

The Gender Wage Gap

On 24 October 1975, women in Iceland went on a one-day strike. On this day, women did not go to their paid jobs and did not do any housework or engage in child rearing. It is estimated that ninety percent of Iceland's female population participated in the strike. The purpose of the strike was to signify the importance of women for Iceland's society and economy – and to protest the gender wage gap and unfair employment practices. The following year, Iceland's parliament passed a law guaranteeing equal pay for equal work. A similar law was passed in Denmark in 1976 (Law no 32 of 4 February 1976).

On 24 October 2005, a second women's strike took place. This time, women walked out of their jobs at 14:08 to reflect that women's total salary was around 64% of what men got paid. If men get paid to work from nine to five, women concluded that they only got compensated to work until eight minutes past two. The strike has taken place a few times since then, and each time, women work a little bit longer. In 2018, women's salary was around 74% of men's salary, and the strike therefore started at 14:55. This time, the strike sparked a debate: Is it reasonable to claim that there is still a gender wage gap by simply comparing the average wage of men and women? Shouldn't we adjust for factors such as occupation, education, industry, and authority? The answer is not straightforward.

The *adjusted* wage gap is much smaller than the *unadjusted* gap. In both Iceland and Denmark, it is around 5%, compared to 28% and 20%, respectively. *Adjusted* means that we have taken into account factors such as education, occupation, length of employment, hours worked, authority, industry, firm size, public or private sector, age, marital status, and number of children. However, the difference in the *unadjusted* and *adjusted* wage gap could either reflect gender differences in preferences and choices made, or it could reflect discrimination and socialization. For example, women may be less likely to become managers because they are less interested in pursuing such positions, or it could be due to discrimination. It is therefore important to understand where the *unadjusted* gap comes from. Below, I will look at four explanations for the remaining gender wage gap: 1) the child penalty, 2) educational differences, 3) differences in bargaining and competition, and 4) bias and discrimination.

The child penalty

Recent research suggests that the child penalty, i.e., the drop in women's wages when they become mothers, is the main explanation for the remaining gender wage gap. In Denmark, it explains around 80% of the current gender discrepancy in wages (Kleven et al., 2019). Men and women with comparable wages start seeing their wages diverge as soon as they become parents. Consequently, women have roughly 20% lower earnings than men in the long run. This is partly explained by women working fewer hours after having children and becoming more likely to work in the public sector. But we also see that motherhood has a negative impact on hourly wages as well as on the probability of becoming a manager. The study shows no such effects for men.

Traditional models in household economics (e.g., Becker, 1973) show that gender differences in comparative advantages in child rearing and household production lead to gains from specialization and division of labor, where women specialize in household production and men specialize in labor market production. When couples have children, the workload at home increases significantly, and the cost of running the household also rises. This may increase the benefits of specialization. However, empirical studies cast doubt on the relevance of comparative advantages, at least in more recent years.

Rosenbaum (2019) looks at the child penalty among same-sex couples in Denmark and finds that the penalty is smaller for women with a female spouse than for women in heterosexual relationships. He furthermore finds that the difference does not stem from changes in labor market participation, but primarily from differences in wage rates and from the higher tendency for heterosexual mothers to take on part-time work. Anderson and Nix (2019) find similar results using data from Norway. These papers suggest that comparative advantages within the household are not as important as many have thought and that the gender differences more likely can be explained by either preferences or gender norms.

Other studies provide evidence that many couples prefer a more equal division of labor. Schoen et al. (2006) show that female employment reduces divorce risk, and Sigle-Rushton (2010) shows that divorce rates are lower in families in which the husband takes a greater part in housework, shopping, and childcare. Twenge et al. (2003) show that people become less happy when they have children and that one of the main reasons is that parenthood pushes them into more traditional gender roles. My paper with Olafsson (2020) finds that divorce risk decreases when men take paternity leave.

Education

In Denmark, women first overtook men in high school (*gymnasieskolen*) enrollment rates in 1975. However, there continues to be a substantial segregation within high schools and universities with respect to choice of one's major, which may translate into a gender disparity in wages and other labor market outcomes. While women are drawn to subjects such as education (*pædagogik*), health (*sundhed*), and trade (*handel*), men are inclined to choose majors such as engineering, transportation, and other more technical subjects. Past research has shown that gender differences in the field of highest education accounts for a significant part of the male-female wage gap among college graduates (e.g., Black et al., 2008; McDonald & Thornton, 2007; Brown & Corcoran, 1997; Daymont & Andrisani, 1984). A study by Brenøe and Zørlitz (2019) finds that women's underrepresentation in STEM (science, technology, engineering, and math) education explains part of the gender wage gap in Denmark.

Bargaining and competition

Another hypothesis is that women have lower wages than men because they have different characteristics. In particular their labor market returns may be lower than men's because they are

more risk averse, less competitive, or worse at bargaining. Empirical evidence for these claims is mixed. Byrnes et al. (1999) summarize the literature on gender differences in risk aversion and find that around half of the existing studies show women to be more risk averse. They also find that the gender gap in risk taking is decreasing over time. Furthermore, recent research suggests that differences in risk aversion are due to social learning rather than inherent gender traits (e.g., Booth et al., 2014; Chadi & Uwe, 2019). Similarly, studies have found women to be less competitive than men (e.g., Niderle, 2017; Buser et al., 2014), but these differences appear to be malleable as well and due to socialization rather than inherent dissimilarities (e.g., Andersen et al., 2013).

Finally, research has found women to be more reluctant to negotiate over salary (e.g., Babcock & Laschever, 2003). However, Exley et al. (2020) show that this is because women do not benefit from negotiating more and that employers are less likely to encourage negotiations if the worker is female.

Bias and discrimination

It can be difficult to measure bias and discrimination, but there is some evidence that men and women are held against different standards. A famous study by Goldin and Rouse (2000) showed that blind auditions at symphony orchestras significantly increased the probability that female musicians were hired. A recent paper by Mengel et al. (2019) shows that female university professors receive systematically lower teaching evaluations than their male colleagues and that this bias is driven by male students' evaluations. The bias is larger for mathematical courses and is particularly pronounced for junior women – who may need good teaching evaluations to be promoted.

From a policy perspective, we are interested in what can be done to eliminate the gender wage gap and whether anything should be done at all. In an attempt to close the gender wage gap, Iceland introduced a *Pay Equality Certificate* in 2018, making it mandatory for all firms and institutions with 25 or more employees to obtain a certification of pay equality between the genders within the workplace. The objective is to close the remaining *adjusted* wage gap. However, if the goal is to close the *unadjusted* wage gap, it is necessary to consider family policies, since the remaining gender wage gap is largely driven by parenthood. Sweden, Iceland, and Norway have all introduced earmarked paternity leave; in part to address the gender wage gap and decrease the child penalty. Druedahl et al. (2019) find that the parental reform from 1998 that increased earmarked paternity leave in Denmark by only two weeks (from two to four weeks) decreased couples' differences in income.

In Sweden, the law on parental leave states that equality in the household is necessary for achieving equality in the labor market. In recent months, the lockdown and school closures due to covid-19 have highlighted the interdependence between family and the labor market. There are concerns that the situation has shifted households to more traditional gender roles, which could adversely affect gender equality in the labor market. The causes and consequences of gender differences in labor market outcomes are therefore likely to remain an important and active research area in economics in the years to come.

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About the Brief

This CCP research brief is written by Herdis Steingrimsdottir (Copenhagen Business School). It is based on a presentation at a CCP meeting in the fall of 2019. For further information, do not hesitate to contact the author at: hs.eco@cbs.dk.

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