# Minimum Wage 

The High Cost of Increasing the Minimum Wage in Wisconsin to \$15

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## Executive Summary

Proponents of a minimum wage increase typically say that their motivation is to lift the working poor out of poverty and to help families by boosting household incomes. A minimum wage of $\$ 15$ an hour would be tantamount to an hourly pay increase of $107 \%$ for workers currently earning the minimum wage.

While those currently toiling at that wage might welcome such an increase, provided they can keep their jobs, it would constitute an enormous increase in cost to employers.

The data show that a high proportion of the state's workers - fully $38 \%$-earn less than $\$ 15$ an hour. Our modeling suggests that almost one-third of this group would be at risk of losing their jobs were Wisconsin to quickly increase the minimum wage which amounts to 350,000 workers.

Half of all job loss would come from the bottom 10\% of the income distribution, and $90 \%$ would come from the bottom quartile of the income distribution.

Wisconsin's economy is quite diverse, and job losses from a $\$ 15$ minimum wage would vary greatly by industry; we estimate that $50 \%$ of all affected workers in food preparation and service would lose their jobs. Other major job losses would occur in building and grounds cleaning and maintenance, personal care and service, sales, office and administrative support, production occupations and transportation and material-moving industries.

The minimum wage is an exceedingly blunt tool for dealing with the complex problem of poverty. Fortunately, we have other methods that are more
targeted and - demonstrably - more effective than the minimum wage to help workers trapped in poverty and who need assistance. For instance, the state's Earned Income Tax Credit (EITC) could be expanded so that it is more generous at lower income levels, phases out more slowly and goes to more households.

The EITC has been shown to increase labor demand while boosting worker take-home pay, achieving the goals of $\$ 15$ wage advocates - an increase in the pay of low-income workers - while avoiding its side effects. Of course, an EITC expansion would cost the government money. But it makes more sense to have the state's businesses and individual taxpayers pay the cost of boosting low-income wages rather than, as per the minimum wage, impose it primarily on retail establishments and other businesses with a preponderance of low-skilled jobs.

## Doubling the Minimum Wage Would Reduce Employment in the Wisconsin Economy

Various labor groups and Democratic politicians in Wisconsin are advocating for a $\$ 15$ an hour minimum wage similar to what is being adopted in other states. Many support some sort of phase-in, although advocates often speak first and foremost of the $\$ 15$ per hour floor.

Several states and some cities recently have passed legislation increasing the minimum wage to $\$ 15$ an hour, some by the end of next year. In 2020, Washington, D.C., and New York City will have a \$15 minimum wage. California's minimum wage will reach $\$ 15$ in 2022, and Massachusetts' minimum
will reach \$15 in 2023. Illinois Gov. J.B. Pritzker just signed a bill that would gradually increase the state's minimum wage until it reaches \$15 per hour in 2025.

These communities (with the notable exception of downstate Illinois) differ from Wisconsin in that they happen to be particularly high-wage jurisdictions. Wisconsin is most emphatically not; while Madison and Milwaukee (as well as the portion of southeastern Wisconsin that can be considered a part of the Chicago suburbs) have robust labor markets and a wage distribution above the national norm, the rest of the state has relatively low wages - a function both of the low cost of living as well as a paucity of employers seeking high-skilled workers. The proportion of people there earning at or below $\$ 15$ an hour dwarfs what holds in those other communities.

In a 2014 report published by the Badger Institute, we expanded upon a Congressional Budget Office analysis and projected the potential job losses across the various communities in the state that would result from a minimum wage increase to $\$ 10.10$ an hour, a proposal being pushed at the time by the Obama administration.

Unsurprisingly, we found that the less populated western and northwestern areas of the state would suffer the greatest job losses, with Madison experiencing the fewest. Our analysis estimated that over $10 \%$ of the working population would lose their jobs in some rural communities as a result of the increased minimum wage.

While the state's economy has changed radically since then and unemployment rates are at record lows across the state, $\$ 15$ an hour is well above the $\$ 10.10$ an hour proposal we considered in 2014 and significantly above the current wage for a large fraction of workers in the state.

A facile response to minimum wage increases is that most businesses that pay workers at or close to the
minimum wage would simply have no option other than to acquiesce and pay them the higher wage and that the ultimate result would be a reduction not in employment but in profits. Or not even profits: Some economists have seized upon the notion of efficiency wages to posit that the higher wages engendered by a minimum wage increase would serve to dramatically reduce worker turnover, motivating employees to work harder in order to keep their now more highly remunerated jobs. Companies actually benefit from the higher minimum wage in this story, leaving unexplained why employers could not set wages at the profit-maximizing rate without overt government intervention.

