



ISSUE BRIEF

Women's Earnings and the Wage Gap

Highlights

- The gender earnings ratio (women's earnings as a percentage of men's) for full-time, year-round workers improved from 60.2 percent in 1980 to 79.6 percent in 2015.
- Progress towards closing the disparity between women's and men's earnings was greatest during the 1980s, but slowed during the 1990s and 2000s.
- The earnings disparity between women and men is narrowest for young workers ages 25-34 and widest for workers ages 55 to 64.
- White, non-Hispanic and Asian women out-earn Black and Hispanic women.
- The gender wage gap among those with the highest level of educational attainment is larger than the average wage gap for all workers.
- Black and Hispanic women with a bachelor's degree have lower median weekly earnings than Asian and White women with the same educational level.
- Among full-time female workers, the inflation-adjusted median weekly earnings of those who did not complete high school fell by 9.7 percent between 1979 and 2015, while the inflation-adjusted median weekly earnings of those with at least a bachelor's degree increased by 32.2 percent.
- Women who are members of unions or covered by union contracts have much higher earnings and greater access to employer-provided pensions and health insurance than women who are not.
- In 2015, women were over sixty percent of workers paid at or below the federal minimum wage, and they were the majority of full-time workers who earned less than \$400 per week.

Introduction

In 2015, there were 163.2 million women and girls in the United States, 50.8 percent of the population¹. Women are slightly under half (46.8%) of the 157.1 million workers in the civilian labor force, a steep increase from 1960 when they were just one in three (33.4%) of workers².

During the last 35 years, as women have increased their time in the labor market and attained higher levels of education and professional qualifications, women's earnings have increased substantially and the gender wage gap has narrowed. Although the gap between women's and men's median earnings has decreased, women continue to earn substantially less than men. This publication provides data on women's earnings and the gender wage gap.

The publication presents an overview of the following topics:

- **Women's earnings** and the **gender wage gap**: Women's earnings have generally increased since 1980, causing the wage gap to decrease.
- Different measures of the **gender earnings ratio**: using different data sources with different populations leads to natural variation in the gender earnings ratio. The most common measure uses median annual earnings of full-time year round (FTYR) workers, where the gender earnings ratio is 79.6%. In other words, FTYR working women earned 79.6% of FTYR working men in 2015.
- Major explanations for **the gender wage gap**: Occupational segregation, or the tendency of women and men to work in different occupations, explains much of the wage gap. Overwork, caregiving responsibilities, and other factors also drive the wage gap.
- **Earnings by selected demographic** and employment characteristics: Women's earnings have increased in every racial and ethnic group, nativity, and level of educational attainment since 1980, but remain lower than men's earnings.

Women's Earnings and the Gender Wage Gap

In 2015, the median annual earnings of women working full-time, year-round were \$40,742 compared with men's \$51,212.³ This means that women earned only 79.6 cents for every dollar earned by a man for full-time, year-round work, corresponding to a gender wage gap of 20.4 percent. Figure 3.1 shows women's and men's inflation-adjusted median annual earnings for full-time year-round workers, as well as the gender earnings ratio from 1980 to 2015. During this period, the gender wage gap was widest in 1981, when women earned only 59.2 percent of men's earnings. The wage gap has since decreased by over 20 percentage points. Progress towards closing the gender wage gap was particularly strong during the 1980s, but has stalled in more recent years (Figure 3.1).

Key Terms

Gender earnings ratio: women's median earnings as a percentage of men's.

A gender earnings ratio of 100.0 indicates gender parity in earnings, and a gender wage gap of 0. In other words, women's and men's earnings would be equal.

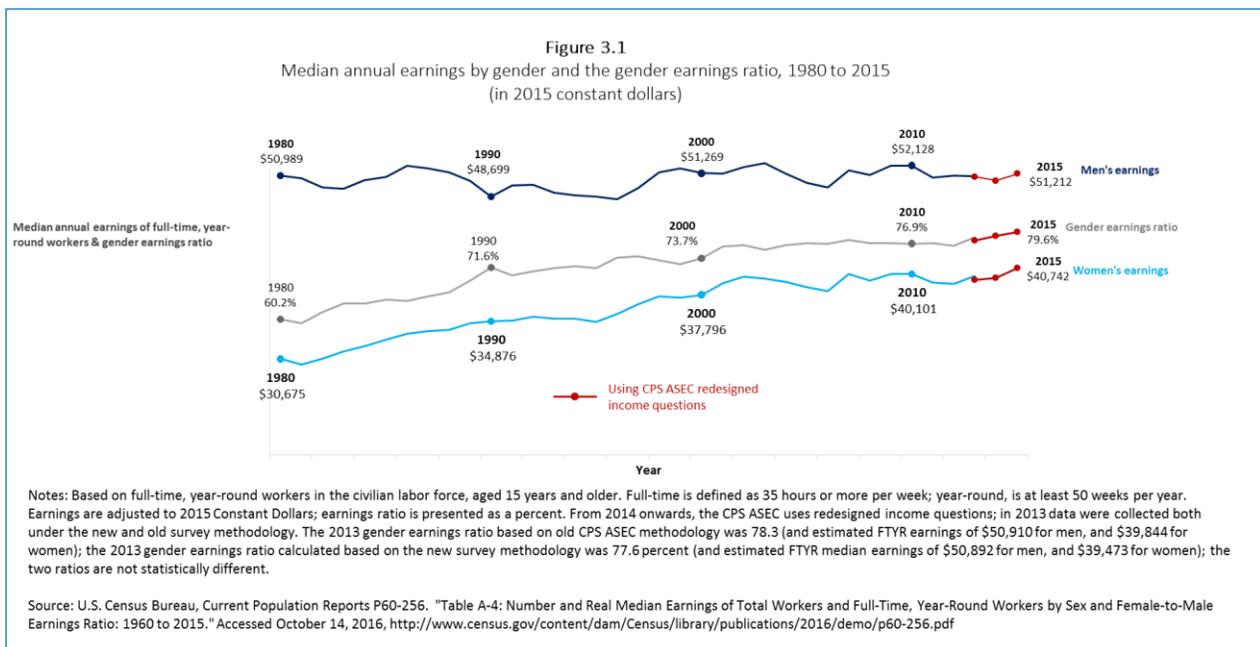
Wage gap (or earnings disparity): the difference in women's median earnings relative to men's

Real earnings: earnings adjusted to consider the impact of inflation. Used when comparing earnings in two or more time periods (also referred to as "inflation-adjusted earnings")

Full-time work: 35 hours or more per week

Year-round work: at least 50 weeks per year

Median earnings: the midpoint of the earnings distribution; half of all workers earn less and half earn more than this point



Changes in the gender earnings ratio reflect changes in both men's and women's median annual earnings. Men's real median annual earnings have stagnated and are roughly equivalent to men's earnings in 1980. Women's real median annual earnings, by contrast, rose during the 1980s and 1990s, reflecting women's gains in educational attainment and increased labor force participation rates (particularly among mothers). Women's higher earnings also reflect improvements in access to better jobs, which may be due in part to changes in federal laws, including Title VII of the Civil Rights Act and Executive Order 11246 (which applies to federal contractors), Title IX of the Education Amendments of 1972, the Pregnancy Discrimination Act of 1978, and the Family and Medical Leave Act of 1993.⁴ As women's real earnings increased and men's stagnated, the gender wage gap narrowed. The slow narrowing of the wage gap in recent years reflects this trend (Figure 3.1).

Different Measures of the Gender Earnings Ratio

The gender earnings ratio presented in this publication is based on the median annual earnings of full-time, year-round workers and is the most commonly used measure for calculating the gender wage gap. This ratio is available on an annual basis since 1960 and on a less consistent basis from 1948 to 1959⁵. It thus provides the best measure of long-term trends.⁶ There are several ways to measure earnings, the gender earnings ratio, and the wage gap, which are described in more detail below. The main differences across measures involve types of workers included, types of compensation included, and timeframe covered. However, a persistent wage gap is common across the different measures.

Table 3.1 provides an overview of four measures of median earnings: hourly earnings of wage and salary workers paid hourly rates; weekly earnings of full-time wage and salary workers; annual earnings of full-time, year-round workers; and annual earnings of all workers with earnings. The measure resulting in the lowest gender earnings ratio (the largest gender wage gap) is that which includes all women and men with earnings during the calendar year, irrespective of how many hours, weeks, or months they worked during the year. In 2015, this ratio was 72.7 percent — a wage gap of 27.3 percent. The measure resulting in the largest gender earnings ratio (lowest gender wage gap) is based on hourly earnings (85.6 percent in 2015). It includes the fewest workers and has the most restrictive definition of earnings. As hourly-paid wage and salary workers were just over five in ten workers in 2015 (58.5 percent), this measure includes half of all workers. Further, overtime payments, commissions, and tips are excluded from the earnings calculation. The gender earnings ratio based on median weekly earnings of full-time wage and salary workers (81.1 percent in 2015) includes overtime, commissions, and tips but excludes self-employed workers. The weekly gender earnings ratio is slightly larger than the measure based on earnings of full-time year-round workers, which includes all earnings received during the year, salaries, wages, and earnings from annual bonuses and merit payments, as well as earnings from self-employment (Table 3.1).

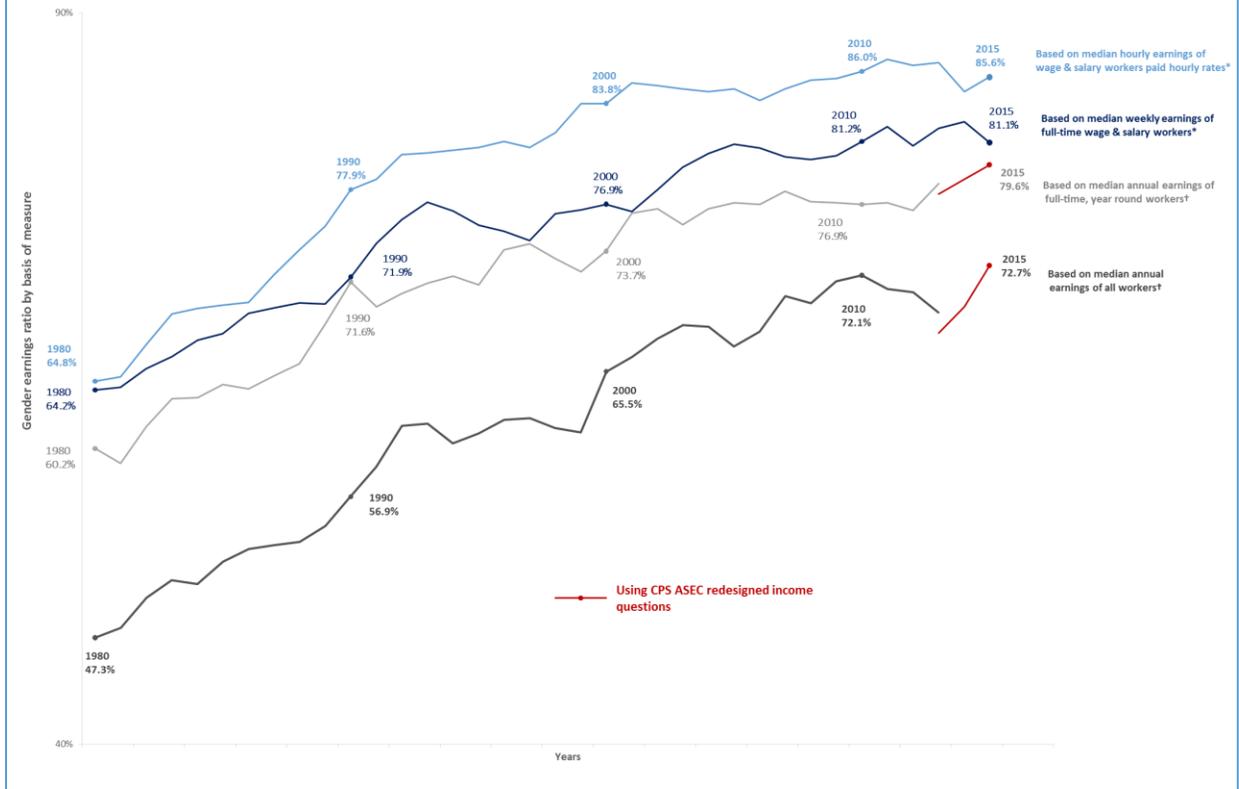
	Median hourly earnings of wage & salary workers paid hourly rates ^a	Median weekly earnings of full-time, year-round wage & salary workers ^b	Median annual earnings of full-time, year-round workers ^c	Median annual earnings of all workers ^c
Collected through	BLS CPS monthly	BLS CPS monthly	Census Bureau CPS ASEC	Census Bureau CPS ASEC
Available since	1979	1979	1960*	1960*
Type of workers covered				
Age	16 plus	16 plus	15 plus**	15 plus**
Civilian labor force only	Yes	Yes	only until 1989	only until 1989
Type of worker	Hourly paid	Full-time, wage and salaried	Full-time, wage and salaried	All with any earnings
Full-time only	No	Yes	Yes	No
Proportion of total employed, 2015	52.6%	73.3%	68.0%	100.0%
Women's share of workers included in measure, 2015	50.5%	44.3%	42.5%	47.1%
Type of compensation included				
Timeframe of earnings measure	Hourly	Weekly	Annual	Annual
Earnings from self-employment	No	No	Yes	Yes
Overtime, commissions, tips	No	Depends ⁺	Yes	Yes
Annual bonus and merit awards	No	Depends ⁺	Yes	Yes
Median Earnings				
Women's median earnings	\$12.56	\$726	\$40,742	\$30,246
Men's median earnings	\$14.67	\$895	\$51,212	\$41,615
Gender earnings ratio	85.6%	81.1%	79.6%	72.7%

Notes: Full-time defined as 35 or more hours worked per week; year-round, as 50 or more weeks worked per year. * The CPS ASEC was first collected in 1948; consistent annual data series available from 1960. ** Until 1980, CPS ASEC included workers 14 years and older. ⁺ The CPS asks workers for their 'usual weekly earnings,' and respondents choose the reference period and the unit (hourly, weekly, biweekly, monthly, etc.) in which to report earnings; Earnings reported on a basis other than weekly are converted to weekly equivalent. Usual weekly hours may underestimate overtime earnings, as well as annual commissions/on-off payments.

