

The Impacts of an Increase in the Minimum Wage

The economic impact of increasing the minimum wage has received a great deal of attention in the academic literature. The focus of research has been multi-faceted, including the examination of cross-border effects, differences across industries, interaction with the earned income tax credit, and the impact on employment (including teen employment), income, and poverty levels – with some degree of mixed results. This document is not a complete summary of the current literature, but instead provides a very brief flavor of that research, distinguishing between the short-term and long-term impacts. At a broad level, conventional theory suggests that employment is reduced in two ways. First is known as the scale effect: higher labor costs lead to greater cost for goods and services which leads to lower consumption and, thus, lower employment. Second is the substitution effect: higher low-wage labor costs redirects investment to capital and higher-skilled labor, which results in fewer net workers producing a given amount of output. These effects vary across employers in accordance with who (e.g. business owners or customers) ultimately bears the burden of the cost increase.

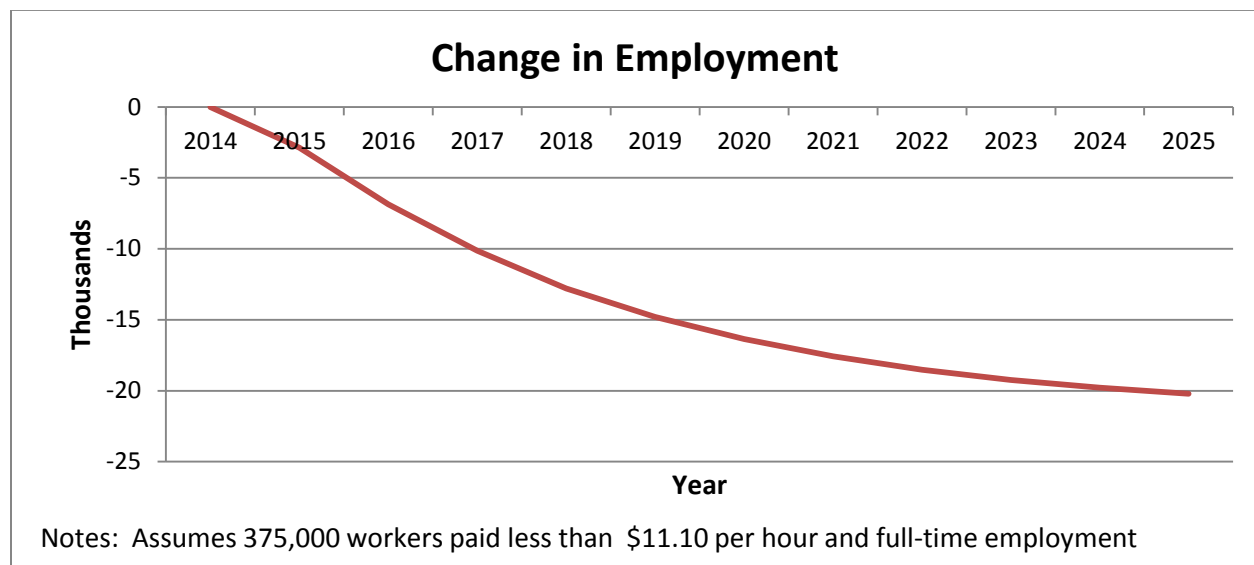
Short-term

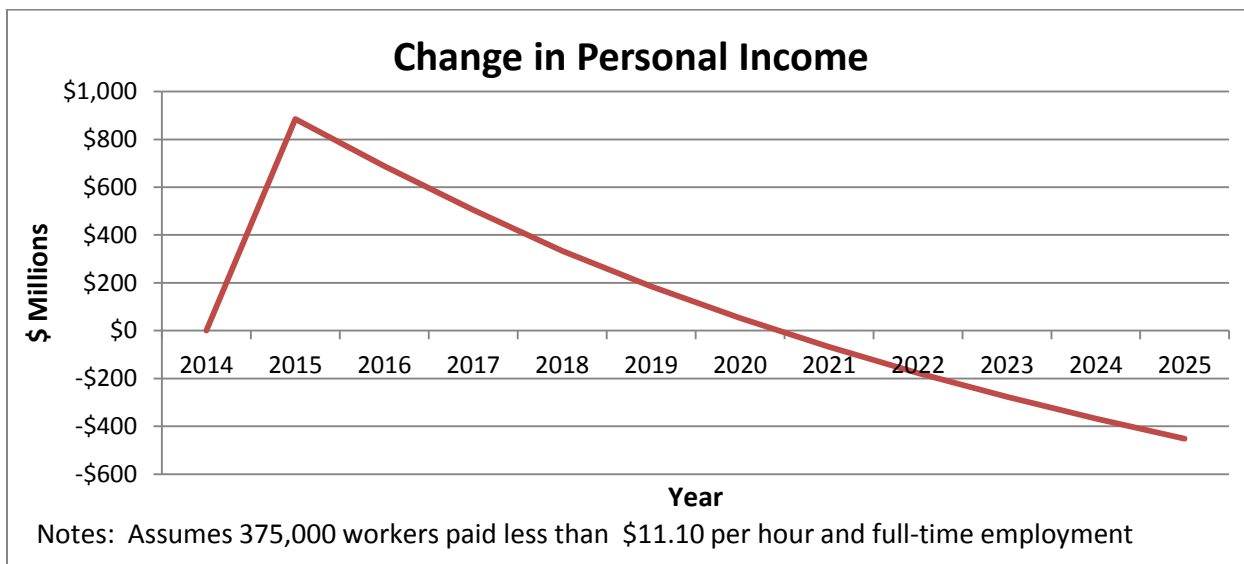
- The majority of low-income wage earners would receive higher income but some would become unemployed and experience reduced income.
- Net demand for goods and services would increase as the impact of those receiving greater income exceeds the impact of those receiving less income, leading to higher output and income.

Long-term

- The reduction in employment would reduce output and income to some extent.
- There would be a shift in investment to capital or higher-skilled labor, resulting in net employment losses.

