

# WPRI REPORT

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# RAISING WISCONSIN'S MINIMUM WAGE

**Who would be helped? Who would be hurt?**



**Impacts  
by Region and  
Industry**



# Wisconsin Policy Research Institute

## WPRI Mission Statement

*The Wisconsin Policy Research Institute Inc., established in 1987, is a nonpartisan, not-for-profit institute working to engage and energize Wisconsinites and others in discussions and timely action on key public policy issues critical to the state's future, its growth and prosperity. The institute's research and public education activities are directed to identify and promote public policies in Wisconsin that are fair, accountable and cost-effective.*

*Through original research and analysis and through public opinion polling, the institute's work will focus on such issue arenas as state and local government tax policy and spending and related program accountability, consequences and effectiveness. It will also focus on health care policy and service delivery; education; transportation and economic development; welfare and social services; and other issues currently or likely to significantly impact the quality of life and future of the state.*

*The institute is guided by a belief that competitive free markets, limited government, private initiative, and personal responsibility are essential to our democratic way of life.*

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# Raising Wisconsin's Minimum Wage

Who would be helped? Who would be hurt?

*Andrew Hanson, Associate Professor of Economics, Marquette University  
Ike Brannon, President, Capital Policy Analytics*

## President's Notes

Election season — with all its misleading bluster and braggadocio — is, thankfully, over.

The hard part, actually restoring prosperity to a state that still has too little of it, has just begun.

At WPRI, we think the first order of business should be deciding once and for all whether a hike in the minimum wage is the fairest and wisest way to build an economy that currently eludes too many at the lower end of the income spectrum.

Economists Ike Brannon and Andrew Hanson analyzed both the positives and negatives by region and industry for us and came up with a clear answer: While some workers would no doubt benefit, too many of their colleagues would lose their jobs, especially in northern Wisconsin and other areas with relatively low wages. The professors conclude that policymakers who want to preserve jobs, let businesses create even more of them, and make sure that low-income Wisconsinites have the incentive and opportunity to work should refrain from imposing a higher minimum wage.

But Brannon and Hanson also suggest fresh examination of another, better tool: the Earned Income Tax Credit.

There was one positive thing that resulted from the recent elections. Regardless of political affiliation, virtually every candidate in the state seemed to acknowledge that Wisconsinites want their policymakers to focus on jobs, the economy and prosperity. This report provides them with an opportunity to get serious about doing just that.

Mike Nichols  
President



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# Executive Summary

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Earlier this year, President Obama proposed increasing the federal minimum wage to \$10.10 an hour, setting off a vigorous debate about how the minimum wage works in labor markets and what a change would mean for America's poor. Those who support an increase in the minimum wage insist that it is an inexpensive, effective way to reduce poverty in America.

Raising the minimum wage would boost the wages of some workers, but it also would result in fewer jobs, as employers economize on low-skilled labor in response to their higher costs. We used data from the Bureau of Labor Statistics to determine the number of Wisconsin workers earning under \$10.10 an hour and also combed through the academic literature to come up with a consensus estimate of an elasticity of labor demand for low-skilled workers. Our goal was to use this information to estimate how many workers in Wisconsin who are earning below the proposed \$10.10 minimum wage could be expected to lose their jobs. In addition, we looked specifically at those workers in major metropolitan areas and across industries.

We found that 475,000 workers earn less than \$10.10 an hour in Wisconsin, or roughly 17% of all people currently employed. More than 23% of all workers in the northern Wisconsin area currently earn less than \$10.10 an hour, while just 13% of workers in the Madison metropolitan area — which has the highest wages in the state — earn less than that. And while a relatively low proportion of Milwaukee workers earn below \$10.10 an hour, there are still 125,000 workers in the Milwaukee area earning below that wage.

Our estimates show that imposing a \$10.10 an hour minimum wage would result in between 12,000 and 55,000 workers losing their jobs. A \$9 an hour minimum wage would result in somewhat smaller job losses — between 4,000 and 20,000. Our results are broadly consistent with a report published by the nonpartisan Congressional Budget Office earlier this year, which estimated that the minimum wage boost would destroy between 500,000 and 1 million jobs nationwide.

Imposing a dramatically higher minimum wage would do more than merely decrease the employment of low-income workers: It would cloud the future employment prospects for young workers as well. While few can argue about the desirability of helping low-income parents earn more money, a policy that stifles youth employment — and along with it the chance to develop a resume and tangible skills valued by employers — represents a pyrrhic policy victory at best.

What's more, a minimum wage increase would also likely cause a price increase for products and services produced by minimum wage earners — a burden disproportionately felt by the very low-income workers whom a higher minimum wage is designed to help. Economists estimate that up to 40% of minimum wage costs are passed on to consumers.

The minimum wage is an exceedingly blunt instrument to use to tackle the thorny problem of poverty in America, and more precise tools are at our disposal. For instance, the earned income tax credit can offer the working poor the same wage increase they would receive under a minimum wage, but without destroying jobs. Because the government administers the EITC through the tax code, it can also be targeted directly to the working poor. It may cost the government more, but it costs society much less, a tradeoff we should be happy to accept.

# Introduction

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The current minimum wage of \$7.25, among the lowest in developed nations, has yet again become a heated policy issue in Wisconsin as well as the rest of the nation. There have recently been a number of protests in the state agitating for a \$15 minimum wage, resulting in the arrest of demonstrators who have obvious passion for the issue. While some portion of the outrage could be seen as an attempt to generate interest in an issue that drove a political wedge between the two parties during the 2014 election, few dispute the fact that wages have stagnated over the last decade for the working poor. How to address this problem is a matter of debate within both political parties.

