THE STATE OF THE GENDER PAY GAP

Introduction

Women have made tremendous progress toward achieving gender equality over the past decades. The views of many Americans reflect this progress; in a recent national poll, 75 percent of respondents said they believe the United States has come a long way towards reaching gender equality. However, more work remains. According to this same survey, 69 percent of all respondents believe that women are still not paid equally for equal work, and over 70 percent of people believe that women are less likely to be considered for corporate leadership roles. A full 80 percent believe that female leaders have to work harder than men to prove themselves.

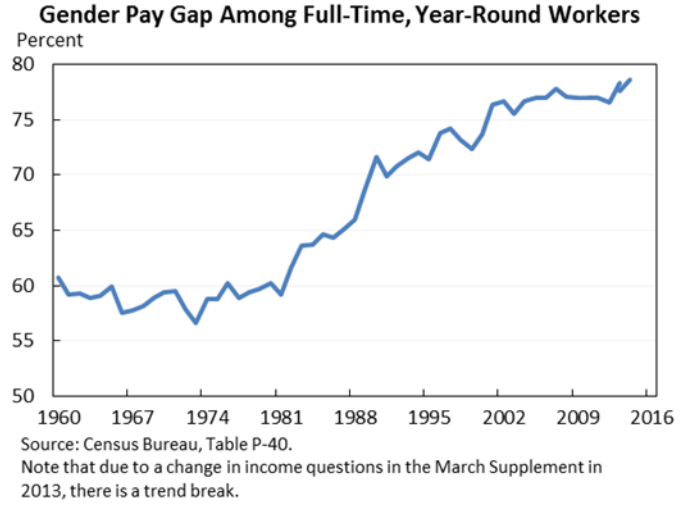
Important work also remains in closing the gender wage gap, which has been relatively stable in recent years. In 2014, median earnings for a woman working full-time all year in the United States totaled only 79 percent of the median earnings of a man working full-time all year. Phrased differently, she earned 79 cents for every dollar that he earned.

The gender wage gap has many causes and contributors, including differences in education, experience, occupation and industry, and family responsibilities. But even after accounting for these factors, a gap still remains between men's earnings and women's earnings, suggesting that discrimination may also play a role. This issue brief outlines the state of the gender wage gap, the factors that influence it, and policy implications.

The Gender Pay Gap

Over the past century, American women have made substantial strides in entering and remaining in the work force and building their skills. Today, women account for 47 percent of the labor force, up from 29 percent in 1948. However, the typical woman working full-time full-year earns 21 percent less than the typical man. In addition, while the pay gap closed by 17 percentage points between 1981 and 2001, it has remained flat since 2001. In the past two years, some modest progress has been made, with the gap closing by 1.8 percentage points from 2012 to 2013 and by an additional percentage point between 2013 and 2014.[1]

Breaking the pay gap down by race reveals further disparities. While the typical non-Hispanic white woman earned 75 percent of what the typical non-Hispanic white man earned, black and Hispanic women face an even wider pay gap in comparison to white men. For example, the typical non-Hispanic black woman made only 60 percent of a typical non-Hispanic white man's earnings, while the typical Hispanic woman earned only 55 percent. Women of color face smaller disparities in earnings when compared to men of color, highlighting the role of disparities in pay by race as well. For instance, the typical black non-Hispanic woman earns 82 percent of what the typical black non-Hispanic man does, and the comparable number for Hispanic women is 88 percent.

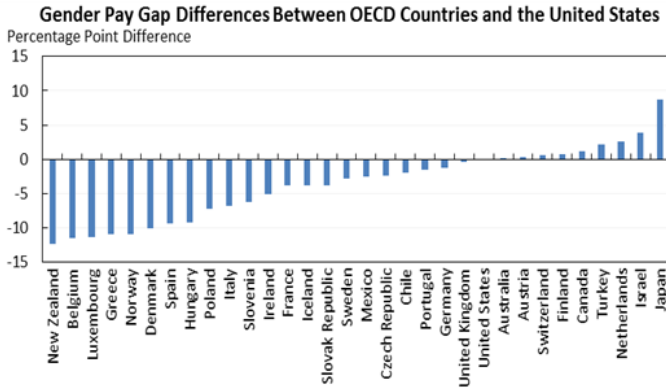


While the gender pay gap in the United States has not changed substantially over the last 15 years, other

[1] Note that in 2013 changes were made to the income questions of the Current Population survey that affect measures of the gender pay gap. Two numbers were produced in 2013, one of which is consistent with income measures in prior years while the other is consistent with measures going forward. For comparison purposes both 2013 measures of the gender pay gap are plotted in the chart.

industrialized nations have made greater progress in closing the gap. From 2000 up to the latest data available, the pay gap fell fastest in the United Kingdom (by almost 9 percentage points), followed by Japan, Belgium, Ireland, and Denmark (around 7 percentage points each).

