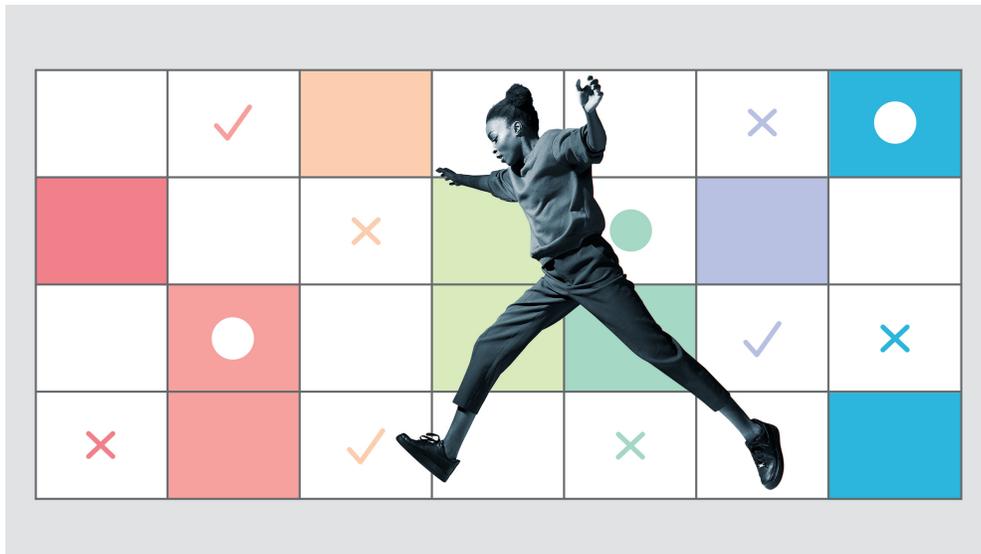# How Unpredictable Schedules Widen the Gender Pay Gap

by Valentin Bolotnyy and Natalia Emanuel

Published on HBR.org / July 01, 2022 / Reprint H074JF

HBR Staff/Klaus Vedfelt/Getty Images

Despite substantial progress toward pay equity, women in 2022 still earn 17% less than men on average. Many explanations for this gap have been proposed: Women may choose to work in lower-paying occupations; they may have less experience due to having taken time off to have kids or care for elders; they may shy away from negotiation or competition; they may be passed over by managers, perhaps due to conscious or unconscious bias. But what would happen to the earnings gap if we eliminated all of these factors?

To explore this question, we analyzed a setting where none of these explanations are at play, yet women still bring home just $89 for each $100 that men do. We obtained seven years of pay data for bus and train operators employed by the Massachusetts Bay Transportation Authority (MBTA), where union-negotiated contracts leave no room for managerial gender bias or employee negotiation. Instead, objective structures determine pay: Each worker's hourly rate is set according to their tenure, and seniority dictates who gets to pick their schedule first and who gets offered overtime opportunities. Nevertheless, even among people in exactly the same role at the same seniority level, we found an 11% gender gap in take-home pay.

So, what drove this earnings gap? We found that the more unpredictable, unconventional, or uncontrollable workers' schedules were, the greater the resulting gender gap, but that the right approach to scheduling can boost both pay equity and productivity.

Much of the earnings gap arose because women are more likely than men to have responsibilities outside of work that necessitate predictable schedules, such as bringing elderly parents to doctors' appointments or picking children up from school. These inflexible commitments make women less able to take on shifts when scheduling is unpredictable and last-minute, leading to gender disparities in workers' ability to take on overtime shifts (which are compensated at 1.5 times the regular wage). We found that when overtime shifts were offered on short notice — i.e., day-of or the day before — women accepted the opportunities almost 50% less often than men, but when given the chance to plan ahead and build overtime into their schedule three months in advance, women were only 7% less likely than men to take on the extra hours.

Similarly, commitments outside of work often mean that female employees may need to work more-conventional hours than their

male counterparts, making them less able to take on weekend shifts, holiday shifts, or split-shifts. (A split-shift refers to a day's work that is interrupted by a several-hour, unpaid break.) Indeed, we found that among operators who had first pick when choosing schedules, women avoided these unconventional shifts more than men.

In principle, gender differences in workers' likelihood of taking unconventional shifts should not create differences in pay, since the MBTA pays the same rates for these shifts as for conventional ones. However, we found that employees often used excused, unpaid leave to avoid working an unconventional shift when it was assigned, and then made up the difference by taking on overtime. But, as noted earlier, men tend to be able to take on more overtime than women. So, when they skipped an undesirable shift, men more than made up for the forgone earnings with overtime, while women often did not work enough overtime hours to make up for earnings lost due to unpaid leave.

Finally, we found that when policies reduced employees' control over their schedules, women were more likely than men to take unexcused leave — again likely due to commitments outside of work. This made women more likely than men to face penalties, including suspension and discharge. Moreover, although these rigid policies were meant to increase productivity by reducing employee absenteeism, they actually ended up hurting service delivery because it is very hard for managers to plan around unexcused leave. As a result, these policies ultimately resulted in more canceled bus and train trips as well as disgruntled employees.

Of course, the MBTA is far from the only employer with unpredictable, unconventional, and uncontrollable schedules. Retail and service employers often use similar scheduling practices, with some even

dynamically changing workers' schedules based on the weather. Employees such as consultants and lawyers are also often called upon to work late or on off days when a client presentation or legal brief demands it. While such on-call policies are ostensibly gender-neutral, our research suggests that they can contribute to a substantial earnings gap.

Fortunately, our research also points toward strategies that can help employers reduce the adverse effects of scheduling policies that implicitly or explicitly demand constant availability. First, employers should schedule shifts as far in advance as possible, and allow workers to swap shifts when needed. They can also hire "float" employees — that is, workers who are not scheduled for regular work and are only responsible for handling last-minute crises, a practice that hospitals have used for decades to meet unpredictable fluctuations in demand for nursing staff. Finally, firms can encourage employees to work in teams so it is easier to hand off projects when needed, rather than demanding that any individual worker commit to unpredictable or excessively long hours. For example, in pharmacology and anesthesiology, investments into IT solutions and a culture of building client relationships with entire teams rather than with individual employees have contributed to the sector's smaller gender earnings gap.

As the pandemic has intensified caregiving duties for many, it is more important than ever for employers to acknowledge and support their employees' obligations outside of work. Predictable, conventional, and controllable schedules can be a win-win: boosting productivity, helping workers balance demands at work and at home, narrowing the gender earnings gap, and creating a better workplace for everyone.

VB

Valentin Bolotnyy is a Kleinheinz Fellow at Stanford University's Hoover Institution. He works on topics across public and labor economics, often forming research partnerships with state and local governments to improve public services and gain insight into social behavior. Follow him at valentinbolotnyy.com or on Twitter at @vbolotnyy.

NE

Natalia Emanuel is a labor economist at Princeton University's Industrial Relations Section. Her research focuses on workplace policies that help firms and workers thrive, and on public policy around child welfare. Follow her at nataliaemanuel.com or on Twitter at @NataliaHEmanuel.