may explain the lesser impact of occupations on the gender pay gap in the private sector. In the public sector, by contrast, gender segregation accounts for a greater portion of the gap in absolute as well as relative terms.

The findings reported here join the body of research that provides empirical evidence for the striking decrease in gender earnings disparities over recent decades. Some of these studies point directly to a reduction in the unexplained portion of the gap (e.g., Blau and Kahn 2006); others highlight the upward occupational mobility of American women, implying a reduction in the tendency of employers to prefer men over women to fill lucrative jobs within organizations (Cotter et al. 2004; Jacobs 1992; Mandel 2012, 2013). However, consistent with the findings reported here, research on recent trends in gender-linked earnings disparities also shows that the drastic reduction of the gap during the 1980s and 1990s has been largely restrained since the mid-1990s (Blau and Kahn 2006; England 2006, 2010). On one hand, the rapid and consistent reduction of both the gross and unexplained gender gap supports optimistic beliefs that the trend toward greater gender equality will continue into the future. Such beliefs follow neoclassical contentions that competitive forces in the private sector will further erode discrimination (Jackson 1998; Polachek 2006). Indeed, the reduction in the

gender pay gap in the private sector, although restrained, has not halted. On the other hand, the stagnation observed in the public sector during the 2000s, as well as the slowdown observed in the private sector in this decade, may point toward a less optimistic outlook suggesting that gender equality has reached a bottleneck that inhibits further integration (England 2006).

Our findings may indicate where such bottlenecks lie. In particular, they underscore the significant role played by working hours and occupational segregation, which are the two dominant factors for gender inequality in contemporary America. Meyersson et al. (2006) referred to three “frozen pipelines.” Two of the three pipelines are related to time supply and occupations. As for the former, women’s labor supply has grown faster than men’s. However, the requirement for demanding working hours has also grown, as have the returns to working hours for both genders (Cha and Weeden 2014). In addition, occupations in which women’s representation has most dramatically increased—particularly professional and managerial occupations—are those in which overwork has become part of the occupational culture (Cha and Weeden 2014; Epstein et al. 1999). Because a requirement for demanding working hours cannot meet the domestic division of labor at home, until fundamental changes in the latter take place, women will not be able to equal men in terms of their labor supply. Consequently, working hours will continue to be a major determinant of women’s pay disadvantage, especially in the private sector (Cha and Weeden 2014).

The second pipeline is sex differences in educational choices, which in turn are reflected in patterns of gender occupational segregation. The findings show that the high levels of education among women do not contribute to reducing the pay gap in the private sector; on the contrary, education suppresses male wage advantages because women are highly concentrated in fields such as education, administration, and social science, and they tend to be absent from engineering and technical fields (Meyersson Milgrom and Petersen 2006). Indeed, our findings show that not only is the unequal distribution of men and women across occupations one of the major barriers to gender equality in pay, but the role of occupational segregation has also been growing in importance over the years in the public sector.

The two “frozen pipelines” (Meyersson Milgrom and Petersen 2006) or “bottle-necks” (England 2006) are two challenges that working women have to confront in order to achieve economic equality with men. These challenges, however, emanate from the same source: namely, the gendered division of labor. Gender occupational segregation preserves the domestic division of labor, creating a barrier to overtime work, a crucial requirement for cracking the glass ceiling and reducing occupational segregation. To change this vicious circle, it is necessary to cross rigid gender boundaries, which serve as key principles for the organization of labor not only within the labor market but also within the family (Charles and Bradley 2009; England 2006; Ridgeway 2009). Unless those boundaries are seriously challenged, the prospect of a further substantial decline in the gender pay gap seems less likely. Rather, the stagnation of the gender pay gap observed in the public sector may hint at the pace of any future reduction in the gender pay gaps in the private sector as well.

**Acknowledgments** We thank Richard Barrett, William Bridges, Yitzhak Haberfeld, Noah Lewin-Epstein, and Anthony Orum for advice and comments; and Yael Navon for valuable assistance in the analysis of the data. The project was supported by the Israel Science Foundations (Grant No. 491/13).

