
IMPACTS OF INCREASING OREGON'S MINIMUM WAGE

Prepared for
Oregon Neighborhood Store Association

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Executive summary

Economics International Corp. has been retained by the Oregon Neighborhood Store Association to evaluate several proposals for steep increases to Oregon’s minimum wage. Current proposals would raise the minimum wage to \$12.00, \$13.50, or \$15.00 an hour. Our research focuses on the employment and income impacts of two of these proposed minimum wage increases. A statistical analysis finds the following impacts on Oregon employment and incomes:

	Minimum Wage Increase to:	
	\$13.50	\$15.00
Reduced employment	-55,000	-67,000
Reduced wage and salary incomes	-\$6.2 billion	-\$6.9 billion
Reduced average annual income (per worker)	-\$1,512	-\$1,515

- **Oregon has some of the worst unemployment in the U.S.** Despite recent employment gains, at 5.7 percent, Oregon has the 10th highest rate of unemployment among the states. In fact, Oregon has spent most of the past decade among the top 10 states with the highest rates of residents looking for work, but unable to get a job. A steep increase in the minimum wage will only worsen employment opportunities for Oregon job seekers.
- **Oregon has some of the worst *underemployment* in the U.S.** Since 2003, Oregon has had some of the highest rates of involuntary part-time workers—part-time workers who want a full-time job, but cannot find one. A steep increase in the minimum wage will force a larger share of Oregon’s workforce into part-time work, reducing incomes as well as many of the benefits associated with full-time employment.
- **Unemployment and underemployment are key sources of poverty.** Regulations increasing unemployment will, in turn, increase poverty. The linkage between unemployment and poverty is well known, well documented, and widely accepted—and the relationship holds for Oregon and the Portland area.

- **Proposed minimum wage increases would reduce Oregon employment by as much as 67,000.** The reduced employment would result from some workers losing their jobs and some workers being unable to find a job. Some job losses would result from business closures and consolidation. Some workers may be discouraged by reduced employment opportunities and exit the labor force.
- **Proposed minimum wage increases would reduce Oregon wage and salary incomes by as much as \$6.9 billion a year.** The reduced incomes would result from reduced employment and increased underemployment as full-time employees are shifted involuntarily to part-time work.
- **Within the State of Oregon and within the City of Portland, employment, incomes, poverty, and costs of living are unevenly distributed.** It has been argued—because of differences in employment, incomes, and poverty rates in the Portland area versus the rest of the state—Portland’s minimum wage should be higher than elsewhere in Oregon. This argument glosses over the wide range of employment opportunities, incomes, and poverty rates within the City of Portland. For example, in North/Northeast Portland, an increase in the minimum wage would be irrelevant to the Arbor Lodge neighborhood, with its combination of high incomes, low poverty, and low unemployment. At the same time, in the adjoining Portsmouth neighborhood, a steep minimum wage increase would be detrimental to the large number of unemployed residents for whom a higher minimum wage would mean almost nothing but reduced opportunities to get a job.
- **Reduced employment and smaller incomes from a steep increase in the minimum wage are likely to increase poverty.** An increase in the minimum wage will not benefit the unemployed and will worsen employment opportunities, thus contributing to a worsening poverty rate, especially in those areas with already high rates of unemployment and poverty.

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Economics International Corp. has been retained by the Oregon Neighborhood Store Association to evaluate several proposals for steep increases to Oregon's minimum wage. Current proposals would raise the minimum wage to \$12.00, \$13.50, or \$15.00 an hour. Our research focuses on the employment and income impacts of two of the minimum wage increase proposals.

Oregon already has one of the highest state minimum wages in the U.S. The state also persistently has had one of the highest unemployment rates in the U.S. In many of the past 30 years, Oregon has ranked in the top 10 states for unemployment. In addition to the state's high and regularly increasing minimum wage, several other factors explain Oregon's persistently high unemployment. For example, Oregon has a reputation for rigid and onerous employment laws and health insurance mandates that add to firms' costs of growing their workforces. In addition, Oregon has had relatively high rates of in-migration, adding to competition for employment opportunities. The additional costs of employment associated with state regulations also contribute to Oregon's lagging wage income growth relative to the U.S. as a whole.

Much of the academic empirical research supports the common sense understanding that increased minimum wages are associated with reduced

employment, with the working poor facing a disproportionate share of the job losses.¹ Studies focusing on teenage employment are relatively consistent in finding that a 10 percent increase in the minimum wage would be associated with a 1 percent to 4 percent decrease in teenage employment. Research suggests that minimum wage impacts may take a year to affect employment. For example, researchers from UCLA and the Federal Reserve Board find that employed individuals who were affected by an increase in the minimum wage are less likely to be employed a year later.²

1 Unemployment and underemployment are at the core of poverty

Oregon is tied for 10th place among states with the highest rates of unemployment and has the highest poverty rate on the west coast. This is not a coincidence because there is a clear and direct linkage between unemployment and poverty. Thus, any state policies—such as steep increases in the minimum wage—that increase unemployment are almost sure to increase poverty.

On a global level, the United Nations has explicitly identified employment as central to poverty eradication.³ The UN's Department of Economic and Social Affairs states boldly the linkage between employment and poverty:⁴

Unemployment and underemployment lie at the core of poverty.

At the national level, research from the Brookings Institution concludes that:⁵

¹ See, for example, Sabia, J. J. and Burkhauser, R. V. Minimum wages and poverty: Will a \$9.50 federal minimum wage really help the working poor? *Southern Economic Journal*, 76(3), 562–623.

² Currie, J. and Fallick, B. C. The minimum wage and the employment of youth: Evidence from the NLSY. *Journal of Human Resources*, 31(2):404–428. 1996.

³ United Nations General Assembly. The centrality of employment to poverty eradication: Report of the Secretary General. A/60/314. August 2005.

⁴ United Nations Department of Economic and Social Affairs, Social Policy and Development Division. Poverty and employment.

<http://undesadspd.org/Poverty/PovertyandEmployment.aspx>, accessed December 9, 2015.

⁵ Sawhill, Isabel V. The connection between employment and poverty rates. Brookings Institution. September 29, 2011. <http://www.brookings.edu/blogs/up-front/posts/2011/09/29-job-poverty-sawhill>, accessed December 9, 2015.

[T]he best way to decrease the poverty level in the United States is to provide job opportunities for all adults.

