

**Goldman
Sachs**

**GLOBAL
MARKETS
INSTITUTE**

October 2018

Closing the gender gaps: Advancing women in corporate America



Amanda Hindlian
amanda.hindlian@gs.com

Sandra Lawson
sandra.lawson@gs.com

Sonya Banerjee
sonya.banerjee@gs.com

Deborah Mirabal
deborah.mirabal@gs.com

Hui Shan
hui.shan@gs.com

Emma Campbell-Mohn
emma.campbell-mohn@gs.com

Table of contents

Executive summary	3
Chapter 1: Gender diversity in corporate America	4
Chapter 2: Framing the debate: hiring, downshifting and attrition	7
Chapter 3: Women outpace men in education but lag in seniority and pay	9
Chapter 4: Issues facing women at work today	24
Chapter 5: How women respond	30
Chapter 6: Changing the environment	35
Bibliography	39
Disclosure Appendix	41

The authors would like to thank Steven Strongin, Derek Bingham, Carl Cederholm, Julie Zide, Jennifer Carey, Evan Tylanda and Peter Yu.

The Global Markets Institute is the public-policy and corporate advisory research unit of Goldman Sachs Global Investment Research. For other important disclosures, see the Disclosure Appendix.

Executive summary

This paper looks at two key questions about women in corporate America: first, why do women continue to earn less than men? And second, why are there so few women in senior corporate leadership positions today?

The gender wage gap is stubborn. Across workers between 25 and 54 years old in the US, women are paid 20% less than men. Our analysis suggests that most of this gap – 17.5 percentage points – *cannot* be explained by measurable factors that are captured in labor-market studies; we believe at least part of the unexplained gap may be due to the lack of women in highly-paid senior roles.

The gender leadership gap is stark. Although the data are limited, our assessment of the S&P 1500 companies that disclose diversity metrics suggests that women make up about 40% of all employees – but just 6% of CEOs.

We provide a framework to assist companies as they seek to close these gaps that looks at hiring, “downshifting” and attrition:

- Gender imbalances in **hiring** play an important role. But the notable gap between the share of women employees and the share of women leaders in so many sectors suggests that while hiring is important, it isn't the only issue.
- **“Downshifting,”** which can be *voluntary* or *involuntary*, describes scaling back work – for example, taking jobs that are more flexible in terms of hours or travel. In some cases it's a personal choice, but in others, women may find themselves “steered” into positions with lower profiles, pay and promotion prospects.
- **Attrition** data show that women leave the workforce early in their careers at higher rates than men do. But the increase in women's attrition in their late 20s and 30s is much less pronounced today, and some women do return to the workforce later.

We find common factors between downshifting – whether voluntary or involuntary – and attrition. These include frictions between home and work; the “double-edged sword” of “family-friendly” policies; gender-specific expectations about appropriate behavior, norms of leadership and definitions of success; the allocation of commercial opportunities; and bias, whether conscious or unconscious.

We also show the long-term economic impact of taking a few years out of the workforce – while stressing that we cannot quantify the non-economic benefits from doing so. In a conservative scenario, we find that a woman who takes just five years out of the workforce can forgo one-fifth of her potential lifetime income, even though she is only away from work for one-eighth of her career.

We suggest ways companies can improve the situation and strengthen their pipelines of female leaders. These include reviewing current policies and practices to understand and address potential gender biases; adding more women to corporate boards; improving data availability; helping women to re-enter the workforce or to “upshift;” and having a voice on relevant public-policy issues.

Chapter 1: Gender diversity in corporate America

The issue of gender diversity in corporate America has taken center stage. Whether it's the persistent disparity in pay between women and men, the low share of women in corporate leadership positions or the heightened social focus on gender equality issues more broadly, questions about pay, promotion, retention and bias in the workplace unquestionably require attention. Our aim in this paper is to help companies recognize and navigate the most complex and pressing issues in order to improve gender diversity outcomes.

Gender diversity issues in the workplace are not new. However, while many corporate leaders once questioned whether gender diversity was in fact a business imperative, today many (although admittedly not all) acknowledge that having the most diverse workforce yields the best business outcomes. What's more, they also now recognize that attracting and retaining the best talent requires dedicated, sustained and accountable corporate efforts focused on achieving better diversity results.

Women in the labor force: progress has been uneven

To provide context for our discussion of why women continue to earn less than men and why there are so few women in senior corporate roles, we first frame the state of affairs for women working in the US today, highlighting below four key conclusions from our work.¹

First, women have made substantial gains in joining the US labor force over the last several decades. In the early 1960s, fewer than half of prime working age women (ages 25-54) were participating in the labor force; today, three quarters are. In fact, roughly 48 million women now make up just under half of all prime-age workers in the US labor force.

Second, women are now considerably better educated than men. More women earn post-secondary school degrees than men – across all types of degrees including advanced ones – and this general trend has been underway for the past 30 years. However, the data show some tendency for women and men to pursue different fields of study, which can influence their industry and job selections and thus can also affect their pay.

Third, despite some progress, a stubborn gender pay gap persists. Data from the US Census Bureau show that among prime working age people who worked full-time, women earned 20% less than men, on average, between 2013 and 2017. This figure compares women and men across the economy and as a result does not account for differences in factors like education, industry, occupational choices or level of experience, for example. These are all important determinants of pay.

¹ Given the nature of the available data, our analysis tends to apply best to publicly-listed companies and to professional services firms, although we assess broader demographic trends as well.

When we control for as many worker and job characteristics as possible, we find that 17.5 percentage points of this 20% gap *cannot* be explained by measurable factors that are captured in labor-market studies; our findings are generally consistent with existing academic work on the topic. The implied lifetime income disparity is significant. As we show, in a like-for-like situation, a woman would need to work more than four years longer than a man in order to close the cumulative income gap.

Fourth, the gender gap isn't just seen in wages. Consistent with current discourse on the subject, our work suggests that women remain far under-represented at the top of corporate America. Although public disclosures of corporate gender diversity figures are limited, the data that are available for US-headquartered companies included in the S&P 1500 indicate that women in 2017 comprised around 40% of all employees and 35% of managers – but just 6% of CEOs. We believe the fact that there are so few women in senior corporate leadership positions may partly contribute to the unexplained 17.5 percentage point wage gap.

What's behind the gender gaps in pay and seniority?

These four conclusions raise two principal questions: first, why do women earn less than men? And second, why are there so few women at the top of corporate America?

In practice, it may not be possible to disentangle these two issues, or to identify a single straightforward answer to either one, given the complexity and persistence of the problems. Nevertheless, we use this paper to explore many of the factors driving the pay and seniority gaps – even those factors that can be uncomfortable to discuss. Our goal is to be transparent, thorough and balanced, drawing from experts in fields like behavioral science where appropriate, along with other experts in gender research.

By taking this approach, we can identify several possible explanations for both the gender wage gap and the low share of women in the most senior positions in corporate America. The first explanation, entry-level hiring, is obviously critical given that a gender imbalance at the entry level makes achieving a better gender balance later all the more difficult. But the notable gap between the share of women employed and the share of women managers in so many sectors suggests that hiring alone is not the issue.

Therefore we focus in this paper on two other explanations: “downshifting” and attrition. We use the term downshifting to describe a voluntary or involuntary shift to work that requires less time, less travel or more flexible hours, or is in some other way scaled back. To be clear, downshifting can be a woman's personal decision – but it may not always be, as we discuss later.

Whether downshifting or attrition is at play, we find several common factors behind both, including the frictions between home and work; the “double-edged sword” that can be associated with “family-friendly” policies at work; gender-specific expectations about appropriate behavior, norms of leadership and definitions of success; the allocation of high-profile assignments, client responsibilities or other differentiating work; and, whether unobvious or subtle, conscious or unconscious, issues of bias. It is therefore critical for companies to understand and acknowledge these issues and to

ensure they support women seeking to re-enter the workforce or to “upshift,” if they are to maintain a strong pipeline of female talent for the most senior positions.

To better depict the economic consequences for women of downshifting or leaving the workforce, we provide scenario analyses. Our answers cannot be comprehensive because we have no way to assess the personal gains that women may experience by exiting the workforce, either permanently or for a period of time. Instead, we focus our efforts on the more calculable problem of quantifying foregone wages and other economic consequences associated with critical inflection points over the course of women’s careers.

For example, we consider an illustrative case study of a woman pursuing a career as a lawyer at a top law firm. In this conservative scenario, we model the financial impact of this woman exiting the workforce for a few years. Our key finding is that, all else equal, if she leaves the workforce early in her career, for just five years (equivalent to one-eighth of a 40-year career), and then returns to work full-time, she could forgo *one-fifth* of her potential lifetime gross income. Accordingly, even in this conservative scenario, which assumes that the woman is able to step directly back into the role she left *and* that there is no underlying gender wage gap, the financial impact of briefly exiting the workforce is significant.

We conclude this paper by suggesting a range of corporate practices and policies, industry initiatives and public-policy advocacy efforts aimed at addressing the challenges we have identified. Put simply, resolving these issues will require significant efforts on multiple fronts. In the end, we suggest that improving gender diversity in the workforce means ensuring that women have the same opportunities that men have to reach the top of corporate America – whether in terms of pay or seniority.

Chapter 2: Framing the debate: hiring, downshifting and attrition

There are several possible – and related – explanations for both the gender wage gap and the dearth of women in the most senior corporate positions. To frame the key issues around both, as we noted earlier, we parse them into three principal categories: hiring, “downshifting” and attrition.

These categories are not intended to be exclusive but rather are meant to serve as a roadmap – a way to structure the debate we pursue throughout this piece. All three relate either to critical inflection points for individuals over the course of their careers, or to times when companies make decisions that can have long-lasting effects on the demographics of their employee populations.

Hiring decisions: the playing fields aren’t always even

Entry-level hiring shows a gender imbalance in some industries, limiting the female leadership pipeline from the beginning.

In some cases, educational choices made early on can play a role. The science, technology, engineering and math (STEM) space provides a good example: far more STEM degrees have been awarded to men than to women since 2009 (and the related jobs, as in the case of computer and information systems management, as examples, tend to be higher-paying on average). Women who haven’t studied these fields may face stiff barriers to entry. In other industries, such as in trade or in leisure and hospitality, entry-level hiring by gender is more on par.

Educational choices may also drive what research calls “occupational sorting,” the notion that women are more likely to choose some careers than men, and vice versa; this likely plays a role in hiring patterns as well.

When entry-level hiring decisions are skewed from a gender diversity perspective, companies may later be able to improve the dynamic through lateral hiring of experienced professionals. The most successful endeavors are likely to involve focused efforts, including thorough and up-to-date industry benchmarking data that include diversity metrics – which as we discuss later, may prove challenging to compile given limited data. Even with more data, these efforts may take time to develop and may require companies to build long-term relationships with women across the industry, even when appropriate job openings aren’t necessarily obvious or imminent.

Downshifting: sometimes voluntary, sometimes not

We use the term downshifting, as we noted earlier, to describe a shift to work that requires less time, less travel or more flexible hours, or is in some other way scaled back. A woman’s decision to downshift in this way *can be a voluntary and personal choice*; but there’s another side to downshifting – which we consider *involuntary* downshifting. Some mid-career women may find themselves in positions with lower profiles, pay and promotion prospects – not by explicit personal choice but in some cases as a result of bias, whether conscious or unconscious, on the part of their employers.

As we will discuss further, we use the same term for both voluntary and involuntary downshifting because we find several common factors behind them, particularly frictions between home and work and gender-based dynamics in the workplace, such as gender-specific expectations about behavior and norms of leadership. And whether downshifting is voluntary or involuntary, it has similar economic outcomes.

