

Research: When a Higher Minimum Wage Leads to Lower Compensation

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Summary. While proponents of increasing the minimum wage have grown increasingly vocal in the U.S., new research suggests that raising the minimum wage can actually have a significant negative impact on the total compensation of hourly workers. Researchers analyzed a... [more](#)

In the U.S., we're seeing an increasing number of calls to increase the national minimum wage to \$15/hour. Many states and municipalities have already passed minimum wage hikes in the last several years, and a variety of proposals are under consideration at the federal level.

However, economists remain uncertain as to the long-term impact of these policies on the welfare of American workers. Some studies suggest that raising minimum wage has a small

negative effect on employment rates, while others find no such adverse effect on employment.

Part of what makes it so tricky to quantify the impact of minimum wage policies is that they can influence firms' behavior in a variety of complex, interrelated ways. In addition to changing employment rates, studies suggest that firms may strategically respond to minimum wage increases by changing their approaches in other areas, such as worker schedules. This can have significant implications for employee welfare, but scheduling data is often harder to obtain than employment numbers. Minimum wage increases are also often accompanied by a host of other external factors and policies, making it difficult to identify test environments that enable a true apples-to-apples comparison of before and after minimum wage increases.

To address these challenges, we conducted a study in which we leveraged a highly granular dataset of worker scheduling data from a national fashion retailer in the U.S. to compare scheduling differences in states with different minimum wage histories. Specifically, we looked at worker schedule and wage data from 2015 to 2018 for more than 5,000 employees at 45 stores in California — where the minimum wage was \$9 in 2015, and has increased every year since then — and at 17 stores in Texas, where the minimum wage was \$7.25 for the duration of our study. We then controlled for statewide economic and employment differences between California and Texas in order to isolate just the impact of increasing the minimum wage.

Based on this analysis, we found that increasing the minimum wage had no statistically significant impact on the total number of labor hours employed at a given store. In other words, stores hired workers to work for the same overall number of hours regardless of whether minimum wage increased.

However, our data suggests that the way in which those hours were allocated among workers did change. For every \$1 increase in the minimum wage, we found that the total number of workers scheduled to work each week increased by 27.7%, while the average number of hours each worker worked per week decrease by 20.8%. For an average store in California, these changes translated into four extra workers per week and five fewer hours

per worker per week — which meant that the total wage compensation of an average minimum wage worker in a California store actually fell by 13.6%.

This decrease in the average number of hours worked not only reduced total wages, but also impacted eligibility for benefits. We found that for every \$1 increase in minimum wage, the percentage of workers working more than 20 hours per week (making them eligible for retirement benefits) decreased by 23.0%, while the percentage of workers with more than 30 hours per week (making them eligible for health care benefits) decreased by 14.9%. This suggests that as minimum wage increases, firms may strategically adjust their scheduling practices to reduce the number of workers eligible for benefits: Our estimates suggest that the average store in our California data set recouped approximately 27.5% of the increase in its wage costs through savings associated with reducing benefits.

In addition to the direct reduction in wage compensation and associated reduction in eligibility for benefits, we also found that increasing minimum wage led to less consistent work schedules, both in terms of the number of hours employees worked from one week to the next, and in terms of the timing of those shifts. A \$1 increase in the minimum wage corresponded to a 33.0% increase in fluctuations in the number of hours worked per week, a 9.5% increase in fluctuations in the number of hours worked per day, and 9.8% increase in fluctuations of shift start times.

Furthermore, this negative impact on scheduling consistency was generally more severe for workers who had held their jobs for less time, suggesting that newer employees were particularly impacted by these shifts. Research has shown that a lack of schedule consistency can make it significantly harder for hourly workers to coordinate job activities with their personal lives, balance multiple jobs, and ensure long-term financial stability.

Between these three factors, our data suggests that the combination of reduced hours, eligibility for benefits, and schedule consistency that resulted from a \$1 increase in the minimum wage added up to average net losses of at least \$1,590 per year per employee — equivalent to 11.6% of workers' total wage compensation (and this is assuming that workers were able to use their reduced hours to work a second job — an assumption which may not hold true for many employees).

Of course, recognizing these issues is merely the first step. The next question we must consider is why firms act in the ways that they do, and how we might craft policies that are more likely to actually achieve their goal of supporting workers.

The first factor to be aware of is that today, federal regulations mandate that firms provide retirement benefits to workers who work more than 1,000 hours per year (around 20 hours per week), and provide health insurance to anyone working at least 30 hours per week. This means that firms are naturally incentivized to hire more part-time workers who each work fewer hours, in order to reduce the number of employees eligible for these costly benefits.

In addition, employing a greater number of part-time workers gives companies more buffer, enabling them to respond to unexpected shifts in demand, absent employees, and turnover (all of which are particularly common in retail and service roles).

Given these strong financial incentives, it's hardly surprising that limited and inconsistent hours are extremely prevalent, especially in the service and retail sectors. Recent studies from the Economic Policy Institute found that in 2019, 4.3 million workers — nearly 3% of the entire national labor force — were working part time even though they would have preferred to work full time, and as of 2015, 17% of the U.S. workforce had inconsistent work schedules.

On the other hand, there are also incentives in place that push firms in the opposite direction. While the tactics described above reduce direct costs to the employer, they are also likely to reduce workers' motivation, reduce workers' ability to develop skills through on-the-job experience, reduce firms' ability to attract and retain high performers, and increase turnover — all of which ultimately reduces worker productivity. This partly explains why firms generally employ a mix of full-time and part-time workers: Part-time workers are less expensive, but they also tend to be less productive. Firms have always made trade-offs between worker productivity and labor costs, but when minimum wage increases, that balance shifts. And as our research shows, that shift leads firms to adopt practices that negatively impact worker productivity (and wellbeing), in order to recoup the direct increase in labor costs that results from a higher minimum wage.

In light of these market realities, what can policymakers do to achieve their stated goal of improving worker wellbeing? The answer isn't necessarily to throw out raising the minimum wage entirely — but policymakers do need to approach these policies with caution.

One potential approach is to couple any minimum wage increase with additional mechanisms designed to ensure consistent schedules and adequate hours while avoiding placing a major burden on employers (since that can lead to job losses). For example, five cities and one state have passed comprehensive “fair workweek” laws since 2014. These policies mandate that employers provide workers with greater stability and predictability in their work schedules, and in many cases, they also require employers to offer part-time workers the chance to increase their hours before adding new staff. The specifics of how such policies should be implemented and a comprehensive analysis of their effectiveness are outside the scope of our research, but there is evidence to suggest that they may improve both the well-being and productivity of workers — so we would argue that they are certainly worth careful consideration.

When it comes to assessing the impact of minimum wage on worker welfare, economists and policymakers tend to emphasize employment rates alone. But our study shows that other factors, such as benefits and worker schedules, can make a major difference. Even if overall employment rates remain constant, increasing the minimum wage can lead firms to make strategic shifts in their labor scheduling practices that can ultimately have a substantial, negative effect on the welfare of the very workers these policies aim to protect.

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