On the local level, in 2014, Multnomah County published a report containing an entire section on the poverty-unemployment relationship titled, "Growing poverty is linked to a decline in family-wage jobs and high levels of unemployment."⁶

Many peer-reviewed academic studies find evidence that increases in unemployment have a "substantial aggravating impact" on income inequality.⁷ Indeed, numerous studies find that increases in unemployment worsen the relative position of low-income groups.⁸ New York Times columnist and Nobel laureate Paul Krugman concludes that high unemployment "has become a major source of rising inequality and stagnating incomes."⁹

Figure 1 shows for Oregon counties the relationship between the counties' unemployment rates and the share of the counties' family poverty rates.¹⁰ The relationship shows that a three percentage point increase in unemployment is associated with a two percentage point increase in family poverty. Contrast two counties in the figure: Jefferson County's unemployment rate is 9.5 percentage points higher than Hood River County's, while Jefferson's poverty rate is 6.2 percentage points higher ($9.5 \div 6.2 = 1.5$, or a 3-to-2 ratio).

Oregon is no different from the rest of the U.S. or the rest of the world: Unemployment and lack of employment lie at the core of poverty. Indeed,

⁶ Multnomah County Department of County Human Services. *2014 Poverty in Multnomah County*. Prepared by Kristina Smock Consulting. April 2014.

⁷ Cysne, Rubens Penha. On the positive correlation between income inequality and unemployment. *Review of Economics and Statistics*, 91(1), February 2009, 218–226.

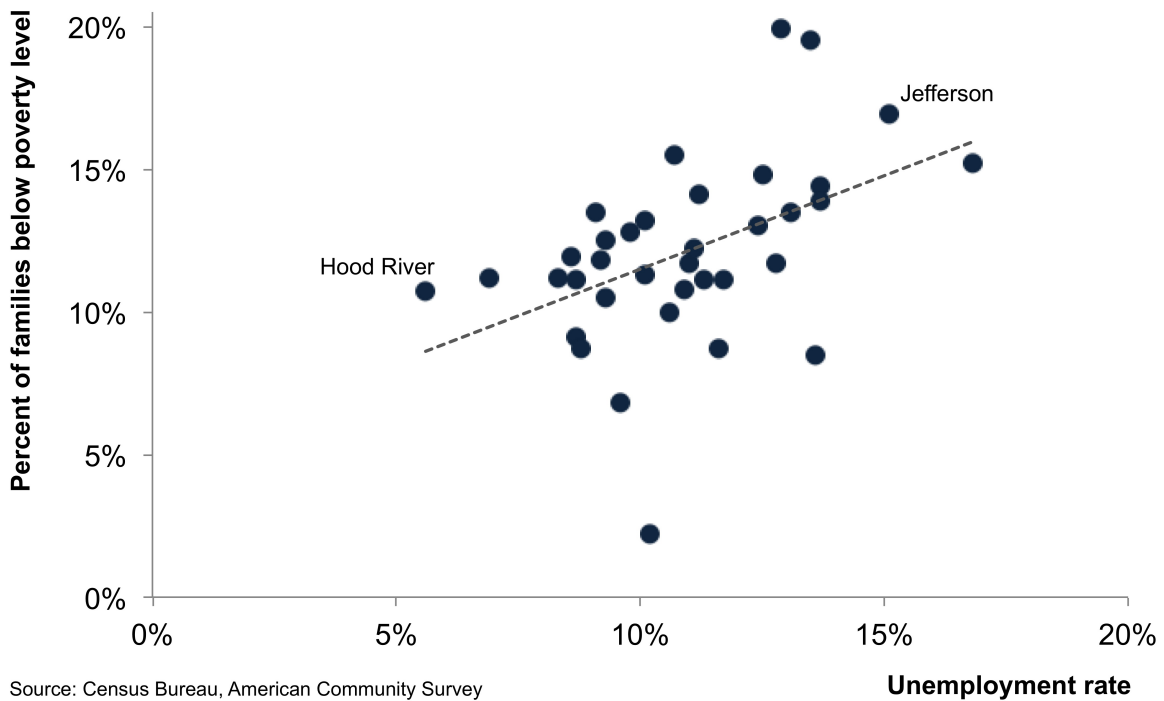
⁸ For a review of the research, see Mocan, H. Naci. Structural unemployment, cyclical unemployment, and income inequality. *Review of Economics and Statistics*, 81(1). February 1999, 122–134.

⁹ Krugman, Paul. The populist imperative. *New York Times*. January 24, 2014.

¹⁰ U.S. Census Bureau. S2301 Employment status; S1702 Poverty status in the past 12 months of families. *2014 American Community Survey 5-Year Estimates*. 2009–2014. Retrieved from <http://factfinder2.census.gov>.

Oregon's high unemployment counties are also the state's high poverty counties.¹¹

Figure 1: More unemployment, more poverty in Oregon counties



Each point represents an Oregon county. The American Community Survey reports five-year averages for poverty and unemployment (2009 through 2014) for every Oregon county. For each Oregon county, a three percentage point increase in unemployment is associated with a two percentage point increase in family poverty.

Statewide, two-thirds of those in poverty are not employed – they are either unemployed or out of the labor force.¹² In rural counties such as Curry and

¹¹ U.S. Census Bureau. S2301 Employment status; S1702 Poverty status in the past 12 months of families. *2014 American Community Survey 5-Year Estimates*. 2009-2014. Retrieved from <http://factfinder2.census.gov>.

¹² U.S. Census Bureau. B17005 Poverty status in the past 12 months of individuals by sex by employment status. *2014 American Community Survey 5-Year Estimates*. 2009-2014. Retrieved from <http://factfinder2.census.gov>.

Douglas, three-quarters of individuals in poverty are out-of-work or have given up looking for work.

1.1 Oregon has one of the highest unemployment rates in the U.S.

For much of the last year, Oregon's Office of Economic Analysis has described the state's economy as running at "full throttle."¹³ Despite recent employment gains, Oregon has the 10th highest rate of unemployment—5.7 percent—among the states. In fact, Oregon has spent most of the past decade among the top 10 states with the worst unemployment rates.¹⁴

By the U.S. Bureau of Labor Statistics definition, *unemployed* individuals want a job, but cannot get a job.¹⁵ In this way, Oregon is one of the leading states for residents who want to work, but cannot find work. If Oregon's unemployment rate was the same as the U.S. average, the state would have nearly 14,000 more Oregonians working instead of failing to find work.