The ineluctable reality is that businesses invariably would respond to a doubling of wages by trying to economize on the use of this cohort: If the minimum wage increase serves to compress the wage distribution, companies might attempt to substitute skilled labor for the less-skilled minimum wage workers or replace certain tasks performed by unskilled workers with machines. Witness the updated McDonald's restaurants across the country that have largely eliminated the need for cashiers, which is a fate soon to befall hamburger flippers as well.

## The Impact of a $\$ 15$ Minimum Wage on Wisconsin Industries

We use data from the Bureau of Labor Statistics to construct a model to estimate the impact that a $\$ 15$ per hour minimum wage would have on employment across various occupations in Wisconsin.

We largely follow the simulation procedure outlined in our 2014 report, "Raising Wisconsin's Minimum Wage: Who Would be Helped? Who Would be Hurt?" That report focused on the impact of President Barack Obama's proposed \$10.10 an hour federal minimum wage; we've updated those results to
examine how a much larger minimum wage increase would affect workers in Wisconsin.

As in that report, our methodology starts with data on the wage distribution from Wisconsin, both aggregated and across industries, from data obtained from the federal Bureau of Labor Statistics Occupational Employment Statistics output. This data offers detail on the wage distribution at the state level at the $10^{\text {th }}, 25^{\text {th }}$, median, $75^{\text {th }}$ and $90^{\text {th }}$ percentile. We impute the gaps in the distribution using a standard linear imputation for each industry individually and for the state as a whole.

Some Wisconsin politicians support a phased-in move to $\$ 15$ per hour. Gov. Tony Evers is proposing both a phased-in implementation and creation of a task force to study the feasibility of a statewide minimum of $\$ 15$ an hour.

Our estimates focus on the impact of a one-time increase with quick implementation similar to what is occurring in other parts of the country, and we acknowledge that a slower implementation or phasing in of the policy would result in smaller jobloss estimates.

Ultimately, the speed of the implementation would need to be compared with expected wage growth to determine how different our estimates would look were there to be a phase-in of the policy.

We simulate estimates where a $\$ 15$ minimum wage would fall in the wage distribution for each industry as well as the state as a whole. We observe where the $\$ 15$ minimum wage lands in the distribution and then calculate the percentage wage increase for each percentile of the distribution, assuming that the first percentile of the distribution earns the current minimum wage of $\$ 7.25$ per hour.

After calculating the wage increase for each percentile of the distribution, we apply a labor demand elasticity between -0.27 and -0.87 for
each industry to calculate employment changes. These values are well within the range of empirical estimates from the economic literature and are very conservative relative to the highest estimates.

We simulate the effects of a $\$ 15$ minimum wage on the Wisconsin workforce using data obtained from the Bureau of Labor Statistics. The data show that about 38\% of the Wisconsin workforce currently earns at or less than $\$ 15$ an hour and therefore would be potentially affected by such an increase. This cohort amounts to nearly 1.1 million workers. For perspective, 2.8 million people currently hold jobs in the state.

We estimate that roughly 350,000 workers in the state would lose their jobs as a result of the higher minimum wage, which amounts to nearly one-third of all workers earning a wage below the proposed new minimum.

Across the income distribution in Wisconsin, employment losses would be concentrated among those at the bottom of the income distribution. We estimate that all job loss would occur among the bottom $38 \%$ of income earners, but more than half of all job loss would occur among the bottom $10 \%$ of income earners. Ninety percent of job loss would come from the bottom income quartile. Figure 1 shows a cumulative density function of job loss by the percentile of income distribution demonstrating its impact.

Figure 1: Cumulative Employment Loss by Income
Percentile from $\$ 15$ Minimum Wage in Wisconsin


A $\$ 15$ minimum wage would affect industries across Wisconsin differently, with food preparation and service bearing the largest burden. The data suggest that $89 \%$ of workers in food preparation and service in Wisconsin earn at or less than \$15 an hour, which amounts to 217,765 workers. We estimate that half of this group likely would see their jobs eliminated.

Other industries with five-figure job losses include building and grounds cleaning and maintenance, personal care and service, sales, office and administrative support, production, transportation and material moving. Figure 2 reports the employment-loss estimates for each major industry in Wisconsin.

