Congressional Research Service
Informing the legislative debate since 1914

IN FOCUS

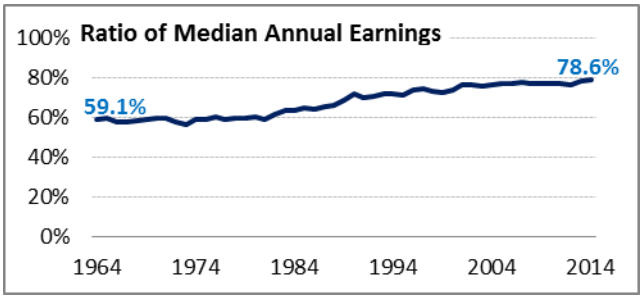
June 1, 2016

The Gender Earnings Gap

Women earn less, on average, than men. This earnings differential—often called the gender earnings gap—is a significant concern for policymakers, and it raises questions about gender equity in labor markets as well as the implications of the gap for national economic performance.

Figure 1. Ratio of Women's to Men's Median Annual Earnings, 1964-2014

Full-time, Year-Round Workers



Source: U.S. Census Bureau, Historical Income Tables, Table P-40, at http://www.census.gov/hhes/www/income/data/historical/people/

Note: A full-time, year-round worker is a person who worked 35 or more hours per week and 50 or more weeks during the previous calendar year.

Figure 1 plots the ratio of women's to men's annual median earnings from 1964 to 2014, using U.S. Census Bureau data. This ratio is a summary measure of the gender earnings gap, which in practice takes on a range of values that vary across occupations and worker characteristics. Nonetheless, **Figure 1** illustrates several points of interest:

- Women's median annual earnings are lower than men's throughout the entire 1964-2014 period;
- The ratio of women's-to-men's median annual earnings rose rapidly in the 1980s and 1990s;
- The ratio continued to rise in recent years, but at a slower pace;
- In 2014, women's median annual earnings were 78.6% of men's, representing a 21.4 percentage point gap.

The Explained and Unexplained Gap

Part of the earnings gap shown in **Figure 1** can be attributed to differences between men's and women's employment patterns and other characteristics. **Table 1**, for example, illustrates select differences between men's and women's years of education, full-time work experience, and occupations in 1981 and 2011. It shows that differences remain in 2011, but these have narrowed considerably since 1981.

Table 1. Select Worker Characteristics, by Sex

	Men		Women	
Worker Characteristics	**1981**	**2011**	**1981**	**2011**
Schooling (Years)	13.3	14.3	13.2	14.5
Full-time Work Experience (Years)	20.3	17.8	13.5	16.4
Share of Workers in Managerial Jobs	21.5%	18.3%	9.2%	16.2%
Share of Workers in Professional Jobs, Excluding Nurses and Teachers	14.6%	18.6%	10.1%	17.8%

Source: Francine D. Blau and Lawrence M. Kahn, *The Gender Wage Gap: Extent, Trends, and Explanations*, National Bureau of Economic Research, Working Paper no. 21913, Tables 2 and 3, January 2016, http://www.nber.org/papers/w21913.

Note: Blau and Kahn use data from the Panel Study of Income Dynamics, and restrict analysis to full-time non-farm wage and salary workers, aged 25-64, with at least 26 weeks of employment.

Researchers have applied statistical techniques to large-scale survey data to separate the observed earnings gap (e.g., as shown in **Figure 1**) into its explained and unexplained portions.

- *The explained portion* accounts for observed gender differences in factors that affect wages (e.g., education, occupation, work experience), assuming that those attributes are equally valued for men and women (i.e., an MBA has the same value to an employer regardless of the degree-holder's sex).
- *The unexplained portion* is the gap that remains when observed characteristics are taken into account (i.e., it is the portion of the gap that cannot be explained by observed differences in education, work experience, or other worker characteristics).

One interpretation of the unexplained gap is that it measures sex-based discrimination. Although research suggests discrimination is a component, the unexplained gap plausibly measures the impacts of many factors. This is because all surveys that have been used to estimate the explained and unexplained earnings gaps are limited in their capacity to fully capture worker attributes that could affect earnings. For example, although most surveys collect information on employment, occupation and industry of work, work hours, and wages, many individual characteristics (e.g., technical knowledge, competitiveness, interpersonal skills) and employer-specific attributes (e.g., job features and requirements, provision of classroom training and mentoring) are frequently unmeasured. As a

result, the unexplained portion of the wage gap—as conventionally measured—will capture many things, including, potentially, unmeasured worker characteristics that affect productivity, worker preferences for job amenities, differences in workers' bargaining power, and discriminatory labor practices.