Appendix

Table 4 Coefficients and means of variables included in the Oaxaca-Blinder decomposition, by decade<sup>a</sup>

	1970			1980			1990			
	Male	Female	Male	Female	Male	Female	Male	Female		
	B (1)	B (2)	Mean (3)	Mean (4)	B (5)	B (6)	Mean (7)	Mean (8)	B (9)	B (10)
Less Than High School	-0.38	-0.36	0.38	0.34	-0.44	-0.35	0.22	0.18	-0.53	-0.51
High School Graduate	-0.25	-0.29	0.34	0.42	-0.27	-0.26	0.35	0.43	-0.34	-0.40
Some College	-0.19	-0.24	0.12	0.12	-0.19	-0.19	0.19	0.19	-0.24	-0.29
Number of Children	0.01	-0.03	1.68	1.32	0.02	-0.04	1.28	1.18	0.02	-0.04
Child Under Age 5	-0.01	0.01	0.25	0.10	0.00	0.02	0.21	0.12	0.01	0.07
Married	0.16	-0.06	0.86	0.69	0.14	-0.06	0.79	0.66	0.12	-0.03
Foreign-Born	0.03	0.06	0.05	0.06	-0.03	0.03	0.07	0.07	-0.03	0.03
Asian	-0.07	0.05	0.01	0.01	-0.09	0.07	0.02	0.02	-0.06	0.04
Latino	-0.13	-0.03	0.04	0.03	-0.12	0.01	0.06	0.05	-0.10	0.01
Black	-0.23	-0.06	0.09	0.12	-0.15	0.07	0.09	0.12	-0.11	0.04
Other	-0.21	-0.03	0.00	0.00	-0.13	0.00	0.01	0.01	-0.13	-0.05
Weekly Working Hours (logged)	0.12	0.39	3.74	3.52	0.28	0.64	3.72	3.53	0.63	0.87
Potential Work Experience	0.03	0.01	23.11	24.20	0.03	0.02	20.26	20.50	0.03	0.02
Potential Work Experience, Squared	0.00	0.00	658.30	701.81	0.00	0.00	534.53	541.50	0.00	0.00
Constant	6.11	5.00			5.40	3.99			4.12	3.17

**Table 4** (continued)

	1970				1980				1990												
	Male		Female		Male		Female		Male		Female										
	B	(1)	Mean	(2)	B	(3)	Mean	(4)	B	(5)	Mean	(6)	B	(7)	Mean	(8)	B	(9)	Mean	(10)	
Weekly Wage (logged)	569,039		6.59	5.94	1,698,759		6.57	5.96	1,913,136		6.57	5.96	1,285,523		6.57	5.96	1,285,523	1,913,136		6.57	5.96
<i>N</i>	1990		2000	2000	2000		2000	2000	2010		2010	2010	2010		2010		2010	2010		2010	2010
Less Than High School	0.12	(11)	-0.53	-0.56	0.09	(13)	-0.56	(14)	0.09	(15)	-0.56	(16)	0.06	(17)	-0.56	(18)	-0.59	0.07	(19)	0.07	0.05
High School Graduate	0.34		-0.34	-0.43	0.40		-0.43		0.40		-0.38		0.40		-0.38		-0.43	0.36		0.36	0.32
Some College	0.29		-0.24	-0.32	0.23		-0.32		0.23		-0.27		0.26		-0.27		-0.33	0.24		0.24	0.27
Number of Children	1.08		0.02	-0.03	0.99		-0.03		0.99		0.02		1.02		0.02		-0.02	0.96		0.96	0.97
Child Under Age 5	0.20		0.02	0.07	0.17		0.07		0.17		0.01		0.13		0.01		0.08	0.16		0.16	0.13
Married	0.73		0.12	-0.02	0.68		-0.02		0.68		0.12		0.62		0.12		0.02	0.66		0.66	0.61
Foreign-Born	0.09		-0.04	0.00	0.13		0.00		0.13		-0.05		0.11		-0.05		-0.02	0.17		0.17	0.15
Asian	0.03		-0.03	0.04	0.04		0.04		0.04		-0.01		0.04		-0.01		0.05	0.05		0.05	0.05
Latino	0.08		-0.10	-0.01	0.10		-0.01		0.10		-0.08		0.08		-0.08		-0.02	0.14		0.14	0.12
Black	0.08		-0.09	0.03	0.08		0.03		0.08		-0.11		0.11		-0.11		-0.02	0.08		0.08	0.11
Other	0.01		-0.09	-0.02	0.02		-0.02		0.02		-0.07		0.02		-0.07		-0.02	0.02		0.02	0.02
Weekly Working Hours (logged)	3.75		0.68	0.86	3.76		0.86		3.76		0.86		3.61		0.86		0.97	3.73		3.73	3.59
Potential Work Experience	19.80		0.03	0.03	21.26		0.03		21.26		0.04		21.51		0.04		0.03	22.65		22.65	22.74
Potential Work Experience, Squared	488.30		0.00	0.00	542.76		0.00		542.76		0.00		555.79		0.00		0.00	615.95		615.95	624.96
Constant			4.02	3.30			4.02				3.29				3.29		2.86				
Weekly Wage (logged)	6.53		6.04	6.54	6.54		6.54		6.54		6.54		6.15		6.54		6.15	6.49		6.49	6.14
<i>N</i>	1,913,136		1,588,492	1,835,597	2,111,096		1,835,597		2,111,096		427,951		1,835,597		427,951		399,691	427,951		427,951	399,691