Sources: (a) U.S. Bureau of Labor Statistics, Current Population Survey. Unpublished Tables. "Table A-7. Hourly earnings of employed wage and salary workers paid hourly rates by age, sex, race, and Hispanic or Latino ethnicity and Non-Hispanic ethnicity, Annual Average 2015." Accessed November 2, 2016. U.S. Bureau of Labor Statistics, Current Population Survey. Annual Tables, February 10, 2016. "Table 5. Employment status of the civilian noninstitutional population by sex, age, and race, annual averages." Accessed November 3, 2016. <http://www.bls.gov/cps/cpsaat05.htm> (b) U.S. Bureau of Labor Statistics, Economic News Release, January 22, 2016. "Table 7. Median usual weekly earnings of full-time wage and salary workers by selected characteristics, annual averages." Accessed November 2, 2016. <http://www.bls.gov/news.release/wkyeng.t07.htm>. Accessed November 2, 2016. U.S. Bureau of Labor Statistics, Current Population Survey. Annual Tables, February 10, 2016. "Table 5. Employment status of the civilian noninstitutional population by sex, age, and race, annual averages." Accessed November 3, 2016. <http://www.bls.gov/cps/cpsaat05.htm> (c) U.S. Census Bureau, Current Population Reports P60-256. "Table A-4: Number and Real Median Earnings of Total Workers and Full-Time, Year-Round Workers by Sex and Female-to-Male Earnings Ratio: 1960 to 2015." Accessed October 3, 2016. <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf>.

Figure 3.2 shows changes in the gender earnings ratio for each of the four measures described in Table 3.1 from 1980 to 2015. Although this ratio has improved for each of these measures over the years, the wage gap persists, and for many of the measures, has stagnated in recent years.

Figure 3.2
Gender earnings ratios, 1980-2015



Notes: *Workers age 16 and older in the civilian labor force. †Annual earnings are for workers age 15 and older in the civilian labor force and include self-employed workers. Full-time is defined as 35 or more hours per week; year-round is defined as 50 weeks or more per year. ‡ From 2014 CPS, ASEC applied redesigned income questions; the 2013 estimate of the gender earnings ratio for FTWR workers under the old survey design was 78.3 percent, not significantly different from the ratio estimated under the new survey design (77.6). For all workers with earnings, the gender earnings ratio under the old design was 69.5 percent, not significantly different from the measure estimated on the new design (68.1). 2015 is the most recent year with data available for all four measures and therefore is used as the basis for comparison. Sources: (a) U.S. Bureau of Labor Statistics, Highlights of Women's Earnings in 2015, November 2016. "Table 16: Women's earnings as a percentage of men's, by race and Hispanic or Latino ethnicity, for wage and salary workers paid hourly rates, 1979-2015." Accessed November 20, 2016. <http://www.bls.gov/opub/reports/cps/highlights-of-womens-earnings-in-2015.pdf>. (b) U.S. Bureau of Labor Statistics, Highlights of Women's Earnings in 2015, November 2016. "Table 18: Inflation-adjusted median usual weekly earnings, by race and Hispanic or Latino ethnicity, for full-time wage and salary workers, 1979-2015." Accessed November 20, 2016. <http://www.bls.gov/opub/reports/cps/highlights-of-womens-earnings-in-2015.pdf>. (c) U.S. Census Bureau, Current Population Reports P60-2252. "Table A-4: Number and Real Median Earnings of Total Workers and Full-Time, Year-Round Workers by Sex and Female-to-Male Earnings Ratio: 1960 to 2015." Accessed October 31, 2016. <http://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-2252.pdf>

Major Reasons for the Gender Wage Gap

Studies have identified a number of factors that account for a share of the difference in earnings between women and men, including women's greater likelihood to reduce or leave paid work to care for children or adult family members⁷ and the combination of occupational segregation and lower median pay in occupations in which women make up a significant share of all workers employed.⁸

Occupation: a craft, trade, profession, or other means of earning a living. Also, a set of activities or tasks that employees are paid to perform and that, together, go by a certain name. Employees who are in the same occupation perform essentially the same tasks, whether or not they work in the same industry.

Industry: a group of establishments that produce similar products or provide similar services. An industry may employ workers of many different occupations.

The most recent comprehensive study of earnings, which followed a cohort of women and men across a 30-year period from 1980 to 2010, and thus could control for factors such as differences in occupation and industry and time out of the labor market, found that differences in occupations and industry of employment explained close to half of the difference in women's and men's earnings (32.9 percent and 17.6 percent, respectively).⁹ In other words, nearly one-third of the gap in earnings is due to the fact that

women tend to work in different occupations from men, and that the occupations in which women are the large majority of workers have lower earnings than those in which most workers are men. For example, women are only a quarter of workers in computer and mathematical occupations, which tend to have earnings well above average. Nearly one-fifth of the gap (17.6 percent) is due to differences in the sectors in which women and men work; a supervisor or human resources manager working in manufacturing, for example, may have higher earnings than a supervisor working in a restaurant. Differences in the time that women and men spent out of paid work were found to explain 14.1 percent of their overall difference in earnings. Yet, even after the impact of all other factors commonly associated with differences in earnings (including education, race, and unionization) were analyzed, an ‘unexplained’ share of the wage gap (38.0 percent) remained. Economists take at least part of this unexplained gap between women’s and men’s earnings as the best proxy for discrimination.¹⁰

A 2013 study of made in the first year out of college of women and men with bachelor’s degrees found that, even at this early stage, a wage gap of 18 percent already existed.¹¹ The gender earnings ratio for women and men one year after college, before controlling for field of study, type of degree-granting institution, and number of hours worked, was 82 percent.¹² This figure reflected the effects of college major selection and occupational segregation, which together tend to concentrate women in lower-paying fields, and demographic or personal characteristics, such as race, ethnicity, age, and marital status, among other variables. Yet, even after controlling for these and other factors, including hours worked, a 7.0 percent wage gap remained.¹³ More than one-third of the overall wage gap of 18 percent was therefore unexplained, meaning that it could not be attributed to observable distinctions in worker characteristics. Other studies reach similar conclusions: differences in occupations, hours of work, and time in the labor market account for a significant portion of gender differences in earnings, but a substantial part of the gap remains unexplained after controlling for observable characteristics of workers.¹⁴

Research suggests that differences in negotiating behaviors between women and men may partly explain differences in starting salaries and salary growth over time. When individual wage negotiations are not explicitly encouraged, women are less likely than men to negotiate aggressively or to question salaries suggested to them by their employer or manager.¹⁵ Yet, when women negotiate as aggressively as men, they may be viewed more negatively than men.¹⁶ Negotiating a lower starting salary can have a long term impact on earnings. For example, a 5 percent salary increase based on a salary of \$50,000 is \$2,500; based on a salary of \$40,000, the increase is \$2,000. Before the increase, the gap in earnings was \$10,000; after the increase it had grown to \$10,500; after the next 5 percent increase, the gap in earnings will have grown to \$11,025. This research hints at the importance of an emerging trend in legislation mandating equal pay for jobs of comparable worth. Recently, Massachusetts passed the Pay Equity Act, which changes the rules of hiring by providing a definition of comparable work entitled to equal pay and prohibits employers from firing employees for discussing their compensation with coworkers. It is also the first state to prohibit employers from asking for a salary history in interviews—a practice that perpetuates the wage gap.¹⁷ The consequences of a lower salary may also be felt during job changes because many employers use a worker’s last salary as a reference point for their offer to a newly hired employee. Basing salary increases on past salary can lead to substantial differences in pay between women and men doing

the same job; in the absence of objective job-related factors justifying such differences, such practices may result in charges of pay discrimination.¹⁸

A study examining changes in the gender earnings ratio between 1970 and 2010 separately in the private and public sectors highlights the differences in the pace of the gender integration of occupations in each sector as an explanation of differences in the gender earnings ratio. Overall, the study finds occupational segregation is lower in the public than in the private sector. Further, the proportion of the wage gap that is unexplained by occupation, human capital, hours of work, and time in the labor market accounts for a much smaller part of the overall gender wage gap in the public than in the private sector.¹⁹

Other research identifies the growing prevalence of ‘overwork’ (jobs with average working hours of 50 or more per week) as an important contributing factor to the lack of progress towards gender equity in earnings in this millennium and to the persistence of occupational segregation.²⁰ Jobs with long hours are particularly common in professional and managerial occupations. While both women and men earn wage premiums for working long hours, women are less likely than men to work jobs with long hours. Moreover, when women do work over 50 hours, the premium they earn is proportionally lower than men’s. The studies conclude that the growth of a long-hours culture in professional and managerial jobs presents a major barrier to closing the gender wage gap because, given the unequal gender division of unpaid family and child care work, women are less likely than men to work in such jobs.²¹

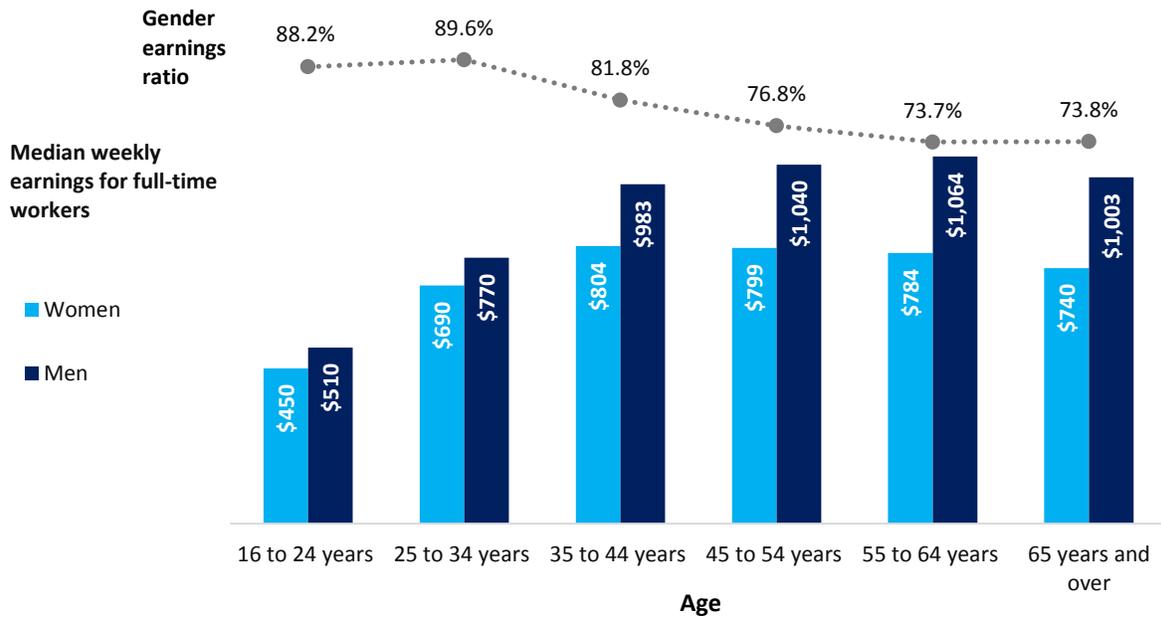
Earnings by Selected Demographic and Employment Characteristics

Earnings by Age

Both women’s and men’s earnings vary over their life cycle. Earnings are lowest when young women and men enter the labor market and then tend to rise as workers gain experience and skills, and possibly acquire additional qualifications and education. Figure 3.3 shows median weekly earnings for workers in different age groups. For both women and men, earnings are lowest for young workers, peak for middle-aged workers, and then decrease for workers ages 65 and older.