An increase in the minimum wage — whether to \$10.10 an hour or to the \$15 an hour that has become the *cri de coeur* in the last year — would help some households escape poverty. However, it would come at an opportunity cost, as employers would hire fewer unskilled workers. For instance, fast food franchises have contemplated rolling out technology that would cook burgers without the need for someone to maintain the grill, and some grocery chains have done away with baggers or encouraged shoppers to use self-checkout lanes. Still other businesses will find themselves unable to stay viable with sharply higher labor costs and will be forced to close.

There is no denying that a bump in the minimum wage *would* result in higher wages for a good portion of the working poor. But the negative consequences are also likely to be severe for the very group that such an increase aims to help. The two questions that need to be asked are whether the opportunity cost of a higher minimum wage outweighs the benefits, and whether there is a better way to help the working poor. For both, we believe the answer is an unambiguous “yes.”

The cost to Wisconsin of a higher minimum wage would be steep — between 12,000 to 55,000 workers out of a job with a \$10.10 minimum, we estimate, or 2 to 12% of all those earning under \$10.10 an hour. Job losses from the president’s proposed intermediate minimum wage increase of \$9 an hour would be smaller — between 4,000 and 20,000. In a state with 3 million people in the labor force, that represents a potentially significant number of people out of a job.

The distribution of job losses from a higher minimum wage would vary greatly across the state. Nearly one in four workers in northern Wisconsin earns less than \$10.10 an hour, where wages and the cost of living tend to be lower, but only 15% in the Milwaukee metropolitan area earn

that little. Job losses from any minimum wage increase would disproportionately impact northern Wisconsin and the other communities with relatively low wages and costs of living.

Younger workers, who have fewer skills and attachment to the labor force, bear the brunt of the job losses from any increase in the minimum wage. Slightly more than half of all workers earning the minimum wage are younger than 25, according to the Bureau of Labor Statistics, but they would represent well more than half of all job losses.

Legislators — and the people who elect them — often treat a minimum wage as something that does not cost anything to do, but that’s a facile approach. While the government may not face an explicit cost when increasing the minimum wage, the government — and society at large — does bear costs from such an action: more people unemployed in the short run, and in the longer run, fewer people with jobs or the relevant job experience necessary to earn wages sufficient to support families.

# How Would Wisconsin Businesses React to a Minimum Wage Increase?

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Imposing an increased minimum wage leads to higher unemployment among workers impacted by the minimum wage, and there is little evidence or credible theory that contradicts that notion. The few studies that purport to show minimum wage increases failing to impact employment may be embraced by politicians who favor increasing the minimum wage, but they are rife with problems and are largely dismissed by empirical economists. Survey evidence from the Employment Policies Institute shows that a strong majority (73%) of labor economists believe that increasing the minimum wage will result in employment losses, while only 6% feel the minimum wage is a very efficient way to address the income needs of poor families.

What can be a credible argument is that the societal costs from the job losses are outweighed by the gains from higher wages. But to make that determination we need some idea of the magnitude of job losses, which would depend on a number of factors: the relative size of the minimum wage increase, the breadth of its coverage (certain workers — mainly in the agricultural sector — are not impacted by the law), and the overall economic climate. Most minimum wage increases tend to be done when the economy is in the middle of an economic expansion, which concomitantly mitigates and obscures the job losses.

Economists capture the extent to which wage changes impact employment through a measure called the elasticity of labor demand, which indicates how sensitive employers' hiring is to wage changes. For a given sector of the economy it depends largely on how important labor is in the production process and how easy it would be to substitute other factors of production (namely capital) for labor. Relatively unskilled labor has a somewhat low elasticity of demand: It can be difficult — but not impossible — to substitute machines for unskilled labor in many places where it is used, and unskilled labor tends to account for a relatively small share of total costs. Furthermore, the labor demand elasticity is likely to vary across areas where costs of living are different and the demographic mix of workers varies, meaning that “labor demand” is really made up of many distinct markets that are different across geography.

In our analysis we consider a range of possible job loss responses by incorporating the bulk of the academic literature in this area. Our job loss estimates use what we view as a range of elasticities that the bulk of the academic literature supports, assuming elasticities of demand that range from -0.17 to -0.77. Of course, there is evidence to suggest that this elasticity may be much higher depending

on the type of workers and the particular labor market. There is also a body of literature that suggests this elasticity is much closer to zero, although we believe that evidence is not as credible. We present this data conundrum mainly to inform readers that they should consider the range of job losses we present as being somewhat conservative, but still likely within the estimated interval.

We use our estimates of labor demand elasticity — along with data from the Bureau of Labor Statistics on the wage distribution across industries and metropolitan areas of Wisconsin — to create estimates of both the number of employees who would be subject to an increase in wages if the minimum wage were raised and the number of jobs that would likely be lost.

# The Benefits and Costs of a Minimum Wage Increase

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Our analysis suggests that while many workers would likely see an increase in their hourly wage rate, this would come at a cost of substantial job loss to other workers. We simulate an increase in the minimum wage to \$10.10, and a more modest increase to \$9, and assume that either policy would begin in 2016. The Appendix of this document provides the technical details of our simulation procedure.

