During the 2016 legislative session, the legislature enacted Senate Bill 1532, increasing Oregon’s minimum wage. Oregon already had a wage higher than the federal minimum wage of $7.25 per hour. Under the new law, a series of increases will occur starting July 2016, and continuing yearly until the last rate increase in July 2023. The increases won’t be uniform – they break down the state into three zones: “Standard,” “Portland Metro,” and “Non-Urban.” The three rate increase schemes can be seen below (for more information, see the Bureau of Labor and Industries minimum wage page [http://www.oregon.gov/boli/WHD/OMW/Pages/index.aspx](http://www.oregon.gov/boli/WHD/OMW/Pages/index.aspx))

<table>
<thead>
<tr>
<th>Date</th>
<th>Standard</th>
<th>Portland Metro</th>
<th>Nonurban Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>$9.25</td>
<td>$9.25</td>
<td>$9.25</td>
</tr>
<tr>
<td>July 1, 2016</td>
<td>$9.75</td>
<td>$9.75</td>
<td>$9.50</td>
</tr>
<tr>
<td>July 1, 2017</td>
<td>$10.25</td>
<td>$11.25</td>
<td>$10.00</td>
</tr>
<tr>
<td>July 1, 2018</td>
<td>$10.75</td>
<td>$12.00</td>
<td>$10.50</td>
</tr>
<tr>
<td>July 1, 2019</td>
<td>$11.25</td>
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</tr>
<tr>
<td>July 1, 2020</td>
<td>$12.00</td>
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</tr>
<tr>
<td>July 1, 2021</td>
<td>$12.75</td>
<td>$14.00</td>
<td>$12.00</td>
</tr>
<tr>
<td>July 1, 2022</td>
<td>$13.50</td>
<td>$14.75</td>
<td>$12.50</td>
</tr>
<tr>
<td>July 1, 2023</td>
<td>Adjusted annually based on the increase, if any, to the US City average Consumer Price Index for All Urban Consumers</td>
<td>$1.25 over the standard minimum wage</td>
<td>$1 less than the standard minimum wage</td>
</tr>
</tbody>
</table>

Since most of the public assistance caseloads in the statewide and regional forecasts are means-tested, an increase in the minimum wage might reduce caseloads by moving people out of poverty and ending their eligibility. However, that result is not a foregone conclusion. This section of the Regional Forecast provides a brief history of the minimum wage, as well as research on its effects. This is not designed to be a comprehensive view of all pertinent arguments or evidence concerning the minimum wage, only a broad review.

The map on the following page shows where each rate applies as of Spring 2016. The Portland Metro zone is based on the Portland Metro Urban Growth Boundary, which is revised periodically.
Minimum Wage Rate Zones
A BRIEF HISTORY OF THE MINIMUM WAGE

Oregon has a long history of embracing the minimum wage, being one of the first states to do so in 1913. The law was different from what we would think of as a minimum wage – with different minimums for different industries based on the decisions of “wage boards” and committees – and those minimums applied only to women and children. It was believed that an attempt to set a minimum wage for men would lead to legal challenges under the 14th amendment to the US Constitution (which establishes the right for individuals to “freely enter into contracts,” which would include the employer/employee relationship over wages). This was a false hope, however, and Oregon’s law was challenged almost immediately. The legal challenges finally ended in 1917, when the US Supreme Court upheld Oregon’s minimum wage law on a tie vote.

Oregon’s model became the most widely adopted in the country. But as with Oregon, the minimum wage laws in other states were attacked in the courts, and different courts responded differently, creating a hodgepodge of different applications of the Oregon model. Court challenges continued, so that by 1920 most of the 17 states with minimum wage laws found them repealed, not enforced, or rendered unworkable by court rulings.

From the beginning, economists were divided about the impact of a minimum wage. Neo-classical economists applied the basic market rules to the issue – if labor is more expensive, there will be fewer laborers because as things become more expensive they become less plentiful. This group was generally called the “marginal camp,” because they focused on the “marginal cost” of labor. More progressive economists disputed this, pointing out that labor was a necessary prerequisite for the creation of all goods and services. Generally called the “market demand camp,” these economists believed that the demand for goods and services would compel hiring regardless of the expense.