The gender earnings ratio is closest to parity for workers in the youngest age groups (16-24 years, 88.2 percent; 25-34 years, 89.6 percent); the earnings ratio is lower for each subsequent age group, reaching a low of 73.7 percent for workers ages 55 to 64. The ratio is slightly higher for women and men ages 65 and older (73.8 percent; Figure 3.3).

Figure 3.3
The gender earnings ratio and median weekly earnings of full-time workers by gender and age, 2015 annual averages

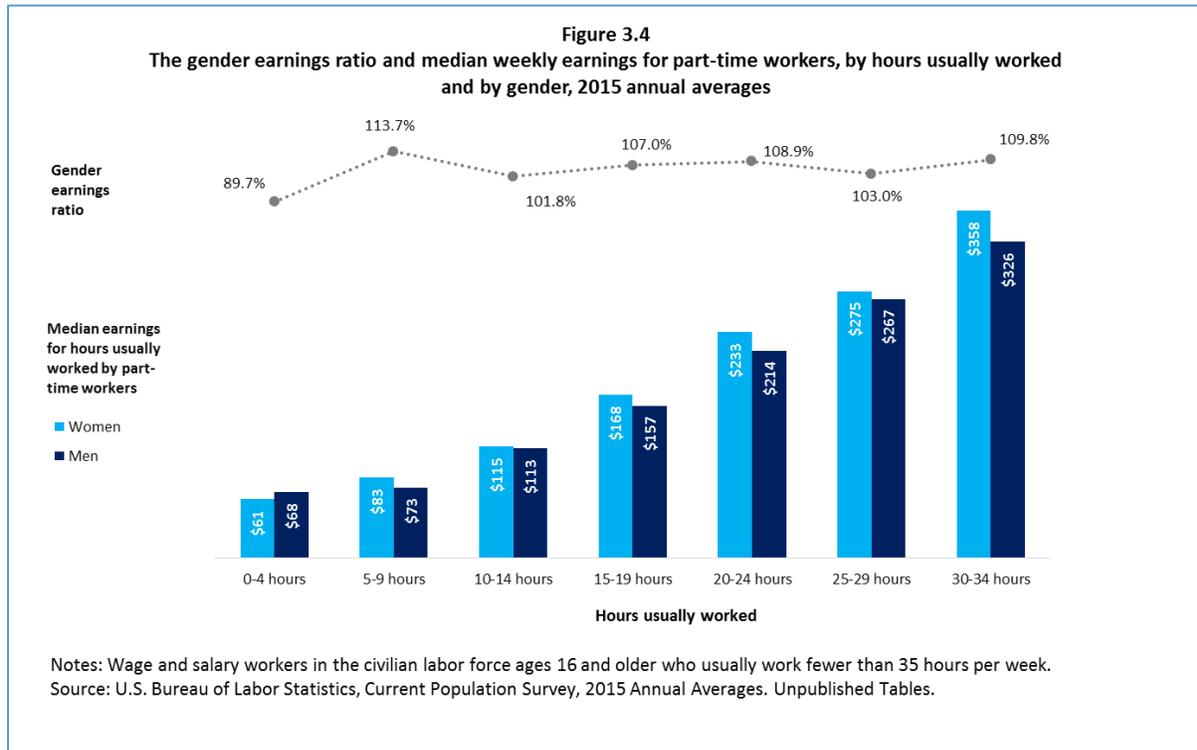


Source: U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages.

Data in Figure 3.3 compare workers in different age groups at the same point in time and therefore do not allow any conclusions about the development of the gender earnings ratio as the current cohort of young workers grows older. A cohort analysis of women’s and men’s earnings (analyzing changes in the earnings of workers born during the same years over time) found that the gender earnings ratio starts fairly high when workers are in their twenties, declines during child-rearing years, and rises again when workers reach middle age. The gender wage gap has grown smaller with each new generation. Additionally, although the Millennial generation (born between 1980 and 1994) entered the workforce with the same gender earnings ratio as the earlier Generation X at age 20, Millennials are the first generation not to have seen the wage gap expand by age 30. It is too early to tell whether this represents a historical anomaly, possibly reflecting depressed earnings in response to the financial crisis or the increasing tendency of Millennial women to postpone motherhood, or whether it will continue into the future. Earnings from Part-time Work

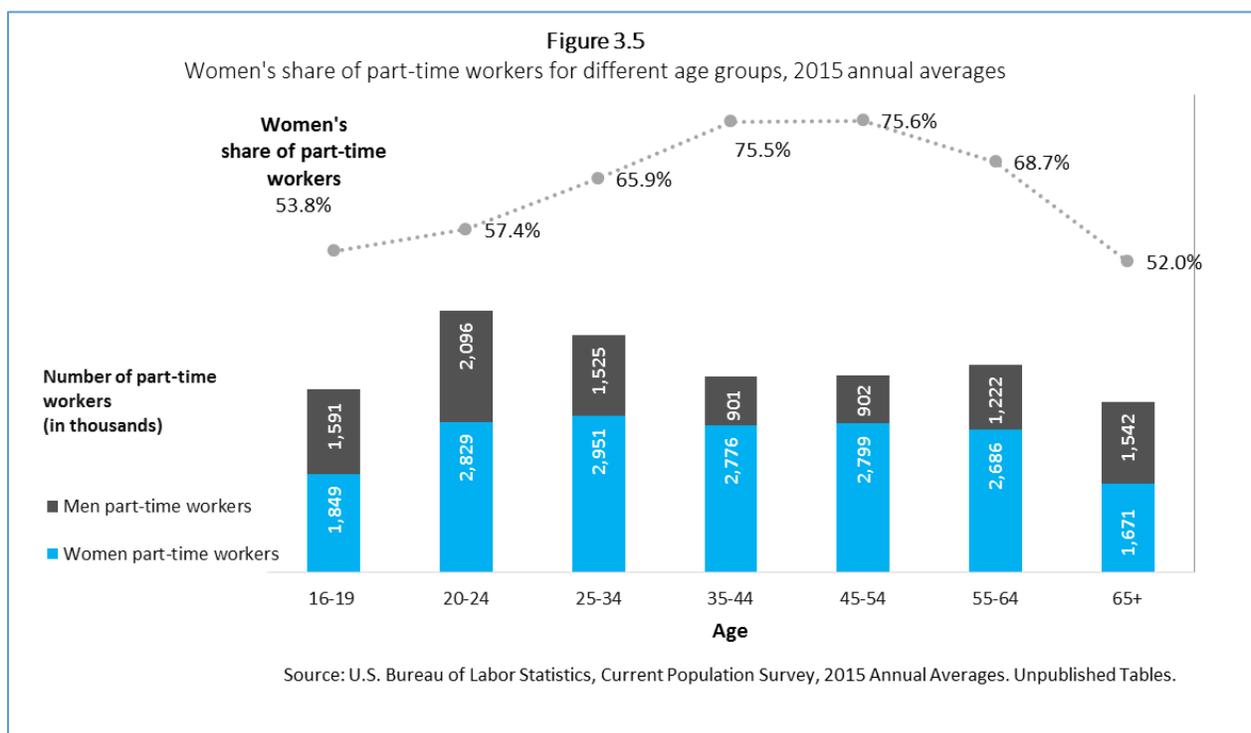
On average, women working part-time (defined as fewer than 35 hours per week) earn more than men working part-time. In 2015, the median weekly earnings of women who worked part-time (irrespective of how many hours they worked in a given week) were \$251, compared with \$238 for men, a gender

earnings ratio of 105.5 percent.²² The only part-time women workers who earned less than men were those who worked fewer than five hours per week. Among those working 30 to 34 hours per week, the gender earnings ratio was 109.8 percent, meaning that women earned \$1.10 for every dollar earned by male part-time workers in this category (Figure 3.4).



Women working part-time earned more in part because they were older than men working part-time, and mid-career workers typically have higher earnings than younger workers. In 2015, 37.7 percent of male part-time workers were under age 25 and 34.0 percent were ages 25 to 54. In comparison, 26.6 percent of female part-time workers were under age 25, while 48.6 percent were ages 25 to 54.²³

While women are more likely than men to work part-time in every age group, both women and men are most likely to work part-time at the beginning and at the end of their working lives. However, the likelihood of part-time work falls much more sharply for men during their prime working years (age 25 to 54) than it does for women. Over half (50.7 percent) of employed young women ages 16 to 24 work part-time compared with 38.7 percent of employed young men; during prime working years, the share of part-time work falls to 19.0 percent of employed women compared with just 6.4 percent of employed men.²⁴ As a result, women's share of part-time workers is highest during the prime working years (Figure 3.5).



Earnings Differences by Race and Ethnicity

Median weekly earnings differ significantly among women of different races and Hispanic ethnicity.¹ White, non-Hispanic and Asian women earn more than Black and Hispanic women. Women of all races and ethnic groups had lower median weekly earnings than their male counterparts. Compared with men of the same racial and ethnic group, the gender earnings ratio was higher for Hispanic (89.7 percent) and Black women (90.4 percent) than for Asian (77.8 percent) and White, non-Hispanic women (78.1 percent). This is a reflection of the lower median weekly earnings of Black and Hispanic men, compared with those of Asian and White, non-Hispanic men (Figure 3.6). Black and Hispanic women face significant racial wage gaps in addition to the gender wage gap. In 2015, Hispanic women earned only 56.3 percent of the median weekly earnings of White, non-Hispanic men (the largest group of workers in the labor market), Black women earned 61.2 percent, and Asian women earned 87.3 percent.

¹ People who identify as Hispanic may be of any race. This section presents analysis on race for White, non-Hispanic, Black, and Asian populations when available. Data on Blacks and Asians includes a small proportion of Hispanics.

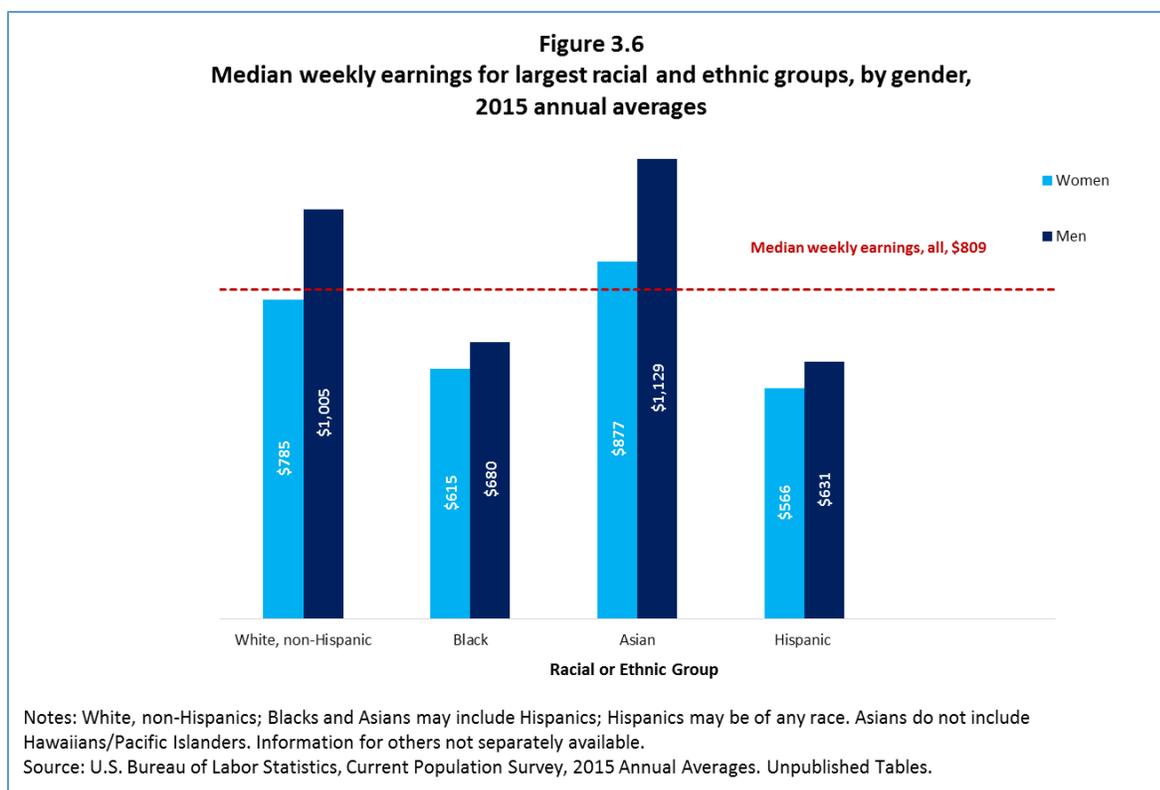
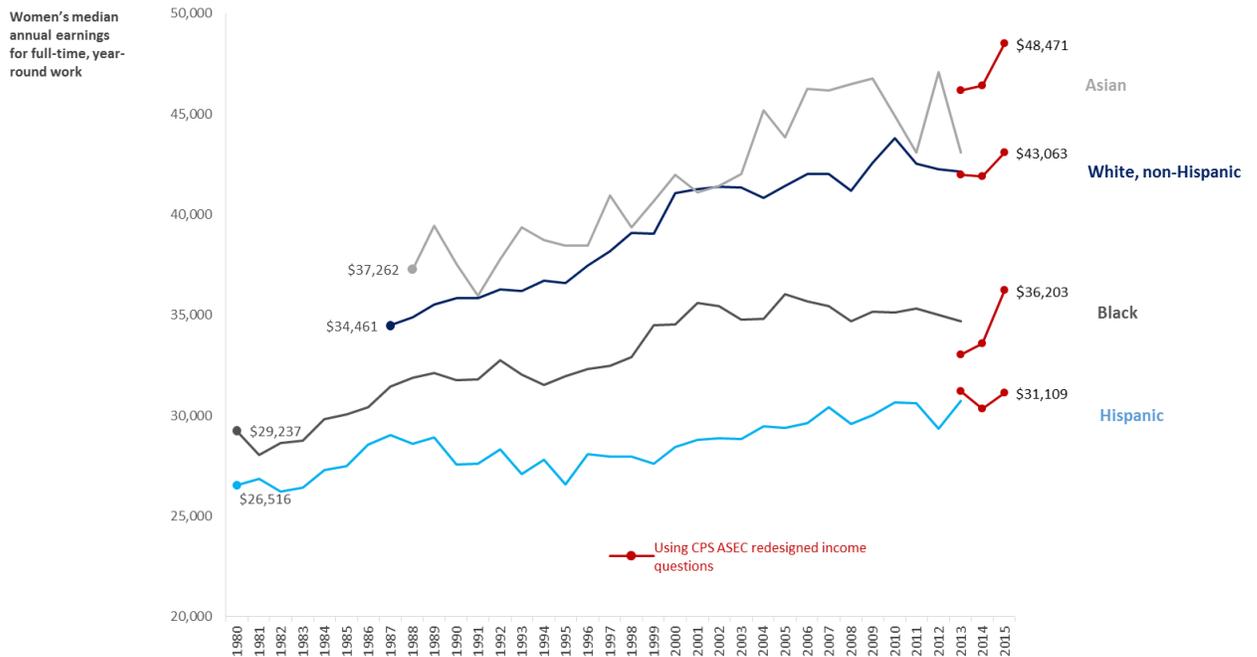