A \$10.10 minimum wage effectively represents a 40% increase for those workers earning the current \$7.25 minimum wage, and we find job losses of approximately 2.5% at the low end and 11% on the high end from such an increase. For the \$9 an hour minimum wage, which is an approximate 25% wage increase for people earning the current minimum, the percentage of jobs lost as a result ranges from 1.5% to 7%.

Using data from the Bureau of Labor Statistics, we estimate that between 454,000 and 481,000 workers, or between 17 and 18% of the state's work force, would be affected by either higher wages or job losses due to an increase in the federal minimum wage to \$10.10 an hour. For perspective, Iowa has a slightly higher percentage of impacted workers, while Illinois and Michigan have a slightly lower percentage. Minnesota — with less than 15% of all workers earning under \$10.10 an hour — is well below Wisconsin's percentage. Nationwide, Washington state has only 8% of all workers earning under \$10.10 an hour, while in Puerto Rico — where federal laws apply — fully half of all workers earn under \$10.10 an hour.

The vast differences across the states and territories highlight another point that opponents of a federal minimum wage like to make, namely that there is no one-size-fits-all minimum wage. Wages and prices differ enormously across the country, and to blithely assume that a minimum wage that works for Manhattan or San Francisco would work equally well in rural Wisconsin is sorely mistaken.

Even within Wisconsin, labor markets can be quite different, ranging from the larger metropolitan areas of Milwaukee and Madison to the more rural Northwoods. Any increase in the federal minimum wage or the state minimum wage will impact each region of the state differently, as we will endeavor to show. Moreover, the minimum wage will have a disproportionate impact on a small number of industries: For instance, a majority of workers in the food service industry make below \$10.10 an hour, so we expect job losses to be concentrated there.

Table 1 shows estimates of the number of affected workers by metropolitan and nonmetropolitan area of the state for

both a \$10.10 per hour minimum wage and a more modest \$9 per hour minimum wage. We estimated the number of workers and percentage of the work force that would experience either a wage gain or job loss if the minimum wage were increased. Just over 23% of all workers in the northern Wisconsin area would see a wage increase or a job loss under a \$10.10 minimum wage, but just 13.2% would receive a boost or lose a job in the Madison metropolitan area from such an increase. In terms of the number of workers actually affected, the Milwaukee-Waukesha-West Allis metro area has the most, with about 126,000 workers earning under \$10.10 an hour, while the Fond du Lac area has the fewest at about 8,500 workers.

While the major metropolitan areas all have a significant number of workers earning below the proposed \$10.10 minimum wage, Milwaukee, Madison and Green Bay have the lowest percentages of affected employees. The smaller metro areas like Eau Claire, Janesville and La Crosse have a higher proportion of workers impacted by the policy change. The nonmetropolitan areas generally show the highest percentages of affected workers, despite their generally smaller work force numbers. After northern Wisconsin, south-central Wisconsin has the second-highest proportion of workers earning under \$10.10 at 22%.

The industry variation in the impact of a minimum wage increase is also illuminating. By far the largest number and percentage of workers is in the Food Preparation and Serving Industry, which includes fast food workers. Nearly 61% of workers in this industry would be covered by a \$10.10 minimum wage, for a total of nearly 140,000 workers, a number that dwarfs the impact on other industries. The impact by industry is shown in Table 2.

The second-highest coverage rate under a \$10.10 minimum wage would be in the Personal Care and Service Industry, which includes hairdressers, child care workers and amusement park attendants, among others. Just over 40% would be affected through either a wage gain or a job loss by an increase in the minimum wage to \$10.10 per hour, which amounts to nearly 44,000 workers. Protective Services (15.7%), Building and Grounds/Cleaning and Maintenance (33.5%), Sales (31.8%), Farming, Fishing and Forestry (19%), and Transportation and Material Moving (19%) would all have at least 15% of workers impacted by the switch to a \$10.10 minimum wage.

**Table 1**  
**Employees Impacted Through Either Wage Gain or Job Loss Across Areas in Wisconsin**  
**(\$10.10 and \$9 Minimum Wage Options)**

	Employed Population	Number of Impacted Employees (\$10.10)	Percent of Impacted Employees (\$10.10)	Number of Impacted Employees (\$9.00)	Percent of Impacted Employees (\$9.00)
Appleton, WI	115,480	20,569	17.81%	11,876	10.28%
Eau Claire, WI	78,840	16,659	21.13%	9,336	11.84%
Fond du Lac, WI	45,010	8,552	19.00%	5,036	11.19%
Green Bay, WI	164,630	27,647	16.79%	16,568	10.06%
Janesville, WI	60,980	12,196	20.00%	7,076	11.60%
La Crosse, WI-MN	73,490	14,576	19.83%	8,497	11.56%
Madison, WI	342,930	45,286	13.21%	27,198	7.93%
Milwaukee-Waukesha-West Allis, WI	814,120	126,243	15.51%	74,403	9.14%
Oshkosh-Neenah, WI	91,970	15,852	17.24%	9,610	10.45%
Racine, WI	74,250	13,783	18.56%	7,974	10.74%
Sheboygan, WI	55,490	10,464	18.86%	6,104	11.00%
Wausau, WI	65,330	10,711	16.40%	6,486	9.93%
Eastern Wisconsin Non Metro	157,620	27,789	17.63%	16,200	10.28%
West Central Wisconsin Non Metro	174,550	31,916	18.28%	18,588	10.65%
South Central Wisconsin Non Metro	139,240	31,032	22.29%	17,297	12.42%
Southwestern Wisconsin Non Metro	65,350	12,076	18.48%	7,013	10.73%
Northern Wisconsin Non Metro	69,880	16,351	23.40%	9,001	12.88%

See appendix Table 7 for metro and non-metro definitions. Data on employed population and local wage distribution is from the federal Bureau of Labor Statistics.