In addition to Oregon's near-worst-in-the-nation unemployment rate, Oregon's labor force participation rate is lower than the U.S. rate. Even controlling for demographic factors, such as Oregon's aging population, Oregon has a lower than expected share of its population in the work force.¹⁶ A recent update presented to the U.S. Congress Joint Economic Committee reports that Oregon's labor force participation rate is in the bottom quartile of states. If Oregon's labor force participation rate was the same as the U.S. average, the state would have nearly 50,000 more Oregonians in the labor force.

¹³ "About three-quarters throttle" in Oregon Office of Economic Analysis. *Oregon Economic and Revenue Forecast*, 35(1). March 2015. "Full throttle" in each subsequent forecast. Oregon Office of Economic Analysis. *Oregon Economic and Revenue Forecast*, 35(2). May 2015, et seq.

¹⁴ U.S. Bureau of Labor Statistics. Local area unemployment statistics. January 1976–November 2015. Retrieved from <http://www.bls.gov/lau/>.

¹⁵ The Bureau of Labor Statistics defines individuals as *unemployed* if "they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work." U.S. Bureau of Labor Statistics. How the government measures unemployment. October 8, 2015. http://www.bls.gov/cps/cps_htgm.htm, accessed December 9, 2015.

¹⁶ Lehner, J. Oregon labor force participation. July 29, 2015. <http://oregoneconomicanalysis.com/2015/07/29/oregon-labor-force-participation/>, accessed December 17, 2015.

The Congressional Budget Office estimated the impacts of an increase in the federal minimum wage associated with two proposals to raise the federal minimum wage.¹⁷ Their analysis found adult employment had a wage elasticity of -0.025 ; in other words, a 10 percent increase in the minimum wage would reduce employment among adult workers by one quarter of one percent. CBO's analysis is based on an increase in the federal minimum wage. Impacts of an individual state's minimum wage are likely to be larger as many employers operate in a national labor market and can shift staffing across state lines.

1.2 Oregon has one of the highest underemployment rates in the U.S.

Underemployment describes those who are *involuntary* part-time workers. These are part-time workers who want a full-time job, but cannot find one. The Oregon Office of Economic Analysis notes that even with the sizable gains in the labor market, the state continues to suffer from a high level of underemployment.¹⁸ In fact, since 2003, Oregon has ranked in the top five of states with the worst rates of underemployment. Oregon has had *the highest* rate of underemployment in 7 of the last 13 years.

1.3 Oregon's youth employment crisis

Unemployment among Oregon youth has hit crisis levels:

- Unemployment for Oregonians age 16–19 is 8.5 percentage points higher than the U.S. average;
- Unemployment for Oregonians age 20–24 is 1.5 percentage points higher than the U.S. average.

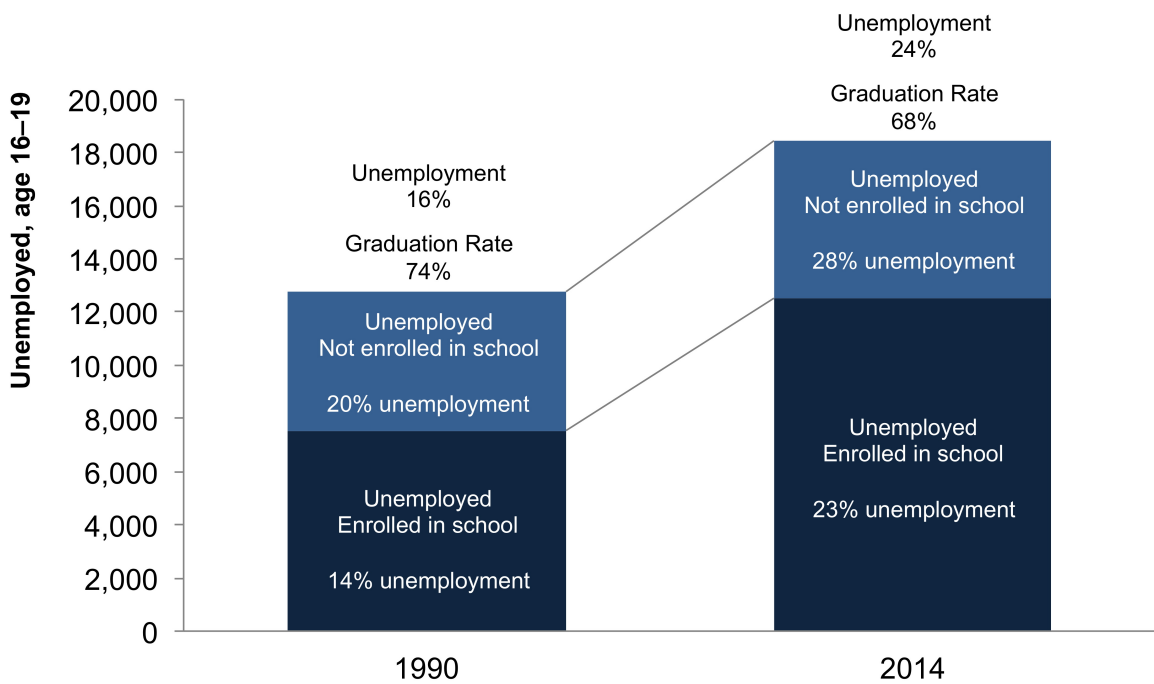
This was not always the case. In the early 1990s, Oregon's youth had roughly the same rate of unemployment as the U.S. as a whole. Then, as Oregon's

¹⁷ United State Congressional Budget Office. *The Effects of a Minimum Wage Increase on Employment and Family Income*. Pub. No. 4856. 2014.

¹⁸ Oregon Office of Economic Analysis. *Oregon Economic and Revenue Forecast*, 35(1). March 2015. "Full throttle" in each subsequent forecast. Oregon Office of Economic Analysis. *Oregon Economic and Revenue Forecast*, 35(4). December 2015.

minimum wage rose relative to the federal minimum wage, Oregon's youth unemployment worsened.