<sup>a</sup> Occupational categories are not included.

## References

- Arulampalam, W., Booth, A. L., & Bryan, M. L. (2007). Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution. *Industrial & Labor Relations Review*, *60*, 163–186.
- Asher, M., & Popkin, J. (1984). The effect of gender and race differentials on public-private wage comparisons: A study of postal workers. *Industrial & Labor Relations Review*, *38*, 16–25.
- Bielby, W. T., & Baron, J. N. (1986). Men and women at work: Sex segregation and statistical discrimination. *American Journal of Sociology*, *91*, 759–799.
- Blau, F. D., Brinton, M. C., & Grusky, D. B. (Eds.). (2006). *The declining significance of gender?* New York, NY: Russell Sage Foundation.
- Blau, F. D., Brummund, P., & Liu, A. Y. H. (2013). Trends in occupational segregation by gender 1970–2009: Adjusting for the impact of changes in the occupational coding system. *Demography*, *50*, 471–492.
- Blau, F. D., & Kahn, L. M. (1994). Rising wage inequality and the U.S. gender gap. *American Economic Review*, *84*, 23–28.
- Blau, F. D., & Kahn, L. M. (1997). Swimming upstream: Trends in the gender wage differential in the 1980s. *Journal of Labor Economics*, *15*, 1–42.
- Blau, F. D., & Kahn, L. M. (2006). The US gender pay gap in the 1990s: Slowing convergence. *Industrial & Labor Relations Review*, *60*, 45–66.
- Blinder, A. S. (1973). Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources*, *8*, 436–455.
- Burris, V., & Wharton, A. (1982). Sex segregation in the U.S. labor force. *Review of Radical Political Economics*, *14*, 43–56.
- Cha, Y., & Weeden, K. A. (2014). Overwork and the slow convergence in the gender gap in wages. *American Sociological Review*, *79*, 457–484.
- Charles, M., & Bradley, K. (2009). Indulging our gendered selves? Sex segregation by field of study in 44 countries. *American Journal of Sociology*, *114*, 924–976.
- Charles, M., & Grusky, D. B. (2004). *Occupational ghettos: The worldwide segregation of women and men*. Stanford, CA: Stanford University Press.
- Cotter, D. A., Hermsen, J. M., & Vanneman, R. (2004). *Gender inequality at work*. New York, NY: Russell Sage Foundation.
- DiPrete, T. A., & Buchmann, C. (2013). *The rise of women: The growing gender gap in education and what it means for American schools*. New York, NY: Russell Sage Foundation.
- England, P. (2006). Toward gender equality: progress and bottlenecks. In F. D. Blau, M. C. Brinton, & D. B. Grusky (Eds.), *The declining significance of gender?* (pp. 245–265). New York, NY: Russell Sage Foundation.
- England, P. (2010). The gender revolution uneven and stalled. *Gender & Society*, *24*, 149–166.
- Epstein, C. F., Seron, C., Oglensky, B., & Saute, R. (1999). *The part-time paradox: Time norms, professional lives, family, and gender*. New York, NY: Routledge.
- Gornick, J. C., & Jacobs, J. A. (1998). Gender, the welfare state, and public employment: A comparative study of seven industrialized countries. *American Sociological Review*, *63*, 688–710.
- Grimshaw, D. (2000). Public sector employment, wage inequality and the gender pay ratio in the UK. *International Review of Applied Economics*, *14*, 427–448.
- Jackson, R. M. (1998). *Destined for equality: The inevitable rise of women's status*. Cambridge, MA: Harvard University Press.
- Jacobs, J. A. (1992). Women's entry into management: Trends in earnings, authority, and values among salaried managers. *Administrative Science Quarterly*, *37*, 282–301.
- Kolberg, J. E. (1991). The gender dimension of the welfare state. *International Journal of Sociology*, *21*, 119–148.
- Mandel, H. (2012). Occupational mobility of American women: Compositional and structural changes, 1980–2007. *Research in Social Stratification and Mobility*, *30*, 5–16.
- Mandel, H. (2013). Up the down staircase: Women's upward mobility and the wage penalty for occupational feminization, 1970–2007. *Social Forces*, *91*, 1183–1207.
- Maume, D. J. (1985). Government participation in the local economy and race-based and sex-based earnings inequality. *Social Problems*, *32*, 285–299.
- McCall, L. (2007). Increasing class disparities among women and the politics of gender equity. In D. S. Cobble (Ed.), *The sex of class: Women transforming American labor* (pp. 15–34). Ithaca, NY: ILR Press.