**Table 2**  
**Employees Impacted Through Either Wage Gain or Job loss Across Industries in Wisconsin**  
**(\$10.10 and \$9 Minimum Wage Options)**

	Employed Population	Number of Impacted Employees (\$10.10)	Percent Employed Population (\$10.10)	Number of Impacted Employees (\$9.00)	Percent Employed Population (\$9.00)
Food Preparation and Serving	229,490	139,867	60.95%	91,943	40.06%
Sales	266,280	84,831	31.86%	54,633	20.52%
Office and Administrative Support	419,010	53,021	12.65%	29,352	7.01%
Personal Care and Service	108,580	43,692	40.24%	24,079	22.18%
Transportation and Material Moving	208,530	39,720	19.05%	22,343	10.71%
Production	307,190	28,594	9.31%	16,180	5.27%
Building and Grounds/Cleaning and Maintenance	82,260	27,549	33.49%	16,279	19.79%
Education, Training, and Library	154,210	10,594	6.87%	5,995	3.89%
Protective Service	51,390	8,072	15.71%	5,060	9.85%
Healthcare Support	80,340	8,030	10.00%	4,544	5.66%
Installation, Maintenance, and Repair	100,900	5,644	5.59%	3,194	3.17%
Healthcare Practitioners and Technical	155,260	4,775	3.08%	2,702	1.74%
Arts, Design, Entertainment, Sports, and Media	33,370	4,528	13.57%	2,825	8.47%
Construction and Extraction	85,470	3,853	4.51%	2,180	2.55%
Business and Financial Operations	123,240	3,683	2.99%	2,084	1.69%
Community and Social Service	32,750	2,250	6.87%	1,273	3.89%
Management	119,510	2,210	1.85%	1,250	1.05%
Computer and Mathematical	62,150	1,344	2.16%	760	1.22%
Architecture and Engineering	47,010	1,022	2.17%	578	1.23%
Farming, Fishing, and Forestry	4,520	859	19.00%	474	10.49%
Life, Physical and Social Science	20,660	703	3.40%	398	1.92%
Legal	12,730	370	2.91%	210	1.65%

Industry categories are from the federal Bureau of Labor Statistics using the North American Industry Classification System.

The least impacted industry would be Management, with less than 1.8% of workers affected, or about 2,200 workers. The categories of Business and Financial Operations (2.99%), Computer and Mathematical (2.1%), Architecture and Engineering (2.1%), and Legal (2.9%) would all have fewer than 3% of workers impacted by the increase to a \$10.10 minimum wage. Industries covered in the Life, Physical and Social Science category, Healthcare Practitioners and Technical category, and the Construction and Extraction category would all have fewer than 5% of workers affected.

Across metropolitan and nonmetropolitan areas in Wisconsin, our estimates show that job loss would be between 2 and 12% of the impacted population. Estimates vary slightly, with the largest percentage loss in Madison (up to 11.83% of individuals currently under \$10.10 per hour could lose their jobs as the result of an increase) and the largest loss of total jobs in Milwaukee-Waukesha-West Allis (as many as 14,528 jobs). Industry level estimates vary a bit more than across geography, with a range of losses between 2 and 16%. The number of jobs lost also varies more by industry, with the highest job losses occurring in industries with the most affected workers such as Food Preparation and Serving (as many as 16,348 jobs lost) and Sales (as many as 9,901 jobs lost). Table 3 summarizes job loss by geographic region of Wisconsin; Table 4 summarizes across industry types for Wisconsin workers.

Tables 5 and 6, meanwhile, display both the total number of workers affected by an increase to \$10.10 by region and industry, as well as the approximate number of workers by region and industry that would lose their jobs.

We also simulated the impact that a more modest increase to the minimum wage of \$9 per hour would have on Wisconsin workers. These results are also shown in Tables 1-4 alongside the \$10.10 option. These estimates also assume that the minimum wage would not be implemented for two years, and use the same methodology detailed in the Appendix. We also find, unsurprisingly, that a \$9 minimum wage would have a smaller impact on workers in Wisconsin than the \$10.10 option, both in terms of the number of affected workers and in terms of estimated job loss.

An important caveat of the job loss estimates is that there are several factors that would otherwise make these estimates substantially larger. First, we assume that any minimum wage change would not be implemented for more than one year after announcement. Implementing sooner would entail a larger shock to the job market and result in much larger job loss estimates. Second, we assume a conservative response function by employers. This may be different across different areas or industries where workers

can more easily be replaced in the production process, and it may be different in the long run when employers have more time to find replacements. Using a more responsive function would produce substantially larger job loss estimates under either minimum wage option.