Figure 2: Unemployment has increased steeply for both students and non-students



Source: Census Bureau, 1990 Census of Population and American Community Survey

Bars show share of number of unemployed Oregonians age 16–19. Dark bars show number and share of unemployed youth that are enrolled in school. Light bars show number and share of unemployed youth that are not enrolled in school. While school enrollment has increased, Oregon's high school graduation rate has tumbled from 74 percent to 68 percent. The unemployment rate among nonstudents has increased by 8 percentage points while student unemployment has increased by 9 percentage points.

It has been suggested Oregon youth have traded education for work experience—in essence, they have opted to stay in high school or enroll in higher education instead of entering the workforce. Figure 2 shows, however, that youth unemployment has increased for both those enrolled in school and those who are not enrolled in school.

The figure also debunks the notion that education and employment are substitutes. In fact, the large number of students seeking work demonstrates Oregon youth want employment *while* they further their education.

Work experience is a key element to workforce development and individual advancement, as explained by the Oregon Workforce Investment Board:¹⁹

Growing numbers of Oregon's youth have not had access to summer employment, entry-level jobs and other learning opportunities. As a result, they have not had the opportunity to build the critical thinking, problem-solving and basic work readiness skills they need to become valued employees, advance along the career and income ladders, and become successful in life.

The Oregon Employment Department describes several ways in which youth unemployment has long-term consequences:²⁰

- The time young people spend unemployed is time not spent gaining on-the-job experience, making it harder for them to compete with experienced applicants.
- Helping teens find and be successful in their first work experiences could improve their long-term labor market outcomes.

The Oregon Employment Department points out a large share of young workers save a portion of their earnings to pay for higher education. These earnings reduce the amount borrowed to finance higher education and, in turn, reduce student debt loads.

The Congressional Budget Office estimated the impacts of an increase in the federal minimum wage associated with two proposals to raise the federal

¹⁹ Oregon Workforce Investment Board. *Oregon's Workforce Development Strategic Plan 2012–2022*. 2012.

²⁰ Oregon Employment Department. *Oregon's State Workforce Plan: A conversation [update]*. Youth summary report (with updated data). Presentation to Workforce Investment Board. May 1, 2015.

minimum wage.²¹ Their analysis found that youth employment had an elasticity of -0.075 ; in other words, a 10 percent increase in the minimum wage would reduce employment among teenage workers by three-quarters of one percent.

Research published by the National Bureau of Economic Research (NBER) finds the 30 percent increase in the average effective minimum wage over the late 2000s “reduced the national employment-to-population ratio—the share of adults with any kind of job—by 0.7 percentage point” between December 2006 and December 2012. This amounts to 14 percent of the total working-age decline during that period.²² In addition, minimum wage increases make it harder for low-income workers to climb the ladder to the middle class (emphasis added):

[W]e find that **binding minimum wage increases had significant, negative effects on the employment and income growth of targeted workers**. Lost income reflects contributions from employment declines, increased probabilities of working without pay (i.e., an “internship” effect), and lost wage growth associated with reductions in experience accumulation

We also present evidence of the minimum wage’s effects on low-skilled workers’ economic mobility. We find that **binding minimum wage increases significantly reduced the likelihood that low-skilled workers rose to what we characterize as lower middle class earnings**. This curtailment of transitions into lower middle class earnings began to emerge roughly one year following initial declines in low wage employment. Reductions in upward mobility thus appear to follow reductions in access to opportunities for accumulating work experience.

This recent paper supports earlier NBER research that found “the best evidence still points to job loss from minimum wages for very low-skilled

²¹ United State Congressional Budget Office. *The Effects of a Minimum Wage Increase on Employment and Family Income*. Pub. No. 4856. 2014.

²² Clemens, J. and Wither, M. The minimum wage and the Great Recession: Evidence of effects on the employment and income trajectories of low-skilled workers. National Bureau of Economic Research, NBER Working Paper No. 20724. 2014.

workers—in particular, for teens.”²³ In other words, reliable evidence indicates teens and other low-skilled workers are the most adversely affected by increases in the minimum wage.

2 Two Oregons, two Portlands: Poverty and prosperity

While the State of Oregon has some of the worst unemployment and poverty rates in the U.S., the distribution is uneven. For example, the employment situation in Multnomah County is better than many parts of the state but its poverty rate is worse than many other parts of the state. Within Multnomah County and within the City of Portland, employment, incomes, poverty rates, and the cost of living are unevenly distributed. For example, the American Community Survey (5-year averages, 2009–2014) reports a wide range of incomes, poverty rates, and unemployment rates within the City of Portland, as shown in Table 1.

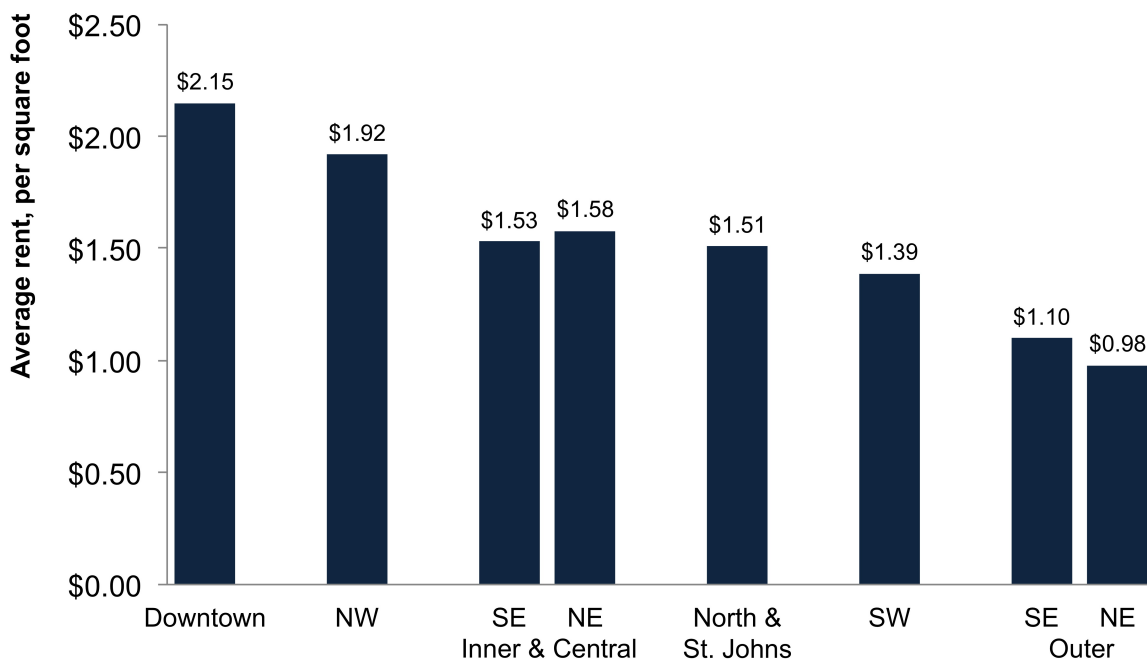
Table 1: One city, two Portlands—poverty and prosperity