Attrition: women are more likely to leave the workforce earlier in their careers

Our analysis of attrition among full-time working women indicates that well-educated women stop working full-time relatively early in their careers at a higher rate than similar men do. While the difference is relatively small at the start of their careers, it widens meaningfully as women grow older, peaking when women are in their early 40s. We note, however, that the drop-off in women's participation rates during their late 20s and 30s is much less stark today than in the past (with the participation rate now at least 30 percentage points higher than in the 1960s) and that some women who leave early on in their careers return to the workforce later.

Narrowing our focus: downshifting and attrition

When considering each of these issues – hiring, downshifting and attrition – there's no doubt that hiring is crucial. It's difficult to achieve gender parity in the broader corporate workforce later when the starting point is notably unequal or when gender-focused lateral hiring efforts of experienced professionals are under-developed and may prove inherently challenging given data limitations. Women's initial under-representation in specific industries may reflect bias in hiring, whether conscious or unconscious; but, as we indicated, it may also reflect differing educational choices or occupational sorting by gender.

Regardless, the notable disparity between the share of women in senior jobs and the share of women among overall employees in so many industries – which we show in Exhibit 6 – suggests that the lack of women at the top cannot be attributed solely to hiring.

Accordingly, we focus much of our efforts in this paper on the closely-linked areas of downshifting and attrition. We stress that women's personal decisions to step back or to step out of the workforce, whether temporarily or permanently, don't need to be justified.

But it's important to note two things: first that these decisions may not always be entirely voluntary, and second that women often make these decisions in similar environments. These may be environments in which there are questions about the outlook for their career advancement or the strength of senior management's commitment to promoting women, environments in which inflexible work may clash with family responsibilities or environments in which women face bias, whether conscious or unconscious. Changing these environments may affect the decisions women make and in the process may help companies to maintain a strong pipeline of female talent – offering women the same opportunities as men to reach the top of corporate America.

Chapter 3: Women outpace men in education but lag in seniority and pay

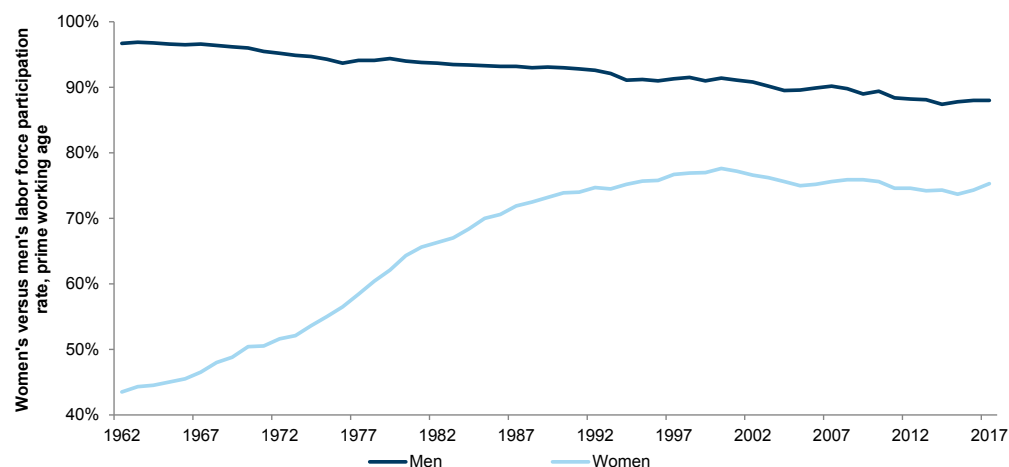
Before we delve into some of the more persistent hurdles women face at work, we first provide a snapshot of women in the US labor force today.

Women are nearly half the labor force today

Women now make up close to half of the US civilian labor force: more than 75 million women age 16 and older are currently working or looking for work. Within this group, roughly 48 million women are considered to be of prime working age (25-54 years old).

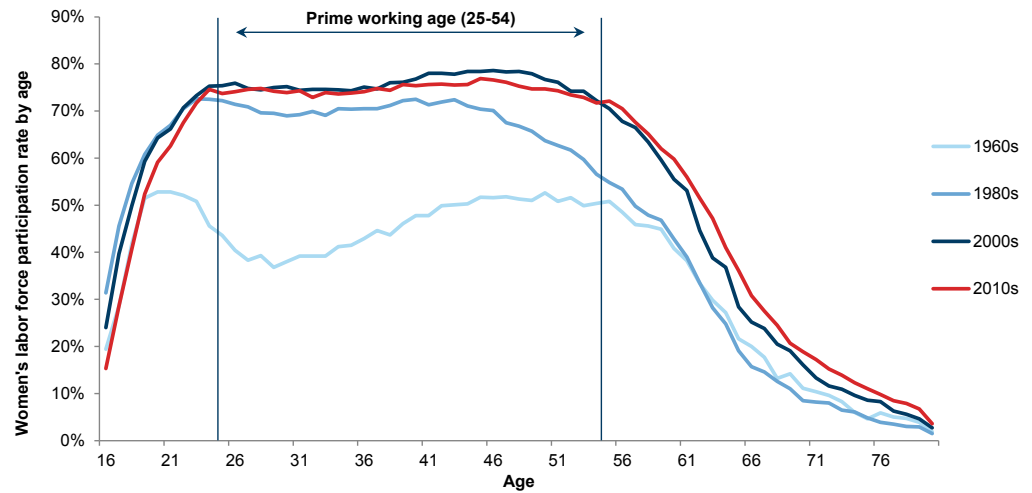
Women's participation in the labor force has increased meaningfully over the past 50 years, though it continues to lag behind men's. As Exhibit 1 shows, in the early 1960s fewer than half of prime working age women were in the labor force; today, three quarters are. Participation has risen across nearly all age groups since the 1960s, and considerably more mid-career women remain in the labor force today than in the past, as Exhibit 2 shows.

Exhibit 1: Women's labor-force participation rate has risen since the 1960s while men's has declined
Labor-force participation rates for prime working age women and men



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

Exhibit 2: The early career fall-off in women’s participation rate is much less dramatic than in the past
 Women’s labor force participation rate, highlighting prime working age



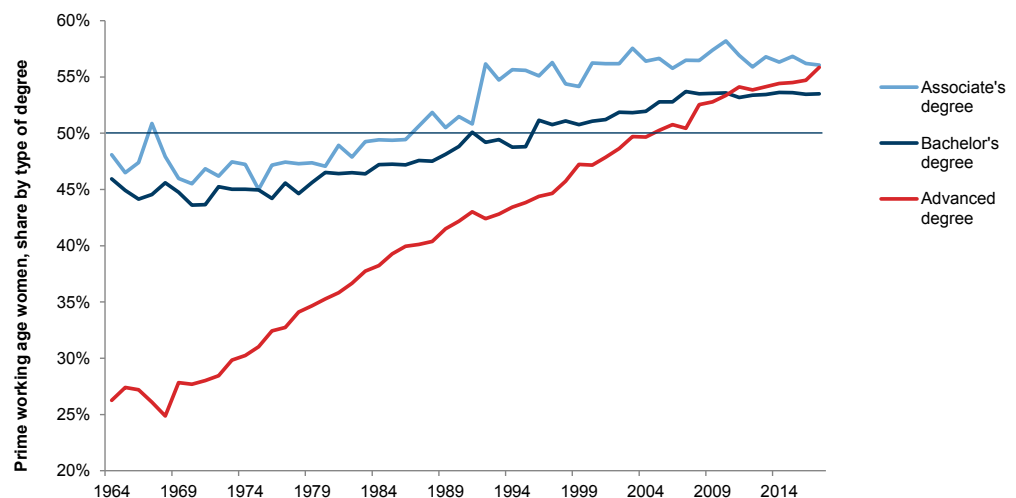
Source: IPUMS-CPS, Goldman Sachs Global Investment Research

Education: women earn more degrees than men

Women’s gains in the labor force have been part of broader social trends that include greater access to higher education. More bachelor’s degrees have gone to women than to men each year since the early 1980s. Today, among people of prime working age, women hold 56% of associate’s degrees, 54% of bachelor’s degrees and 56% of advanced degrees. See Exhibit 3.

Exhibit 3: Women are now better educated than men

Prime working age women’s share of associate’s degrees, bachelor’s degrees and advanced degrees



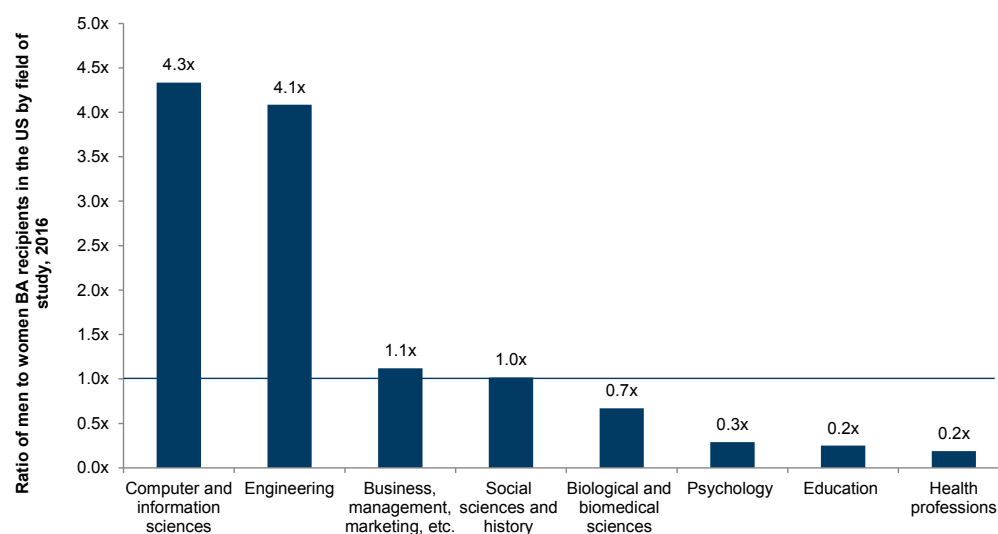
Source: IPUMS-CPS, Goldman Sachs Global Investment Research

As we noted earlier, the data show some tendency for women and men to pursue different fields of study, which can influence their industry and job selections and thus ultimately affect their pay. As Exhibit 4 shows, according to the US Department of

Education, in 2016 men dramatically outpaced women in obtaining bachelor's degrees in computer and information sciences and engineering. The ratio of men to women who received bachelor's degrees in the fields of social sciences and history and business was roughly on par. Women earned more bachelor's degrees than men in the fields of biological or biomedical sciences, psychology, education and health. What's more, across STEM fields more broadly, roughly twice as many degrees were awarded to men than to women between 2009 and 2016.

Exhibit 4: Men were far more likely than women to receive college degrees in computer science and engineering but far less likely to receive college degrees in education or health in 2016

Ratio of men to women among bachelor's degree recipients in the US in 2016



Source: US Department of Education

The seniority gap: the dearth of women at the top

Despite significant increases in women's labor force participation since the 1960s (with a notable pick-up in that rate in the 1970s and 1980s), and despite women's higher educational attainment, US corporate leadership remains disproportionately male.