The following two charts are the result of an initial analysis on the impact of increasing Oregon’s minimum wage from \$9.10 to \$11.10, beginning in 2015. These results are broadly consistent with the existing literature. The first year impact on employment is a statewide reduction of roughly 2,900 jobs. This impact increases through about 2025, when the long-term reduction in jobs roughly stabilizes at around 20,000, or 0.65 percent of total employment. In contrast, the impact on personal income is positive through 2020. The first year increase is \$900 million but, as job losses increase over time, that increase declines each year. By 2021, the annual income change turns negative. In the long-term, personal income is projected to fall by roughly 0.5 percent.





The following two pages provide an example of the impact of wage increases on taxes and benefits. These calculations are for a single parent with two children; the parent works 40 hours per week and has child care expenses of \$1,200 per month. Each column contains the estimates that correspond to that level of income, reflecting the relationship between wage income and benefit income. The bottom part of the table provides totals and the changes in those totals as income increases.

Taxes

These amounts are the federal and state taxes, including refundable credits. Positive numbers indicate income to the taxpayer and negative amounts represent taxes paid. For example, at the \$9.10 wage rate, the taxpayer gets a federal refund of \$167 due to the refundable portion of the child tax credit plus a refund of \$479 from the federal Earned Income Tax Credit (EITC); they owe federal payroll tax of \$121. For Oregon, they owe gross tax \$31 but with the two refundable tax credits, they receive a refund of \$328.

Benefits

These amounts are the federal benefits (except for medical) from Temporary Assistance to Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), and child care subsidies. For the income ranges included, the latter two programs are the most significant. (For TANF to take effect, monthly income must be no more than roughly \$600.) The table shows how these benefits decline as income increases.