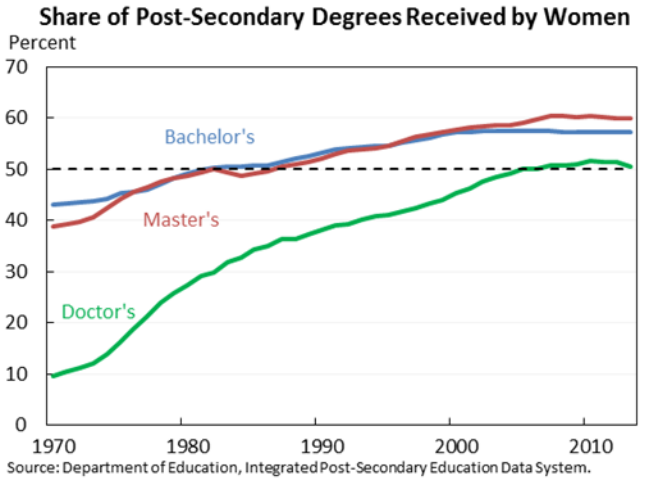
As a result, the U.S. gender pay gap is currently larger than that of many other industrialized nations. According to the Organisation for Economic Co-operation and Development (OECD), the gender wage gap in the United States is about 2.5 percentage points larger than the OECD average. For comparison, the gender wage gap in New Zealand is less than a third of what it is in the United States. In Norway, it is 11 percentage points less than it is in the United States, and in Italy it is 7 percentage points lower.



Source: OECD Statistcs.
Note: Data are for the most recently reported year for each country, ranging from 2010 to 2013.

The Role of Education and Experience

Much of the decline in the pay gap that occurred in the 1980s and 1990s was due to education and experience gains by women. While men were more likely than women to graduate from college in the 1960s and 1970s, in recent decades the pattern has switched: since the 1990s, women have been awarded the majority of all undergraduate and graduate degrees. Because women have increasingly become our most educated workers, accounting for relative education levels actually widens the pay gap.

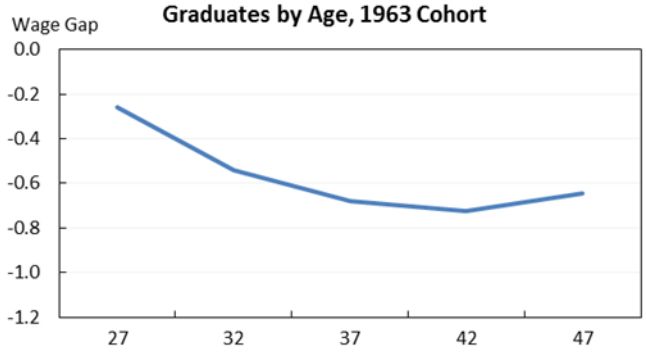


Source: Department of Education, Integrated Post-Secondary Education Data System.
Note: Dashed line indicates 50 percent. Doctoral degrees includes all dcotoral degrees, including MD, JD, and PhD.

On-the-job experience is another important determinant of wages, and in the past, women often left the labor force after marrying or having children. Today, even though women are still more likely than men to temporarily exit the labor force, they are more likely than in the past to work throughout their lifetimes. Economists Francine Blau and Lawrence Kahn found that one-third of the decline in the pay gap during the 1980s was due to women's relative gains in experience (whereas the major factor in the pay gap decline in the 1990s was increases in women's educational attainment). Today, even a majority of mothers with an infant are in the labor force.