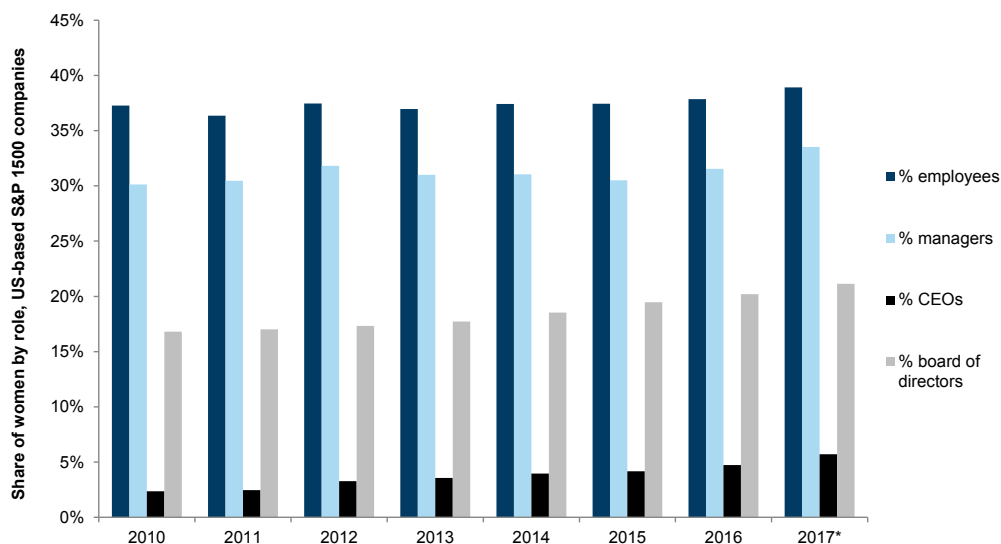
While data on the gender breakdown of senior leadership in US corporations are limited, the data that are available point to a notable lack of women. To assess women's representation at different levels of seniority within corporations, we analyzed public disclosures on gender diversity made by US-headquartered firms included in the S&P 1500. Although this index covers roughly 90% of US market capitalization across large, mid and small cap companies – and therefore captures the bulk of American public corporations – the number of firms with relevant disclosures is limited, and the extent and consistency of the metrics these firms provide vary.

Bearing these data limitations in mind, we find that, across the firms that have disclosed gender-diversity metrics for 2017, women on average constituted about 40% of all

employees and roughly 35% of managers – but just 6% of CEOs and only 20% of directors.² See Exhibit 5.

Exhibit 5: Women are under-represented at the top of US corporations

Among S&P 1500 companies with these disclosures, workforce breakdown by gender



(* 2017 data reflect disclosures by firms through August 2018.

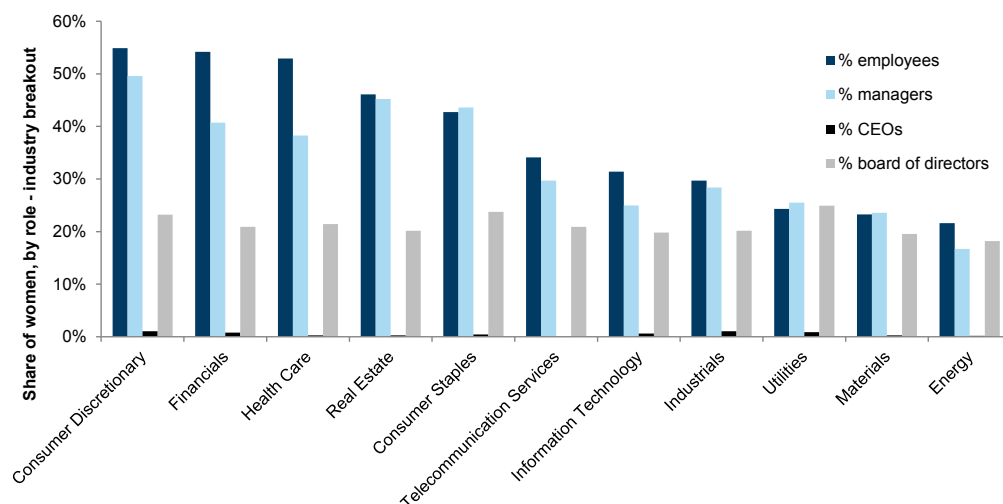
Source: Thompson Reuters, Bloomberg, Goldman Sachs Global Investment Research

Among the S&P 1500 firms that disclosed both the share of their employees who are women and the share of their managers who are women, allowing for a direct comparison of the two figures, the gap in 2017 was roughly eight percentage points.

As Exhibit 6 shows, an examination of these same data *by industry* shows that over the last five years, on average, women have made up more than half of all employees in the consumer discretionary, financials and healthcare sectors, but roughly 40% of managers and just 1% of CEOs. In contrast, the share of female employees and female managers is roughly equivalent in a few sectors, namely utilities, consumer staples, materials, real estate and industrials, though it is also worth noting that women make up no more than 30% of all employees and managers in utilities, materials and industrials.

² These figures are based on public disclosures from US-based firms included in the S&P 1500 and were pulled from Bloomberg and Thompson Reuters databases. Where there were discrepancies between these two data sets, we opted to include the metric indicating greater gender diversity. Bloomberg defines managers as the “percentage of women employed in senior management positions at the company,” while Thompson Reuters simply refers to the “percentage of women managers.”

Exhibit 6: Only a few sectors show an equivalent share of female employees and female managers
Among S&P 1500 companies with these disclosures, workforce breakdown by gender and industry



These data are for 2017, reflecting disclosures by firms through August 2018.

Source: Thompson Reuters, Bloomberg, Goldman Sachs Global Investment Research

Does this under-representation of women at the top reflect a “stock vs. flow” problem? Some might argue that the prevalence of men in senior positions reflects the notion that men were historically better educated than women, and that the educational gains are still limited to younger women who are not yet sufficiently senior. But the “stock” of well-educated women has been high for quite some time, as we noted above in Exhibit 3; there has certainly been sufficient time for these women to reach senior levels in many professions.

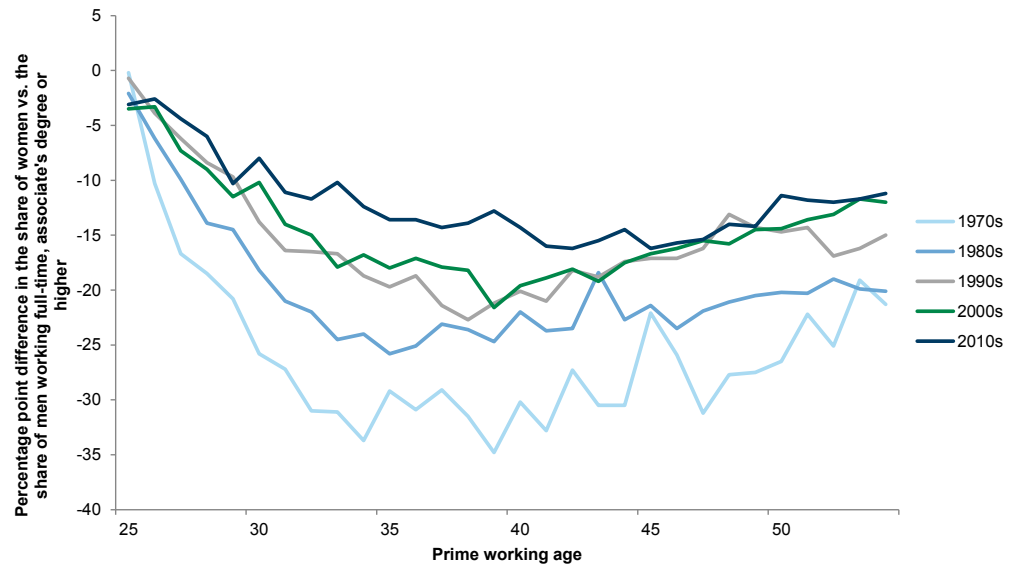
Is attrition the explanation?

Are women leaving the labor force at crucial points in their careers? And if so, does that explain the absence of women at the top of corporate America? Our own answer is “likely in part.”

To address this question, we compared the employment share of full-time working women who have at least an associate’s degree to the equivalent figure for men, by age, since the 1970s. As Exhibit 7 shows, based on this analysis, we find that a 25-year-old woman with at least an associate’s degree is only incrementally less likely (three percentage points) to be employed full-time than her male counterpart. But this likelihood increases as she grows older, and by her early 40s, the likelihood that she is not in the labor force is meaningfully higher (around 15 percentage points) compared to a man of the same age. This disparity begins to narrow once women reach their late 40s, but it never returns to the levels seen early on in women’s careers.

Exhibit 7: Women still leave the labor force relatively early in their careers compared to men, but are now far less likely to do so than in the past

Difference in the share of women versus men working full-time with an associate’s degree or higher, prime working age

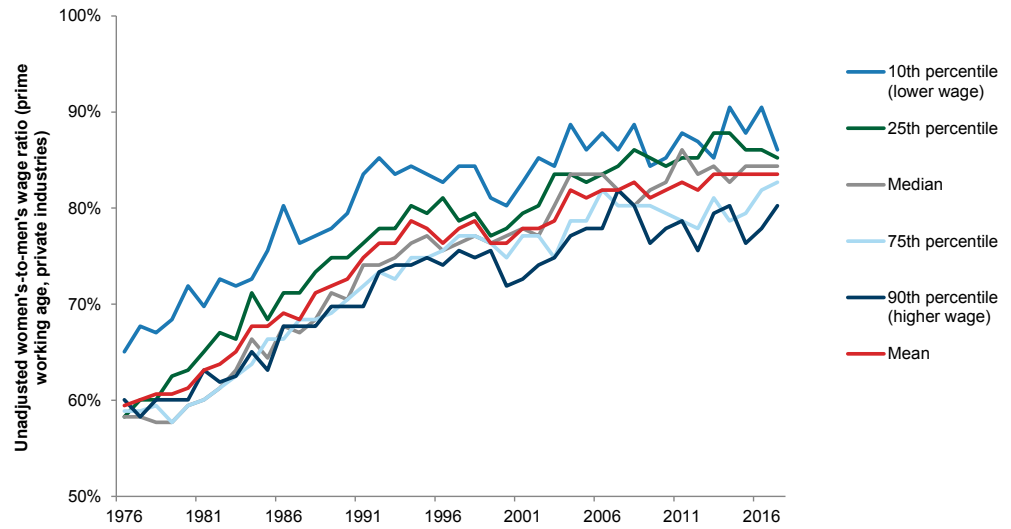


Source: IPUMS-CPS, Goldman Sachs Global Investment Research

The pay gap: prime working age women still earn less than men

Moreover, despite some progress, a stubborn gender pay gap persists. Data from the US Census Bureau show how the pay gap has evolved. In 1976, which is the first available data point, the median wage gap across prime working age women and men employed in private industries was more than 40 percentage points. This gap narrowed during the 1980s, but women’s gains began to stall in the 1990s, with only limited improvement since then. What’s more, it is worth noting that the wage gap among high earners – meaning among women and men in the 90th percentile – is the widest and has shown the least progress relative to the level in 1976. See Exhibit 8.

Exhibit 8: The gender wage gap has been persistent, particularly among high earners
 Wage gap among prime working age women and men in private industries, by earnings category



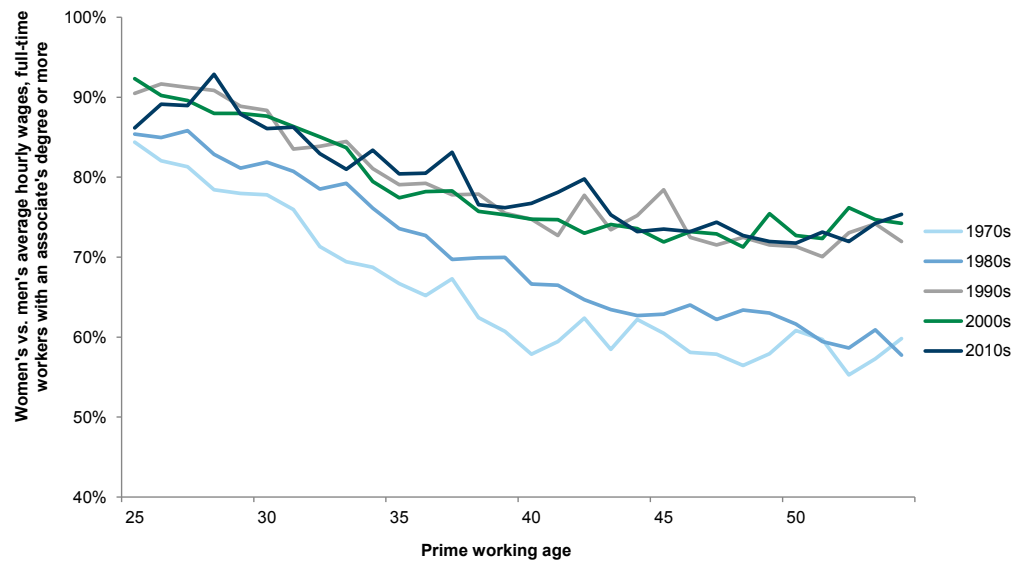
Sample includes non-farm full-time private wage and salary workers age 25-54.