- Melly, B. (2005). Public-private sector wage differentials in Germany: Evidence from quantile regression. *Empirical Economics*, *30*, 505–520.
- Meyersson Milgrom, E. M., & Petersen, T. (2006). The glass ceiling in the United States and Sweden: Lessons from the family-friendly corner of the world, 1970–1990. In F. D. Blau, M. C. Brinton, & D. B. Grusky (Eds.), *The declining significance of gender?* (pp. 156–212). New York, NY: Russell Sage Foundation.
- Morris, M., & Western, B. (1999). Inequality in earnings at the close of the twentieth century. *Annual Review of Sociology*, *25*, 623–657.
- Oaxaca, R. (1973). Male-female wage differentials in urban labor markets. *International Economic Review*, *14*, 693–709.
- O'Neill, J. (2003). Catching up: The gender gap in wages, circa 2000. *AEA Papers and Proceedings*, *93*, 309–315.
- O'Neill, J., & Polachek, S. (1993). Why the gender-gap in wages narrowed in the 1980s. *Journal of Labor Economics*, *11*, 205–228.
- Panizza, U., & Qiang, C. Z. (2005). Public-private wage differential and gender gap in Latin America: Spoiled bureaucrats and exploited women? *Journal of Socio-Economics*, *34*, 810–833.
- Petersen, T., & Morgan, L. A. (1995). Separate and unequal: Occupation-establishment sex segregation and the gender wage gap. *American Journal of Sociology*, *101*, 329–365.
- Polachek, S. W. (2006). How the life-cycle human-capital model explains why the gender wage gap narrowed. In F. D. Blau, M. C. Brinton, & D. B. Grusky (Eds.), *The declining significance of gender?* (pp. 102–124). New York, NY: Russell Sage Foundation.
- Ridgeway, C. L. (2009). Framed before we know it: How gender shapes social relations. *Gender & Society*, *23*, 145–160.
- Tansel, A. (2005). Public-private employment choice, wage differentials, and gender in Turkey. *Economic Development and Cultural Change*, *53*, 453–477.
- Treiman, D. J., & Hartmann, H. I. (1981). *Women, work, and wages: Equal pay for jobs of equal value*. Washington, DC: National Academy Press.
- Weeden, K. A. (2004). Profiles of change: Sex segregation in the United States, 1910–2000. In M. Charles & D. B. Grusky (Eds.), *Occupational ghettos: The worldwide segregation of women and men* (pp. 131–178). Stanford, CA: Stanford University Press.
- Weichselbaumer, D., & Winter-Ebmer, R. (2005). A meta-analysis of the international gender wage gap. *Journal of Economic Surveys*, *19*, 479–511.
- Wharton, A. S. (1989). Gender segregation in private-sector, public-sector, and self-employed occupations, 1950–1981. *Social Science Quarterly*, *70*, 923–940.
- Zweimuller, J., & Winterebmer, R. (1994). Gender wage differentials in private and public-sector jobs. *Journal of Population Economics*, *7*, 271–285.