Figure 3.7 shows changes in the median annual earnings of full-time, year-round women workers by race and Hispanic ethnicity. Over time, earnings differences among women of different races and ethnic groups have grown. For example, in 1988, Black women’s median annual earnings were 91.3 percent of White, non-Hispanic women’s; and by 2015, the ratio had fallen to 84.1 percent.²⁵ Women in all groups have higher real earnings compared to the late eighties, yet the growth in real earnings between 1988² and 2015 has been much stronger for Asian (30.1 percent) and White, non-Hispanic women (23.4 percent) than for Hispanic (8.8 percent) or Black (13.7 percent) women. In fact, during the last decade (2006 to 2015), including the Great Recession and recovery, the real earnings of Black women increased by only 1.5 percent, while real earnings increased for Asian (4.9 percent), Hispanic (5.0 percent), and White, non-Hispanic women (2.5 percent).²⁶ It should be noted that this focus on the earnings of full-time, year-round workers underestimates the earnings disparity of Black and Hispanic women because they are more likely to face unemployment, or hold occupations with less regular employment and fewer hours of work.²⁷

² This is the year when published earnings data are first available for Asians, and is therefore used here as the baseline year for the comparison among groups.

Figure 3.7

Women's median annual earnings for full-time, year-round work, by largest racial and ethnic group, 1980 to 2015 (in 2015 constant dollars)



Notes: Women ages 15 years old. Before 1989 earnings were for civilian workers only. Earnings are for workers who worked full-time, year-round. Full-time defined as 35 hours or more per week; year-round, as at least 50 weeks per year. Earnings are in 2015 CPI-U-RS adjusted dollars. Racial and ethnic categories have changed over time; from 2002 are 'race alone' only. Whites excludes Hispanics from 1987 onwards; Hispanics may be of any race. From 2014 CPS ASEC applied redesigned income questions; based on the old survey design, 2013 earnings estimates were \$42,124 for White, non-Hispanic, \$34,687 for Black, \$43,077 for Asian, and \$30,739 for Hispanic women. Data shows earnings estimates based on old design. Based on new design, 2013 earnings estimates were \$41,959 for White, non-Hispanic, \$33,023 for Black, \$46,135 for Asian, and \$31,201 for Hispanic women.

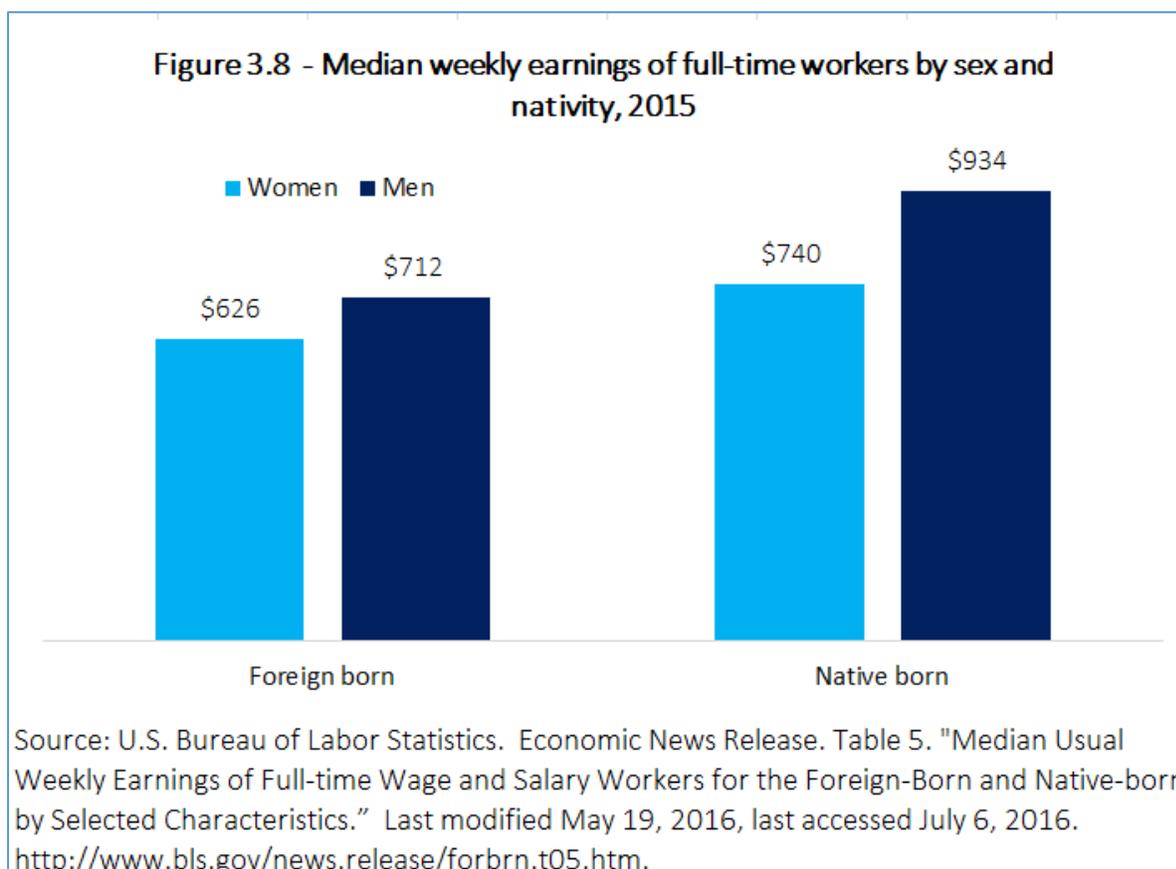
Source: U.S. Census Bureau, Current Population Survey, 2016 Annual Social and Economic Supplements. Historical Income Tables: People. "Tables P-38 (White, non-Hispanic; Black; Asian; Hispanic). Full-Time, Year-Round Workers by Median Earnings and Sex: 1967 to 2015." Accessed October 31, 2016. <http://www.census.gov/hhes/www/income/data/historical/people/>.

Several factors contribute to the growing gap in earnings between Black and White women. These include the increasing returns to experience and educational attainment in the labor market.²⁸ Compared to White female workers, Black female workers are less likely to have completed college and are more likely to be affected by declines in government jobs.²⁹ Further, occupational segregation appears to have a stronger negative impact on Black women's earnings than on White women's earnings. Black women are more likely to be overrepresented in lower-paying jobs, including service occupations and clerical work, and less likely to work in managerial, professional, or technician occupations than their White counterparts. As a result, they are concentrated in low wage or minimum wage jobs, with 19.1 percent of full-time Black women workers earning less than \$400 per week, compared to 10.0 percent of White, non-Hispanic women.³⁰ While factors such as educational attainment, marital and parental status, occupational distribution, and age can explain a large share of the wage gap between Black and White women, a substantial and growing part of the gap remains unexplained, reflecting the different returns Black women receive for the same observable worker characteristics.³¹ This phenomenon suggests that discrimination is another substantial cause of Black women's lower earnings.³²

The ratio of Hispanic-to-White, non-Hispanic women’s median annual earnings fell from 84.2 percent in 1987³ to 69.2 percent in 2000, and then increased slightly, to reach 72.2 percent in 2015.³³ Asian women had the highest earnings throughout the period, while Hispanic women had the lowest earnings (Figure 3.7).³⁴ Factors that might explain these trends include differences in educational attainment and the growth of the Asian and Hispanic immigrant populations.³⁵ A high proportion of Asian immigrants are college graduates,³⁶ while a comparatively high number of Hispanic immigrants have no post-secondary educational attainment,³⁷ influencing median earnings of women in both groups.

Earnings of Foreign-born Workers

Median weekly earnings of foreign-born workers are substantially lower than those of native-born workers. In 2015, the median weekly earnings of foreign-born women were only 84.6 percent of those of native-born women, over \$100 less per week. Foreign-born men had higher earnings than foreign-born women, \$712 compared with \$626 per week, yielding a gender earnings ratio of 87.9 percent, compared to 79.2 percent for native born workers³⁸ (Figure 3.8).



³ This is the year when published earnings data are first available for White non-Hispanics, and is therefore used here as the baseline year for the comparison among groups.

Earnings by Occupation

The median weekly earnings of full-time working women are lower than men's earnings in almost all occupations which employ a sufficient number of women and men to provide reliable estimates of earnings. The median weekly earnings of full-time working women are lower than men's earnings in 29 of the 30 most common occupations for women and 29 of the 30 most common occupations for men. In 2015, the gender earnings ratio in the most common occupations for women ranged from 65.2 percent for 'financial managers,' to 102.1 percent for 'office clerks, general'. And while the 'office clerks, general' occupation had higher median weekly earnings for women than men (\$622 to \$609), the earnings for both sexes were below the median for all full-time workers (\$809).³⁹

Key Terms

Most common occupations: Those with the largest number of female or male workers.

Traditional occupations: Those in which women represent 75 percent or more of people employed (also referred to as "female-dominated occupations").

Nontraditional occupations: Those in which women represent 25 percent or less of people employed (also referred to as "male-dominated occupations").