In general, the pay gap grows over workers' careers, although it appears to rebound somewhat in later years. Young men and women tend to start their careers with more similar levels of earnings, but over time, a gender gap emerges and grows. As shown in the chart below (from research by Harvard economist Claudia Goldin), the approximate percentage difference between women's earnings and men's earnings for college graduates born in 1963, more than doubled from age 27 to 32 and almost tripled from age 27 to 42.

Difference Between Female and Male Earnings Among College Graduates by Age, 1963 Cohort



Source: Calculations by Claudia Goldin.
Note: Data are derived from a regression specification for white, native-born, non-military college graduates of any employment status from the 1963 cohort. Data are trimmed and corrected for income truncation. Wage gap is the log ratio of female to male earnings.

The Role of Occupation and Industry

As women's labor market participation and education have increased, so have their career opportunities. Women are increasingly entering occupations that were once heavily male-dominated, part of what Claudia Goldin has termed the "quiet revolution." However, despite this trend, research from Francine Blau and Lawrence Kahn shows that differences in occupation and industry still play an important role in the gender pay gap.

A key question is why men and women continue to work in different occupations, even as women have gained labor market experience and education. Typically, economists consider the portion of the gender gap that cannot be explained by observable characteristics, like occupation, education, and experience, to be influenced by discrimination.

However, many economists and social scientists debate whether one should account for differences in the observable characteristics of industry and occupation when studying the gender wage gap. On one hand, if these differences stem from preferences for different jobs, it is reasonable to account for them. On the other hand, if men and women face different job choices because of discrimination or the anticipation of discrimination, one should not account for industry and occupation in estimating the gender pay gap. In many situations, the delineations between preferences and discrimination are ambiguous.

Unfortunately, it is difficult to measure the impact of preferences on overall occupational choice. This leaves economists with little evidence to assess the relative importance of preferences versus discrimination, or the anticipation of discrimination, in determining occupational choices. Other aspects of occupational choice do not fall neatly into the categories of preference or discrimination. For example, the types of toys children play with and the books they read; the role models they interact with; and male and female characters they witness in film, television, and advertisements may also contribute to expectations and ideas that inform occupational choice but do not necessarily constitute entirely preferences or entirely discrimination.

Economists are better able to estimate the impact of discrimination. Recent research by Jessica Pan (2015) finds evidence consistent with the notion of employee discrimination introduced by Gary Becker in 1957. In the earliest model, men prefer not to work with women and must be compensated in order to do so; as a result, we would anticipate seeing segregated workplaces. Pan (2015) provides evidence supporting a more nuanced model to explain gender occupational segregation. In this model, when women enter a male-dominated profession, social interactions between men and women increase within an occupation, and at a certain "tipping point," men who dislike working with women the most will exit the profession.[2] When these men exit, the female share of employment in the profession increases, and this can lead to further exit of men from the occupation. Pan's analysis examines changes in occupational segregation between 1940 and 1990, and finds that occupations tend to segregate more quickly as women enter, or have lower "tipping points," in regions where males hold stronger attitudes toward which roles are appropriate for women. This research highlights the continuing role of discrimination in occupational sorting and women's labor market outcomes.

Even when women and men are performing similar tasks, however, the pay gap does not fully disappear. Blau and Kahn looked at the roles of various factors driving the pay

[2] Note that the concept of "tipping points" has been applied in a wide range of research into the dynamics of discrimination based on various characteristics.

gap and concluded that occupation and industry differences accounted for 51 percent of the pay gap. However, unexplained factors still accounted for 38 percent of the pay gap, with other observable characteristics such as experience and race comprising the remaining 11 percent.

Given this research, it is unsurprising that within occupation, the pay gap often remains. Out of 152 occupations tracked, the Bureau of Labor Statistics (BLS) only reports five occupations in which women out-earned men in 2015, as measured by weekly earnings among full-time workers.[3] There are also occupations in which the pay gap is particularly large, such as securities, commodities, and financial services sales agents (where the gap is 48 percent), personal financial advisors (41 percent), legal occupations (40 percent), and physicians and surgeons (20 percent). There is not a strong relationship between the size of the gender pay gap in a given occupation and either the percentage of women in that occupation or its median weekly wage.

The Role of STEM Education and Occupations

Many of the fields with the highest expected lifetime earnings are in Science, Technology, Engineering, and Math (STEM), and STEM-related fields, including economics, finance, and computer science. However, women are underrepresented in these fields and comprise only a quarter of STEM workers.

