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"Women's work" and the gender pay gap

How discrimination, societal norms, and other forces affect women's occupational choices—and their pay

Report • By Jessica Schieder and Elise Gould • July 20, 2016

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Summary

What this report finds: Women are paid 79 cents for every dollar paid to men—despite the fact that over the last several decades millions more women have joined the workforce and made huge gains in their educational attainment. Too often it is assumed that this pay gap is not evidence of discrimination, but is instead a statistical artifact of failing to adjust for factors that could drive earnings differences between men and women. However, these factors—particularly occupational differences between women and men—are themselves often affected by gender bias. For example, by the time a woman earns her first dollar, her occupational choice is the culmination of years of education, guidance by mentors, expectations set by those who raised her, hiring practices of firms, and widespread norms and expectations about work–family balance held by employers, co-workers, and society. In other words, even though women disproportionately enter lower-paid, female-dominated occupations, this decision is shaped by discrimination, societal norms, and other forces beyond women's control.

Why it matters, and how to fix it: The gender wage gap is real—and hurts women across the board by suppressing their earnings and making it harder to balance work and family. Serious attempts to understand the gender wage gap should not include shifting the blame to women for not earning more. Rather, these attempts should examine where our economy provides unequal opportunities for women at every point of their education, training, and career choices.

SECTIONS

Introduction and key findings

Women are paid 79 cents for every dollar paid to men (Hegewisch and DuMonthier 2016). This is despite the fact that over the last several decades millions more women have joined the workforce and made huge gains in their educational attainment.

Critics of this widely cited statistic claim it is not solid evidence of economic discrimination against women because it is unadjusted for characteristics other than gender that can affect earnings, such as years of education, work experience, and location. Many of these skeptics contend that the gender wage gap is driven not by discrimination, but instead by voluntary choices made by men and women—particularly the choice of occupation in which they work. And occupational differences certainly do matter—occupation and industry account for about half of the overall gender wage gap (Blau and Kahn 2016).

To isolate the impact of overt gender discrimination—such as a woman being paid less than her male coworker for doing the exact same job—it is typical to adjust for such characteristics. But these adjusted statistics can radically understate the potential for gender discrimination to suppress women's earnings. This is because gender discrimination does not occur only in employers' pay-setting practices. It can happen at every stage leading to women's labor market outcomes.

Take one key example: occupation of employment. While controlling for occupation does indeed reduce the measured gender wage gap, the sorting of genders into different occupations can *itself* be driven (at least in part) by discrimination. By the time a woman earns her first dollar, her occupational choice is the culmination of years of education, guidance by mentors, expectations set by those who raised her, hiring practices of firms, and widespread norms and expectations about work–family balance held by employers, co-workers, and society. In other words, even though women disproportionately enter lower-paid, female-dominated occupations, this decision is shaped by discrimination, societal norms, and other forces beyond women's control.

This paper explains why gender occupational sorting is itself part of the discrimination women face, examines how this sorting is shaped by societal and economic forces, and explains that gender pay gaps are present even *within* occupations.

Key points include:

- Gender pay gaps *within* occupations persist, even after accounting for years of experience, hours worked, and education.
- Decisions women make about their occupation and career do not happen in a vacuum—they are also shaped by society.
- The long hours required by the highest-paid occupations can make it difficult for women to succeed, since women tend to shoulder the majority of family caretaking duties.
- Many professions dominated by women are low paid, and professions that have become female-dominated have become lower paid.

This report examines wages on an hourly basis. Technically, this is an adjusted gender wage gap measure. As opposed to weekly or annual earnings, hourly earnings ignore the fact that men work more hours on average throughout a week or year. Thus, the hourly gender wage gap is a bit smaller than the 79

percent figure cited earlier. This minor adjustment allows for a comparison of women's and men's wages without assuming that women, who still shoulder a disproportionate amount of responsibilities at home, would be able or willing to work as many hours as their male counterparts. Examining the hourly gender wage gap allows for a more thorough conversation about how many factors create the wage gap women experience when they cash their paychecks.