	Median Household Income	Family Poverty Rate	Unemployment Rate
West side	\$76,500	6.1%	8.7%
Inner east side	\$56,000	11.4%	9.2%
Outer east side	\$48,500	19.4%	11.0%
Oregon average	\$50,500	11.5%	10.5%
U.S. average	\$53,500	11.5%	9.2%

²³ Neumark, D., Salas, J. M. I., and Wascher, W. More on recent evidence on the effects of minimum wages in the United States. National Bureau of Economic Research, NBER Working Paper No. 20619. October 2014.

Table 1 shows that Portland’s outer east side has lower incomes, higher poverty, and higher unemployment than other parts of Portland and higher than the U.S. average. It is not clear how a steep increase in the minimum wage would benefit Portland’s outer east side. An increase in the minimum wage will worsen already dismal employment opportunities for these residents. Further reductions in employment would contribute to worsening poverty in the city’s outer east side.

Figure 3: Portland rents are much lower in low income, high poverty areas



Source: PSU Center for Real Estate

Bars show average apartment rent, per square foot, for submarkets in the City of Portland for Fall 2015. Rents in the low income, high poverty areas of the city have rents that are less than half the rents of high income, low poverty areas of the city.

The relationship between higher unemployment and higher poverty is no coincidence. International, national, and regional analysis identifies the cause-and-effect relationship between unemployment and poverty. A 2014 study of

poverty in Multnomah County concluded that growing poverty is linked to high levels of unemployment.²⁴ The appendix to this report demonstrates the cause-and-effect relationship between unemployment and poverty across Oregon counties.

In addition to the wide range of income, poverty rates, and unemployment rates, the cost of living varies widely within the City of Portland. For example, rents in the low income, high poverty areas of the city, such as the outer east side, are less than half the rents of high income, low poverty areas of the city. Thus, low-income areas of the city are also low-cost-of-living areas of the city. The assertion that Portland has a higher cost of living than the rest of the state turns a blind eye to the differences in the cost of living *within* the City of Portland.

Even neighborhoods within the City of Portland have a wide range of income, poverty rates, and unemployment rates. For example, the American Community Survey (5-year averages, 2009–2014) reports huge disparities within North/Northeast Portland, as shown in Table 2 below. An increase in the minimum wage would be irrelevant to the Arbor Lodge neighborhood, with its combination of high incomes, low poverty, and low unemployment. At the same time, the extraordinarily high unemployment in the Portsmouth neighborhood adjacent to Arbor Lodge renders a minimum wage increase detrimental to the large number of residents in the neighborhood who want to work, but cannot find a job.

²⁴ Multnomah County Department of County Human Services. *2014 Poverty in Multnomah County*. Prepared by Kristina Smock Consulting. April 2014.

Table 2: Poverty and prosperity in adjoining North/Northeast Portland neighborhoods

	Median Household Income	Family Poverty Rate	Unemployment Rate
Arbor Lodge neighborhood Census tract 39.02	\$64,500	3.4%	4.1%
Portsmouth neighborhood Census tract 40.01	\$35,000	38.5%	18.8%

Table 3 shows huge disparities in Southeast Portland. An increase in the minimum wage would do nothing for the Mt. Tabor neighborhood, whose residents have a combination of high incomes, virtually nonexistent poverty, and low unemployment. At the same time, with more than one-third of Centennial neighborhood residents unable to find work and nearly one-quarter of residents in poverty, a steep increase in the minimum wage will only damage employment opportunities and worsen poverty in the neighborhood.

Table 3: Poverty and prosperity in Southeast Portland neighborhoods

	Median Household Income	Family Poverty Rate	Unemployment Rate
Mt. Tabor neighborhood Census tract 15	\$82,500	0.7%	4.1%
Centennial neighborhood Census tract 91.01	\$30,600	36.6%	22.4%

3 Impacts of a steep rise in the minimum wage

In most families with a minimum wage earner, the worker at minimum wage is not the only source or even the primary source of family income. That is one

reason why Census data report the average income for an Oregon family with a minimum wage earner is approximately \$42,000 a year, or roughly double the federal poverty level for 2014 for a family of three or four. In addition, a large portion of families in poverty have no one working. Thus, a minimum wage increase would do very little to improve the incomes of working families.

Proponents of a steep increase in Oregon's minimum wage often cite the premise that "nobody who works full-time should have to live in poverty." However, the U.S. Census Bureau reports only three percent of full time workers are below the poverty level.²⁵

Those proposing to increase the minimum wage have also pushed the notion that an increase in the minimum wage creates extra money in the economy that gets spent by wage earners who in turn spend the extra money, thereby boosting the economy. This notion misses the fact the money is not created, but diverted from elsewhere in the form of higher prices and lower incomes.

Researchers from the Federal Reserve have found that in response to a minimum wage increase, households benefitting from the increase spend more, but also take on more debt to buy durable goods—especially new cars. This provides a short-term boost that sputters out as incomes are diverted over time toward paying of the debt. The Fed researchers therefore found a minimum wage hike provides stimulus for a year or so, but "serves as a drag on the economy beyond that."²⁶

3.1 Employment impacts

Regression analysis was performed in this study evaluating the impact of the federal minimum wage and Oregon's minimum wage on the state's employment. Actual and projected employment for Oregon and the U.S. are from the Oregon Office of Economic Analysis. The office provides data from 1990 to the present and forecasts for employment to 2025. U.S. employment was

²⁵ U.S. Census Bureau. *Income and Poverty in the United States: 2014*. Current Population Reports. September 2015.

²⁶ Aronson D. and French E. How does a federal minimum wage hike affect aggregate household spending? *Chicago Fed Letter*, number 313. August 2013.

included as an independent variable to account for general economic factors that affect state-level employment.