Women in STEM jobs earn almost 30 percent more than the typical full-time, full-year working woman, and gender pay gaps are smaller in STEM occupations than in non-STEM fields. Given these dynamics, increasing opportunities for women in STEM is important to improving the economic success of women and reducing the gender pay gap.

However, the gap in STEM focus starts long before workers begin making career choices; rather, it results from a series of events and decisions that begin at young ages. Gaps in math performance between boys and girls appear at an early age and persist throughout school, though evidence suggests that even girls who perform well may underestimate their skill. A recent OECD report finds that even high school girls who score highly on math and science tests report low levels of confidence and perceived proficiency in math and science, which may lead high ability women to choose not to focus on STEM fields. This lack of confidence may be partially attributable to societal expectations of girls' abilities. Research has even demonstrated a modest bias within parents to underrate girls' math abilities. Possibly as a result of these expectations, stimuli that remind girls of their gender when presenting them with traditionally male-dominated activities can negatively impact their performance, a phenomenon known as "stereotype threat" that has been documented across many groups.

Research has also found that role model and peer effects are important; female students who attend high schools with a larger proportion of female math and science teachers are more likely to pursue a STEM degree in college. In a study of students that are randomly assigned to professors at the U.S. Air Force Academy, Carrell, Page, and West (2010) found that the gender gap in course grades and STEM majors is eliminated when high-performing female students are assigned to female professors in introductory math and science courses.

These factors all translate to lower participation in STEM education; only 8 percent of women entering college start with a STEM major, less than half the rate of men. Attrition rates out of STEM are also high for women; about 40 percent of women who start with a STEM major ultimately graduate with a STEM degree, and a third of those that earn a STEM degree go on to work in a STEM occupation. Among women who begin a science-related career, more than half leave by mid-career. Many cite a hostile workplace culture, lack of other female mentors, and unclear career paths as primary motivations to their departure from STEM careers.

The Role of Leadership Positions

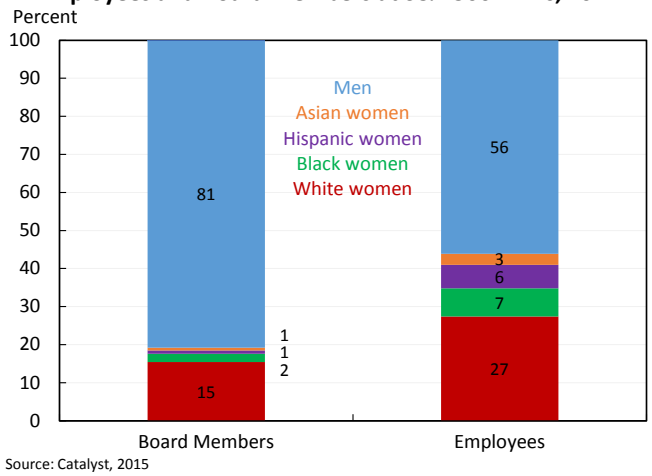
Gender inequality is particularly pronounced at the top of the corporate pyramid, where women's representation is also notably limited. Access to corporate leadership positions is important not only from a gender pay equity perspective, but also because

[3] Only occupations with reliable earnings data are included in this tabulation. The occupations with higher female earnings are wholesale and retail buyers (except for farm products), police and sheriff's patrol officers, bookkeeping, accounting, and auditing, data entry keyers, and general office clerks.

female leaders serve as role models to young women entering the workforce.

In 2014, only 4 percent of CEOs in S&P 500 companies were women, and women held 19.2 percent of board seats in S&P 500 companies, even as they accounted for about 45 percent of the workforce in these companies and nearly half of employees at all companies. Women of color are even less likely to hold corporate board positions. For example, while black women account for about 7 percent of S&P 500 employees, they hold just 2 percent of board positions at these firms. For Hispanic women, the figures are 6 percent and 1 percent, respectively.

Employees and Board Members at S&P 500 Firms, 2014



Source: Catalyst, 2015

According to recent survey evidence, less than half of respondents believe that women are equally likely to be considered for top executive roles. When asked what the largest barriers are to consideration for top leadership roles, respondents cited discrimination by men (59 percent), male leaders that are unwilling to promote women to leadership roles (57 percent), and male workers that are unwilling to follow female leaders (54 percent). Over three quarters of respondents believe that women's contributions within leadership roles often go unrecognized.