Source: IPUMS-CPS, Goldman Sachs Global Investment Research

The wage gap data we reference above varies over the course of an individual's career, as we show in Exhibit 9. Based on an analysis of wage data for women and men with at least an associate's degree who work full-time, we find that the wage gap emerges quite early. As early as age 25, women earn nearly 15% less than their male counterparts on average. The wage gap widens further with age: by 50, women earn around 25% less than do men of the same age.

Exhibit 9: The wage gap varies over the course of women’s careers, but far less dramatically than in the 1970s

Gender difference in average hourly wages, among full-time workers with at least an associate’s degree, prime working age



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

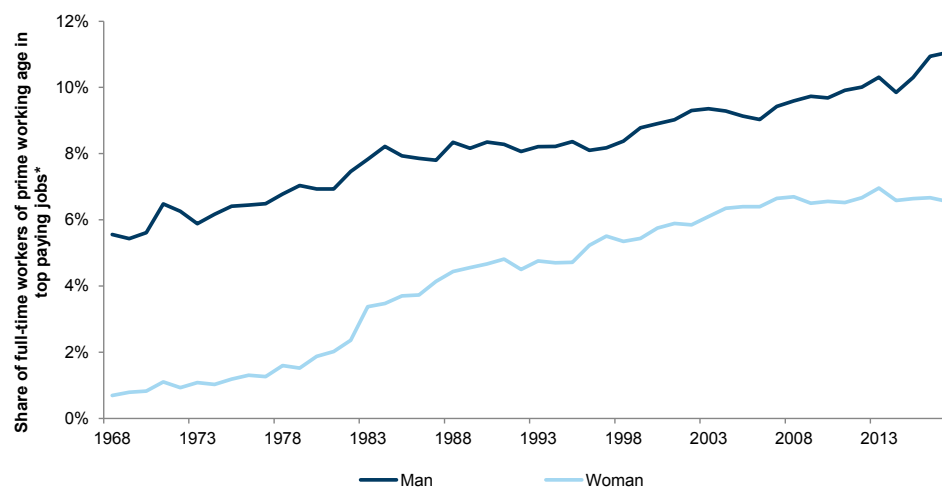
Educational choices and occupational sorting likely matter

The reasons why the wage gap has persisted are complicated, but one likely contributor is the different kinds of jobs that men and women select: the occupational sorting we referred to earlier, which, as the data show, in part reflects educational choices.

For example, the data show that women are considerably more likely to work in government jobs than are men but are far less likely to work in jobs in the computer field. And while the share of women in high-paying fields such as financial services, legal, architecture, engineering, computing and mathematics has increased since the late 1960s, women remain under-represented in these occupations relative to men, as Exhibit 10 shows. The Council of Economic Advisers finds that in the US, on average, women make up 56% of workers in the 20 lowest-paid occupations, but only 29% of workers in the 20 highest-paid occupations.

Exhibit 10: Women remain under-represented relative to men in top-paying occupations

Share of full-time working women and men of prime working age in top-paying occupations



*Legal, Architecture and Engineering, Computer and Mathematical, Financial Specialists.

Source: IPUMS-CPS, Goldman Sachs Global Investment Research

Three key findings from our granular analysis of the gender pay gap

The 20% pay gap we discussed at the outset of this paper compares women and men of prime working age without regard for differences in worker or job characteristics. However, we believe (and existing research suggests) that a detailed analysis comparing women's and men's earnings must take into account differences in factors like industry, occupation and education, since comparing data on a "like-for-like" basis should yield better insights.

It's worth noting that there is a vast amount of academic literature on the topic of the gender wage gap. This work dates back several decades as researchers have sought to assess the extent of the gap – using a range of public and restricted sources of data – and to parse out how much of the divergence can be explained by measurable factors and how much cannot.

For example, Francine Blau and Lawrence Kahn³ of Cornell University examined the gender wage gap among full-time non-farm wage and salary workers between the ages of 25 and 64 years old. These researchers found that the portion of the wage gap that could *not* be attributed to measurable worker or job characteristics – and therefore was considered "unexplained" – fell from 21%-29% to 8%-18% over the course of the 1980s, but then remained in this range over the subsequent 20 years.

In this paper we have estimated a wage model similar to Blau and Kahn's using more recent data. We used average real hourly wages from the March Current Population Survey but restricted our sample to prime working age full-time non-farm wage and salary workers from 2013-2017. Before comparing women's and men's earnings, we

³ Blau F. and Kahn L. (2016), "The gender wage gap: extent, trends, and explanations," NBER Working Paper 21913.

controlled for age, education, marital status, number of children, family size, race and ethnicity, metropolitan statistical area (MSA) status, Census divisions, and industry and occupation interactions (for example, management jobs in professional services industries). We estimated the model for men and women separately; our sample includes nearly 100,000 men and nearly 100,000 women.⁴

We highlight three key findings:

First, to reiterate, if we look at the wage data for women and men of prime working age on an aggregate basis – meaning before we control for measurable worker or job characteristics – the pay gap is 20%. Using these data, we see that the divergence between women’s and men’s earnings is relatively narrow at younger ages and widens over time. This may be because young women workers tend to be better educated than young men workers, which may have the effect of narrowing the wage gap between these individuals early on in their careers.

However, once we control for worker and job characteristics, the *adjusted* wage gap is 17.5 percentage points. In this analysis, which controls for education, the gap is larger early on in women’s careers, and while it widens over time, the change is less pronounced relative to the aggregate figures.

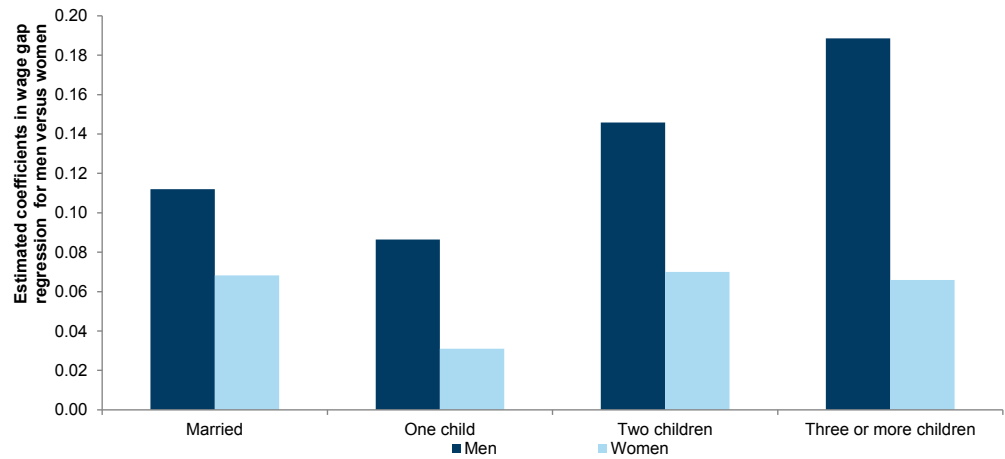
Second, the data show that marriage and children affect men and women in different ways. Exhibit 11 shows that being married and having children are characteristics associated with higher wages for men than for women. Statistically, this is because men’s higher coefficients across each of the variables are indicative of a more positive relationship between their earnings and each factor relative to women.

In other words, depending on whether you look at this analysis from the man’s point of view or from the woman’s, there is either a “fatherhood premium” or a “motherhood penalty.” This analysis should be interpreted as showing correlation, not causality. Nonetheless, these data do illustrate how marriage and children affect women and men differently in the workforce, a point that is widely discussed in academic research.

⁴ The R² is 0.43 for the men’s regression and 0.41 for the women’s regression.

Exhibit 11: Marriage and children affect women’s and men’s earnings differently

The impact of marriage and parenthood on the wage rate for prime working age men versus women



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

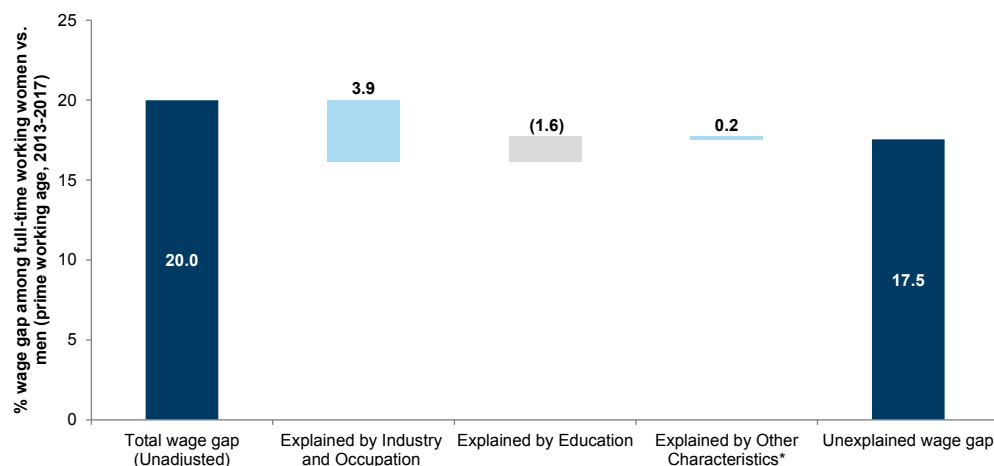
Third, most of the gender wage gap *cannot* be explained by worker and job characteristics that can be captured in the data. As Exhibit 12 shows, differences in industry and occupation account for nearly four percentage points of the aggregate 20% wage gap. Some of this is offset by differences in education, since women are better educated than men. Other characteristics we controlled for have varying effects but collectively explain very little of the wage gap. It is worth noting that due to data limitations we cannot control for factors like work experience, position, role or title, which are often indicative of seniority and which previous research shows are important considerations in explaining the gender wage gap.⁵

Overall, we find that the worker and job characteristics we controlled for can explain just 2.5 percentage points of the total unadjusted aggregate wage gap, leaving 17.5 percentage points unexplained.

⁵ To assess whether this distorted our findings, we modeled 25-29 year-old workers, a group where the gender difference in work experience should be less important. Consistent with our broader analysis, we found a significant share of the wage gap is unexplained among these individuals as well.

Exhibit 12: Most of the well-known 20% wage gap between women and men cannot be explained by the characteristics of the job or the individual

Explaining the prime working age wage gap using job and individual characteristics



*Other characteristics include age, marital status, number of children, family size, race and ethnicity, and geography.