Within-occupation gender wage gaps are large—and persist after controlling for education and other factors

Those keen on downplaying the gender wage gap often claim women voluntarily choose lower pay by disproportionately going into stereotypically female professions or by seeking out lower-paid positions. But even when men and women work in the same occupation—whether as hairdressers, cosmetologists, nurses, teachers, computer engineers, mechanical engineers, or construction workers—men make more, on average, than women (CPS microdata 2011–2015).

As a thought experiment, imagine if women's occupational distribution mirrored men's. For example, if 2 percent of men are carpenters, suppose 2 percent of women become carpenters. What would this do to the wage gap? After controlling for differences in education and preferences for full-time work, Goldin (2014) finds that 32 percent of the gender pay gap would be closed.

However, leaving women in their current occupations and just closing the gaps between women and their male counterparts *within* occupations (e.g., if male and female civil engineers made the same per hour) would close 68 percent of the gap. This means examining why waiters and waitresses, for example, with the same education and work experience do not make the same amount per hour. To quote Goldin:

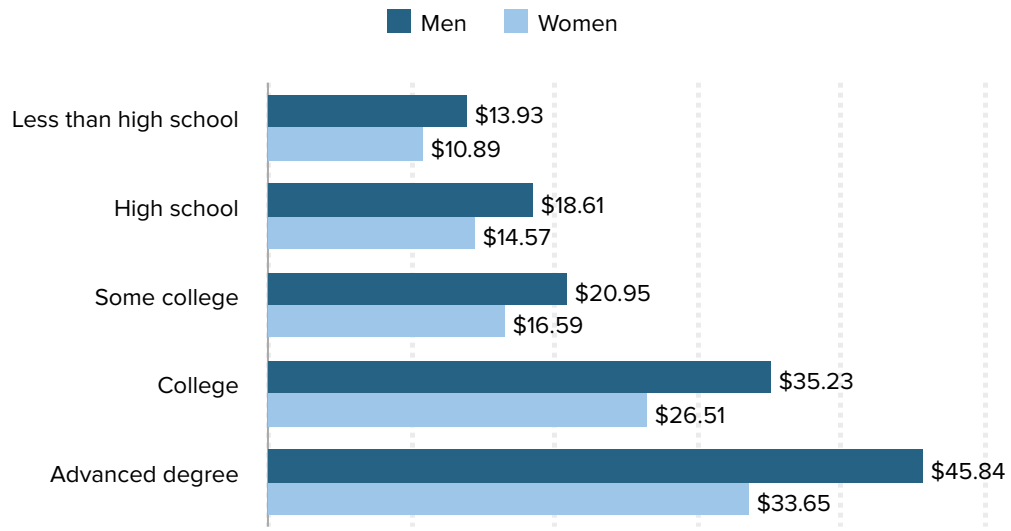
> Another way to measure the effect of occupation is to ask what would happen to the aggregate gender gap if one equalized earnings by gender within each occupation or, instead, evened their proportions for each occupation. The answer is that equalizing earnings within each occupation matters far more than equalizing the proportions by each occupation. (Goldin 2014)

This phenomenon is not limited to low-skilled occupations, and women cannot educate themselves out of the gender wage gap (at least in terms of broad formal credentials). Indeed, women's educational attainment outpaces men's; 37.0 percent of women have a college or advanced degree, as compared with 32.5 percent of men (CPS ORG 2015). Furthermore, women earn less per hour at every education level, on average. As shown in

Figure A

Women earn less than men at every education level

Average hourly wages, by gender and education, 2015



Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

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Figure A, men with a college degree make more per hour than women with an advanced degree. Likewise, men with a high school degree make more per hour than women who attended college but did not graduate. Even straight out of college, women make $4 less per hour than men—a gap that has grown since 2000 (Kroeger, Cooke, and Gould 2016).