**Table 3**  
**Employment Loss Estimates from Minimum Wage Increases: Across Areas of Wisconsin**

	Minimum Employment Loss (\$10.10)	Maximum Employment Loss (\$10.10)	Percent Employment Loss Range (\$10.10)*	Minimum Employment Loss (\$9)	Maximum Employment Loss (\$9)	Percent Employment Loss Range (\$9)*
Appleton, WI	512	2,318	2.49 - 11.27%	188	853	1.58 - 7.18%
Eau Claire, WI	404	1,828	2.42 - 10.97%	145	659	1.56 - 7.06%
Fond du Lac, WI	215	975	2.52 - 11.41%	80	361	1.58 - 7.18%
Green Bay, WI	705	3,192	2.55 - 11.54%	263	1,190	1.59 - 7.18%
Janesville, WI	304	1,375	2.49 - 11.28%	112	505	1.58 - 7.14%
La Crosse, WI-MN	364	1,647	2.50 - 11.30%	134	609	1.58 - 7.16%
Madison, WI	1,182	5,356	2.61 - 11.83%	442	2,001	1.62 - 7.36%
Milwaukee-Waukesha- West Allis, WI	3,207	14,528	2.54 - 11.51%	1,191	5,393	1.60 - 7.25%
Oshkosh-Neenah, WI	407	1,844	2.57 - 11.63%	153	693	1.59 - 7.21%
Racine, WI	343	1,553	2.49 - 11.26%	126	571	1.58 - 7.17%
Sheboygan, WI	262	1,187	2.51 - 11.35%	97	439	1.59 - 7.19%
Wausau, WI	275	1,245	2.57 - 11.63%	103	466	1.59 - 7.19%
Eastern Wisconsin Non Metro	696	3,151	2.50 - 11.34%	257	1,164	1.59 - 7.18%
West Central Wisconsin Non Metro	798	3,613	2.48 - 11.32%	295	1,334	1.58 - 7.17%
South Central Wisconsin Non Metro	747	3,382	2.41 - 10.90%	268	1,213	1.55 - 7.01%
Southwestern Wisconsin Non Metro	301	1,364	2.49 - 11.29%	111	503	1.58 - 7.17%
Northern Wisconsin Non metro	389	1,762	2.38-10.77%	138	625	1.53-6.94%

Employment loss estimates are author calculations using the method described in the appendix.

\* Percent of individuals currently under proposed wage who would lose job if minimum wage increased.

**Table 4**  
**Employment Loss Estimates from Minimum Wage Increases: Across Industries of Wisconsin**

	Minimum Employment Loss (\$10.10)	Maximum Employment Loss (\$10.10)	Percent Employment Loss (\$10.10)*	Minimum Employment Loss (\$9)	Maximum Employment Loss (\$9)	Percent Employment Loss (\$9)*
Food Preparation and Serving	3,609	16,348	2.58 - 11.69%	1259	5,702	1.37 - 6.20%
Sales	2,186	9,901	2.58 - 11.67%	768	3,477	1.41 - 6.37%
Office and Administrative Support	1,311	5,940	2.47 - 11.20%	484	2,191	1.65 - 7.46%
Personal Care and Service	1,011	4,578	2.31 - 10.48%	345	1,561	1.43 - 6.48%
Transportation and Material Moving	971	4,399	2.44 - 11.07%	352	1,594	1.57 - 7.13%
Production	738	3,343	2.58 - 11.69%	280	1,266	1.73 - 7.83%
Building and Grounds/ Cleaning and Maintenance	674	3,053	2.45 - 11.08%	235	1,065	1.44 - 6.54%
Education/Training/Library	283	1,284	2.68 - 12.12%	110	496	1.83 - 8.28%
Healthcare Support	206	934	2.57 - 11.63%	78	352	1.71 - 7.74%
Protective Service	199	903	2.47 - 11.19%	73	331	1.44 - 6.54%
Installation, Maintenance, and Repair	155	702	2.75 - 12.44%	62	279	1.93 - 8.72%
Healthcare Practitioners and Technical	149	674	3.11 - 14.11%	64	292	2.39 - 10.81%
Arts, Design, Entertainment, Sports, and Media	121	547	2.67 - 12.07%	46	207	1.62 - 7.32%
Business and Financial Operations	116	526	3.15 - 14.28%	51	229	2.43 - 10.99%
Construction and Extraction	110	496	2.84 - 12.88%	45	205	2.07 - 9.39%
Management	79	359	3.59 - 16.26%	37	165	2.92 - 13.23%
Community and Social Service	60	273	2.68 - 12.12%	23	105	1.83 - 8.28%
Computer and Mathematical	46	208	3.41 - 15.46%	21	97	2.83 - 12.80%
Architecture and Engineering	35	158	3.40 - 15.42%	16	74	2.82 - 12.78%
Life, Physical and Social Science	21	96	3.01 - 13.61%	9	40	2.24 - 10.15%
Farming, Fishing and Forestry	21	94	2.42 - 10.96%	7	34	1.58 - 7.14%
Legal	12	53	3.15 - 14.29%	5	23	2.46 - 11.16%

Employment loss estimates are author calculations using the method described in the appendix. Industry categories are from the federal Bureau of Labor Statistics using the North American Industry Classification System.

\* Percent of individuals currently under proposed wage who would lose job if minimum wage increased.