Source: IPUMS-CPS, Goldman Sachs Global Investment Research

The gender pay gap: an illustration

Using the same wage regression methodology, we next illustrate the long-term financial impact the wage gap can have on women. Leveraging our work in this way allows us to compare two highly similar workers – one college-educated man and one college-educated woman – who both work full-time from age 25 until age 65 in management jobs in a professional services industry starting this year.⁶

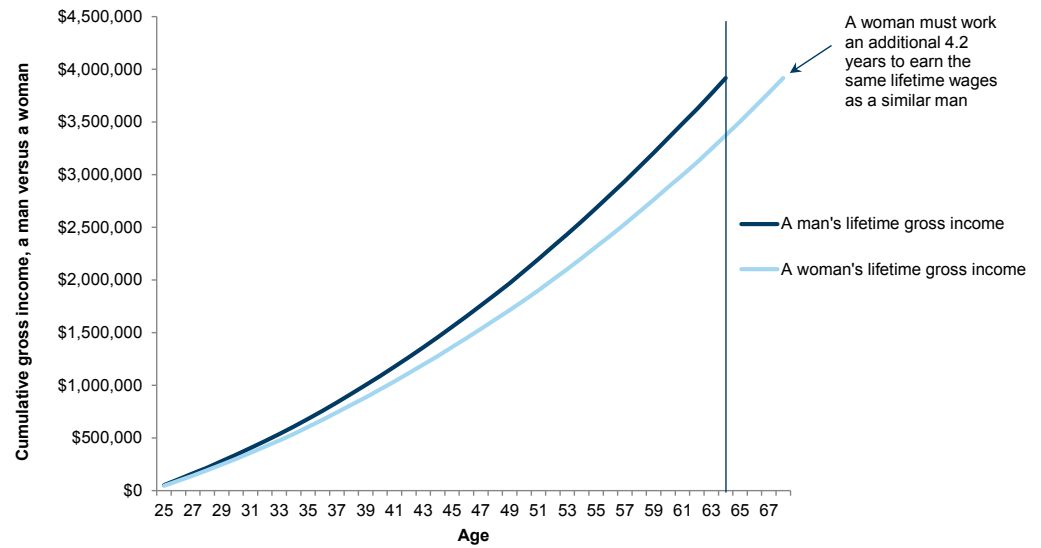
This exercise yields two key findings.

First, all else equal, the woman must stay in the workforce longer than the man to earn the same gross income over her lifetime. If the woman worked full-time from age 25 until age 65, she would earn an estimated total of \$3.4 million over her career. The comparable figure for the man would be \$3.9 million. As we show in Exhibit 13, closing this \$545,000 lifetime gross income gap would require the woman to continue to work full-time for an additional 4.2 years – until after age 69 – while her male counterpart retired at age 65.

⁶ For this example, we considered wages earned across full-time workers over the five-year period from 2013 to 2017. Specifically, we used average hourly wages for full-time wage and salary workers, annualized assuming a 40-hour work week and 52 weeks worked during the year. We assumed 2% annual inflation. As previously noted, we controlled for age, education, marital status, number of children, family size, race and ethnicity, metropolitan statistical area (MSA) status, Census divisions, and industry and occupation interactions. In this way, we compared two otherwise identical workers, one man and one woman.

Exhibit 13: A 20% wage gap means a woman must work more than four years longer to earn the same lifetime income as a similar man

Cumulative gross income by gender

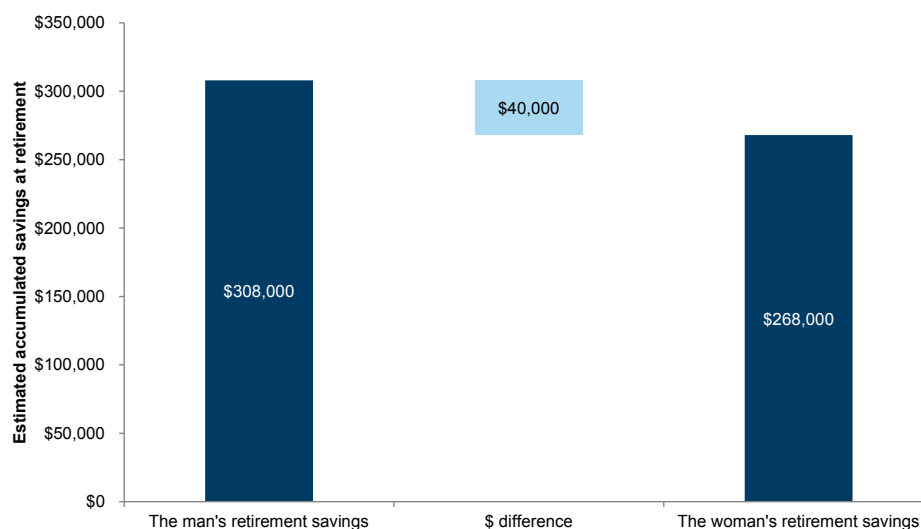


Source: IPUMS-CPS, Goldman Sachs Global Investment Research

Second, women’s lower gross income can leave them with lower long-term savings. We extend the scenario above by assuming that a woman and a man with the characteristics we just described both dedicate 1% of their gross income to a tax-advantaged savings account each year until age 65. We also assume their employers match these contributions, and that the savings for each individual grow at a compounded annual rate of 7%, which reflects a blended average of the long-term return on 1-year LIBOR and on the S&P 500.

As Exhibit 14 shows, all else equal, the man ultimately accumulates nearly \$40,000 more in retirement savings than the woman over the same number of years in the workforce.

Exhibit 14: The 20% wage gap leaves the woman with lower retirement savings
Retirement savings differential between men and women in the scenario discussed above



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

The role of work experience

As we previously noted, differences in work experience may contribute to the persistent wage gap. Although our own model cannot control for this, many academic studies cite it as a key factor in explaining why men typically earn more than women.

In the past, when women's labor-force participation rates were low, there were fewer women with comparable work experience to men, and thus fewer women in seats that paid the highest wages. This "stock" argument does not hold true today, given the increase in women's labor-force participation rate over a prolonged period of time as well as women's higher educational attainment. Nonetheless, because the data show women in general are still more likely than men to take time out of the labor force, whether to care for children or parents – or for other reasons – their overall work experience continues to lag men's. The impact of this disparity is particularly important in high-paying jobs where seniority and experience can matter significantly.

Women who return to the workforce after a temporary break may find it difficult to "catch up" on this lost experience. This problem is compounded by the fact that during their time out of the workforce, women's occupation-specific skills may deteriorate, their contacts may dwindle and their expertise in the industry may lag recent innovation.

Taken together, these factors may mean that women not only don't return to the role they had before they left – as if time had stood still – but that they may actually lose ground. In a case study later in this paper, we illustrate the meaningful economic consequences of time out of the workforce and lost seniority. Again, this economic analysis does not paint the full picture; it is simply one approach to calculating foregone wages. What's more, we cannot – and do not try to – measure the intangible benefits to the woman of leaving the workforce if she so desires.

As we discuss in the next section, characteristics of the workplace itself may also contribute to the gender pay gap – including gender-specific expectations around work and success, as well as factors like conscious or unconscious bias.

Chapter 4: Issues facing women at work today

With this backdrop in mind, it may be helpful to consider what aspects of women's experiences – both inside and outside the workplace – may contribute to their under-representation in senior jobs today. These factors are also likely to affect their decisions as to whether to downshift or to leave the labor force, whether temporarily or on a permanent basis, and may also explain the issue of involuntary downshifting. And all of these elements can affect women's pay.

As one might expect given the enduring and complex nature of the issues, there isn't one single identifiable reason, but instead a confluence of factors. These can include, among others:

- Friction between work and home responsibilities, reflecting women's disproportionate role in providing family care coupled with jobs that can be rigid, particularly in terms of hours or travel; and the potential stigma or double-edged sword nature of family-friendly policies;
- Gender-specific expectations around appropriate "male" and "female" attributes and behaviors, which can affect employers' expectations of women; as well as gender-specific norms of leadership and definitions of success;
- Choices around the allocation of high- and low-profile assignments and commercial opportunities, including "glass-cliff" promotions that can thrust women into unstable leadership positions;
- What some social scientists call "taste" or "preferences and prejudices," or what others might deem "bias," whether conscious or unconscious.

We explore these issues below.

Work vs. home and the downside of family-friendly policies

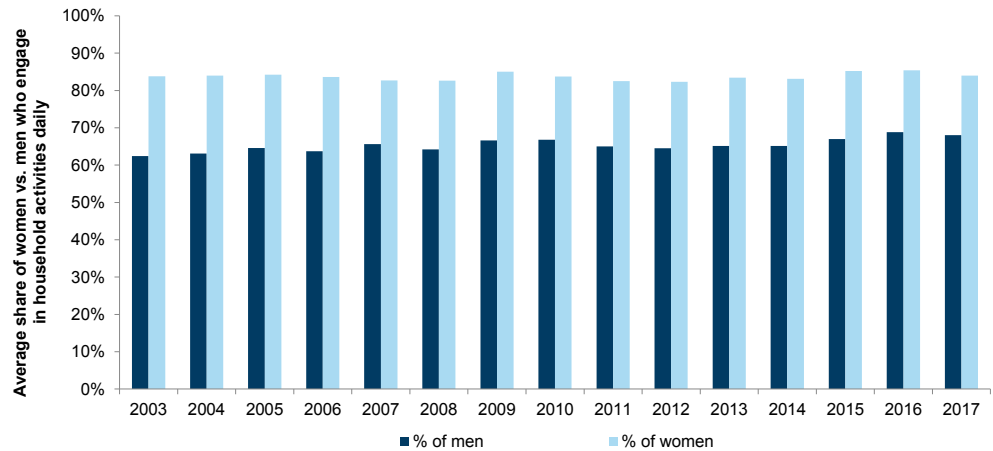
For working parents, particularly in dual-career families, inflexible school schedules, family emergencies and the complexities of running a multi-person household can conflict with the demands of a professional schedule. The Council of Economic Advisors finds that across both married and single-parent families, both parents are working in more than six out of every ten households with children, up from four out of ten in 1965.

Time-use survey data from the Bureau of Labor Statistics (BLS) in Exhibit 15 show that, over the past 15 years, significantly more women than men have spent time on household activities on a daily basis (84% of women vs 65% of men). And the women who engaged in these activities each day spent about 25% more time doing so than the men who engaged in them, as Exhibit 16 shows. What's more, the data also suggest that the types of household activities women and men engage in can differ. The data show that women spend more time on tasks that are often done on a daily basis, such as housework and food preparation, while men spend more time on activities that can be done occasionally, like lawn and garden care. The implication is that women tend to

engage in household activities that would inherently overlap with the work week, while men tend to engage in household activities that can be done on weekends.

Exhibit 15: More women than men engage in daily household activities

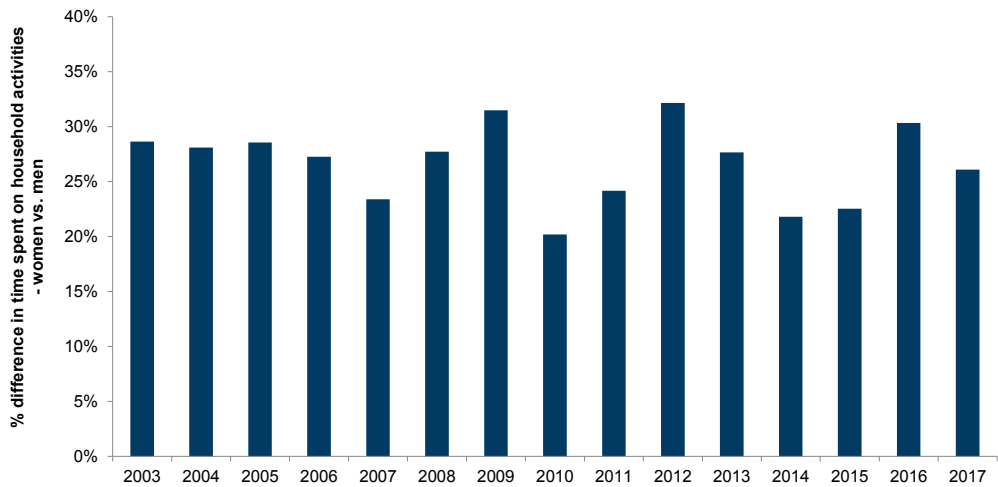
Share of women and men who engage in household activities daily



Source: US Bureau of Labor Statistics, Goldman Sachs Global Investment Research

Exhibit 16: Women spend notably more time than men on household activities each day