The regression analysis indicates an employment-versus-minimum-wage elasticity of -0.07 to -0.11 , depending on the amount of the minimum wage increase. For example, a 20 percent increase in the minimum wage in Oregon would reduce employment by approximately 2 percent and a minimum wage increase of 50 percent would reduce employment by 3.5 percent. This is in line with previous research, especially in light of the expectation that state-level minimum wage increases would have a bigger impact on state employment than changes to the federal minimum wage.

The results are also in-line with Oregon Legislative Revenue Office calculations, which found that steep increases in the state's minimum wage would be associated with *reduced* employment growth in the long run.²⁷ LRO concluded that an increase of \$2.00 an hour would reduce employment in the long run by 20,000.

The statistical analysis indicates that once fully implemented, an increase in the minimum wage to \$13.50 an hour would reduce Oregon employment by approximately 55,000 and an increase to \$15.00 an hour would reduce Oregon employment by approximately 67,000.

The reduced employment would result from some workers losing their jobs and some workers being unable to find a job. Others may get discouraged by the reduced employment opportunities and exit the labor force.

In addition, a large rise in the minimum wage would trigger a "benefit cliff" in which some individuals would be better off out-of-work than they would be employed at the higher minimum wage.²⁸

Oregon's nonpartisan Legislative Revenue Office calculated for a hypothetical single parent with two children, an increase to a \$15.10 an hour minimum wage would trigger an increase in taxes and a reduction in benefits, such as food

²⁷ Oregon Legislative Revenue Office. *The Impacts of an Increase in the Minimum Wage*. July 24, 2014.

²⁸ Staver, A. Boosting minimum wage could be a net loss for some. *Statesman Journal*. November 23, 2014.

stamps. Factoring in the higher taxes and lost benefits, the net increase would be \$49 a month, or less than 30 cents an hour.²⁹ This is consistent with peer-reviewed research published in a top-tier economics journal finding that more than 20 percent of additional earnings from a minimum wage increase are taxed away as Social Security contributions and state and federal income taxes. As a result, the research concludes (emphasis added):³⁰

[t]he costs imposed by the minimum wage are paid in a way that is **more regressive than a sales tax.**

While a minimum wage increase will make some employees better off, those who lose their jobs or cannot find employment will be worse off. Indeed, it would be virtually impossible for the increased incomes associated with a steep increase in the minimum wage to offset the foregone incomes associated with reduced employment.

3.2 Wage and salary income impacts

Regression analysis was performed in this study evaluating the impact of the federal minimum wage and Oregon's minimum wage on the state's wage and salary incomes. Actual and projected incomes for Oregon and the U.S. are from the Oregon Office of Economic Analysis. The office provides data from 1990 to the present and forecasts for wage and salary incomes to 2025. U.S. wage and salary incomes were included as an independent variable to account for general economic factors that affect state-level incomes.

The regression analysis indicates a wage-and-salary-versus-minimum-wage elasticity of -0.12 to -0.23 , depending on the amount of the minimum wage increase. For example, a 20 percent increase in the minimum wage in Oregon would reduce wage and salary incomes by approximately 4.6 percent and a minimum wage increase of 50 percent would reduce wage and salary incomes by 6 percent.

²⁹ Oregon Legislative Revenue Office. *The Impacts of an Increase in the Minimum Wage*. July 24, 2014.

³⁰ MaCurdy, T. How effective is the minimum wage at supporting the poor? *Journal of Political Economy*, 123(2). April 2015.

These results are in line with previous research, especially in light of the expectation that state-level minimum wage increases would have a bigger impact on state employment than changes to the federal minimum wage.

The results are also in-line with Oregon Legislative Revenue Office calculations, which found that a steep increase in the state's minimum wage would be associated with *lower* income growth in the long run.³¹ LRO concluded that an increase of \$2.00 an hour would reduce personal income in the long run by \$450 million a year. LRO's calculations are consistent with research from the Federal Reserve that found a minimum wage hike provides stimulus for a year or so, but "serves as a drag on the economy beyond that."³²

The statistical analysis indicates that once fully implemented, an increase in the minimum wage to \$13.50 an hour would reduce Oregon wage and salary incomes by approximately \$6.2 billion and an increase to \$15.00 an hour would reduce Oregon wage and salary incomes by approximately \$6.9 billion.

The reduced wage and salary incomes would result from:

- Some workers losing their jobs, some workers being unable to find a job, and some Oregonians exiting the labor force. To the extent some businesses would close or consolidate locations, all of the employees would be displaced or otherwise affected—not just the employees working at minimum wage.
- A reduction in hours worked for some employees, with some full-time workers involuntarily transitioning to part-time work or underemployment.
- "Wage compression" in which a minimum wage increase results in newer and lesser skilled workers suddenly earning as much as employees with more skills or more experience. Research has found employers can respond to a minimum wage increase by cutting wages for other, higher-paid workers. One survey found that nearly half of employers faced with

³¹ Oregon Legislative Revenue Office. *The Impacts of an Increase in the Minimum Wage*. July 24, 2014.

³² Aronson D. and French E. How does a federal minimum wage hike affect aggregate household spending? *Chicago Fed Letter*, number 313. August 2013.

a minimum-wage hike “would delay or limit pay raises/bonuses for more experienced employees.”³³

The Congressional Budget Office found that with an increase in the federal minimum wage, the increased earnings for some workers would be accompanied by reductions in real income for the people who became jobless because of the minimum-wage increase, for business owners, and for consumers facing higher prices.³⁴

In this way, the minimum wage increase takes income from one group of Oregon workers in order to benefit another group of Oregon workers, *without increasing—and likely decreasing—total Oregon wage income*. While some employees would see a modest increase in their annual salaries, tens of thousands of Oregonians would be unable to find employment.

4 Conclusion

In spite of Oregon having one of the highest state minimum wages in the country, our state suffers from unemployment and underemployment levels that are among the worst in the nation. It is well known and widely accepted that unemployment and underemployment are core sources of poverty.

Decades of research conclude that higher mandated wage rates reduce employment. A steep increase in the minimum wage would have the worst impact on areas already suffering most from a lack of jobs, a lack of full-time jobs, and families living in poverty.