**Table 5  
Total Number of Impacted Employees- Job Losses by Region**

	Employed Population	Number of Impacted Employees (\$10.10)*	Minimum Employment Loss (\$10.10)	Maximum Employment Loss (\$10.10)
Appleton, WI	115,480	20,569	512	2,318
Eau Claire, WI	78,840	16,659	404	1,828
Fond du Lac, WI	45,010	8,552	215	975
Green Bay, WI	164,630	27,647	705	3,192
Janesville, WI	60,980	12,196	304	1,375
La Crosse, WI-MN	73,490	14,576	364	1,647
Madison, WI	342,930	45,286	1,182	5,356
Milwaukee-Waukesha-West Allis, WI	814,120	126,243	3,207	14,528
Oshkosh-Neenah, WI	91,970	15,852	407	1,844
Racine, WI	74,250	13,783	343	1,553
Sheboygan, WI	55,490	10,464	262	1,187
Wausau, WI	65,330	10,711	275	1,245
Eastern Wisconsin Non Metro	157,620	27,789	696	3,151
West Central Wisconsin Non Metro	174,550	31,916	798	3,613
South Central Wisconsin Non Metro	139,240	31,032	747	3,382
Southwestern Wisconsin Non Metro	65,350	12,076	301	1,364
Northern Wisconsin Non Metro	69,880	16,351	389	1,762

\* Includes individuals who would experience either a wage gain or a job loss

**Table 6**  
**Total Number of Impacted Employees -Job Losses By Industry**

	Employed Population	Number of Impacted Employees (\$10.10)*	Minimum Employment Loss (\$10.10)	Maximum Employment Loss (\$10.10)
Food Preparation and Serving	229,490	139,867	3,609	16,348
Sales	266,280	84,831	2,186	9,901
Office and Administrative Support	419,010	53,021	1,311	5,940
Personal Care and Service	108,580	43,692	1,011	4,578
Transportation and Material Moving	208,530	39,720	971	4,399
Production	307,190	28,594	738	3,343
Building and Grounds/Cleaning and Maintenance	82,260	27,549	674	3,053
Education, Training, and Library	154,210	10,594	283	1,284
Healthcare Support	51,390	8,072	206	934
Protective Service	80,340	8,030	199	903
Installation, Maintenance, and Repair	100,900	5,644	155	702
Healthcare Practitioners and Technical	155,260	4,775	149	674
Arts, Design, Entertainment, Sports, and Media	33,370	4,528	121	547
Business and Financial Operations	85,470	3,853	116	526
Construction and Extraction	123,240	3,683	110	496
Management	32,750	2,250	79	359
Community and Social Service	119,510	2,210	60	273
Computer and Mathematical	62,150	1,344	46	208
Architecture and Engineering	47,010	1,022	35	158
Life, Physical and Social Science	4,520	859	21	96
Farming, Fishing, and Forestry	20,660	703	21	94
Legal	12,730	370	12	53

\* Includes individuals who would experience either a wage gain or a job loss

# Other Negative Consequences of Raising the Minimum Wage

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Weighing the job loss from a minimum wage increase against the wage gains for workers who keep their jobs and get a boost in wages is not the only tradeoff to consider. Even if we thought of losing thousands of jobs as a “small” cost relative to wage gains (which we do not), raising the minimum wage comes with a host of other issues that should be considered.

A major concern is who will ultimately pay for the wage increase. Rhetoric from minimum wage supporters is often that they want “big business” to pay, but evidence shows that this is unlikely to be the case. Any cost increase for a company is effectively paid by consumers in the form of higher prices, by the owners in the form of lower profits, and by workers, either via fewer jobs or other costs elsewhere, such as fewer benefits. How costs get divided among the three depends on the vagaries of the labor market and the product market.

Economists have researched what businesses do (besides cut jobs) in response to a minimum wage, and they find that approximately 40% of the cost increase is passed on to customers in the form of higher prices. As a result, if the minimum wage were to be raised, much of the cost would be shifted to consumers who purchase goods and services made by minimum wage workers. A glance at the customer demographic of many low-wage paying employers suggests that these establishments are not filled with CEOs and top corporate executives. At best, these costs would be shifted onto the middle class, and at worst pushed right back on other low-wage earners, which partially defeats the policy goal of helping the low-income earners.

Attempting to force businesses to bear the burden of social policy has other negative consequences for workers, and some may cause longer-term problems. As we have noted, more than half of all minimum wage earners are young, between the ages of 16 and 24. Job loss or destroying job creation for this group could have damaging consequences for building skills that help in future work force development. Young workers may lose out on acquiring the type of skills and lessons that part-time employment offers.

The long-term consequences of minimum-wage-induced job loss for older workers may be even more severe. Evidence shows that losing a job in one year causes wage declines for workers as far out as six years into the future, and that this wage loss can be as much as 25% of prior earnings. Economists have even linked job loss by older workers to higher short-term mortality rates and reduced life expectancy.

# How to Help the Working Poor and Expand Job Opportunities

Supporters of increasing the minimum wage often cite a desire to help the working poor as motivation for the policy. We do not dispute the nobility of this goal, but our arguments above illuminate why the minimum wage is not the policy that best matches with this goal. We believe a more effective way to achieve that goal is via the Earned Income Tax Credit. Both the U.S. and state governments already have an EITC in place, and legislators would do well to expand its reach to improve the lives of the working poor.

The appeal of the EITC is that it offers the working poor a wage bump — just like the minimum wage — but while expanding employment opportunities for lower-income workers. The key to the EITC is that instead of putting more burden of labor costs on the industry — which is how the minimum wage functions — it boosts take-home pay, typically through a wage “match.” For example, a worker who earns \$8 an hour and receives a 25% EITC match would effectively take home \$10 per hour.

The EITC is a job creator because it allows businesses to pass along some of the costs of employing workers to the government so they are willing to hire more workers and have their current staffs work more hours. And the policy not only boosts take-home pay but also creates more job opportunities and work hours.