Steering women to certain educational and professional career paths—as well as outright discrimination—can lead to different occupational outcomes

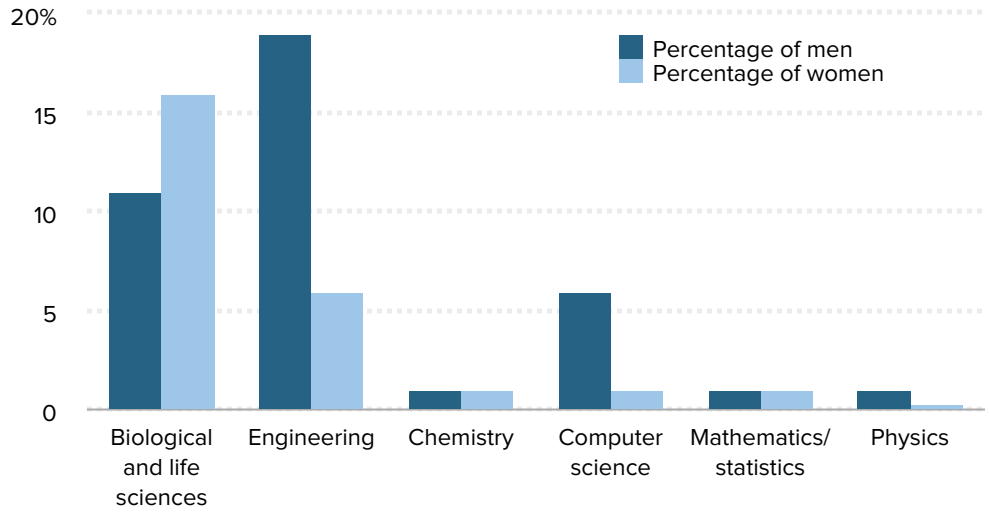
The gender pay gap is driven at least in part by the cumulative impact of many instances over the course of women's lives when they are treated differently than their male peers. Girls can be steered toward gender-normative careers from a very early age. At a time when parental influence is key, parents are often more likely to expect their sons, rather than their daughters, to work in science, technology, engineering, or mathematics (STEM) fields, even when their daughters perform at the same level in mathematics (OECD 2015).

Expectations can become a self-fulfilling prophecy. A 2005 study found third-grade girls rated their math competency scores much lower than boys', even when these girls' performance did not lag behind that of their male counterparts (Herbert and Stipek 2005).

Figure B

Women arrive at college less interested in STEM fields as compared with their male counterparts

Intent of first-year college students to major in select STEM fields, by gender, 2014



Source: EPI adaptation of Corbett and Hill (2015) analysis of Eagan et al. (2014)

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Similarly, in states where people were more likely to say that "women [are] better suited for home" and "math is for boys," girls were more likely to have lower math scores and higher reading scores (Pope and Sydnor 2010). While this only establishes a correlation, there is no reason to believe gender aptitude in reading and math would otherwise be related to geography. Parental expectations can impact performance by influencing their children's self-confidence because self-confidence is associated with higher test scores (OECD 2015).

By the time young women graduate from high school and enter college, they already evaluate their career opportunities differently than young men do. **Figure B** shows college freshmen's intended majors by gender. While women have increasingly gone into medical school and continue to dominate the nursing field, women are significantly less likely to arrive at college interested in engineering, computer science, or physics, as compared with their male counterparts.

These decisions to allow doors to lucrative job opportunities to close do not take place in a vacuum. Many factors might make it difficult for a young woman to see herself working in computer science or a similarly remunerative field. A particularly depressing example is the well-publicized evidence of sexism in the tech industry (Hewlett et al. 2008). Unfortunately, tech isn't the only STEM field with this problem.

Young women may be discouraged from certain career paths because of industry culture. Even for women who go against the grain and pursue STEM careers, if employers in the industry foster an environment hostile to women's participation, the share of women in

these occupations will be limited. One 2008 study found that "52 percent of highly qualified females working for SET [science, technology, and engineering] companies quit their jobs, driven out by hostile work environments and extreme job pressures" (Hewlett et al. 2008). Extreme job pressures are defined as working more than 100 hours per week, needing to be available 24/7, working with or managing colleagues in multiple time zones, and feeling pressure to put in extensive face time (Hewlett et al. 2008). As compared with men, more than twice as many women engage in housework on a daily basis, and women spend twice as much time caring for other household members (BLS 2015). Because of these cultural norms, women are less likely to be able to handle these extreme work pressures. In addition, 63 percent of women in SET workplaces experience sexual harassment (Hewlett et al. 2008). To make matters worse, 51 percent abandon their SET training when they quit their job. All of these factors play a role in steering women away from highly paid occupations, particularly in STEM fields.