Income disparity, unemployment, and poverty do not conform to county, city, or even neighborhood boundaries. Economic conditions in Multnomah County are different from economic conditions in Washington and Clackamas counties. Economic conditions in Portland’s outer east side are significantly different from those just across 82nd Avenue; areas east of the Willamette River are different from areas on the west side.

³³ Hirsch, B. T., Kaufman, B. E., and Zelenska, T. Minimum wage channels of adjustment. Forschungsinstitut zur Zukunft der Arbeit, Discussion Paper Series No. 6132. 2011.

³⁴ United State Congressional Budget Office. *The Effects of a Minimum Wage Increase on Employment and Family Income*. Pub. No. 4856. 2014.

While some employees would undoubtedly benefit from a higher minimum wage, most if not all of these income benefits would be offset by lost wages from reductions in employment and increased underemployment, particularly among young and low-skilled workers. Workers currently having the most difficulty finding jobs today would have even worse prospects with a large increase in the minimum wage. In this way, a steep increase in the minimum wage would likely harm those Oregonians who need the most help with employment and income opportunities. ■

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Appendix: Oregon's unemployment-poverty connection

Those proposing steep increases in the minimum wage contend that such increases would substantially reduce poverty. While a minimum wage increase would lift some working poor out of poverty, many of those who lose their jobs will enter into poverty and those who cannot get a job will remain in poverty. Indeed, there is widespread agreement that unemployment and underemployment lie at the core of poverty.

Oregon is no different from the rest of the world or the rest of the U.S.—unemployment is at the core of poverty in the state, as demonstrated by evidence in this appendix.

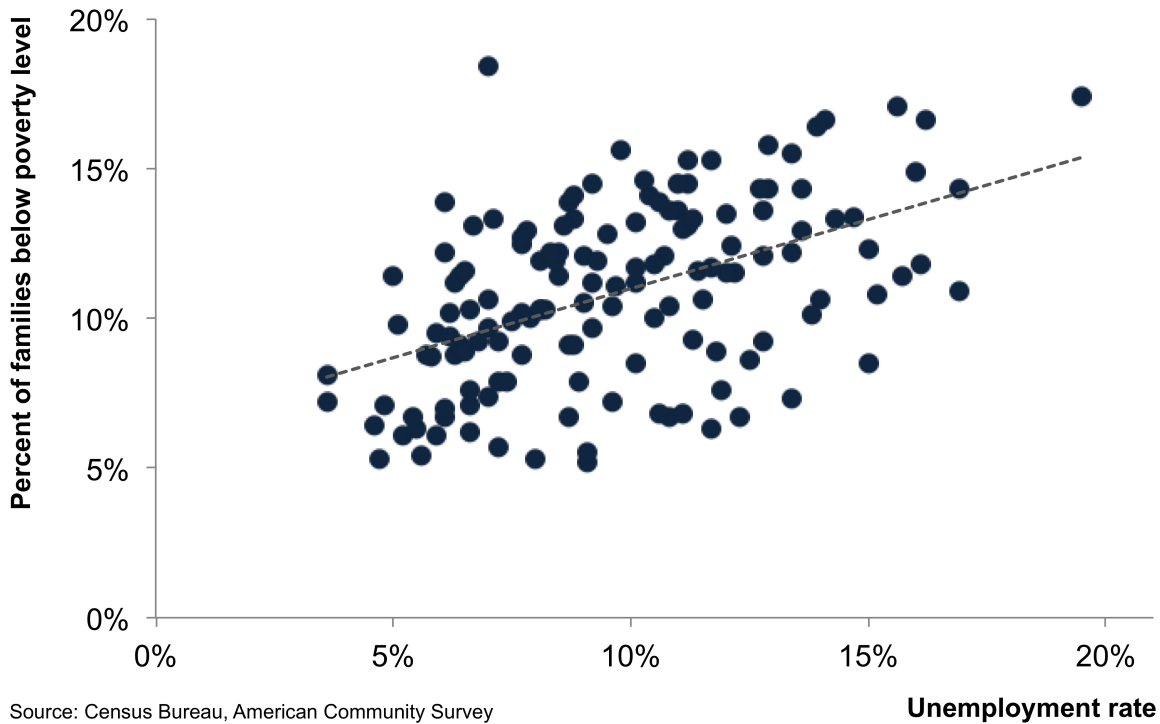
The analysis is a graphical analysis following on the information presented in Figure 1. In this way, one can visualize the extent to which increases in unemployment result in increases in poverty rates across the state. It is a basic, three part test:

1. In a contemporary cross section (e.g., across Oregon counties in 2014), do counties with higher poverty rates have higher unemployment rates?
2. For individual counties, in years in which the county has higher poverty rates does the county have higher unemployment rates?
3. In a cross-section over time, are *changes* in the unemployment rate associated with *changes* in the poverty rate?

Figure 1 presents 5-year average unemployment rates and poverty rates for each Oregon county. The figure has the advantage of reporting information for each county, but includes the post-recession years in which Oregon unemployment rates and poverty rates were unusually high.

Figures 4 through 7, below, present unemployment rates and poverty rates for each year between 2005 and 2014. The data has the advantage of reporting each year separately, but has the disadvantage of not including every Oregon county. Nevertheless, the counties included in the American Community Survey account for approximately 80–85 percent of Oregon's population.

Figure 4: More unemployment, more poverty in Oregon counties, 2005–2014
Multiple counties, multiple years