The Explained Gap: Significant Factors

A vast literature has examined the determinants of the gender earnings gap. Although there are many contributing factors, and their relative significance have shifted over time, career interruptions and occupation differences stand out.

Career Interruptions: On average, women tend to interrupt their careers more so than men. The frequency and duration of interruptions have changed over time, but—as shown in **Table 1**—women have fewer years of full-time work, on average, than do men. Interruptions can affect women's earnings through several channels. Workers who switch employers after a break from employment will lose job-specific knowledge and training; in addition, workers may trade monetary compensation for desirable job features (e.g., work environment, flexible scheduling, additional training) when returning to work. Long absences may cause certain skills or job networks to depreciate, temporarily curtailing wages while these are reestablished. Finally, some employers may interpret an interruption as a signal of low labor market commitment, resulting in more challenging job search or lower wage offers.

Occupation: Although occupational-segregation has diminished considerably over the past thirty years, women and men—as groups—continue to concentrate their employment in different occupations, and this remains an important source of the gender earnings gap. There are various theories about why this may be the case, including that women may select into jobs that they can more easily return to after a temporary career interruption (e.g., for family reasons or if a household relocates) or that women face additional barriers to employment in certain fields. Relative to women, men are better represented in certain higher-paying occupations like managerial jobs and historically male professional jobs (e.g., professional jobs other than nurses and K-12 educators). For example, Bureau of Labor Statistics data show that, while women made up 44.2% of all full-time wage and salary workers in 2014, they made up 26.3% of chief executives ($2,023 median weekly earnings), and 80.4% of elementary and middle school teachers ($980 median weekly earnings).

Exploring the Unexplained Gap

Given the limits of large-scale survey data, researchers have used smaller-scale studies, often on special worker groups (e.g., specific occupations) to explore the determinants of the unexplained earnings gap. The literature has also evolved to consider the impact of less tangible worker skills and traits—like interpersonal skills, risk-aversion, competitiveness, and self-esteem—that are important to workers' performance and career path. A few prominent findings suggest that preferences for flexible work schedules, differences in wage negotiation, and the persistence of gender stereotypes may matter to women's relative pay.

Preferences for Flexible Work Schedules: A greater preference for flexible work arrangements among women (e.g., in terms of where the work is performed, the number of hours, and when those hours may be worked) may explain a portion of the pay gap if workers who value such flexibility are willing to accept lower monetary compensation in exchange. This theory is consistent with recent research on gender earnings differentials *within* high-paying occupations. These findings suggest that providing work-hour flexibility is costly for some employers, and consequently working *long* hours and *particular* hours receives a wage premium (e.g., two hours worked from 6 to 8 p.m. in the office is worth more to the employer and compensated at a higher rate than two hours worked from 9 to 11 p.m. at home). Moreover, as demand for work-time flexibility increases—among both male and female workers—the "price" of flexibility may rise, putting additional downward pressure on wages.

Wage Negotiation: Recent studies of specific worker groups (e.g., investment bankers at a single firm, MBA students) have documented differences in men's and women's propensity to negotiate compensation. At the same time, there is some indication that negotiation by female employees may be less effective. A small collection of experimental studies—that is, conducted in a controlled environment, not analysis of actual employers—suggests that women who negotiate wage offers are seen as less desirable job candidates than those who accept opening offers.

Discrimination: Research that explores sex-based compensation discrimination tends to restrict analyses to narrowly defined groups (e.g., lawyers, MBAs), where there are fewer differences between the attributes of male and female workers. Some of these—but not all—reveal that pay differences remain after taking into account a multitude of factors, a finding consistent with the view that discrimination contributes to the earnings gap.

Where it exists, sex-based discrimination may not be based on employers' distaste for hiring women. Instead, when employers are uncertain about the productive capacity or workforce commitment of an individual worker, they may rely on information or perceptions about group differences when making hiring, training, or other decisions. Economists refer to this practice as *statistical discrimination*. Some experimental studies—conducted both in laboratories and in labor markets—detect gender-stereotyping that may put women at relative disadvantage in hiring and wage offers under certain conditions. For a discussion of major laws directed at eliminating sex-based discrimination and recent proposals, see CRS Report RL31867, *Pay Equity: Legislative and Legal Developments*, by Jody Feder and Benjamin Collins.

Sarah A. Donovan, Analyst in Labor Policy

IF10414

Disclaimer