The long hours required for some of the highest-paid occupations are incompatible with historically gendered family responsibilities

Those seeking to downplay the gender wage gap often suggest that women who work hard enough and reach the apex of their field will see the full fruits of their labor. In reality, however, the gender wage gap is wider for those with higher earnings. Women in the top 95th percentile of the wage distribution experience a much larger gender pay gap than lower-paid women.

Again, this large gender pay gap between the highest earners is partially driven by gender bias. Harvard economist Claudia Goldin (2014) posits that high-wage firms have adopted pay-setting practices that disproportionately reward individuals who work very long and very particular hours. This means that even if men and women are equally productive per hour, individuals—disproportionately men—who are more likely to work excessive hours and be available at particular off-hours are paid more highly (Hersch and Stratton 2002; Goldin 2014; Landers, Rebitzer, and Taylor 1996).

It is clear why this disadvantages women. Social norms and expectations exert pressure on women to bear a disproportionate share of domestic work—particularly caring for children and elderly parents. This can make it particularly difficult for them (relative to their male peers) to be available at the drop of a hat on a Sunday evening after working a 60-hour week. To the extent that availability to work long and particular hours makes the difference between getting a promotion or seeing one's career stagnate, women are disadvantaged.

And this disadvantage is reinforced in a vicious circle. Imagine a household where both members of a male–female couple have similarly demanding jobs. One partner's career is

likely to be prioritized if a grandparent is hospitalized or a child's babysitter is sick. If the past history of employer pay-setting practices that disadvantage women has led to an already-existing gender wage gap for this couple, it can be seen as "rational" for this couple to prioritize the male's career. This perpetuates the expectation that it always makes sense for women to shoulder the majority of domestic work, and further exacerbates the gender wage gap.

Female-dominated professions pay less, but it's a chicken-and-egg phenomenon

Many women do go into low-paying female-dominated industries. Home health aides, for example, are much more likely to be women. But research suggests that women are making a logical choice, *given existing constraints*. This is because they will likely *not* see a significant pay boost if they try to buck convention and enter male-dominated occupations. Exceptions certainly exist, particularly in the civil service or in unionized workplaces (Anderson, Hegewisch, and Hayes 2015). However, if women in female-dominated occupations were to go into male-dominated occupations, they would often have similar or lower expected wages as compared with their female counterparts in female-dominated occupations (Pitts 2002). Thus, many women going into female-dominated occupations are actually situating themselves to earn higher wages. These choices thereby maximize their wages (Pitts 2002). This holds true for all categories of women except for the most educated, who are more likely to earn more in a male profession than a female profession. There is also evidence that if it becomes more lucrative for women to move into male-dominated professions, women will do exactly this (Pitts 2002). In short, occupational choice is heavily influenced by existing constraints based on gender and pay-setting across occupations.

To make matters worse, when women increasingly enter a field, the average pay in that field tends to decline, relative to other fields. Levanon, England, and Allison (2009) found that when more women entered an industry, the relative pay of that industry 10 years later was lower. Specifically, they found evidence of devaluation—meaning the proportion of women in an occupation impacts the pay for that industry because work done by women is devalued.

Computer programming is an example of a field that has shifted from being a very mixed profession, often associated with secretarial work in the past, to being a lucrative, male-dominated profession (Miller 2016; Oldenziel 1999). While computer programming has evolved into a more technically demanding occupation in recent decades, there is no skills-based reason why the field needed to become such a male-dominated profession. When men flooded the field, pay went up. In contrast, when women became park rangers, pay in that field went down (Miller 2016).

Further compounding this problem is that many professions where pay is set too low by market forces, but which clearly provide enormous social benefits when done well, are female-dominated. Key examples range from home health workers who care for seniors, to teachers and child care workers who educate today's children. If closing gender pay differences can help boost pay and professionalism in these key sectors, it would be a huge win for the economy and society.

Conclusion

The gender wage gap is real—and hurts women across the board. Too often it is assumed that this gap is not evidence of discrimination, but is instead a statistical artifact of failing to adjust for factors that could drive earnings differences between men and women. However, these factors—particularly occupational differences between women and men—are themselves affected by gender bias. Serious attempts to understand the gender wage gap should not include shifting the blame to women for not earning more. Rather, these attempts should examine where our economy provides unequal opportunities for women at every point of their education, training, and career choices.

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