Despite these obstacles, businesses stand to benefit from greater gender diversity in leadership; companies with more women on their boards tend to outperform companies with fewer women on their boards.[4] Companies in the top quartile of gender diversity are 15 percent more likely to have above-typical financial returns. An increased role for women is beneficial for our economy because research has shown that greater diversity in the workforce can improve decision making, and heighten performance. Emerging evidence from venture capital data finds that investments in startups with a female founder meaningfully outperform investments in startups with all-male founding teams.[4]

The Role of Differences in Negotiations

Given the growth in the pay gap over the course of a woman's career, even among workers who have no children, some have hypothesized that the growing gap is due in part to differences in negotiating salaries and receiving promotions.

Research shows that women, even highly-educated women, are less likely to negotiate their first job offer than men. Furthermore, when women do negotiate, if the norms of negotiation and salary expectations are not transparent, they are likely to receive lower compensation than men. Research shows that disparities in negotiated salaries were small in situations where ambiguity over salary ranges and negotiation norms were low, but that in high-ambiguity situations women received about $10,000 less than similarly-qualified men.

Although negotiation can lead to better career prospects and higher wages, it can create detrimental impressions of female workers. Hannah Riley Bowles, Linda Babcock, and Lei Lai found that women were more often penalized for initiating negotiations, which the authors attribute to "perceptions of niceness and demandingness." While pay transparency can help reduce the ambiguity of negotiating situations, it cannot by itself eliminate the social penalties some women face for initiating negotiations.

Research shows that eliminating pay secrecy can play an important role in helping women negotiate. A review of the literature on pay secrecy by Andrew Chamberlain and Glassdoor emphasized that salary transparency can help alleviate the pay gap.

[4] Though this correlation does not necessarily signal causation.

The Role of Discrimination

As this issue brief has discussed, a variety of factors can impact the pay gap. For example, what women study in school, the industry or occupation in which they work, the likelihood of negotiation, and even the chances that they will continue working in their chosen profession. Among many other influences, these decisions may be impacted by the existence of discrimination or the anticipation of discrimination along a certain path. It is thus difficult to exactly disentangle how much of the pay gap is due to discrimination.

When holding education, experience, occupation, industry, and job title constant, a pay gap remains. As mentioned above, some research has found that this unexplained portion is a substantial share of the total gap. By definition one cannot explain the remaining part of the wage gap, but the impact of discrimination and biases contribute to the "unexplained" portion of the gap.

Underlying many of the possible explanations for the gender pay gap is the potential for implicit or explicit discrimination. Some work has in fact suggested that implicit biases are more common and also detrimental. If implicit, or subconscious, biases are at play, a pay gap stemming from discrimination will be more difficult to overcome.

While it is difficult to measure the role of biases using standard datasets, more experimental research has found evidence of discrimination in hiring, pay, and advancement. Resume studies have shown that, among identical resumes where only the name differs, perceived gender affects whether the candidate is hired, the starting salary offered, and the employer's overall assessment of the candidate's quality. These findings echo the conclusions of earlier audit studies.

In addition, some economists believe that anti-competitive forces have contributed to the rise in corporate profits in recent years, and it is possible that profits arising from non-competitive behavior are distributed in a discriminatory way. For instance, research has shown that anti-competitive profits stemming from banking regulation were largely shared with men, rather than women. Thus, the role that discrimination plays in the pay gap could conceivably rise if non-competitive profits continue to increase.

The Gender Pay Gap and Policy Implications

Since the beginning of the Administration, the President has prioritized closing the gender pay gap, through efforts to eliminate discrimination; ensure that women and all workers receive fair wages; and increase workplace flexibility so that families can choose the best options for their work and family lives.