## Additional Costs to Low-Income Workers of a Higher Minimum Wage

While the workers who keep their jobs in a higher minimum wage economy would welcome the increased wages, it would impose costs on them as well. For instance, their employers likely would try to economize in the new high-wage environment not just by laying off the youngest and/or least productive workers but by reducing the hours of those who remain on the payroll.

What's more, these workers would be likely to see whatever nonwage benefits they receive reduced as a way to curb the total cost of their employment. Currently, virtually all employees who work over 30 hours a week must be provided health insurance; while it is not uncommon for retailers to keep most of their staff below that threshold, this strategy likely would become de rigueur across the state with a higher minimum wage.

Reduced hours and benefits could affect turnover as well: With an abundance of labor supply in the economy, companies would not have an incentive to retain workers with the slightest blemish on their record.

Businesses would reduce other fringe benefits as well, from employee discounts to free uniforms to paid time off to training and certification. Companies do not, in general, offer fringe benefits because they are magnanimous but instead because the benefits serve a specific purpose - namely, to tie workers to the firm and reduce turnover. The reduced turnover from higher mandated wages and the concomitant higher unemployment rates also would serve to reduce turnover somewhat, but low-skilled workers would receive less employer support for improving their human capital.

A sharply higher minimum wage also reduces workforce attachment for lower-skilled and younger workers. Most minimum wage earners are on the first rung of a career ladder that will - they hope - allow them to climb upward to jobs that require more skill and experience and pay better as a result. A more-than-doubling of the minimum wage effectively removes the bottom rung of that ladder: While some workers would be able to successfully start on the second rung and proceed, not everyone would find that achievable.

## There are More Effective Ways to Reduce Poverty

A doubling of the minimum wage would have budget implications: Fewer jobs for low-skilled workers would mean this cohort would pay less payroll and income taxes. It also means that many of them would accrue less service time in the Social Security system, which reduces their retirement benefits. Those who end up working fewer years would likely end up with less retirement savings as well. This would be exacerbated by the likelihood that employer 401(k) contributions surely would decline to offset employer costs.

At the state level, the fiscal impact from a large minimum wage increase would be nontrivial: The
cohort members who lose their jobs would not only pay less to the state in taxes but likely would need to avail themselves of more public support services. That reality likely would not need to be acknowledged when passing a minimum wage increase: The minimum wage does not appear as a line item on any budget.

## Improve the Earned Income Tax Credit

A government that makes decisions based not on short-term budget exigencies but on what's best for the collective cohort of low-income households and the society writ large would jettison any minimum wage increase and instead turn its attention to improving the Earned Income Tax Credit. Its purpose is to reduce or eliminate the tax burden for lowincome workers so that they keep more of every dollar they earn, thereby encouraging them to remain in the labor market.

The EITC has the added benefit that it can be finely targeted to workers with families or single parents and reduced for workers with other sources of income. A minimum wage increase, on the other hand, applies to any lower wage worker who retains a job, including teenagers who live with their parents and work part time - hardly the intended target.

One problem with the Earned Income Tax Credit —both at the state and federal levels - is that the benefits phase out too rapidly, which results in workers on the cusp of leaving poverty having an effective tax rate as high as $50 \%$, exacerbated by the phase-out of various other benefits that accrue to poorer Americans.

Expanding the EITC so that it phases out more slowly would cost more money while also resulting in the state providing benefits - albeit minimal — to people who might be perceived as being beyond poverty, which can give any legislator heartburn.

However, the history and data show that an expanded EITC results in increased employment, reduced poverty and better long-term outcomes for low-income households than other government interventions. That our politicians turn to such a blunt instrument as minimum wage to ostensibly "save" money is both penny foolish and pound foolish. Were the governor to announce he would abandon raising the minimum wage and instead embrace an EITC expansion, it would be difficult for the Republican-controlled Legislature to provide principled objections.

## A Blunt Approach for a Complicated Problem

Despite the fact that the current economic expansion has lasted for nearly a decade and unemployment rates in Wisconsin are at record lows, poverty is still an acute problem and worthy of our attention.

While all of us may share in the desire to provide low-income workers with a higher wage, simply mandating that companies pay them higher wages ultimately destroys jobs, makes the state less competitive economically and creates at least as many problems as it solves. In a state as economically diverse as Wisconsin, a $\$ 15$ an hour minimum wage would make things worse for hundreds of thousands of state residents.