For those who spend time on household activities each day, the percentage point difference in average time spent by women vs. men



Source: US Bureau of Labor Statistics, Goldman Sachs Global Investment Research

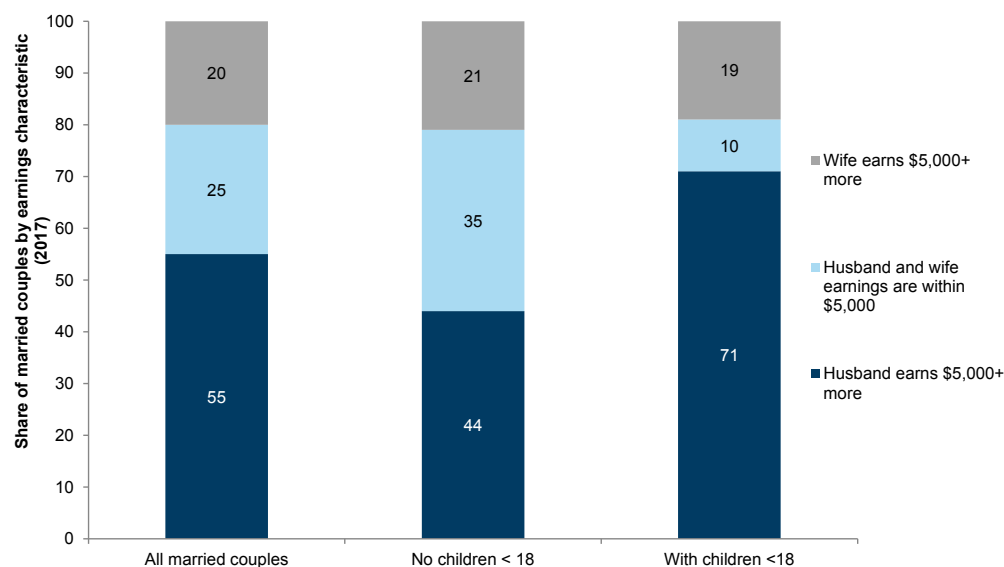
Responsibilities at home don't necessarily affect women's productivity at work. But they may affect women's availability for early or late meetings, client dinners or multi-day travel, for example. This may hurt them in a work environment that expects people to "always be on." Some research suggests that there is a wage penalty for having a flexible work schedule. This may be the case even if this flexibility doesn't affect the individual's productivity or if the individual ultimately works the same number of hours as someone on a non-flexible schedule.

What's more, dual-career families may find that prioritizing one career over the other benefits the family as a whole, even if it hurts the career of the lower-earning spouse – who is more often a woman (in a marriage between a man and a woman) given the reality of the wage data. For example, one spouse's job may require relocation to a region where the other spouse's career opportunities are more limited or where that spouse cannot work at all (for example, due to work-permit or occupational-licensing reasons).

Similarly, household bargaining may result in the lower-earning spouse (again, often a woman) taking on a greater share of work at home. The lower-earning spouse may also potentially decide to work fewer hours or take a lower-paying job that offers more flexibility, while the higher-earning spouse intensifies his or her own work outside the home – particularly when children enter the picture. This may be a more common occurrence among families with high household income, for whom the reduction in one spouse's income may be less notable than for families with lower household incomes. Exhibit 17 uses data from the US Census Bureau to show how earnings vary among married couples who have children at home relative to those who do not.⁷ In roughly 70% of married couples with children under the age of 18, husbands out-earned their wives by at least \$5,000 in 2017, versus just 44% of married couples without children under 18.

Exhibit 17: In the majority of married couples with children under age 18, husbands out-earned their wives in 2017

Earnings differences among married couples, dependent on the presence of children under age 18



Source: US Census Bureau, Goldman Sachs Global Investment Research

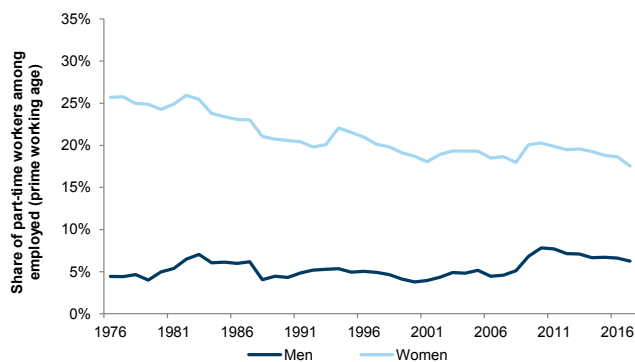
In addition, outside demands on women's time may at least partly explain why prime-age women are still much more likely to work part-time than men, as Exhibit 18 shows. And prime-age women who work part-time typically do so for what the BLS describes as "non-economic reasons" (such as childcare or other family obligations,

⁷ US Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement.

health problems, school responsibilities, etc.), while men often do so because they cannot obtain full-time work (“involuntarily”). See Exhibit 19.

Exhibit 18: Women are more than twice as likely as men to work part-time

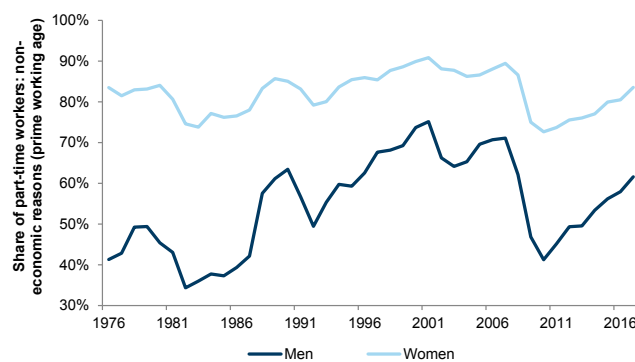
Share of prime working age part-time workers among all employed



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

Exhibit 19: Women are more likely than men to work part-time for “non-economic reasons”

Share of prime working age individuals working part time for non-economic reasons, by gender



Source: IPUMS-CPS, Goldman Sachs Global Investment Research

To help employees address the challenges of managing conflicts between work and home, some companies, particularly in management and professional occupations, have put in place policies around parental and family leave, access to part-time work and flexible or remote working arrangements. These benefits are typically made available to men and women alike, although parental and family leave policies can differ by gender. For many companies, these benefits can be attractive hiring and retention tools.

Yet, for employees, and particularly for the women who research shows are more apt to take advantage of some of these benefits, these programs can also inhibit career progression. In other words, they can be a double-edged sword. Employees may hesitate to ask for or utilize these benefits due to concerns about “signaling” – the risk that managers and colleagues alike will judge taking an extended leave or asking to work on a part-time basis, for example, as demonstrating a weak commitment to the job or lower ambition. This signaling may consign the employee to jobs with poorer career prospects – regardless of whether the perception is true and regardless of whether there is a demonstrable impact on the employee’s productivity or output.

So while such flexibility may lead women to stay in the workforce for longer, these benefits may also limit their professional advancement. Family-friendly policies, especially those that are geared principally to women, may even discourage employers from hiring or investing in women in the first place.

Gender-specific expectations and “statistical discrimination”

Some behavioral science research suggests that social expectations around how women “do” and “don’t” behave can affect both how they act and how they are perceived in the workplace. Speaking in broad terms, this research has shown that women in general are seen to be more team-oriented, accommodating and focused on relationships. At the same time, men in general are perceived as more ambitious, assertive and competitive.

This research suggests that these expectations can play out in several ways. Women may be uncomfortable exhibiting more stereotypically “masculine” traits such as ambition and self-promotion in the workplace. They may fear a backlash if their behavior is at odds with prevailing gender stereotypes. In fact, traits and behavior that are often rewarded in men may be seen as inappropriate, discomfoting and perhaps ultimately counter-productive when demonstrated by women. In colloquial terms, aggressive men may be perceived as being “go-getters,” while similarly aggressive women may be perceived as having “sharp elbows.”

Social expectations can also lead to the problem of role incongruity, which is again consistent with the findings of several gender researchers. Generally speaking, if people’s default image of a leader is a man, then gender biases can lead them to identify “leadership qualities” such as decisiveness, assertiveness and competitiveness, as typically “male” attributes. Job descriptions, promotion and compensation criteria, role allocations and other definitions of “success” may reflect these gender-specific views – even if unintentionally.

For an example of gender-specific expectations, consider the time-consuming but non-revenue-producing tasks, such as recruiting, training and participating in internal committees, which are added to employees’ “day jobs.” While these projects may be important to a firm’s long-term success, not every firm rewards participation in them as highly as more tangible business metrics like near-term revenue production. Research suggests that women are more likely than men to volunteer for this type of non-revenue-producing work, are more likely to be asked to “volunteer” and are more willing to accept these requests, even if doing so may eat into the time they are able to spend focusing on their primary responsibilities, which may be to their disadvantage over the longer term.

These gendered expectations can also result in what social scientists call “statistical discrimination,” or the practice of making decisions based on the average characteristics of a group rather than on the attributes of any one individual in that group. If employers don’t know in advance which women are likely to scale back their responsibilities or leave the workforce mid-career (and they can’t know this information at the outset), they may be less inclined to invest in women overall.

While this may be an unintended consequence, the types of biases that lead to these outcomes are important to uncover. This is because “investments” in the workplace include intangibles that are important for career advancement, such as informal mentoring, exposure to senior leaders, strong client lists and opportunities for unique or high-profile developmental assignments, as well as critical tangible investments in the form of sponsored training programs, for example.

Low-value seats and “glass-cliff promotions”

Statistical discrimination can fuel a negative cycle. In some cases, firms may under-invest by placing women in low-profile, low-potential jobs, leaving them frustrated by their prospects for career progression. For example, employers may – intentionally or not – assign women to jobs with less exposure to senior leaders, or give them

responsibility for clients who are likely to generate less revenue for the firm. In a negative feedback loop, the underperformance – or resignations – that can result from these situations can reinforce the employers' stereotypes and worsen expectations for other women in the future.

In other cases, under-investment may conversely take the form of "glass-cliff promotions." This entails placing women in particularly difficult seats during a challenging time for the organization itself, or placing women in high-risk seats for which they may not yet be ready.

In the first case, certain failures may end up being attributed to the woman – even if any candidate would have struggled with the challenge, regardless of gender. In the second case, the woman's lack of preparedness can undermine her effectiveness, even when it should be expected and understood that she isn't yet prepared (but has the potential to do the job well). This can again reinforce negative stereotypes around women.

It's worth noting, however, that some "glass-cliff" promotions can be successful. This is true when an organization's leadership is aware that this type of promotion has been made, and then helps to create an appropriate structure around the woman (for example, incremental employee support, training programs, mentorship, etc.) to ensure she has every opportunity to succeed.

Chapter 5: How women respond

Of course, women facing these challenges will respond in different ways. Some will stay put and seek to remain on track for senior positions and push for high-value seats and high-visibility assignments. They may seek out mentors and sponsors, build stronger networks, take challenging roles and resist taking jobs with lower visibility and weaker promotion prospects. Others will downshift or leave the workforce, as we discuss next.

The upside and downside of downshifting

Downshifting, which as we noted can be voluntary or involuntary, can take several forms including shifting to part-time work or moving to a different position that offers more flexibility. Doing so can be a way to accommodate a partner's challenging schedule or frequent travel and can help to ease family/work conflicts. For similar reasons, women might downshift by not seeking more demanding responsibilities that could intensify these personal conflicts, even if these responsibilities could also be beneficial to their long-term success at work.

Yet downshifting can have significant disadvantages – especially if managers do not focus on offsetting the possible negative consequences. Taking a lower-profile position or shifting to part-time work can flatten women's career trajectories if managers see this move as a signal that they are less committed to work or are less ambitious. This may leave women with lower-profile projects, less-promising client lists or reduced exposure to senior management. As we noted earlier, this can be true even if more flexible hours don't affect the woman's productivity – particularly in cases where employers value time in the office for some of the associated benefits of being present in-person.