Tables 3.2a and b show the ten occupations with the highest and lowest gender earnings ratios. It is notable that the disparity in earnings tends to be greater in higher paid occupations: most of the ten occupations with the highest gender earnings ratios (the lowest gender wage gaps) have weekly earnings below the median for all occupations. Conversely, all of the ten occupations with the lowest gender earnings ratios (the largest gender wage gaps) have weekly earnings above the median for all occupations. Five of the ten occupations with the largest gender wage gaps between women and men have median weekly earnings greater than \$1,100 per week (compared to the median for all workers of \$809); six of the ten occupations with the smallest gender wage gaps have earnings below \$700 per week (Tables 3.2a and b). Thus, a narrower wage gap does not imply higher earnings and greater economic security for women; it may simply be an indication of low pay for both women and men. Consequently, women's advancement into higher paying occupations will not eliminate the gender wage gap unless the underlying causes of pay differences in such occupations, including both pay discrimination and the long-hours culture, are also addressed.⁴⁰

Occupation	Women's earnings as a percent of men's	Women's share of total employment in occupation (percent)	Median weekly earnings of all full-time workers
All full-time weekly workers	81.1%	46.8%	\$809
Wholesale and retail buyers, except farm products	111.2%	52.7%	\$926
Data entry keyers	108.3%	74.3%	\$619
Office clerks, general	102.1%	82.3%	\$620
Police and sheriff's patrol officers	100.8%	13.6%	\$1,002
Bookkeeping, accounting, and auditing clerks	100.3%	89.8%	\$692
Counselors	99.3%	71.4%	\$904
Health practitioner support technologists and technicians	97.1%	81.5%	\$636
Purchasing agents, except wholesale, retail, and farm products	96.7%	49.7%	\$1,009
Bill and account collectors	96.1%	68.3%	\$657
Electrical, electronics, and electromechanical assemblers	96.1%	51.4%	\$554

Occupation	Women's earnings as a percent of men's	Women's share of total employment in occupation (percent)	Median weekly earnings for full-time work for all workers
All full-time weekly workers	81.1%	46.8%	\$809
Securities, commodities, and financial services sales agents	52.5%	26.2%	\$1,155
Personal financial advisors	59.4%	37.9%	\$1,419
Sales representatives, services, all other	60.9%	34.8%	\$966
Advertising sales agents	63.1%	49.7%	\$925
Financial managers	65.2%	49.6%	\$1,408
Physical scientists, all other	66.1%	41.4%	\$1,553
Business operations specialists, all other	66.3%	56.7%	\$1,090
Sales and related workers, all other	66.8%	46.8%	\$916
First-line supervisors of production and operating workers	67.4%	18.6%	\$875
Administrative services managers	67.6%	47.7%	\$1,191

Notes: Workers age 16 and older in the civilian labor force; based on median weekly earnings of wage and salary, full-time workers (35 hours or more).

Source: U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages.

Table 3.3 shows the ten occupations with the highest and lowest median weekly earnings for women in 2015. Just over 1.8 million women, or 2.6 percent of all employed women, are employed full-time in the ten highest-paying occupations for women (paying a median between \$1,325 and \$1,836 per week).⁴¹The two highest-earning occupations for women are chief executives and pharmacists. Women are more than half of all pharmacists who work full-time, but less than 30 percent of full-time chief executives. Three of the ten occupations with the highest median weekly earnings for women ('computer and information systems managers,' 'engineers, all other,' and 'software developers') are in science, technology,

engineering, and mathematics (STEM). Two of the ten highest-paid occupations for women are considered nontraditional (that is, women are less than 25.0 percent of all workers in these occupations),⁴² and the share of women in another two occupations are close to the 25.0 percent threshold (Table 3.6). On the other end of the spectrum, over 3.8 million women, or 5.5 percent of all employed women, are employed full-time in the ten lowest-paying occupations for women (paying a median of \$429 or less per week). The earnings provided in these occupations are insufficient to lift a family of four out of poverty, even after an entire year of full-time work.⁴³

Table 3.3

The highest and lowest paid occupations for full-time women workers, 2015 annual averages

Occupation	Women's median weekly earnings	Number of full-time women workers (in thousands)	Women's full-time earnings as percent of men's	Women's share of all workers in occupation (percent) ^a
All full-time weekly women workers	\$726	48,334	81.1%	46.8%
The highest paid occupations for women				
Chief executives	\$1,836	283	81.6%	27.9%
Pharmacists	\$1,811	108	85.5%	57.0%
Lawyers	\$1,717	300	89.7%	34.5%
Computer and information systems managers	\$1,563	169	86.0%	27.2%
Physicians and surgeons	\$1,533	283	80.1%	37.9%
Nurse practitioners	\$1,522	103	-	90.8%
Engineers, all other	\$1,448	54	94.2%	13.6%
Software developers, applications and systems software	\$1,415	232	80.8%	17.9%
Management analysts	\$1,348	237	88.7%	39.7%
Operations research analysts	\$1,325	63	84.2%	50.7%
The lowest paid occupations for women				
Combined food preparation and serving workers, including fast food	\$380	107	94.8%	63.4%
Food preparation workers	\$388	192	93.7%	59.1%
Hosts and hostesses, restaurant, lounge, and coffee shop	\$397	58	-	82.1%
Miscellaneous agricultural workers	\$398	102	86.5%	21.9%
Cooks	\$400	494	93.7%	39.9%
Cashiers	\$405	931	86.0%	72.5%
Maids and housekeeping cleaners	\$407	742	85.7%	89.3%
Waiters and waitresses	\$411	563	82.0%	70.1%
Packers and packagers, hand	\$424	227	91.8%	51.9%
Janitors and building cleaners	\$429	425	78.4%	34.3%

Notes: Workers age 16 and older in the civilian labor force; based on median weekly earnings of full-time workers (35 hours or more). Dash indicates no data or estimate does not meet publication standards. (a) Women as a percentage of total employed are 2015 annual averages for all people employed (includes part-time and self-employed), from the U.S. Bureau of Labor Statistics, Current Population Survey.

Source: U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages.

Earnings by Educational Attainment

Women have made major strides in increasing their levels of formal education, partly due to a decrease in structural barriers, and are now more likely than men to gain educational qualifications at every level of educational attainment.⁴⁴ Educational attainment has a major impact on earnings. The median weekly earnings of women with at least a bachelor's degree in 2015 were more than 2.5 times higher than the median weekly earnings of women who had not completed high school. Yet gender earnings differences persist, and are even more pronounced among the most highly educated workers. Figure 3.9 shows that educational attainment has a consistently higher impact on men's than on women's earnings and that men have higher earnings than women at each level of educational attainment. Indeed, men with a high school diploma earn more per week than women with some college education or an associate's degree.

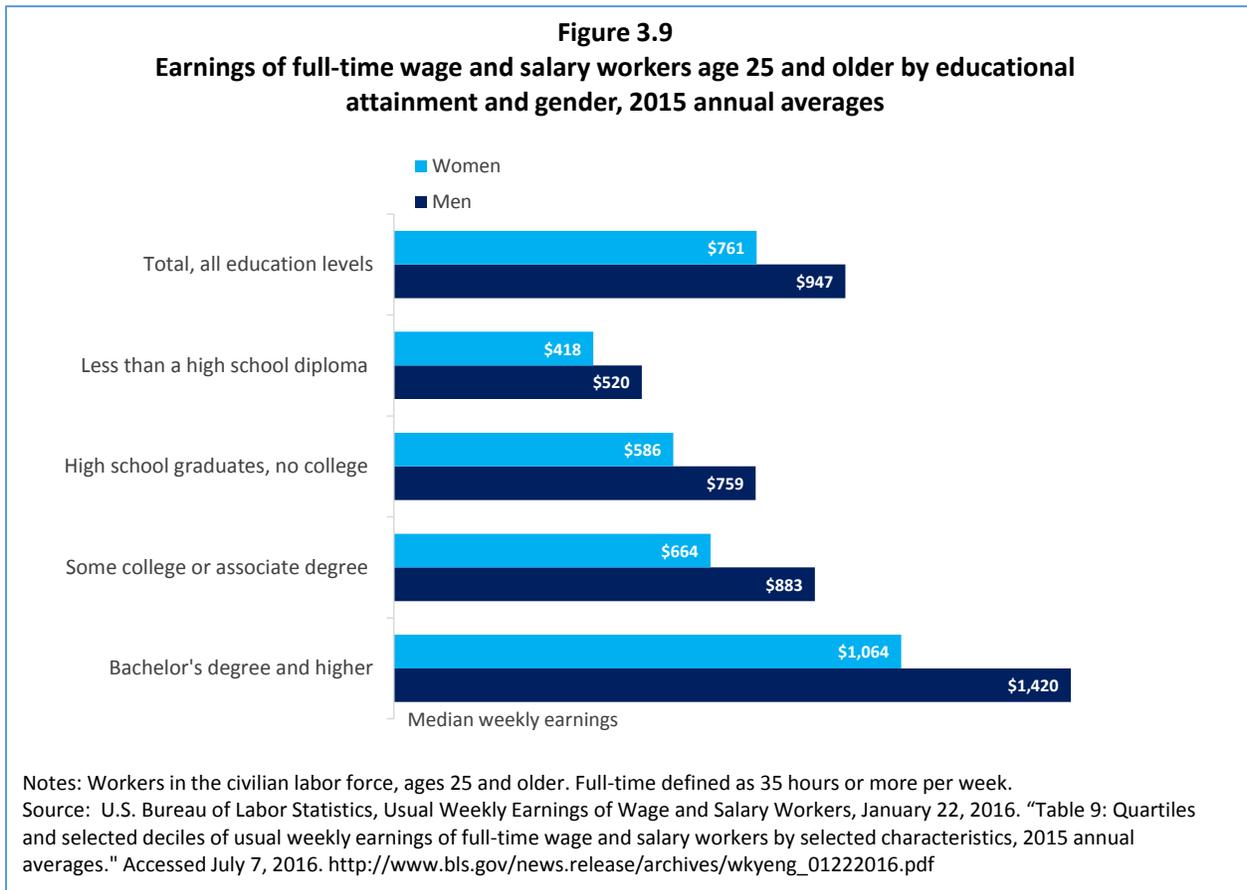
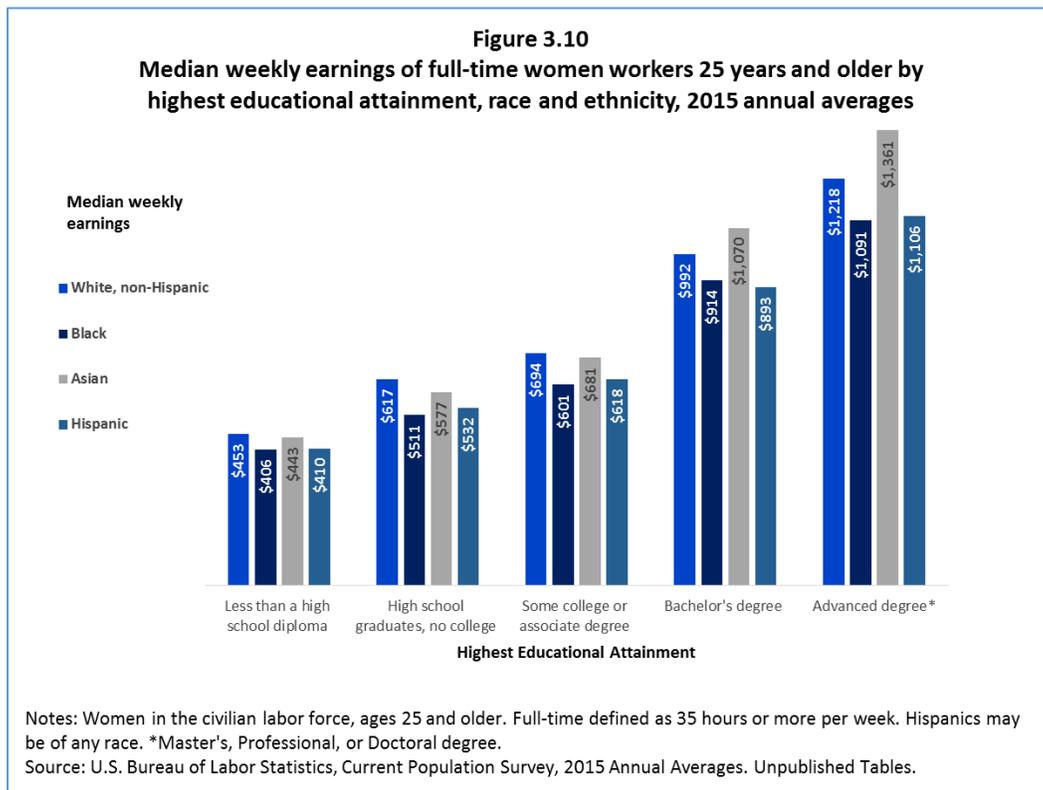