Regardless of view, there was no evidence to back up either side. There were attempts to quantify what was going on from various state and federal agencies, but with limited success. One of the more comprehensive early efforts was conducted by the US Bureau of Labor Statistics, reporting on Oregon’s law in 1915. They studied employment of women at retail stores before and after introduction of the minimum wage. They concluded that the minimum wage had no real effect on women’s employment, although they did find that stores substituted teenagers for women in unskilled jobs, because the minimum wage for teenagers was lower. However, the authors cautioned that they had too little data to draw strong conclusions, and that they could not tease apart the minimum wage effects from the effects of the recession of 1914.

The Great Depression led to the passage of the first comprehensive national minimum wage law. Inaugurated in the 1930’s, the Fair Labor Standards Act (FLSA) applied the same minimum wage to all labor equally (regardless of industry) and to both men and women. The FLSA survived court challenges, including a Supreme Court challenge.

The debate between the neo-classical marginalists and the progressive market-demand economists increased. As Neumark and Wascher point out, “one reason for the ferocity of this debate was the limited amount of serious empirical research on the effects of the minimum wage” (p21). And even when there was evidence, it was always disputed. For example, in 1946 Lester found that following implementation of the national minimum wage, employment among textile workers in the south grew at a faster rate than for wood products manufacturers in the northeast. Since the effect of the minimum wage was stronger among the garment workers (who were paid much less than wood product workers), it was a sign that the new wage structure was not inhibiting employment, but in fact might be stimulating it. This conclusion was assailed by Fritz Machlup as “nearly useless because we have no way of eliminating the simultaneous effects of several other significant variables.”

Other studies in the 1940’s seem to support the idea of labor suppression following the adoption of a minimum wage. This was found in the cottonseed industry and in textiles. In both cases, the suppression of employment due to the minimum wage occurred among unskilled workers due to the adoption of automation by employers.
In 1981 the Reagan administration convened a “Minimum Wage Study Commission” which reviewed all existing literature on the minimum wage. Their results were eventually published in the Journal of Economic Literature in 1982. That study found that the arguments both for and against the minimum wage were essentially unchanged since the FLSA was passed, despite the fact that enough time had passed to gauge the effect of the law, and despite the fact that data collection for labor statistics had improved a great deal since those arguments began. They generally found that the most enduring effect of an increase in the minimum wage was its effect on teenage employment (a 10 percent increase in the minimum wage produces a 1 to 3 percent drop in employment) and a smaller negative effect for young adults. However, for adults aged 25 and older, they could find no effect. They pointed out that the “direction of the effect on adult employment is [as] uncertain in empirical work as it is in theory.”

**Modern Minimum Wage Arguments**

Following an increase in 1981, the federal minimum wage went unchanged for a decade – the longest period of inactivity since the FSLA began. By 1989, it was calculated that the minimum wage had lost 30 percent of its buying power due to inflation. Into this vacuum, various states – Oregon included – began passing state minimum wage hikes. In 1991, when the U.S. Congress finally increased the federal minimum wage to $3.80 an hour, Oregon’s minimum wage was $4.75. Between 1991 and 2015, the federal minimum wage went up six times, whereas the Oregon minimum wage was raised 15 times. Currently, 29 states plus the District of Columbia have a higher minimum wage than the federal minimum. Different states also have different rules. Minnesota and Montana set different rates for businesses based on sales volume, while several states set a lower minimum for very small employers. Puerto Rico varies the rate depending upon the industry, similar to Oregon’s 1913 law. Recently, specific cities – including Chicago and Seattle – have instituted their own city-wide minimum wage, to combat the high cost of living in those metropolitan areas.

With all the variation between the states, opportunities to study changes in the minimum wage have multiplied. However, the challenge of isolating the minimum wage effect independently of other economic variables remains. To combat this, researchers have targeted specific groups for study. Large numbers of studies have focused on teenage employment, for example. Others have looked at specific job types – restaurant employment and retail sales have been popular targets.

With all this research activity, you would expect some definitive conclusions. But that is not the case. One illustrative example comes from an increase in the minimum wage in New Jersey in the 1990’s. Researchers David Card and Alan Krueger studied employment of over 400 fast food restaurants in New Jersey, and compared the results to employment in Philadelphia (where the minimum wage did not change). Philadelphia is immediately across the Delaware River from New Jersey, making an “apples-to-apples” comparison possible. They also compared employment changes between New Jersey restaurants that had high wages (and were unaffected by the minimum wage gain) and restaurants that paid low wages. They found that restaurant employment on the New Jersey side actually increased after the minimum wage hike, and at a faster pace than either restaurants on the Philadelphia side or the high-wage restaurants on the New Jersey side.