The downside of downshifting may be particularly acute in high-paying industries, where attaining and operating in senior positions can require full-time, multi-year commitments. Downshifting may ultimately have the effect of keeping women in the workforce in the near term, but disadvantaging their career prospects over the longer term.

What's more, as we noted earlier, it's critical to observe that downshifting may be involuntary. Without making the decision themselves, mid-career women may find themselves steered toward lower-visibility, lower-reward positions. The motivation behind this may be difficult to pinpoint, but one reason could be the phenomenon of statistical discrimination that we discussed earlier, or the reliance on gender-biased definitions of success. And of course another reason could simply be bias against women – whether conscious or unconscious.

Leaving the workforce

Still other women will leave the workforce, whether permanently or for a period of time. They may opt to do so for any number of reasons. The cost and availability of childcare can be a factor, as can the frictions between home and work as well as their employers' ability and willingness to offer flexible hours or other work arrangements. And of course

women may leave simply because they want to. This absence need not be permanent; the female labor-force participation rate dips when women are in their 30s and then rises as they move into their 40s.

The economic impact: taking the long-term view

We use an illustrative case study to help put the consequences of three decisions – to stay, to voluntarily downshift by working part-time for a few years or to leave temporarily – into economic context. Once again, it's important to note that we cannot quantify the intangible gains women may garner from exiting the workforce. Nor can we account for other potential benefits, for example from lower childcare costs. We simply calculate lost wages over women's working lifetimes.

We consider several scenarios and the long-term economic impact for the woman in each case. Our base case assumption involves a woman and a man, each of whom earns a JD and pursues a career as a lawyer in similar fields of law at top law firms.⁸ We assume both individuals start their careers at age 25, when they earn \$180,000.⁹ In each scenario, the man works full-time from age 25 until age 65, and his gross income grows at a rate of 5% per year; this growth rate takes into account both inflation and gains from experience.

To be clear, we are *not* incorporating the aggregate 20% wage gap that we discussed earlier. Rather, we are showing how downshifting or leaving can affect women's potential lifetime earnings – framed within a specific occupation and industry.

Exhibits 20 and 21 illustrate, for each scenario, the woman's lifetime gross income as well as the shortfall relative to the man's lifetime gross income. We stress that this is an illustrative example and that we made a number of assumptions; altering any of them could change the results.

Scenario 1 shows a world with no gender pay gap, a world in which the man and the woman earn an equivalent amount over their lifetimes. Both the man and woman work full-time from age 25 until age 65, and their gross incomes grow at a rate of 5% each year. Their incomes are equivalent at the start and remain so throughout their careers. In this scenario, each person earns a total of \$22 million over the entirety of their careers.

Scenario 2 shows how a short spell of *part-time work relatively early in a woman's career* can affect her lifetime gross income. Like the man, the woman works full-time from ages 25 to 30, but she then works part-time for five years (from ages 31 to 35). During this period she works four days a week and earns 80% of her previous salary, which continues to grow at a rate of 5% per year, reflecting both inflation and gained experience. When the woman returns to working full-time at age 36, she is paid 100% of the same salary the man earns at the same age (in other words, we assume no lasting wage impact from her period of part-time work), although we note that this

⁸ Others have done work to assess the gender wage gap that exists in the legal field (for example: Noonan M., 2005). Our work is high-level and is meant to illustrate the wage differential that emerges when women downshift or exit the workforce for a period of time.

⁹ This starting salary and the annual growth rate are based on publicly disclosed information from the country's top law firms in 2017.

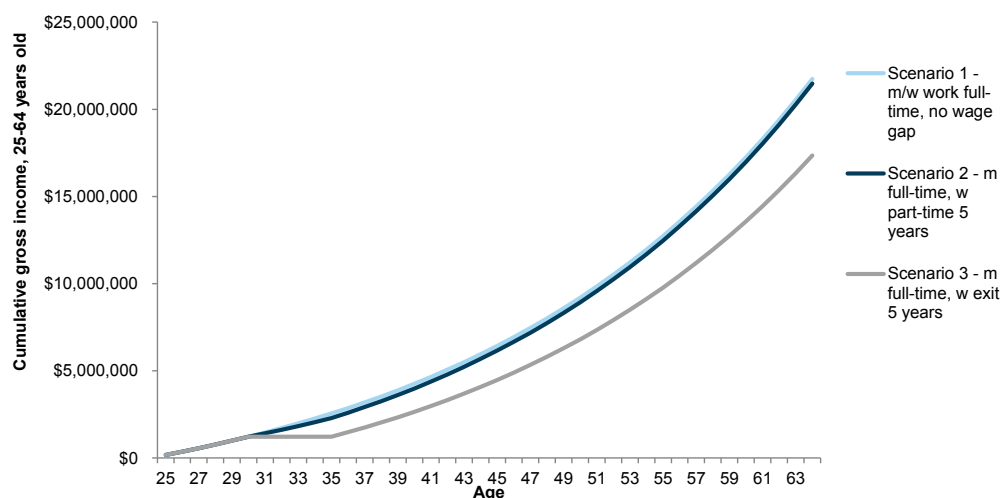
assumption may be conservative. She continues working full-time until age 65, and her wages continue to grow at 5% each year.

In this scenario, over her working lifetime the woman earns an aggregate \$21.5 million, which is around \$270,000 or 1% less than that of her male counterpart or her path in Scenario 1.

Finally, **Scenario 3** illustrates the impact on the woman’s lifetime wages if she *leaves the workforce for a short period of time relatively early in her career*. As in the previous scenarios, the woman works full-time from ages 25 to 30. At age 31, however, she exits the workforce for five years. When she returns to the workforce at age 36, she works full-time at a salary that is equivalent to what she earned at age 30, compounded at a rate of 2% annually to adjust for inflation (but without the incremental 3% annual increase for experience). Thereafter, her salary grows at 5% per annum, and she continues working full-time until age 65.

In this scenario, the woman earns an aggregate \$17.4 million over her lifetime. This is \$4.4 million or 20% less than her male counterpart who never left the workforce or her path in Scenario 1.

Exhibit 20: Working part-time for five years does not have a significant impact on the woman’s lifetime gross income under conservative conditions – but leaving the workforce for five years does
Lifetime gross income by scenario

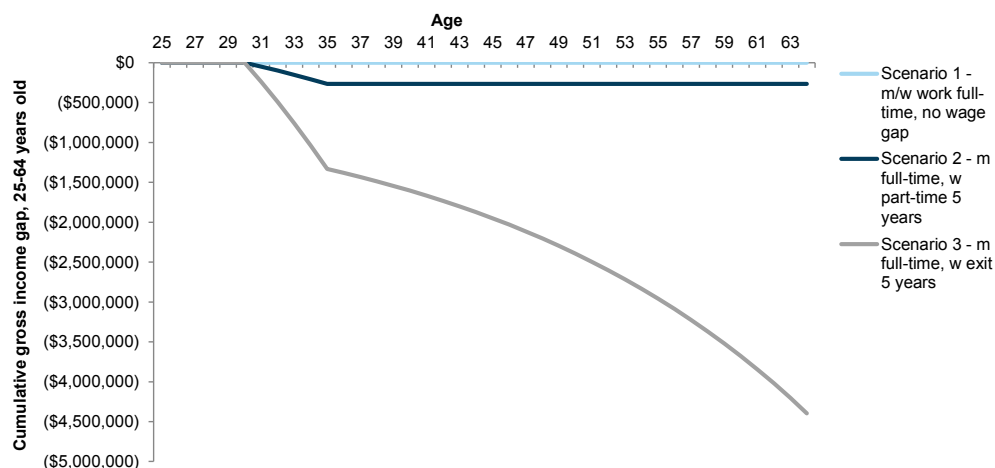


In this exhibit, m - man, w - woman.

Source: Goldman Sachs Global Investment Research

Exhibit 21: The woman's cumulative income gap is more than \$4 million if she leaves the workforce for five years

The woman's cumulative gross income gap in each scenario



In this exhibit, m - man, w - woman.

Source: Goldman Sachs Global Investment Research

Are our scenarios too conservative?

Our assumptions in both Scenario 2 and Scenario 3 may understate the actual economic impact. In Scenario 2, we do not know whether the woman's part-time status affects the growth rate of her wages, her job responsibilities or her longer-term prospects. Some research suggests that part-time work has a larger impact on a woman's career outlook than the simple reduction in hours would suggest. For example, she may lose significant responsibilities or be overlooked for high-profile assignments. There is also the risk that her work spills over into the fifth day, without a compensating adjustment to her salary. Therefore the actual economic consequences for the woman may be more severe than what we model.

Similarly, in Scenario 3, even the 20% shortfall in lifetime earnings may understate the full impact. We assume here that the woman can simply "step back in" to the role that she left for five years, but this may not be possible. During her time away, some of her skills may have deteriorated and her contacts may have withered; she may not have kept pace with industry or occupational developments. She may never be able to make up for this lost time, and when she returns at age 36, she may actually find herself in a role with *lower* earnings and advancement potential than she had at age 30. In fact in an industry like law, with its lockstep promotion practices, the woman who leaves the workforce temporarily may "miss her chance" and thus forfeit her opportunity to become a partner. In this case, the economic impact of five years out of the workforce could be significantly larger than what we have modeled. On the other hand, the firm can help her to "step back in" to her old role and realign her career trajectory through targeted support – even if this may take time.

Overall, the results of our conservative scenario analyses suggest that women who decide to work part-time or to exit the workforce *principally due to financial reasons*

should consider the question on a long-term and holistic basis. In other words, downshifting or leaving the workforce can have lasting impacts on women's long-term economic outcomes and career progressions – consequences that may not be obvious or top of mind at the outset.

Chapter 6: Changing the environment

For companies, producing a stronger pipeline of female talent for senior positions is likely to require dedicated and ongoing efforts on several fronts: internal policies and practices, industry initiatives and public-policy advocacy. Below we discuss some of the key issues that we believe will require attention – and where companies can play an important role – if women are to have the same opportunities as men in regard to position, pay and promotion, leading to a greater number of women at the top of corporate America.

Changing the internal environment: policies, practices and values

Attention to company policies, practices and values can support women in gaining and succeeding in high-value seats and in achieving equal pay. As a first step, companies can take stock of their current situation, reviewing:

- Recruiting processes, to avoid gendered job criteria and biased interviewing – whether conscious or unconscious;
- Internal compensation data and practices, to ensure that there are no gender pay gaps across comparable positions today;
- Leadership-development programs, to check for bias in the allocation and assessment of developmental assignments, and to encourage women to take on highly valued roles;
- Evaluation and promotion processes, to consider whether gender stereotypes play into definitions of success and whether women are penalized for flexible schedules or part-time work; and to ensure that employee evaluations place more emphasis on ability and productivity than simply on time spent at or on work;
- Organizational structures and practices, to determine whether work can be made more flexible for women and men alike – without a negative impact on their wages or career prospects;
- Better representation of women on boards of directors; and
- Programs that enable women to “upshift” after having downshifted (whether voluntarily or involuntarily) or to re-enter after having left the workforce temporarily.

Accountability matters, suggesting that boards should clearly establish diversity as a strategic goal, develop robust metrics and strengthen their internal data-gathering and analytics. Having more women in board seats could be helpful in this regard. Companies may also want to consider the use of targets for the share of women on interview short-lists, in promotion pools, in senior positions or in board seats. Targets or “goals” are of course controversial – but many companies already measure performance through similarly objective measures and use hard performance metrics in a wide range of areas. The issues of hiring and promoting women aren’t necessarily different. A focused effort to use lateral hiring to improve diversity metrics can also be helpful.