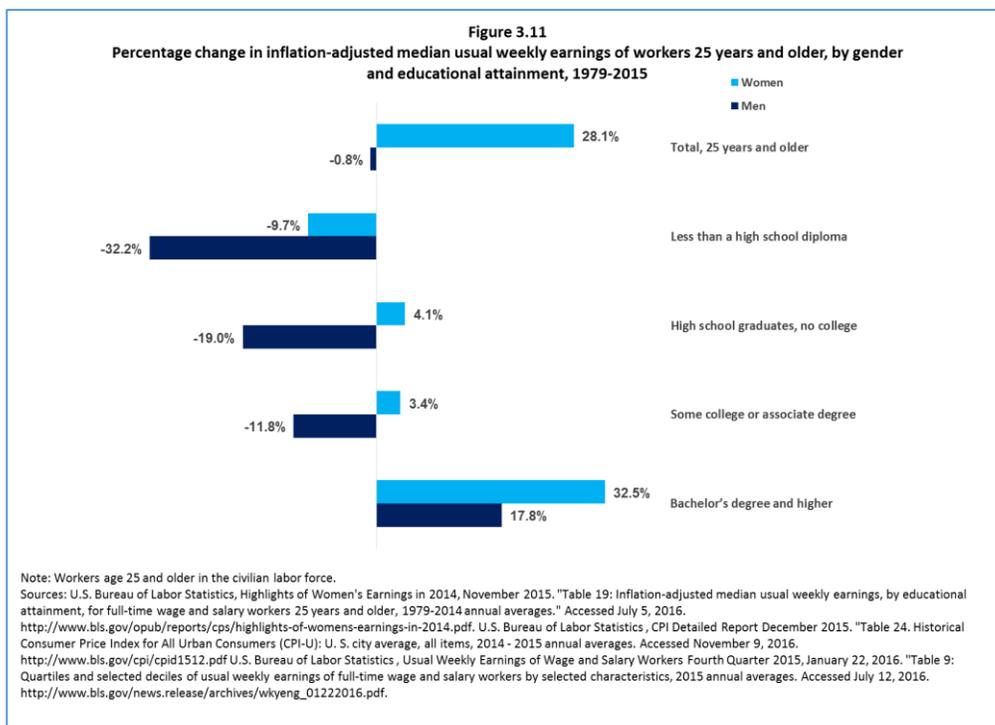
Figure 3.10 shows the median weekly earnings for women by race and ethnicity, and educational attainment. While higher educational attainment is associated with an increase in earnings for women workers, it does not alter the earnings differences among women of different races and ethnic groups discussed in Figure 3.7. Black and Hispanic women have lower median weekly earnings at each educational level compared to their Asian and White, non-Hispanic counterparts. In fact, earnings differences are particularly marked among women with advanced degrees (master's, professional degree, or doctoral degree), with Black women having the lowest, and Asian women the highest median weekly earnings. This may be due largely to the fact that Asian women are more likely than other women to work in STEM and managerial occupations.⁴⁵



Between 1979 and 2015, earnings gains have varied widely for workers with different levels of education. In 2015, after controlling for inflation, the median weekly earnings of a woman who did not complete high school were 9.7 percent lower than the earnings of a woman with comparable education in 1979; on the other hand, the earnings of a woman with at least a bachelor's degree were 32.5 percent higher in 2015 than in 1979.⁴⁶ Median weekly earnings grew only slightly for women who had completed high school or had some college or an associate's degree. At each level of educational attainment, men's earnings declined more or grew less than women's. Except for men with a bachelor's degree or higher, the median weekly earnings of men at all educational levels declined, most noticeably for men with less than a high school diploma (-32.2 percent). The median weekly earnings of women with a bachelor's degree or higher grew more than the median weekly earnings of comparable men (32.5 percent versus 17.8 percent) (Figure 3.11; note that the comparisons in earnings between the two years – 1979 and

2015 – do not imply sustained growth or decline over this period). In spite of the overall decline in real earnings for men, Figure 3.9 above shows that men still earn substantially more than women at each level of educational attainment.

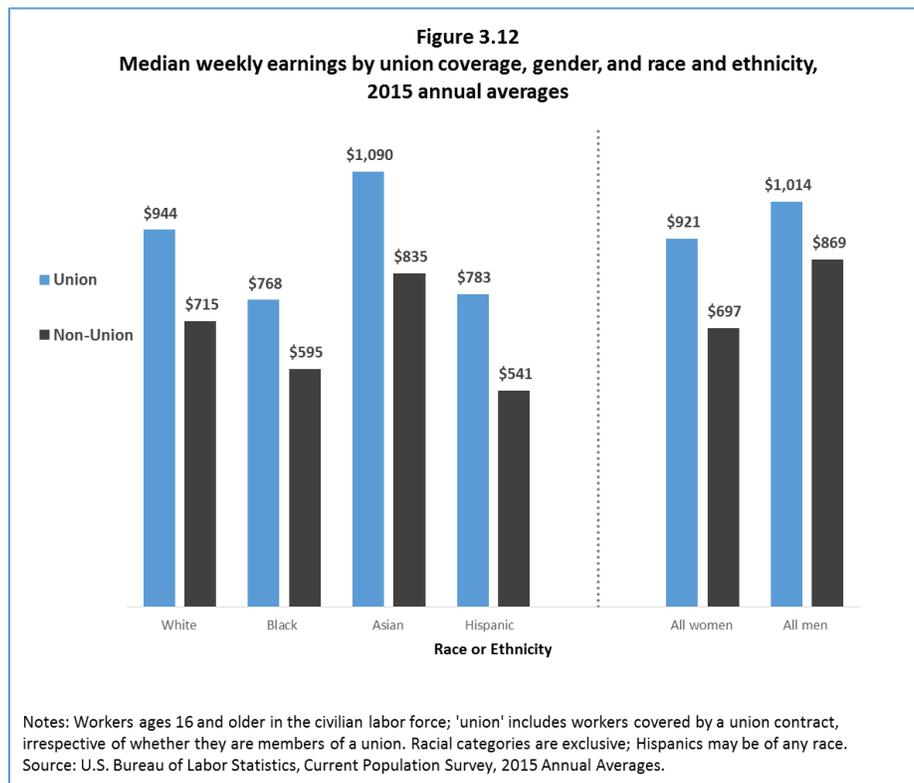
Between 1979 and 2015, earnings gains have varied widely for workers with different levels of education. In 2015, after controlling for inflation, the median weekly earnings of a woman who did not complete high school were 9.7 percent lower than the earnings of a woman with comparable education in 1979; on the other hand, the earnings of a woman with at least a bachelor’s degree were 32.5 percent higher in 2015 than in 1979.⁴⁷ Median weekly earnings grew only slightly for women who had completed high school or had some college or an associate’s degree. At each level of educational attainment, men’s earnings declined more or grew less than women’s. Except for men with a bachelor’s degree or higher, the median weekly earnings of men at all educational levels declined, most noticeably for men with less than a high school diploma (-32.2 percent). The median weekly earnings of women with a bachelor’s degree or higher grew more than the median weekly earnings of comparable men (32.5 percent versus 17.8 percent) (Figure 3.11; note that the comparisons in earnings between the two years – 1979 and 2015 – do not imply sustained growth or decline over this period). In spite of the overall decline in real earnings for men, Figure 3.9 above shows that men still earn substantially more than women at each level of educational attainment.



Earnings by Union Representation

Changes in real wages since the 1980s partly reflect changes in unionization rates. Union membership rates declined for both women and men, but particularly sharply for men.⁴⁸ Workers covered by a union contract have higher earnings⁴⁹ and tend to have better benefits⁵⁰ than other workers. Earnings data are

collected for workers who are union members, workers represented by unions (those who were paying unions dues as well as those who were not), and non-union workers. The earnings advantage over non-union workers is almost identical for women workers who are union members and women workers represented by unions. In 2015, the median weekly earnings of women union members were \$928, compared with \$921 for women workers represented by a union, and \$697 for women who were neither members of a union nor were represented by a union.⁵¹ Women of all major racial and ethnic groups have substantially higher earnings when they are either union members or represented by a union than when they are non-union (Figure 3.12).



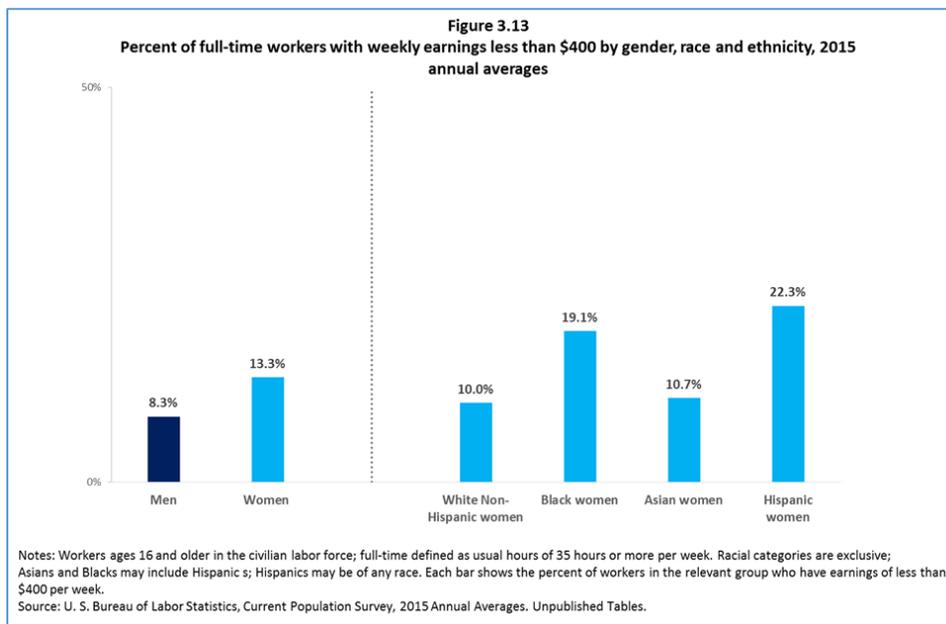
The higher earnings of workers covered by a union compared with non-union workers are partly due to differences in the composition of the union and non-union workforces. For example, union coverage is more common among higher-paid workers with college degrees, such as teachers and nurses, and less common among lower-paid workers employed as cashiers, maids, or waitresses, for example.⁵² Union coverage is also higher among older than younger women (15.2 percent of women ages 55 to 64 compared with 10.7 percent of women ages 25-34 are covered by unions),⁵³ and as shown in Figure 3.5 above, median earnings are higher for older than younger workers. Yet, union women workers earn more than non-union women workers even after accounting for other factors that may contribute to higher earnings (such as educational attainment, age, race, state of residence, and industry of employment).⁵⁴ A study found a significant earnings advantage for women in unions at each major level of educational attainment, ranging from 9.4 percent for women who had not completed high school and 9.6 percent for women with advanced degrees to 13.0 percent for women with a college degree, 14.5 percent for

women with some college, and 14.7 percent for women who completed high school.⁵⁵

Women workers covered by union contracts are also more likely to have access to workplace benefits. Seventy-four percent of women covered by union contracts have access to an employer-provided retirement plan, compared with 42.3 percent of non-union women; and 76.6 percent of union women have employer-provided health insurance, compared to 51.4 percent of non-union women.⁵⁶ The difference in retirement plans and health insurance coverage between union and non-union women is particularly stark for Hispanic women. Hispanic women covered by union contracts are more than twice as likely as non-union Hispanic women to have access to an employer-provided pension plan (55.9 percent compared with 25.9 percent) and almost 30.0 percentage points more likely to have employer-provided health insurance (70.2 percent compared with 41.0 percent).⁵⁷