Besides effectively creating jobs — the opposite of a minimum wage — the EITC can be easily targeted to the truly needy, unlike the minimum wage. While most people agree that there’s an inherent value in subsidizing the wages of a single mother in the labor market, few people see the need to do so for a suburban teen living with her parents. The government typically administers the EITC through the income tax code, where the generosity of the policy can be based on any number of factors that are relevant: family income (rather than individual income), number of dependent children, financial hardship or marital status.

Any serious anti-poverty policy has to start with creating jobs or it simply will not reach the neediest citizens. Census statistics show that less than 1% of full-time workers in Wisconsin earn below the poverty level. Furthermore, only 17% of families living in poverty have an adult working a full-time job, while only 62% have an adult working at all. Many of the part-time workers are single mothers, the primary beneficiaries of Wisconsin’s EITC. Raising the minimum wage is necessarily only targeted to those who already work, many of whom are not living in poverty to begin with. The EITC — unlike a minimum wage hike that would destroy jobs — offers the benefit of expanding rather than diminishing job opportunities for the nonworking poor.

By expanding jobs and targeting the neediest citizens, expanding the EITC offers pay increases to the people who would be most likely to lose a job under a minimum wage increase. The EITC also helps these workers to build experience, gives them an incentive to file taxes, and even saves government costs in other areas by reducing the need for other social spending programs. Furthermore, workers who have success and climb the employment ladder are phased out of needing the EITC, which helps grow tax revenues in the future for other uses.

If the EITC is the unalloyed good we make it out to be, why is it not being used more aggressively to combat poverty? It’s because the government, whether it be the feds or the state, has to pay for the EITC. In Wisconsin, some workers at the lower end of the economic spectrum receive an Earned Income Tax Credit that lowers their tax liability, and those who have little or no income tax liability receive a check to cover their share of the EITC. In either case, it represents a real cost to the state’s government, which must either raise taxes, borrow more money, or cut spending somewhere else in the budget to pay for it. Given the precarious nature of government budgets, it’s always much easier politically to enact a policy that is borne indirectly by workers, employers and consumers and thus obviates the need for a serious consideration as to the costs and benefits of the policy at hand.

And that brings up a problem with the EITC as it is currently constructed. The amount of the credit falls off somewhat sharply as income goes up, with the result being that the implicit tax rate (combining payroll taxes, state taxes, federal taxes and the commensurate reduction of EITC benefits) facing a family receiving the credit can be in the vicinity of 50%, or higher than the effective tax rates almost anywhere else along the income distribution. University of Chicago economist Casey Mulligan argues that the steep drop-off — along with the potential loss of food stamps and Medicaid assistance — discourages people earning just above the minimum wage from pursuing full-time employment: Why would someone choose to work an additional 10 or 20 hours a week if it results in relatively little additional compensation?

One way to address this problem would be for the EITC to phase out more gradually. The only complication of this solution — from a political perspective — is that families would still be receiving benefits at higher income levels than today’s cutoff, which is just over \$50,000 for a family of four. We argue that increases in benefits for families in the \$50,000 to \$60,000 income cohort is a modest price to pay to provide a much stronger work incentive for the rest of the beneficiaries.

# Conclusion

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While Wisconsin has done a better job than most states of coming to grips with the future pension and health care costs of its employees, it still faces considerable budget pressures there and throughout the rest of its budget. For the federal government the budget situation is considerably more dire.

In this environment, it is perfectly understandable why politicians who want to help the working poor would seek to do so by having someone other than the government pay for such assistance, and the minimum wage can appear to be a seductively cheap way to do so. But the minimum wage is by no means costless. The higher wages cost businesses and consumers and result in fewer people working, which translates to more dislocation and more government assistance in the short run. In the long run, fewer jobs for youth would have more severe consequences. The more difficult we make it for teens to get their feet on the first rung of the job ladder, where they learn the basics of the workaday world (such as showing up on time, being ready to do new tasks in a pinch, for starters) the tougher it will be for them to work their way up the ladder later on in life.

Several states, such as Oregon and Minnesota, have recently worked to improve their own Earned Income Tax Credit, again to ensure that it does a better job of encouraging low-income parents to enter and remain in the work force.

To be sure, improving the EITC at either a state or federal level will cost taxpayers more money. But a \$10.10 an hour minimum wage could cost tens of thousands of Wisconsin workers their jobs. At least 450,000 workers in Wisconsin would be affected by a \$10.10 an hour minimum wage, and our data suggest that somewhere between 2.5 and 12% of them would be out of a job if such a minimum wage were implemented. That's 13,000 to 54,000 workers. The nonpartisan Congressional Budget Office estimates that as many as 1 million workers would lose their jobs nationwide with a \$10.10 minimum wage.

Ultimately, to boost the income of low-skilled workers, we need to boost their skills. But in the meantime, merely mandating that they get paid more is a facile solution to the problem of poverty in America that hurts many of the people such a law ostensibly should help. It's time we had a more honest accounting of the cost of the minimum wage and the rest of our anti-poverty programs and decide how society can best allocate its resources in both the short run and the long run to address this problem.

# Appendix — Imputing the Wage Distribution and Estimating Job Loss

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Our general methodology for estimating the number of employees impacted by minimum wage increases and subsequent job losses follows the Congressional Budget Office Report (2014) with deviations from the CBO work described by Andrew Hanson and Zackary Hawley in the forthcoming “The \$10.10 Minimum Wage Proposal: An Evaluation Across States” in the *Journal of Labor Research*.