An important piece of this agenda is eliminating workforce discrimination and enforcing anti-discrimination policy. January 2016 marked the 7-year anniversary of the Lilly Ledbetter Fair Pay Act, the first major piece of legislation President Obama signed into law. The Act extended the time period in which claimants can bring pay discrimination claims, enabling victims of pay discrimination to seek redress when they otherwise could not. Many workers, however, are unaware whether they face wage discrimination because they do not know what their colleagues are earning. For example, a 2010 survey found that 19 percent of employees reported that their employer formally prohibited discussing salaries and another 31 percent are discouraged from discussing compensation. A pay gap stemming from discrimination is particularly likely to exist under conditions of pay secrecy, where it is harder for workers to know whether they receive lower compensation than similar colleagues.

In order to improve pay transparency and help ensure fair pay, the President has called on Congress to pass the Paycheck Fairness Act, which would ensure workers' right to discuss compensation without fear of retaliation. For the same reasons, the President issued an Executive Order that prohibits federal contractors from discriminating or retaliating against workers who discuss their pay. As an important additional measure, the Equal Employment Opportunity Commission has proposed to start collecting pay data broken down by gender and race from all businesses with at least 100 employees that will enable the Commission to better analyze and assess compensation decisions.

In addition to measures that specifically address discrimination, the President's broader policies aim to ensure that all workers are treated fairly in the workplace and are able to select jobs that best match their skills, which in turn benefits the overall labor market and economy.

Improving gender pay equity requires preparing students for the workforce and investing in skills that will improve career opportunities for women. Given the need for greater investment in STEM education, the President set a national goal of preparing 100,000 excellent STEM teachers to serve in our nation's public primary and secondary schools by 2021, and launched the 100kin10 initiative to fulfill this goal through public and private commitments (including Teacher Incentive Fund, Teacher Quality Fund, Carnegie Foundation). Through innovative arrangements such as the NASA/Girl Scouts of the USA partnership, the Department of Energy's Women in STEM mentoring program, and numerous other commitments, agencies across the Administration and the private sector are creating opportunities for students to gain hands on experience and guidance as they navigate STEM subjects.

Other policies that can help ensure fair pay include modernizing outdated overtime regulations and raising the minimum wage. In May, the Department of Labor published a rule raising the overtime benefit salary threshold to $913 a week or $47,476 annually starting in December 2016. Of the 4.2 million workers who will benefit from the President's modernization of overtime regulations, 56 percent are women. The law will also have a large effect for working mothers; a quarter of all working mothers and 32 percent of single mothers will be impacted by the new overtime rule.

Raising the minimum wage and the tipped minimum is particularly important for women because women are disproportionately represented in lower-wage sectors. To help all low-wage workers, the President signed an Executive Order raising the minimum wage to $10.10 for workers on new Federal contracts and also raised the minimum wage for tipped workers. The President has also called on Congress to raise the minimum wage for all workers, and since 2013, 18 States and the District of Columbia have raised their minimum wage, as well as around 46 cities and localities.

Family-friendly workplace policies can also help workers choose jobs in which they will be most productive. Increasingly, mothers and fathers are sharing caregiving and family obligations, but many workplaces have been slower to adapt, and both men and women value these policies when choosing a workplace. For example, work by Claudia Goldin shows that women are particularly likely to select careers that offer flexibility, like pharmacy. The demand for family-friendly workplace policies, however, is not limited to women. For example, nearly half of all working parents have reported declining a job because they felt the position would interfere with their family responsibilities. In fact, fathers in dual-earner couples are more likely to report work-family conflict than mothers in dual-earner couples. Recognizing the importance of family-friendly workplace policies, the President recently issued an Executive Order requiring that Federal contractors provide paid sick leave to their workers on federal contracts. The President has also called on Congress to pass the Healthy Families Act, which would provide workers with the ability to earn paid sick days, and to pass a law that would give all families access to paid family and medical leave. The Family and Medical Insurance Leave (FAMILY) Act is one such proposal. The President has also proposed tripling the maximum child care tax credit to $3,000 per young child, helping families afford quality care for their children and facilitating entry into the workforce.

From a business's perspective, family leave policies can also increase worker productivity and worker retention. For example, a survey of California employers found that most employers reported that paid leave did not harm productivity (89 percent), profitability (91 percent), turnover (93 percent), or morale (99 percent).

Policies that ensure fair pay for all Americans and help workers find jobs that best suit their talents are a key part of the President's economics agenda. While these policies can help narrow the pay gap, they also allow businesses to attract and retain the strongest talent, which boosts labor productivity and benefits the economy as a whole.

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