WRITTEN EVIDENCE TO THE VERMONT SENATE ECONOMIC COMMITTEE ON $15 MINIMUM WAGE

Ryan Bourne, Cato Institute. 02/02/2019

My name is Ryan Bourne. I occupy the chair for the Public Understanding of Economics at the Cato Institute, a think-tank based in Washington DC.

I have written extensively on the academic literature on minimum wages, trying to distill what economists know about their effects and the policy implications, in both the U.K.[1] and the U.S.[2]

I testify to oppose increasing the Vermont minimum wage from the current $10.78 per hour to $15.00 per hour by 2024. My testimony draws on theory and evidence that is largely not Vermont-specific, but transferable from the broader debate around the "Fight for $15," including recent Congressional proposals for phased increases in the federal minimum wage to $15 per hour.[3]

I will emphasize three major objections to the $15 Vermont minimum wage plan:

1) Advocates' reasoning for why the rate should be increased to $15 an hour are often not well grounded in economics;
2) Good evidence suggests that high minimum wage rates risk reducing the job opportunities and working hours available to low-wage workers, particularly the young and unskilled;
3) Minimum wage increases to high levels are particularly risky given current trends towards automation.

The rationale for minimum wage hikes

Theoretically, a minimum wage hike can improve the functioning of a labor market when employers are "monopsonistic."[4] When firms have significant labor market power over employees, raising a wage floor can increase both pay for workers and employment levels. Some economists have argued that most firms do have a degree of monopsony power over their employees.[5] This suggests a modest minimum wage can, in some cases, actually improve economic efficiency, ending "exploitative" low wage rates without reducing employment.

But those advocating minimum wage hikes across America today do not use this economic line of argument, probably with good reason. Bureau of Labor Statistics data shows 84 percent of employees paid at or below the federal minimum wage work for businesses in retail, leisure and hospitality, and education and health services.[6] These industries do not tend to be characterized by powerful companies who dominate local labor markets. The theoretical economic case for economy-improving minimum wage hikes is therefore weak.

Instead, proponents of higher minimum wages assert that legislation should deliver some target level for minimum hourly wages to fulfill other objectives.

Ideas for what objective should determine the rate differ across $15 wage proponents. Some implicitly argue that minimum wages should be set to cover certain essential living costs. Democrat Presidential primary candidate Elizabeth Warren, for example, recently claimed:

> "When I was a kid, a minimum wage job in America would support a family of three. It would pay a mortgage, keep the utilities on and put food on the table. Today, a minimum-wage job in America will not keep a mama and a baby out of poverty."[7]

Others prefer different metrics. In testimony to this committee, David Cooper, of the Economic Policy Institute, documented extensively how current minimum wage rates had not "kept up" with average wages or economy-wide productivity levels, and provide incomes for full-time workers below various poverty thresholds.

None of these claims are disputable as facts. But those metrics are not appropriate for judging what the Vermont minimum wage should be. Devoid of broader context, they are misleading and might lead to damaging policy conclusions.

***Cost of living*:** It's important to remember that employers pay employees for the perceived value of the work undertaken, not to compensate workers for their rent, food, energy, transport, clothes or child-care bills (which will differ hugely by family and are beyond employers' control).

High living costs are a very under-discussed cause of economic hardship. My own research has found typical poor American households face higher prices on essential good and services due to misguided interventions and regulations that cost them between $800 and $3,500 in total per year.[8]

Rather than tackle the causes of these high prices, minimum wage hike campaigners want businesses to bear the cost of compensating workers for their living expenses. This is not economically sensible. Putting the full burden of the cost of living on shareholders and customers, divorcing pay rates from the work employees undertake, market conditions, or firms' ability to pay, could risk a significant diminution in low wage job opportunities.

Productivity: Economy-wide labor productivity has risen faster than minimum wage rates over the last fifty years. Given productivity changes should affect worker total compensation levels, $15 wage campaigners imply that minimum wage workers are being paid below what their productivity commands.

But comparing productivity gains of *all* workers to speculate what hourly wage rates should be for *minimum wage workers* alone is misguided. After all, different industries experience different productivity growth rates over time.