Low and Minimum Wage Jobs

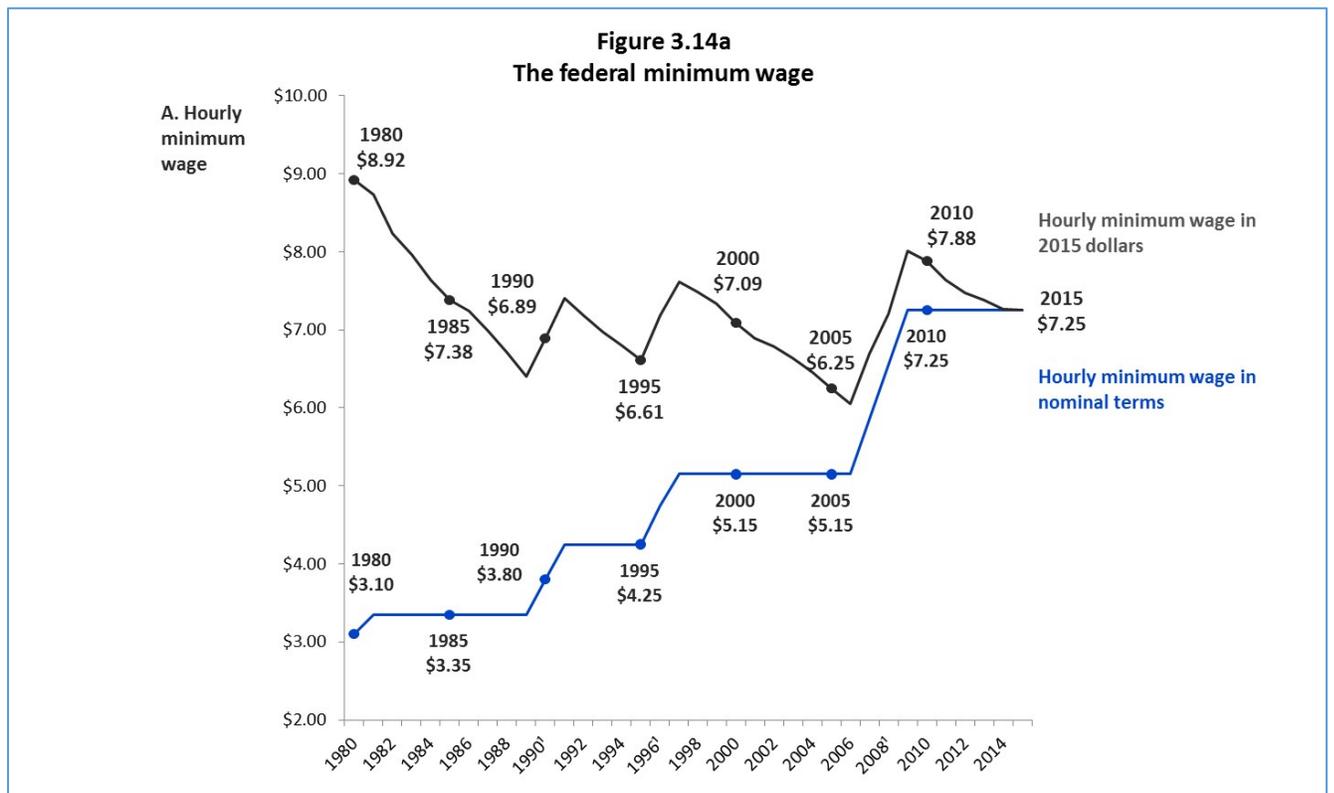
Women are the majority of low-wage workers. In 2015, nearly 11.5 million full-time workers earned less than \$400 a week.⁵⁸ Women were 44.3 percent of all full-time weekly workers, but 56.0 percent of full-time workers with earnings of less than \$400 a week.⁵⁹ Over one in ten (13.3 percent) of all full-time women workers have these low weekly earnings, compared with less than one in ten (8.3 percent) men.⁶⁰ A large number of women of all racial and ethnic groups work in low-wage jobs, but Hispanic and Black women are more likely to hold low-wage occupations than White, non-Hispanic women and Asian women. More than one in five Hispanic women (22.3 percent) and nearly one in five Black women (19.1 percent) who work full-time earn less than \$400 per week (Figure 3.13).



The real value of the federal minimum wage in 2015 dollars has decreased from its peak in 1968 (\$10.90) to \$7.25 per hour in 2015. Since 1980, the real value of the federal minimum wage has fallen by \$1.67 (Figure 3.14a).⁶¹ Women have been the majority of workers with hourly earnings at or below the federal

minimum wage since 1979, when reliable data on hourly paid workers first became available. In 2015, 1.6 million women had earnings at or below the federal minimum wage, representing 4.1 percent of all hourly paid women, and 62.6 percent of all workers who were paid hourly rates at or below the federal minimum wage (Figure 3.14b).⁶² A minimum wage worker working 40 hours per week for 50 weeks per year would earn only \$14,500 per year, about \$4,600 below the poverty threshold⁴ for a family of one adult and two children.⁶³

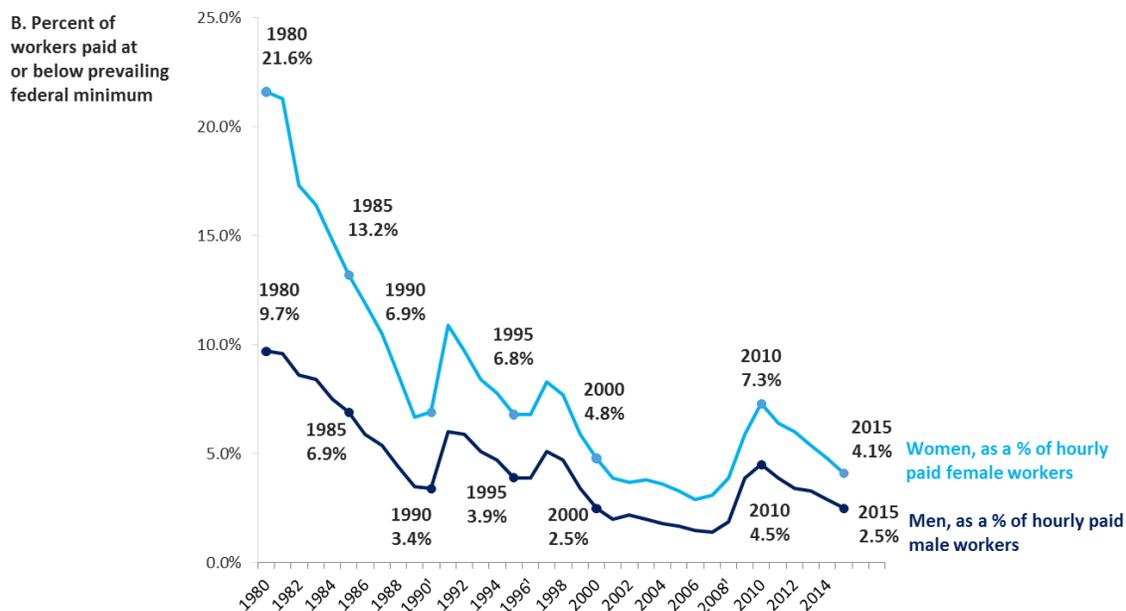
Furthermore, tipped minimum wage workers face additional economic insecurity because the majority of incomes for these workers come from tips which are often unreliable and irregular.⁵ Two thirds of workers earning the tipped minimum wage are women, adding economic insecurity to low wages for this group of low wage working women.



⁴ Poverty threshold: The U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to determine who is living in poverty. If a family's total income before taxes is less than the poverty threshold, then that family is considered to be in poverty (the measure excludes noncash benefits and capital gains). For example, in 2015 the poverty threshold for a parent living with two children under the age of 18 was \$19,096 and for a parent with three children, it was \$24,120. Source: U.S. Census Bureau, Current Population Survey, 2015 Annual Social and Economic Supplement.

⁵ The tipped minimum—\$2.13 per hour—has not changed since 1991. The current non-tipped minimum wage is \$7.25 per hour

Figure 3.14b
Share of workers with earnings at or below the poverty level by gender



Notes: Data for 1990-1991, 1996-1997, and 2007-2009 reflect changes in the minimum wage that took place during those years. Value of minimum wage adjusted to 2015 dollars using CPI.

Sources: U.S. Department of Labor, Minimum Wage Chart. Accessed July 12, 2016, <https://www.dol.gov/minwage/chart1.htm>; U.S. Bureau of Labor Statistics, Inflation Calculator. Accessed July 12, 2016, http://www.bls.gov/data/inflation_calculator.htm; U.S. Bureau of Labor Statistics, Characteristics of Minimum Wage Workers, 2015. "Table 10: Wage and Salary Workers Paid Hourly Rates with Earnings at or below the Prevailing Federal Minimum Wage, by Gender, 1979-2015 Annual Averages." Accessed July 12, 2016, <http://www.bls.gov/opub/reports/minimum-wage/2015/pdf/home.pdf>; U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages.

Conclusion

Since 1980, women have made considerable strides towards improving the gender earnings ratio and closing the gender wage gap. Yet, in the last two decades, progress towards eliminating the disparity between women's and men's earnings has stalled. By every measure, the wage gap endures, despite women's increased educational attainment, heightened labor force participation rates, and expanded access to jobs. Although they earn more qualifications and credentials, women earn less than men at every level of educational attainment. Even as more and more women, particularly mothers, enter the workforce, they are more likely to work part-time than their male counterparts. Although legal barriers to women's participation in the occupation of their choice do not exist, occupational segregation continues. Those jobs with the smallest gender wage gaps tend to be female-dominated and low paying. While earnings increase with age for both men and women, the gender wage gap is lowest for young workers ages 25-34 and highest for workers in their peak earning years.

The wage gap affects women of all ages, racial and ethnic groups, educational attainment, and occupations. However, disparities in earnings are particularly stark for women of certain demographic and employment characteristics. The gap in earnings between Black and White women, as well as

Hispanic and White women, has increased since 1987. Black and Hispanic women earn significantly less than White, non-Hispanic and Asian women and are more likely than their White, non-Hispanic and Asian counterparts to hold a low-wage occupation.

The racial wage gap is further compounded by differential factors such as educational attainment and unionization. From 1979 to 2015, the earnings returns to a college degree increased dramatically while the median earnings of those who did not complete high school fell. Further, the decline in women's unionization rates over these years is notable, as union membership or coverage correlates to higher earnings and greater access to benefits such as employer-sponsored health insurance and pension plans for female workers. Women's lower earnings, in combination with their greater likelihood to reduce or leave paid work to provide unpaid family care, translate into lower lifetime earnings, with implications for their ability to provide for a family or support themselves in retirement.⁶⁴ Policies that increase women's earnings and make it easier to combine work and family responsibilities⁶⁵ can improve women's economic security.

¹ U.S. Census Bureau. Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States: April 1, 2010 to July 1, 2015." Accessed December 21, 2016. <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

² U.S. Bureau of Labor Statistics LABSTAT Database (Series ID LNU01000002, LNU01000000; accessed December 21, 2016. <http://data.bls.gov/cgi-bin/srgate>.

³ U.S. Census Bureau, Current Population Reports. "Income and Poverty in the United States: 2015." "Table A-4: Number and real median earnings of total workers and full-time, year-round workers by sex and female-to-male earnings ratio: 1960-2015." Accessed November 9, 2016. <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf>.

⁴ The White House, National Equal Pay Taskforce, "Fifty Years after The Equal Pay Act: Assessing the Past, Taking Stock of the Future." Accessed July 18, 2016. https://www.whitehouse.gov/sites/default/files/equalpay/equal_pay_task_force_progress_report_june_2013_new.pdf.

⁵ The Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC) has been collected since 1948 by the U.S. Census Bureau. For more information on ASEC, please visit <http://www.census.gov/programs-surveys/cps/technical-documentation/complete.html>

⁶ Cynthia Costello and Ariane Hegewisch, *The Gender Wage Gap and Public Policy*, issue brief no. 507, Institute for Women's Policy Research, February 2016, accessed July 15, 2016, <http://iwpr.org/publications/pubs/the-gender-wage-gap-and-public-policy>.

⁷ Brenda C. Spillman and Kirsten J. Black, *Staying the Course: Trends in Family Caregiving*, report no. 2005-17, AARP Public Policy Institute, November 2005, accessed July 18, 2016, http://assets.aarp.org/rgcenter/il/2005_17_caregiving.pdf.; *On Pay Gap, Millennial Women Near Parity For Now: Despite Gains, Many See Roadblocks Ahead*, report, Social and Demographic Trends, Pew Research Center, December 11, 2013, , accessed July 18, 2016, <http://www.pewsocialtrends.org/2013/12/11/on-pay-gap-millennial-women-near-parity-for-now/#the-balancing-act>.

⁸ Hadas Mandel and Moshe Semyonov, "Gender Pay Gap and Employment Sector: Sources of Earnings Disparities in the United States, 1970-2010," *Demography* 51, no. 5 (October 2014): 1597-1618.

⁹ Francine D. Blau and Lawrence M. Kahn, "The Gender Pay Gap: Extent, Trends, and Explanations," working paper no. 21913, National Bureau of Economic Research, January 2016, accessed July 18, 2016, <http://www.nber.org/papers/w21913>; the study analyzed differences in hourly earnings for full-time workers based on the Panel Study of Income Dynamics for 1980, 1989, 1998, and 2010 as well as the U.S. Census Bureau's March Current Populations Survey for 1980, 1989, 1998, and 2010. The basic gender earnings ratio for workers in this study in 2010 (uncontrolled for human capital, labor market experience or demographic factors) was 82.3 percent.

¹⁰ This method of estimating discrimination was first advanced by Ronald Oaxaca, "Male-female Wage Differentials in Urban Labor Markets," *International Economic Review* 14, no. 3 (1973): 693-709; it has been widely used since.

¹¹ Christianne Corbett and Catherine Hill, *Graduating to a Pay Gap: The Earnings of Women and Men One Year after College Graduation*, report, American Association of University Women, 2012, accessed July 18, 2016, <http://www.aauw.org/files/2013/02/graduating-to-a-pay-gap-the-earnings-of-women-and-men-one-year-after-college-graduation.pdf>, 10.

¹² Christianne Corbett and Catherine Hill, *Graduating to a Pay Gap: The Earnings of Women and Men One Year after College Graduation*, report, American Association of University Women, 2012, accessed July 18, 2016, <http://www.aauw.org/files/2013/02/graduating-to-a-pay-gap-the-earnings-of-women-and-men-one-year-after-college-graduation.pdf>, 10.

¹³ Ibid.