Our methodology starts by using data on the wage distribution across industries and geographies in Wisconsin that come from the federal Bureau of Labor Statistics’ Occupational Employment Statistics output. The BLS data detail the wage distribution for all metropolitan areas and for clusters of nonmetropolitan areas in the state, as well as by industry at the state level. The BLS offers information about the 10th, 25th, median, 75th, and 90th percentile for each area and each industry type. The metropolitan and nonmetropolitan areas of Wisconsin are defined by groups of counties as in Table 7 of the Appendix. Note that Kenosha, St. Croix, Pierce, and Douglas counties are excluded from the geographic results because they are part of an out-of-state metropolitan area. This causes a small discrepancy between our geographic results and industry level results.

To estimate the number of employees impacted under a \$10.10 minimum wage and a \$9 minimum wage option, we first recognize that these policies are unlikely to be implemented immediately. The federal proposal analyzed by the CBO is to implement the \$10.10 minimum wage by 2016. We use this as a basis for our estimates for both potential policy changes. This means that we have to bring each future wage increase into today’s dollars, as wages are expected to grow between now and the implementation date. To do this we use the consumer price index, which estimates annual inflation in the most recent quarter at 2.1%. This deflates the future wage increases into today’s dollars of \$9.68 and \$8.63, respectively.

We then take these wages and estimate where they fall in the current wage distribution across industries and areas of Wisconsin. To do this, we first impute the entire wage distribution from the BLS data. We start by assuming that no workers are paid less than the current minimum wage of \$7.25 per hour. Then we use a linear imputation to fill in the distribution between known points. This imputation assumes that between known points of the distribution, wages grow at a constant dollar amount for

each percent of the population. We calculate the constant amount using the following formula:

$$g = (P - I) / N$$

N is the number of percentiles between P (the known value at the end of that piece of the distribution) and I (the known value at the beginning of that piece of the distribution). We then add g to the initial wage rate to impute a value for each percentile of the distribution up to the next known value. With the full distribution in hand, we observe where the proposed minimum wage falls to reveal the percentage of employees in each area or industry that would be affected by the new policy. Rather than give a range for this estimate, we impute the distribution to the second decimal place and offer a point estimate for each area.

Estimating job loss from increasing the minimum wage requires an estimate of elasticity of labor demand with respect to changes in the minimum wage. This parameter shows the behavioral response employers are likely to have in terms of cutting jobs if the minimum wage is increased. Hanson and Hawley summarize the vast academic literature on this topic. Considering the work force mix in Wisconsin relative to the nation as a whole, we use a slightly larger labor demand elasticity for our estimates here, between -0.17 and -0.77. These values are well within the range of most empirical studies, and far below the top end of the range (some studies show values as large as -4.6).

We apply this elasticity estimate to the imputed wage distribution across industries and areas in Wisconsin to come up with job loss estimates. Importantly, we estimate both the percentage change in wage and job loss for each percentile of the distribution. This is necessary because each percentile of the distribution will experience a different percentage change in wage, and thus different amounts of job loss. It follows that while the very lowest-earning workers would experience the largest gains in wage under a minimum wage increase, they are therefore also the most likely to experience job loss.

Hanson and Hawley perform several robustness checks to this methodology including using an alternative imputation method for finding the full wage distribution, an alternative inflation measure, and an alternative labor demand elasticity. Results are most sensitive to using an alternative labor demand elasticity, with larger elasticities

showing proportionally larger job losses. While the chosen elasticity for this work is based on our view of the most reliable empirical work, we note that this particular parameter is subject to intense scrutiny in the academic literature.

**Appendix Table 7:  
Counties Included in Metro and Non-Metro Areas of Wisconsin**

<b>Metro Areas</b>	<b>Non-Metro Areas</b>
<b>Appleton:</b> Calumet; Outagamie	<b>Eastern Wisconsin:</b> Dodge; Jefferson; Manitowoc; Marinette; Walworth
<b>Eau Claire:</b> Chippewa; Eau Claire	<b>West Central Wisconsin:</b> Barron; Burnett; Clark; Lincoln; Polk; Portage; Price; Rusk; Taylor; Trempealeau; Washburn; Wood
<b>Fond Du Lac:</b> Fond du Lac	<b>South Central Wisconsin:</b> Adams; Grant; Green; Green Lake; Juneau; Lafayette; Marquette; Richland; Sauk; Shawano; Waupaca; Waushara;
<b>Green Bay:</b> Brown; Kewaunee; Oconto	<b>Southwestern Wisconsin:</b> Buffalo; Crawford; Dunn; Jackson; Monroe; Pepin; Vernon
<b>Janesville:</b> Rock	<b>Northern Wisconsin:</b> Ashland; Bayfield; Door; Florence; Forest; Iron; Langlade; Menominee; Oneida; Sawyer; Vilas
<b>La Crosse:</b> La Crosse; Houston County, MN	
<b>Madison:</b> Columbia; Dane; Iowa	
<b>Milwaukee-Waukesha-West Allis:</b> Milwaukee; Ozaukee; Washington; Waukesha	
<b>Oshkosh-Neenah:</b> Winnebago	
<b>Racine:</b> Racine	
<b>Sheboygan:</b> Sheboygan	
<b>Wausau:</b> Marathon	

Notes: Kenosha County is considered part of the Chicago Metropolitan area and excluded from this analysis. St Croix and Pierce counties are considered part of the Minneapolis/St. Paul Metropolitan area and excluded from this analysis. Douglas County is considered part of the Duluth Metropolitan area and excluded from this analysis.

## About the Authors

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