Our efforts to reduce poverty should be done in a bipartisan fashion, and we should be prepared to explain to our citizenry why more of the state's revenue may be directed toward helping the lowincome workers who need it. Besides expanding the Earned Income Tax Credit, the other potential remedies - such as improving low-performing schools, making job training more available and taking further steps to reduce the state's opioid crisis - would have long-term benefits that would accrue to all Wisconsinites.

## Appendix: Application of Labor Demand Elasticities

Our model results rely heavily on the estimated range of labor demand elasticities from the empirical literature in economics. An elasticity describes the response of employers to a change in minimum wage. The empirical literature on this topic is deep, ranges back at least 40 years and studies many previous implementations of minimum wages ranging from internationally to locally across a wide range of areas. This literature generally produces elasticities in the range of -0.17 to -0.77 . There are
also several studies that would place this elasticity much higher or indeed closer to zero. We believe the most credible studies estimate elasticities near this range. Our estimates use a labor demand elasticity that range from -0.27 to -0.87 , and we apply them across industries according to how likely workers in each industry are to be replaced by other factors of production (capital, higher salaried workers) or in fields where businesses may cease to operate due to the increased costs.

Figure 2: Employees Impacted and Job Loss in Wisconsin Under a $\$ 15$ Minimum Wage

|  | Current <br> Employment | Employees <br> Impacted | Employees <br> Impacted Pct. | Estimated <br> Employment <br> Loss | Estimated <br> Employment <br> Loss Pct. |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Management | 129,080 | 6,454 | $5 \%$ | 901 | $14 \%$ |  |
| Business and Financial Operations | 137,430 | 10,994 | $8 \%$ | 1,403 | $13 \%$ |  |
| Computer and Mathematical | 76,080 | 4,565 | $6 \%$ | 641 | $14 \%$ |  |
| Architecture and Engineering | 51,220 | 3,073 | $6 \%$ | 421 | $14 \%$ |  |
| Life, Physical and Social Science | 19,560 | 1,760 | $9 \%$ | 473 | $27 \%$ |  |
| Community and Social Service | 40,750 | 11,003 | $27 \%$ | 2,283 | $21 \%$ |  |
| Legal | 14,120 | 1,271 | $9 \%$ | 146 | $12 \%$ |  |
| Education, Training and Library | 163,970 | 40,993 | $25 \%$ | 8,820 | $22 \%$ |  |
| Arts, Design, Entertainment, Sports and Media | 33,520 | 10,726 | $32 \%$ | 2,740 | $26 \%$ |  |
| Health Care Practitioners and Technical | 166,510 | 14,986 | $9 \%$ | 1,930 | $13 \%$ |  |
| Health Care Support | 71,200 | 37,736 | $53 \%$ | 6,166 | $16 \%$ |  |
| Protective Service | 54,690 | 18,048 | $33 \%$ | 6,367 | $35 \%$ |  |
| Food Preparation and Service | 244,680 | 217,765 | $89 \%$ | 109,063 | $50 \%$ |  |
| Building and Grounds Cleaning and Maintenance | 81,740 | 58,035 | $71 \%$ | 21,909 | $38 \%$ |  |
| Personal Care and Service | 114,470 | 95,010 | $83 \%$ | 37,313 | $39 \%$ |  |
| Sales and Related | 266,090 | 146,350 | $55 \%$ | 45,609 | $31 \%$ |  |
| Office and Administrative Support | 409,730 | 163,892 | $40 \%$ | 51,944 | $32 \%$ |  |
| Farming, Fishing and Forestry | 5,200 | 2,652 | $51 \%$ | 926 | $35 \%$ |  |
| Construction and Extraction | 102,040 | 13,265 | $13 \%$ | 1,409 | $11 \%$ |  |
| Installation, Maintenance and Repair | 109,800 | 21,960 | $20 \%$ | 2,087 | $10 \%$ |  |
| Production | 326,800 | 114,380 | $35 \%$ | 21,338 | $19 \%$ |  |
| Transportation and Material Moving | 206,500 | 86,730 | $42 \%$ | 27,287 | $31 \%$ |  |
| All Occupations | $2,825,180$ | $\mathbf{1 , 0 8 1 , 6 4 8}$ | $38 \%$ | $351,178^{*}$ | $32 \%$ |  |
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Before joining the Marquette faculty in 2012, he was as an assistant professor at Georgia State University for four years. From 2005-2006, Hanson served as a staff economist for the President's Council of Economic Advisers in Washington, D.C. His primary fields of interest are public finance and urban economics.


[^0]:    * Column total does not add up due to rounding.