¹⁴ See for example Marianne Bertrand, Claudia Goldin, and Lawrence F. Katz, "Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors," *American Economic Journal: Applied Economics* 2, no. 3 (2010): 228-255; Claudia Goldin, "A Grand Gender Convergence: Its Last Chapter," *American Economic Review* 104, no. 4 (2014): 1091-1119 on the role of hours of work and time out of the labor market for earnings differentials; see Ariane Hegewisch, Cynthia Deitch, and Evelyn Murphy, *Ending Sex and Race Discrimination in the Workplace: Legal Interventions That Push the Envelope*, report no. C379, Institute for Women's Policy Research, March 2011, accessed July 18, 2016, <http://www.iwpr.org/publications/pubs/ending-sex-and-race-discrimination-in-theworkplace-legal-interventions-that-push-the-envelope>

1; see Anthony T. Lo Sasso, Michael R. Richards, Chiu-Fang Chou, and Susan E. Gerber, "The \$16,819 Pay Gap For Newly Trained Physicians: The Unexplained Trend Of Men Earning More Than Women," *Health Affairs* 30, no. 2 (2011): 193–201; or Dan A. Black, Amelia M. Haviland, Seth G. Sanders, and Lowell J. Taylor, "Gender Wage Disparities among the Highly Educated," *The Journal of Human Resources* 43, no. 3 (2008): 630-659; or Phillip Broyles, "The Gender Pay Gap of STEM Professions in the United States," *International Journal of Sociology and Social Policy* 29, no. 5/6 (2009): 214-226 for studies on the wage gap in specific fields.

¹⁵ See for example: Andreas Leibbrandt and John A. List, *Do Women Avoid Salary Negotiations? Evidence from a Large Scale Natural Field Experiment*, working paper no. 18511, National Bureau of Economic Research, November 2012, accessed July 18, 2016, <http://www.nber.org/papers/w18511>; or Deborah A. Small, Michele Gelfand, Linda Babcock, and Hilary Gettman, "Who Goes to the Bargaining Table? The Influence of Gender and Framing on the Initiation of Negotiation," *Journal of Personality and Social Psychology* 93, no. 4 (2007): 600 – 613.

¹⁶ Hannah Riley Bowles, Linda Babcock, and Lei Lai, "Social Incentives for Gender Differences in the Propensity to Initiate Negotiations: Sometimes it Does Hurt to Ask," *Organizational Behavior and Human Decision Processes* 103, no. 1 (2007): 84–103.

¹⁷ Cooke, Jackie. "Massachusetts: Leading the Way on Equal Pay." US Department of Labor Blog. August 04, 2016. Accessed August 15, 2016.

¹⁸ Ariane Hegewisch, "Pay Discrimination through the Lens of Consent Decrees: Beck v. Boeing," in Hegewisch et al., *Ending Sex and Race Discrimination in the Workplace*.

¹⁹ Ibid.

²⁰ Youngjoo Cha and Kim A. Weeden, "Overwork and the Slow Convergence in the Gender Gap in Wages," *American Sociological Review* 79, no. 3 (2014): 457-484 and Youngjoo Cha, "Overwork and the Persistence of Gender Segregation in Occupations," *Gender and Society*, 27 (2013): 158-84.

²¹ Ibid.

²² Calculated by SGT based on U.S. Bureau of Labor Statistics, Current Population Survey, February 2016. "Table 38: Median weekly earnings of part-time wage and salaried workers by selected characteristics." Accessed June 29, 2016. <http://www.bls.gov/cps/cpsaat38.pdf>.

²³ Ibid. "Table 8: Employed and unemployed full-and part-time workers by age, sex, race, and Hispanic or Latino ethnicity." Accessed July 18, 2016. <http://www.bls.gov/cps/cpsaat08.pdf>.

²⁴ SGT calculation based on U.S. Bureau of Labor Statistics, Current Population Survey, February 2016. , "Table 8: Employed and unemployed full-and part-time workers by age, sex, race, and Hispanic or Latino ethnicity." Accessed July 18, 2016. <http://www.bls.gov/cps/cpsaat08.pdf>.

²⁵ U.S. Census Bureau, Current Population Survey, 1981-2016 Annual Social and Economic Supplements. "Historical Income Tables: People, Table P-38: Full-time, year-round workers by median earnings and sex." Accessed November 9, 2016. <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-people.html>.

²⁶ Ibid.

²⁷ Betty Pettit and Stephanie Ewert, "Employment Gains and Wage Declines: The Erosion of Black Women's Relative Wages since 1980," *Demography* 46, no. 3 (August 2009): 487.

²⁸ See Pettit and Ewert, "Employment Gains and Wage Declines" for a review of research on the earnings gap between Black, non-Hispanic and White, non-Hispanic women.

²⁹ Marlene Kim, "Race and Gender Differences in the Earnings of Black Workers," *Industrial Relations* 48, no. 3 (July 2009): 466-488.

³⁰ U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. Unpublished tabulations.

³¹ Marlene Kim, "Race and Gender Differences in the Earnings of Black Workers," *Industrial Relations* 48, no. 3 (July 2009): 466-488.

³² Pettit and Ewert, "Employment Gains and Wage Declines," 489.

³³ U.S. Census Bureau, Current Population Survey, 1981-2016 Annual Social and Economic Supplements. "Historical Income Tables: People, Table P-38: Full-time, year-round workers by median earnings and sex." Accessed November 9, 2016. <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-people.html>.

³⁴ Although this trend generally holds true throughout the time period, it should be noted that White, non-Hispanic women's earnings were higher than Asian women's earnings in 2001 (\$41186 vs. \$41031, respectively).

³⁵ Anna Brown and Renee Stepler, "Statistical Portrait of the Foreign-Born Population in the United States," Pew Research Center, April 19, 2016, accessed July 18, 2016, <http://www.pewhispanic.org/2016/04/19/statistical-portrait-of-the-foreign-born-population-in-the-united-states-key-charts/#2013-fb-arrivals>.

³⁶ Pew Research Center, "The Rise of Asian Americans," Pew Research Center Social and Demographic Trends, April 04, 2013, accessed July 18, 2016, <http://www.pewsocialtrends.org/2012/06/19/the-rise-of-asian-americans/>.

³⁷ Steven A. Camarota, *Immigrants in the United States, 2010: A Profile of America's Foreign-Born Population*, report, Center for Immigration Studies, August 2012, accessed July 18, 2016, <http://cis.org/2012-profile-of-americas-foreign-born-population#toc>: Table 27.

³⁸ U.S. Bureau of Labor Statistics. Economic News Release. Table 5. "Median Usual Weekly Earnings of Full-time Wage and Salary Workers for the Foreign-Born and Native-born by Selected Characteristics." <http://www.bls.gov/news.release/forbrn.t05.htm>.

³⁹ U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. "Table 39: Median weekly earnings of full-time wage and salary workers by detailed occupation and sex." Accessed July 18, 2016. <http://www.bls.gov/cps/cpsaat39.pdf>.

⁴⁰ See Mandel and Semyonov, "Gender Pay Gap and Employment Sector," 1597-1618; Cha and Weeden, "Overwork and the Slow Convergence in the Gender Gap in Wages;" and Hegewisch et al.

⁴¹ U.S. Bureau of Labor Statistics, Current Population Survey. Annual Tables, February 10, 2016. "Table 5. Employment status of the civilian noninstitutional population by sex, age, and race, annual averages." Accessed November 3, 2016.

-
- ⁴² A nontraditional occupation for women is defined in the Carl D. Perkins Vocational and Technical Education Act of 1998 and the Workforce Innovation and Opportunity Act of 2014 as one where women are fewer than 25.0 percent of workers.
- ⁴³ The U.S. Census Bureau poverty threshold for 2014 for a family with one adult and three children in 2014 was \$24,091; for a family of 1 adult with two children, it was \$19,073; U.S. Census Bureau, "Poverty Thresholds," May 16, 2016, accessed July 19, 2016, <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>.
- ⁴⁴ U.S. Bureau of Labor Statistics, Usual Weekly Earnings of Wage and Salary Workers, January 22, 2016. "Table 9: Quartiles and selected deciles of usual weekly earnings of full-time wage and salary workers by selected characteristics, 2015 annual averages." Accessed July 7, 2016. http://www.bls.gov/news.release/archives/wkyeng_01222016.pdf
- ⁴⁵ Joan Burrell, "Women of Color in STEM Education and Employment," in National Science Foundation proceedings of Committee on Equal Opportunities in Science and Engineering Mini Symposium on Women of Color in STEM: Perspectives on Experiences, Research, Evaluation, and Policy in Higher Education and Careers, Arlington, VA, October 27, 2009, accessed July 18, 2016, https://www.nsf.gov/od/oia/activities/ceose/mini-symp-pres/Women_of_color_stem_Oct2009/Oct27/JoanBurrelliv2.pdf.
- ⁴⁶ Note that this does not follow the same women or men across the 34 year period, but compares the median earnings of all workers at a level of educational attainment in 1979 with workers with that educational attainment in 2013.
- ⁴⁷ Note that this does not follow the same women or men across the 34 year period, but compares the median earnings of all workers at a level of educational attainment in 1979 with workers with that educational attainment in 2013.
- ⁴⁸ John Schmitt and Nicole Woo, *Women Workers and Unions*, issue brief, Center for Economic and Policy Research, December 2013, accessed July 18, 2016, <http://cepr.net/documents/union-women-2013-12.pdf>. Schmitt and Woo analyzed CPS ORG, combining five years of data (2008-2012) to gain sufficient sample sizes for this level of analysis; data are compared for workers who are non-union members/not covered by a union contract and workers who are either union members or covered by a union contract.
- ⁴⁹ U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. "Table 41: Median weekly earnings of full-time wage and salary workers by union affiliation and selected characteristics." Accessed July 7, 2016. <http://www.bls.gov/cps/cpsaat41.pdf>.
- ⁵⁰ Julie Anderson, Ariane Hegewisch, and Jeff Hayes, *The Union Advantage for Women*, report no. R409, Status of Women in the States, Institute for Women's Policy Research, October 15, 2015, accessed July 18, 2016, <http://statusofwomensdata.org/app/uploads/2015/08/R409-Union-Advantage.pdf>.
- ⁵¹ U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. "Table 41: Median weekly earnings of full-time wage and salary workers by union affiliation and selected characteristics." Accessed July 7, 2016. <http://www.bls.gov/cps/cpsaat41.pdf>.
- ⁵² U.S. Bureau of Labor Statistics, Union Members 2015, January 28, 2016. "Table 3: Union affiliation of employed wage and salary workers by occupation and industry, 2014-2015 annual averages." Accessed July 18, 2016. <http://www.bls.gov/news.release/pdf/union2.pdf>.
- ⁵³ U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. "Table 40: Union affiliation of employed wage and salaried workers by selected characteristics." Accessed July 18, 2016. <http://www.bls.gov/cps/cpsaat40.pdf>
- ⁵⁴ Schmitt and Woo, "Women Workers and Unions."
- ⁵⁵ Ibid.
- ⁵⁶ Andersen, Hegewisch, and Hayes, *The Union Advantage for Women*, Figures 2 and 3.
- ⁵⁷ Ibid.
- ⁵⁸ SGT calculation based on U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. Unpublished tabulations.
- ⁵⁹ Ibid.
- ⁶⁰ Ibid.
- ⁶¹ U.S. Department of Labor, Minimum Wage Chart. Accessed December 21, 2016, <https://www.dol.gov/minwage/chart1.htm>; U.S. Bureau of Labor Statistics, Inflation Calculator. Accessed December 21, 2016, http://www.bls.gov/data/inflation_calculator.htm
- ⁶² U.S. Bureau of Labor Statistics, Current Population Survey, 2015 Annual Averages. "Table 44: Wage and salary workers paid hourly rates with earnings at or below the prevailing Federal minimum age by selected characteristics." Accessed July 18, 2016. <http://www.bls.gov/cps/cpsaat44.pdf>.
- ⁶³ U.S. Census Bureau, "Poverty thresholds by Size of Family and Number of Children, 2015," May 16, 2016, accessed July 14, 2016, . <http://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>.
- ⁶⁴ The Center of America Progress estimates that the median full-time, full year working 26 year old women in 2014 who takes five years out of the workforce for caregiving stands to lose \$467,000 over her working career. <https://www.americanprogress.org/issues/early-childhood/reports/2016/06/21/139731/calculating-the-hidden-cost-of-interrupting-a-career-for-child-care/>
- ⁶⁵ Women's Bureau is working on further analysis of the effect family responsibilities and caregiving has on women workers and their earnings. In 2015, the Department of Labor published "The Cost of Doing Nothing: The Price We All Pay Without Paid Leave Policies to Support America's 21st Century Working Families" (<https://www.dol.gov/featured/paidleave/cost-of-doing-nothing-report.pdf>) which examined the effects of the United States lack of paid leave access has on workers and employers including lower earnings over a career for women caregivers