Totals and Marginal Changes

The Totals section contains the total wage/tax income, benefit income, and net income. The Total Net Income row shows the combined effect on increasing wage income and decreasing benefit income. The Marginal Changes portion of the table shows the incremental changes as the wage rate increases. For example, as the wage rate increases from \$9.10 to \$10.10, earnings increase by \$140 (from \$2,431 to \$2,571) and benefits decline by \$103 (from \$709 to \$606). The combined effect is an increase of \$37. The loss of benefit income can be described as an ‘implicit tax’ and is also shown in the bottom row as the Effective Marginal Implicit Tax Rate.

The chart on Page 4 shows the total income picture for this example. The blue bars show wage income; the red bars show the net refundable taxes; and the green bars show benefit income. As shown in the chart, benefit income gradually declines as monthly wage income increases from \$1,577 to \$2,617. The chart also shows that the monthly income and benefits is relatively unchanged and remains between \$3,100 and \$3,200 until the wage rate reaches \$16.10.

Comparative Monthly Tax & Benefit Calculation: Family of three (1 adult, 2 children)
(Excluding Medical Benefits)

	Hourly Wage									
	<u>\$9.10</u>	<u>\$10.10</u>	<u>\$11.10</u>	<u>\$12.10</u>	<u>\$13.10</u>	<u>\$14.10</u>	<u>\$15.10</u>	<u>\$16.10</u>	<u>\$17.10</u>	<u>\$18.10</u>
Hours worked/week	40	40	40	40	40	40	40	40	40	40
Monthly Wage Income	\$1,577	\$1,750	\$1,923	\$2,097	\$2,270	\$2,443	\$2,617	\$2,790	\$2,963	\$3,137
Monthly Child Care Expenses	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Taxes										
Federal Income Tax (Excl EIC)	\$167	\$167	\$151	\$134	\$116	\$99	\$82	\$64	\$42	\$16
Federal EIC	\$479	\$458	\$407	\$369	\$334	\$297	\$260	\$224	\$187	\$151
FICA	-\$121	-\$134	-\$147	-\$160	-\$174	-\$187	-\$200	-\$213	-\$227	-\$240
Oregon Income Tax (Excl WFC/EIC)	-\$31	-\$44	-\$60	-\$75	-\$91	-\$106	-\$122	-\$138	-\$153	-\$169
Refundable Oregon WFC	\$321	\$337	\$352	\$372	\$408	\$424	\$450	\$480	\$480	\$480
Refundable Oregon EIC	\$38	\$37	\$33	\$30	\$27	\$24	\$21	\$18	\$15	\$12
Total Taxes	\$854	\$821	\$736	\$669	\$620	\$551	\$491	\$434	\$344	\$250
Benefits										
TANF	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SNAP	\$312	\$249	\$187	\$125	\$62	\$0	\$0	\$0	\$0	\$0
Child Care	\$397	\$357	\$319	\$270	\$179	\$139	\$75	\$0	\$0	\$0
Total Benefits	\$709	\$606	\$506	\$395	\$241	\$139	\$75	\$0	\$0	\$0
Totals										
Wage Income and Refundable Taxes	\$2,431	\$2,571	\$2,659	\$2,766	\$2,890	\$2,994	\$3,108	\$3,224	\$3,307	\$3,387
Benefits Income	\$709	\$606	\$506	\$395	\$241	\$139	\$75	\$0	\$0	\$0
Child Care	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200	-\$1,200
Total Net Income	\$1,940	\$1,977	\$1,965	\$1,961	\$1,931	\$1,933	\$1,983	\$2,024	\$2,107	\$2,187
Marginal Changes										
Earnings Income Change		\$140	\$88	\$107	\$124	\$104	\$113	\$117	\$83	\$80
Benefits Income Change		(\$103)	(\$100)	(\$111)	(\$154)	(\$102)	(\$64)	(\$75)	\$0	\$0
Total Net Income Change		\$37	(\$12)	(\$4)	(\$30)	\$2	\$49	\$42	\$83	\$80
Effective Marginal Implicit Tax Rate		74%	114%	103%	124%	98%	56%	64%	0%	0%

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