Sadly, a productivity growth series solely for minimum wage workers is not available. But long-term data for the food services industry might be a reasonable proxy. Bureau of Labor Statistics data shows that from 1987 to 2017, labor productivity in the food service sector rose by an average of just 0.4 percent per year (with unit labor costs increasing by 3.2 percent per year).[9] If the minimum wage had been pegged to this

productivity measure, it would have increased by 13 percent in real terms – from $7.16[10] in 1987 (2017 dollars) to $8.06 in 2017.

The actual 2017 federal minimum was, of course, $7.25 in 2017 and the Vermont minimum wage $10. Using this productivity series and start date then, the Vermont minimum wage is now higher than justified by food service productivity improvements since 1987.

This does not prove that Vermont minimum wage rate increases have exceeded the productivity growth of all minimum wage employees, nor does it tell us what the minimum age should be. But it does show the danger of making spurious comparisons between economy-wide productivity and minimum wage rates. Pegging minimum wage rates to aggregate productivity trends might lead us to deliver much higher wage floors than justified by the productivity of workers in certain sectors, causing significant job losses or other adjustments.

Poverty: A stated ambition of $15 minimum wage advocates is to lift households above poverty thresholds. Minimum wage hikes can achieve this by raising incomes for minimum wage earners. Yet poverty is measured at the household level. The very reason why minimum wages were not used as a primary tool to reduce poverty for *households* in recent decades is that they were not considered particularly well targeted or effective.

First, people who earn around the minimum wage are often not from poor households. In 2014, the economist Joseph Sabia estimated just 13 percent of workers on hourly rates between $7.25 and $10.10 lived in households below the poverty line.[11] Many people earning around the current minimum wage are second earners (particularly part-time) or young people who live in households with parents not in poverty.[12] Second, minimum wage hikes could have adverse consequences on employment prospects by raising business costs (as I will discuss later).

That's why economists have long concluded that in-work income transfers to families with children through programs such as the earned income tax credit (EITC) are *better targeted* at reducing poverty. Many believe they are preferable to minimum wages as a poverty reduction policy, because they *encourage* work while boosting incomes of poor households, rather than *discouraging* employers from hiring.[13]

Yet poverty thresholds themselves ignore the EITC and other transfers that have expanded in recent decades. Comparing the income for a full-time minimum wage earner to poverty thresholds is therefore very misleading on the living standards many households actually enjoy.[14]

Summary: The metrics that $15 minimum wage advocates use to make the case for substantial minimum wage hikes are not economically sensible benchmarks. Living costs are unrelated to firms' ability to pay or the value of work undertaken. Economy-wide productivity growth can be a poor guide to productivity trends for minimum wage workers. And comparing incomes from working full-time on minimum wage to existing poverty thresholds ignores the role of other anti-poverty programs and the fact that many minimum wage earners are not poor.

How should you judge the wisdom of minimum wage hikes?

Policy debates on minimum wages are really about a simple trade-off. Changing the legislated minimum wage affects both:

1) the incomes of minimum wage workers who maintain their jobs and hours
2) the number of jobs and hours of work employers demand, and broader working conditions, due to the change in business costs.

Standard economics tells us that, in most cases, raising the minimum wage will boost 1) and reduce 2). What becomes crucial then is considering the potential size of these two effects and judging their relative importance. The first requires drawing on economic evidence. The latter is more a question of philosophy.

One judgment – "the libertarian way" - would prioritize allowing free contract between employers and employees as a right. This would suggest no minimum wage, irrespective of what this meant for incomes or labor demand.

Another approach - the "careful consequentialist" - might impose a "cautious" minimum wage. This could use an expert body to try (albeit imperfectly) to raise the minimum wage to the point just below which clear and substantive negative effects on jobs or hours become observable (recognizing even then that minimum wages would create winners and losers between groups).

A final approach – let's call it "the low wage champion" - might set the minimum wage to some arbitrary politically-defined level, accepting damaging effects on labor market opportunities or working conditions for some groups, but considering this a price worth paying to achieve higher incomes for others. This is how I consider the Fight for $15 campaign, yet campaigners deny the trade-offs their policy would entail.

Summary: Minimum wage debates should focus on the impacts of wage increases on incomes, job opportunities and the broader labor market. How you trade-off any apparent positive effects against negative consequences is a value judgment.