Tailored support for women can include mentoring, coaching and networking programs and senior-level sponsorship, as well as higher visibility of successful role models. While women may make the most effective role models for other women, senior men's involvement in mentoring, sponsorship and networks can be an important signal that the company regards promoting women as a firmwide concern – not just as a women's problem to be addressed by women.

Family-friendly policies can include paid parental leave, flexible working hours and arrangements, the opportunity for part-time work and emergency childcare, among others. Making these benefits available to men as well as to women, and standardizing the processes behind them, can help to reduce any stigma around utilizing such benefits. Doing so would again reinforce the idea that children, elderly relatives and school schedules are not merely a "women's problem." At the same time, however, companies will want to be sure that generous policies, such as long maternity or paternity leaves, have broad senior-level support and careful oversight, in order to ensure that employees who use them are not penalized, intentionally or unintentionally, by the double-edged sword, as we explained earlier.

When employees work part-time, employers should protect the part-time nature of the job as much as is feasible. As we noted before, it's entirely possible that women who are working "part-time" spend quite a bit of time dedicated to work on their "day off," particularly given the expectations for around-the-clock availability that many firms maintain today. If that is true, women should be recognized and compensated for their actual contributions and not artificially limited by their formal hours. This statement doesn't just apply to women who work part-time; all companies seeking better gender diversity results should focus more on the abilities, output and potential of all employees and less on the simple measure of hours in the office.

Employers can support women who have downshifted – whether voluntarily or not – by viewing this time in the context of a long career, and by helping them to upshift if and when they want to. Employers will want to ensure that these women are not pigeon-holed as unambitious or not really committed to work (as research suggests can sometimes be the case), and to focus on many of the issues we discussed earlier, including the allocation of work, promotion criteria and leadership-development opportunities. Companies that limit any penalty from downshifting and take a constructive approach to upshifting should be able to generate a stronger pool of female talent over the long term.

Similarly, women who return to the workforce after a period of time away would likely benefit from robust integration programs that are designed to help put them on the path toward high-value jobs, even if it may be difficult for them to make up for the "lost time" over the near term. Whether re-entry programs are developed at individual firms or across an industry, they should be tailored to address the specific issues women face as they re-join the workforce, and they should take a long-term view of women's careers.

Changing the external environment: industry initiatives and public-policy advocacy

Beyond changes in the workplace, companies that want to strengthen their pipelines of female talent for senior positions can also develop or support industry initiatives and take on public-policy advocacy on a host of issues, including family care and tax policy, among others.

Data availability

As we noted above, publicly available gender-specific data are quite limited. This includes information on recruiting, retention, promotion, seniority and pay. It is worth noting that public reporting on pay is a complicated issue for the simple reason that different firms have unique job functions even when they are associated with similar titles. Different firms, even those in the same industry, can also have unique business structures that can generate different compensation outcomes – again, even when roles appear to be similar.

Nonetheless, more robust and standardized public disclosures on gender issues – on a voluntary, industry-wide, aggregated and anonymous basis – would help companies better assess their current standing, determine effective solutions and potentially improve their forward outlook. Boards would also be able to better assess their own effectiveness by benchmarking their firms against others.

Restrictions on salary history disclosure

Some state and local governments, including California and New York City, have recently barred employers from asking job applicants about their salary history, while some states have also banned state and local agencies from requesting this information. The intent is generally to make it easier for applicants to benchmark against current market rates rather than against a salary history that may have been negatively affected by prior bias or by extended time out of the labor force. Put another way, it gives women in particular the chance to de-anchor from previous pay.

Given their recent vintage, it is too soon to know what effect these restrictions are having on the labor market generally and on women's employment and compensation specifically. It is also worth noting that these laws could face freedom-of-speech challenges. Nevertheless, these types of policies may prove effective in narrowing the wage gap between a man and a similar woman applying for the same job.

Cost and availability of childcare

Obtaining an accurate figure for the cost of childcare is difficult, given the wide variation in the cost of living across the country and the different types of care (such as center-based or in-home, shared or individual, full-time or after-school, etc.). But it is clear that childcare is a major expense for many families, and finding quality care can be a challenge. The cost of childcare can be a factor in a woman's decision to exit the labor force for a time, although the longer-term financial impact from not working may be greater than the near-term savings from not paying for childcare.

At their own firms, employers can facilitate or subsidize childcare, particularly on an emergency or newly post-partum basis. At the broader public-policy level, companies

can lend their voices to the discussions on potential solutions, including more generous tax credits or subsidies for childcare; higher limits on flexible-spending accounts that can be used for childcare; broader access to preschool; and free (or subsidized) and convenient after-school programs. All of these steps could help to ease the frictions between work and home that we have discussed.

Paid family leave

Mandated paid family-leave programs can help individuals while spreading the costs broadly across the employer population or the broader tax base. Several states now have such programs in place. New York State, for example, requires private employers to provide job-protected, paid time off for family leave, using insurance policies that are funded by weekly payroll deductions.

Outside the US, benefits are usually funded by social insurance systems together with employee and employer contributions. Some countries have experimented with ways of encouraging new fathers to participate in these programs, for instance by allocating family leave to both mothers and fathers and by restricting leave-shifting between parents (for example, offering paternity leave on a “use it or lose it” basis).

As we noted earlier, some family-friendly policies may prove to have a double-edged sword element, if more women take advantage of such policies and then “fall behind” their male peers at work as a result. To offset this risk, companies should put in place other remediating elements, such as careful oversight of the promotion and pay consequences of using these benefits.

Tax treatment of dual-income families

The US tax system typically penalizes dual-income families by imposing high marginal rates on the couple’s “second income.” Changes to the tax code in 2017 reduced the severity of this penalty for most couples but did not eliminate it entirely. While taxation at the household level can be seen as a tax on marriage in general, it particularly hurts the lower-earning spouse, who the data show is often a woman (again, in a marriage between a woman and a man). The higher marginal rate may be one factor in married couples’ calculation of whether it makes good economic sense – at least in the short-term – for the lower-earning spouse to remain in the workforce.

Concluding thoughts

The obstacles that perpetuate the gender gaps in pay and seniority are challenging, but they are not unsolvable. As we noted at the outset, achieving better diversity results will require significant efforts on multiple fronts. Corporates can review internal practices and policies, participate in industry initiatives and provide input into public-policy discussions to position themselves to attract, retain and promote the best talent – and to advance women to the top of corporate America.

Bibliography

- Babcock L. et al (2017), "Gender differences in accepting and receiving requests for tasks with low promotability," *American Economic Review*, 107(3), 714-747
- Bertrand M., Goldin C. and Katz L. (2010), "Dynamics of the gender gap for young professionals in the financial and corporate sector," NBER Working Paper 14681
- Blau F. and Kahn L. (2016), "The gender wage gap: extent, trends, and explanations," NBER Working Paper 21913
- Blau F. and Kahn L. (2013), "Female labor supply: why is the US falling behind?" NBER Working Paper 18702
- Blau F. and Winkler A. (2017), "Women, work, and family," NBER Working Paper 23644
- Catalyst (2005), "Women 'take care,' men 'take charge:' stereotyping of U.S. business leaders exposed"
- Catalyst (2009), "Cascading gender biases, compounding effects: an assessment of talent management systems"
- Center for Economic Studies, U.S. Census Bureau (2017), "The parental gender earnings gap in the United States," Working Paper 17-68
- Council of Economic Advisors (2014), "Eleven facts about American families and work"
- Eagly A. and Karau S. (2002), "Role congruity theory of prejudice toward female leaders," *Psychological Review*, 109(3), 573-598
- Flabbi L. et al (2016), "Do female executives make a difference? The impact of female leadership on gender gaps and firm performance," NBER Working Paper 22877
- Gallen Y. (2018), "Motherhood and the gender productivity gap," Becker Friedman Institute Working Paper 2018-41
- Goldin C. (2014), "A grand gender convergence: its last chapter," *American Economic Review*, 104(4), 1091-1119
- Goldin C. and Mitchell J. (2016), "The new life cycle of women's employment: disappearing humps, sagging middles, expanding tops," NBER Working Paper 22913
- Goldin C. et al (2017), "The expanding gender earnings gap: evidence from the LEHD-2000 census," *American Economic Review: Papers and Proceedings*, 107(5), 110-114
- Hamilton Project, Brookings Institution (2017), "The recent decline in women's labor force participation"
- Hegewisch A. and Hartmann H. (2014), "Occupational segregation and the gender wage gap: a job half done," Institute for Women's Policy Research

- Hodges A. and Park B. (2013), "Oppositional identities: dissimilarities on how women and men experience parent versus professional roles," *Journal of Personality and Social Psychology*, 105(2), 193-216
- Ibarra H., Ely R. and Kolb D. (2013), "Women rising: the unseen barriers," *Harvard Business Review*
- Ibarra H. and Petriglieri J. (2016), "Impossible selves: image strategies and identity threat in professional women's career transitions," INSEAD Working Paper 2016/12/OBH
- International Monetary Fund (2018), "Drivers of labor force participation in advanced economies: macro and micro evidence"
- Kricheli-Katz T. (2012), "Choice, discrimination, and the motherhood penalty," *Law and Society Review*, 46(3), 557-587
- Mathur A. and McCloskey A. (2014), "How to improve economic opportunity for women," American Enterprise Institute
- Moss-Racusin C. and Rudman L. (2010), "Disruptions in women's self-promotion: the backlash avoidance model," *Psychology of Women Quarterly*, 34, 186-202
- Noonan M. et al (2005), "Pay differences among the highly trained: cohort differences in the sex gap in lawyers' earnings," *Social Forces*, 84(2), 851-870
- OECD (2016), "Society at a glance 2016"
- Olivetti C. and Petrongolo B. (2017), "The economic consequences of family policies: lessons from a century of legislation in high-income countries," NBER Working Paper 23051
- Steele C. (1997), "A threat in the air: how stereotypes shape intellectual identity and performance," *American Psychologist*, 52(6), 613-629
- Stone P. (2013), "'Opting out': challenging stereotypes and creating real options for women in the professions," Harvard Business School Research Symposium
- US Department of Labor (2016), "Why parental leave for fathers is so important for working families," DOL Policy Brief
- Women's Business Council, United Kingdom Government Equalities Office (2017), "The pipeline effect"
- Wynn A. and Correll S. (2006), "Combating gender bias in modern workplaces," *Handbook of the Sociology of Gender*, 509-521

Disclosure Appendix

Disclosures

This report has been prepared by the Global Markets Institute, the public-policy and corporate advisory research unit of the Global Investment Research Division of The Goldman Sachs Group, Inc. ("Goldman Sachs"). Prior to publication, this report may have been discussed with or reviewed by persons outside of the Global Investment Research Division. While this report may discuss implications of legislative, regulatory and economic policy developments for industry sectors and the broader economy, may include strategic corporate advice and may have broad social implications, it does not recommend any individual security or an investment in any individual company and should not be relied upon in making investment decisions with respect to individual companies or securities.

Distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; Ombudsman Goldman Sachs Brasil: 0800 727 5764 and / or ouvidoriagoldmansachs@gs.com. Available Weekdays (except holidays), from 9am to 6pm. Ouvidoria Goldman Sachs Brasil: 0800 727 5764 e/ou ouvidoriagoldmansachs@gs.com. Horário de funcionamento: segunda-feira à sexta-feira (exceto feriados), das 9h às 18h; in Canada by either Goldman Sachs Canada Inc. or Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman Sachs & Co. LLC. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

European Union: Goldman Sachs International authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman Sachs AG and Goldman Sachs International Zweigniederlassung Frankfurt, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also distribute research in Germany.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management and brokerage business. It has investment banking and other business relationships with governments and companies around the world, and publishes equity, fixed income, commodities and economic research about, and with implications for, those governments and companies that may be inconsistent with the views expressed in this report. In addition, its trading and investment businesses and asset management operations may take positions and make decisions without regard to the views expressed in this report.

© 2018 Goldman Sachs.

No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.