This result was fairly provocative given that the effect was opposite to the neo-classical marginalist prediction. However, two years after the Card and Krueger study, two other researchers – David Neumark and William Wascher – analyzed payroll records from New Jersey and Pennsylvania over the same time frame as the original study (the original study had used survey data). Neumark and Wascher reached the opposite conclusion: an increase in the minimum wage in New Jersey decreased restaurant employment. In reviewing the Neumark and Wascher results, Card and Krueger admitted that employment probably didn’t increase as a result of the minimum wage hike, but disputed the idea that it decreased employment.

Since these studies were published, Card and Krueger expanded on their ideas on the minimum wage with a book. David Neumark responded with a book as well. Not surprisingly, they lay out opposing viewpoints as to the impact of the minimum wage.

The Card and Krueger study continues to roil economists, fueled in no small part by the fact that Alan Krueger has been a part of the Obama administration,
first at the Treasury Department and then as the chair of the White House Council of Economic Advisors. Politics has always played a part in how minimum wage studies are viewed, and in what studies get funded. Neumark and Wascher were underwritten by the Employment Policy Institute, which is a pro-business group consistently against minimum wage hikes. David Card called the debate their study created a “very, very nasty spat”.

More recently, Arindrajit Dube, William Lester and Michael Reich published research that reviewed changes in state minimum wage rates all over the country, comparing employment in counties where the change occurred with counties next door in states where the minimum wage didn’t rise (much like the New Jersey/Philadelphia study of Card and Krueger). They found no evidence that raising the minimum wage harmed employment growth. They concluded that the findings of other researchers showing a negative effect was due to an inability to control for differences in the employment environment in local areas. In other words, variables unrelated to the minimum wage contributed to the apparent differences across borders.

Other economists – Jonathan Meer and Jeremy West among them – insist that minimum wage hikes do impact employment. Instead of looking at differences across different states, or looking at a state immediately before and after a rate hike, they look at longer term employment growth. They find that increases in the minimum wage reduce how fast new jobs are created. In their view, jobs are not lost as a result of a minimum wage hike, nor is there a reduction in the formation of businesses. Instead, it’s the expansion of established businesses in the future that is hurt. Their research suggests that it will be the unskilled and youngest workers who will most likely lose out due to this slowdown in employment.

Minimum Wage and Public Assistance

Large numbers of working poor families rely on public assistance. Researchers at the UC Berkeley Center for Labor Research and Education found that nationally, 61 percent of all recipients of Medicaid/CHIP, 32 percent of all TANF recipients, and 36 percent of all SNAP families are among the working poor. These are primarily minimum wage employees. The highest percentages of working families on assistance are fast food workers, child care workers, and home care workers; all industrial areas where the minimum wage predominates.

Given that public assistance is means-tested, it would seem obvious that an increase in minimum wage will reduce the size of public assistance caseloads. But like everything else in the minimum wage argument, this is not straightforward.

The Congressional Budget Office studied the effect of an increase in the minimum wage on poverty, using a simulated increase in the federal minimum wage to $10.10 per hour. Their model assumes that there will be some people whose increased income will move them out of poverty, but others who will enter poverty because their jobs will be eliminated. The authors point out that large numbers of persons who work at minimum wage jobs are not in poverty. By their estimate, 29 percent of all families with minimum wage earners live in households above 300 percent of the federal poverty level. A large portion of these workers are probably teenagers with part-time jobs who still live at home. Their final conclusion: the workers who would lose employment and enter poverty would mostly balance out those workers whose increased income would move them out of poverty. Hence, there would be only a two percent net reduction of people in poverty due to a minimum wage increase. As usual with these studies, the authors point out that the effects of the minimum wage on poverty are based on many interacting variables that are hard to anticipate.

The CBO report points out that there are different scenarios for how increasing the minimum wage would impact low-income workers:

1) The Stimulative Effect: in this scenario, an increase in the minimum wage will stimulate the economy, potentially leading to more employment. This scenario mirrors the ideas of David Card and Alan Krueger. They point out that when the working poor get more income, they spend it – unlike the wealthy and middle class – because the working poor, by definition, are living in a state of deprivation. People at higher incomes could invest or save their increased income, but the poor will buy more of the basics – food, clothing, and the like. This will stimulate the local economy, which will increase jobs.
2) The Stable Work-Force Effect: in this scenario, an increased minimum wage leads to a more stable workforce, as employees are able to better make ends meet with the same labor. This will lead to less employee turnover, increasing productivity and decreasing the high cost of training new employees to replace those who left looking for a higher wage. This could lead to an increase in employment, or at least no net decrease.