Evidence on labor market consequences of modest minimum wage increases

Economists are divided on the wisdom of minimum wage hikes. The past two decades have seen substantial back-and-forth on whether minimum wage hikes cause a significant fall in labor demand, reducing the number of jobs or hours worked. Economists differ too on the value judgment of whether we should accept job losses for some groups to increase pay for others.

A detailed analysis that I wrote for Regulation magazine in 2017 on this debate is attached. Some important conclusions can be summarized:

1) The majority of published papers find *modest* minimum wage increases generate s*mall but statistically significant negative effects on employment opportunities or hours worked – often through reduced hiring rather than direct layoffs*. Very few studies find a positive effect, suggesting there is not often a free lunch from raising the minimum wage.[15]

2) Economists still think that the level of the minimum wage, and the health of the economy it's being implemented in, matters. In other words, the assessed effects of raising the minimum wage to $10 in New York do not inform us about the wisdom of introducing a $20 minimum wage rate in Wyoming.

3) Differing results are largely driven by different research methodologies.[16] Studies comparing areas experiencing minimum wage hikes with close geographic control areas, or papers that proxy for minimum wage sectors by examining restaurants or fast-food stores, tend to find smaller negative effects on employment.[17] Those controlling for other shocks, using longer time periods or more advanced estimation methods, tend to find larger negative effects.[18]

4) Certain demographic groups, particularly low-skilled workers and teenagers, tend to suffer the worse of employment or hour losses when minimum wages are increased.[19] This suggests that when the minimum wage is raised, there is a degree of labor-for-labor substitution in favor of older and more experienced workers.

The division of economic views on the minimum wage can be seen from the results of two IGM surveys of top economists undertaken in 2013 and 2015.

In the 2013 survey, economists' weighted answer split 40 percent to 38 percent agree-to-disagree on whether increasing the federal minimum wage to $9 would make it noticeably harder for low-skilled workers to find employment (22 percent were uncertain).[20]

In the 2015 survey, the economists were asked whether "the employment rate for low-wage US workers will be substantially lower" if the federal minimum wage was increased gradually to $15 an hour by 2020.[21] Again, more agreed (34 percent) than disagreed (29 percent), with 37 percent uncertain. But many of those uncertain or who disagreed noted that such a high wage could have big impacts on businesses in low productivity rural areas and significantly reduce job opportunities for teenagers.

Recent research results from Germany are instructive of the median view of academic studies in judging the broad effects of modest minimum wages.[22] Germany did not have a minimum wage prior to 2015, but introduced one at €8.50 ($9.67 today) rising to €8.84 in 2017. Studies there have found a small but negative effect on employment (up to 260,000 fewer jobs), driven by reduced hiring (not layoffs) and a reduction of casual, part-time and atypical employment. All studies have found a negative effect on hours worked and training. As a result, although hourly wages have increased, the reduction in hours worked means gross monthly earnings do not appear to have increased significantly for low-paid employees, making the minimum wage a disappointing poverty reduction tool.

Summary: The academic literature on the employment impact of modest minimum wage hikes gives mixed results. But a majority of economists think hikes do have a small but significant negative effect on job opportunities and especially hours, and this harms low-skilled and teenage workers disproportionately. What is more, economists still believe the level of the minimum wage matters.

Evidence on labor market consequences of significant minimum wage hikes

A $15 minimum wage for Vermont will bite harder than those analyzed in most studies. Evidence from states that have increased minimum wages to high levels is therefore crucial to assess the wisdom of this proposal.

In 2014, Seattle city leaders voted to increase its minimum wage to $15 per hour by 2022 in steps.[23] Researchers at the University of Washington have used the state's unemployment insurance database to assess the impact of the first two rate increases on jobs, hours and earnings, comparing outcomes to a weighted-average of other Washington regions with similar trends prior to the ordinance.[24]

The results are striking. The increase from $9.47 to $11 in 2015 resulted in no significant change in labor market outcomes. But the increase to $13 reduced hours worked by 6.9 percent. Employers cut back on the number of low-wage employees and the hours they worked relative to the control region. So big were the measured effects on jobs and hours, that even though the minimum wage hike raised wage rates by, on average, 3.2 percent, the average low-wage worker was $74 per month *worse off*.

This study also showed why previous research may have underestimated the impact of minimum wage hikes. A rival paper found no negative effects of the minimum wage hikes in Seattle when examining food service employment.[25] The University of Washington study used its methodology to replicate examining restaurant employment alone too, and found this same result. But they found large negative effects when focusing on low-wage restaurant employment alone. This suggests Seattle's minimum wage increase shifted income from lower-wage to higher-wage restaurant workers. It also suggests examining the restaurant sector alone, as many studies do, can mask bigger economy-wide negative impacts.

This is not the only research that suggests recent wage rate hikes have reduced economic opportunities. Gopalon, Hamilton, Kalda, and Sovich examined six state level minimum wage rate hikes.[26] Their analysis tracked roughly 1 million low-wage workers using data from 2011 through 2015, concluding that establishments employing low-wage workers reduced hiring following minimum wage increases.

What about the impact on business closures? One study from Harvard Business School examined restaurants in the San Francisco Bay area as the minimum wage increased from $9.36 in 2008 to $13 in 2016.[27] It found every dollar rise in the minimum wage

increased the probability of a 3.5-star restaurant closing by 14 percent. This suggests, unsurprisingly, minimum wage hikes are more likely to affect small businesses struggling in existing markets.

Evidence from two recent studies also suggest minimum wage hikes within a state affect migration or commuting patterns: with low-skilled workers more likely to leave or avoid states with minimum wage hikes[28], or more likely to commute out of them for the purposes of work.[29] This, again, is consistent with minimum wage hikes having negative effects on employment.

There's good reason to think lessons in all these papers can be taken for Vermont. Vermont is a lower productivity economy than Seattle, so a $15 minimum wage might bite harder in terms of its effects. Private sector employment in Vermont is also weighted more heavily towards small and medium-sized businesses than in all other states except Montana and Wyoming (59.4 percent of private sector employment is in firms with up to 500 employees.)[30] The three biggest small and medium sized business industries in the state are health and social assistance, retail, and accommodation and food services.[31] These are industries federal data suggests will be strongly affected by minimum wage hikes. Given its reported shrinking population, Vermont might also think twice about a policy that evidence suggests will lead to more economic activity and people shifting out of state.

Summary: It is simply untrue to suggest that there is no evidence that substantial minimum wage hikes will result in job or hours losses. Several major studies find substantial negative effects on hours or jobs from high minimum wage rates, particularly through declines in hiring rates. The evidence from Seattle and San Francisco, and on migration between states, should serve as a warning that a $15 minimum wage for Vermont is very risky.

Other "Channels of Adjustment"

Advocates of $15 minimum wages claim there need not be lost job opportunities or hours because businesses can adjust in other ways. This is trivially true – every business affected will react differently, depending on their industry, business model, staffing practices or ability to pass increased costs onto consumers.

But adjustments are not costless. It's tempting when advocating policy to engage in motivated reasoning, claiming there are no trade-offs from minimum wage hikes and imagining everyone will benefit. In the case of increasing the minimum wage to $15, this is wishful thinking.[32]

1) **Improved productivity**

It's said firms can cope by taking steps to improve productivity to maintain profitability. But improving worker productivity is costly, unless one presumes firms currently pass up free opportunities to get more out of their workers.

Boosting productivity might require replacing inexperienced low-skilled employees with more experienced, higher productivity employees. This comes with search and turnover costs in the short-term and reduces opportunities for low-skilled workers in the longer-term. We know this can have a scarring effect on young workers, who lose entry-level job opportunities that provide basic skills and habits, including punctuality, and dealing with customers and colleagues. David Neumark and Olena Nizalova found that, even their late 20s, workers who had been exposed to high minimum wages when they were younger worked less and earned less.[33] This effect was especially strong for blacks.

"Improving productivity" might entail putting more pressure on workers to produce more, cutting their hours so they are more productive in hours they do work or cutting back on side perks and benefits. This amounts to a worsening of the work environment for employees, offsetting some of the gains from the wage increase.

There is also some evidence higher minimum wages encourage the automation of low-skilled jobs. In the past decade we have seen the proliferation of supermarket checkout machines, iPads to order food in restaurants or fast-food outlets, and the use of apps to replace human employees for checking in for flights, ordering tickets and other activities. Shake Shack in New York, preempting the minimum wage hike, trialed a largely staff-free restaurant.[34] Some fast-food outlets are even exploring the possibility of burger-making machines.