3) The Reduced Demand Effect: in this scenario, employment is reduced as a result of the increase in the minimum wage. In order to afford paying a higher wage, employers will have to increase the costs of goods and services, reducing demand. This reduction in demand is likely not uniform across all employment sectors – if the unit cost of a good is only increased a small amount to pay for the increased wages, consumers may not notice the change and demand will remain steady. Only in areas where consumer price sensitivity is high will this occur.

4) The Automation Effect: in this scenario, employers will expend capital to automate, replacing minimum wage workers who are now more expensive to employ. Employers will do this when the initial outlay of capital used to automate will be paid for by the money saved by employing fewer people.

Keep in mind that any, or all, of these scenarios could occur simultaneously, depending upon the industry.

Researchers who have focused specifically on the impact of a minimum wage hike on public assistance have (as usual) come to contradictory conclusions. For example, in a study partly funded by the right-leaning Employment Policies Institute, Joseph Sabia and Thanh Tam Nguyen found no impact of an increase in the minimum wage on the number of people on public assistance. The researchers looked at multiple years and multiple programs, including SNAP, TANF, and WICxvii. This study contradicts previous research by Rachel West and Michael Reich, which found that an increase in the minimum wage reduces SNAP enrollment. That report was financed by the progressive, pro-minimum wage Institute for Research on Labor and Employment and the Center for American Progressxviii.

The Impact of Oregon’s Minimum Wage Increase
The impact of Oregon’s minimum wage increase was analyzed in preparation of the law’s passing. The State’s Legislative Fiscal Office (LFO) released a Budget Information Report in January 2016 analyzing the impact of the minimum wage hike and the effects on state government spending. When it came to the impact of a new minimum wage on public assistance, LFO found impacts difficult to quantify, pointing out:

- Eligibility for services is based not only on wages, but on household composition and age – this is important because the larger the household, the more income necessary to move the household out of poverty and off of services;
- Client and employer reaction to the increase in the minimum wage could lead to fewer hours worked. Employers may reduce hours to minimize the impact of increased payroll costs; clients may voluntarily cut hours to keep benefits, especially in the case of Oregon Health Plan coverage;
- Many people on public assistance work only part time, reducing the possibility that an increase in the minimum wage will be enough to move them off of services;
- The impact of the minimum wage hike would be muted by the fact that large numbers of recipients have no income – this includes an estimated 65% of SNAP participants and 60% of adults on Oregon Health Plan.

For these reasons, LFO declined to estimate the impact of the minimum wage on state spending on means-tested public assistance programsxx.

The Oregon Office of Economic Analysis (OEA) addressed the general economic impact of the new minimum wage plan in their Economic and Revenue Forecast in June 2016. In it, they reach a conclusion in line with the research of Meer and West – that there will be no immediate impact from the new minimum wage, but there will be a long-term slow-down in the creation of new jobs.
It also gives credence to the idea that a minimum wage increase has a more immediate stimulative effect – at least, on income taxes, writing:

“While the impact [of the minimum wage law] is small when compared to the size of the Oregon economy, it does result in approximately 40,000 fewer jobs in 2025 than would have been the case absent the legislation. Our office is not predicting outright job losses due to the higher minimum wage, however we are expecting future growth to be slower as a result. In the near term, the higher minimum wage boosts overall state income as low-wage workers receive raises.”

Because the Office of Forecasting Research and Analysis uses the OEA employment forecast to help forecast SNAP and TANF caseloads, the expected slow-down in new jobs will be built into future forecasts. Predicting how the change in minimum wage will influence Medicaid enrollment is trickier, given that enrollment in the Oregon Health Plan is an interaction of both the economy and the health insurance market.

The complex interaction between wages, employment, poverty, and public assistance is difficult to describe and model. The Office of Economic Analysis and the State’s Legislative Fiscal Office are making good faith efforts to anticipate changes to the economy and the state’s budget as a result of the new minimum-wage law, but as this review hopefully demonstrates, the real impact on the economy is largely unknown and may be impossible to clearly detect even after implementation. The reality is that Oregon is embarking on what’s been called “one of the big economic experiments of our time” – both by making the state’s minimum wage the highest in the country, and by implementing three different minimum wage zones. We will keep an eye on this going forward, as a regional forecasting issue. But attempting to model unique impacts of the new minimum wage system, given the contradictory evidence, would be unwise, and is something this Office won’t engage in at this time.


Page 11, Oregon Economic and Revenue Forecast, June 2016, Volume XXXVI, No. 2.