Of course, some of these trends represent pure, cost-effective free-market innovation. But continually raising the minimum wage incentivizes labor-saving capital investments, acting like a subsidy to automation. Based on data from 1980-2015, economists Grace Lordan and David Neumark found "that increasing the minimum wage decreases significantly the share of automatable employment held by low-skilled workers, and increases the likelihood that low-skilled workers in automatable jobs become nonemployed or employed in worse jobs."[35] The effects were particularly damaging for older workers previously in manufacturing jobs.

2) Firms taking the hit to profits

Some claim companies will just have to take a hit to profits. No doubt some firms will accept a worse bottom line in the short-term, and perhaps adjust their hiring plans on a forward-looking basis. Others might see a permanent fall in profitability if they are in more concentrated markets. But lower profit rates discourage firms from entering markets, or cause some existing firms to close, especially those with razor thin margins.[36] If you do not believe this, it is difficult to claim you believe in capitalism.

3) Boosts to consumer spending

$15 minimum wage proponents sometimes claim that low-paid workers' propensity to spend additional earnings means minimum wage hikes boost demand and raise the level of GDP, benefiting the broader economy.[37] But this ignores contractionary impacts from lower profits reducing investment, higher prices reducing other spending or reduced employment opportunities cutting some people's incomes. Standard economic theories suggest that, overall, increasing a price floor brings more distortions to the

economy. An overwhelming majority of economists (69% to 4%) disagree with the idea that a $15 minimum wage would substantially boost aggregate economic output.[38]

4) Reduced turnover

By raising the minimum wage rate, it is claimed, firms will benefit from reduced staff turnover, with happier and more productive employees. But if this were a net benefit to the firm, wouldn't they be raising wage rates already? That some firms do, and observe benefits, does not mean you can generalize that effect to the whole economy. It is also unclear why it is assumed reduced turnover would be good for productivity at an economy-wide level. The higher wage for low-skilled workers might reduce the incentive, on the margin, to leave the company for better positions or to seek promotion or invest in human capital, especially if there is wage compression. This could reduce economy-wide measured productivity over time.

Summary: Not all firms will adjust to higher minimum wages by cutting back the number of jobs or hours of employment. But other reactions to minimum wage hikes are not costless. There is no free lunch.

Conclusion

- Advocates for $15 minimum wages compare current rates to living costs, productivity trends, and poverty metrics to make their case for a substantial hike. But these comparisons are misleading and not a good guide to assessing what the minimum age should be.
- The key policy question entails weighing up the benefits of increased hourly rates to low-wage workers retaining jobs, against the potential costs of fewer employment opportunities, reduced working hours, or worsened working conditions.
- The literature on modest minimum wage hikes tends to find small but significant negative effects on job opportunities and hours that particularly affect teenagers and low-skilled workers. True, some papers find little to no effect on overall employment. But most economists maintain that the level of the minimum wage matters. At best, the $15 minimum wage could be dubbed "risky."
- Important studies suggest Vermont legislators should be particularly wary about raising its minimum wage to $15 an hour. Researchers looking at Seattle found large negative effects on jobs and hours on the second step of its minimum wage hike, with low-wage workers' incomes, on average, lower after the increase. Vermont's high small business employment rate and recent population shrinking should also be considered given evidence minimum wage hikes can induce small business closures and displace people and jobs to other states.
- $15 minimum wage proponents imply that firms can cope with higher labor costs by improving productivity, sacrificing profits or passing costs onto consumers. But none of these are costless decisions. And new evidence suggests that minimum wage hikes may accelerate the automation of low-skilled jobs, removing a whole layer of positions from the labor market.

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problem: to give accurate inferences, we have to assume the trends in employment in both states would have been the same absent the minimum wage hike in one. Yet what if states have been more likely to increase their minimum wages when they expected strong employment growth going forwards? In these cases, if it's new hiring that declines from this counterfactual, rather than employment falling, then the negative effects of minimum wages might not show up in state-to-state comparisons. This is exactly what the economists Jonathan Meer and Jeremy West found. They conclude that a real minimum wage increase of 10% reduces job growth by 0.3 percentage points annually. See: "Effects of The Minimum Wage on Employment Dynamics," Jonathan Meer and Jeremy West, NBER Working Paper No. 19262. January 2015. https://www.nber.org/papers/w19262

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