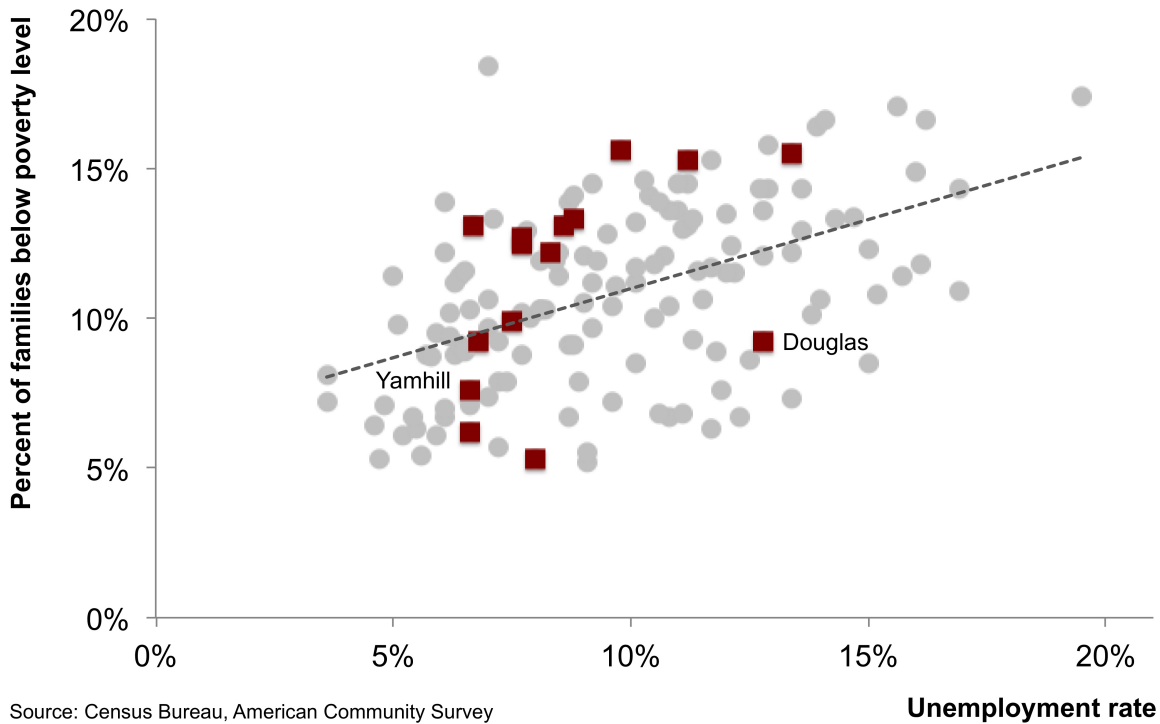


Source: Census Bureau, American Community Survey

Each point represents one year’s unemployment and poverty for an Oregon county for the years 2005 through 2014. The American Community Survey reports poverty rates and unemployment rates for most Oregon counties (Benton, Clackamas, Deschutes, Douglas, Jackson, Josephine, Klamath, Lane, Linn, Marion, Multnomah, Polk, Umatilla, Washington, and Yamhill). Across time and across counties, a two percentage point increase in unemployment is associated with a one percentage point increase in family poverty.

Figure 4 shows unemployment and poverty in Oregon counties for the years 2005 through 2014. The American Community Survey reports poverty rates and unemployment rates for most Oregon counties (Benton, Clackamas, Deschutes, Douglas, Jackson, Josephine, Klamath, Lane, Linn, Marion, Multnomah, Polk, Umatilla, Washington, and Yamhill). The trend line indicates that across counties and across time, a two percentage point increase in unemployment is associated with a one percentage point increase in family poverty.

Figure 5: More unemployment, more poverty in Oregon counties, 2005–2014
Multiple counties, single year (2014)

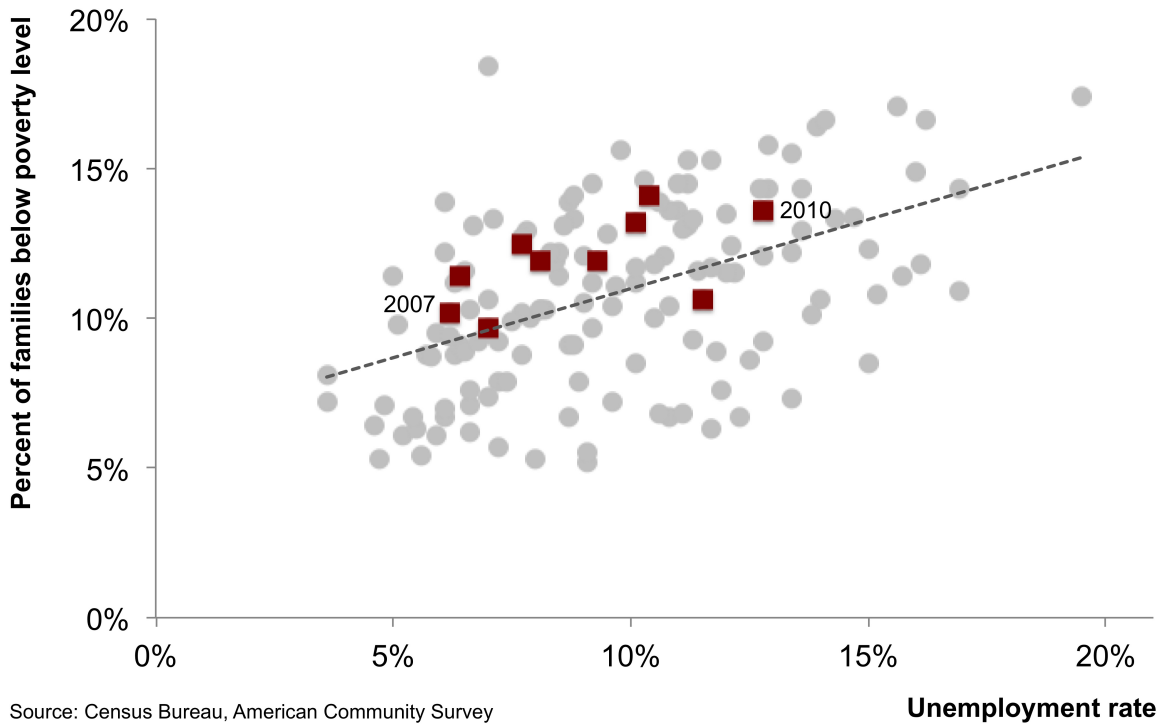


Source: Census Bureau, American Community Survey

Each gray point represents one year's unemployment and poverty for an Oregon county for the years 2005 through 2014. Each red square represents 2014 unemployment and poverty for each Oregon county with data reported by the American Community Survey.

Figure 5 shows that in a contemporary cross section (e.g., across Oregon counties in 2014), counties with higher poverty rates have higher unemployment rates. Contrast two counties in the figure: In 2014 Douglas County's unemployment rate was 5.1 percentage points higher than Yamhill County's, while Douglas' poverty rate was 3.3 percentage points higher ($5.1 \div 3.3 = 1.5$, or a 3-to-2 ratio).

Figure 6: More unemployment, more poverty in Oregon counties, 2005–2014
 Multnomah County, multiple years

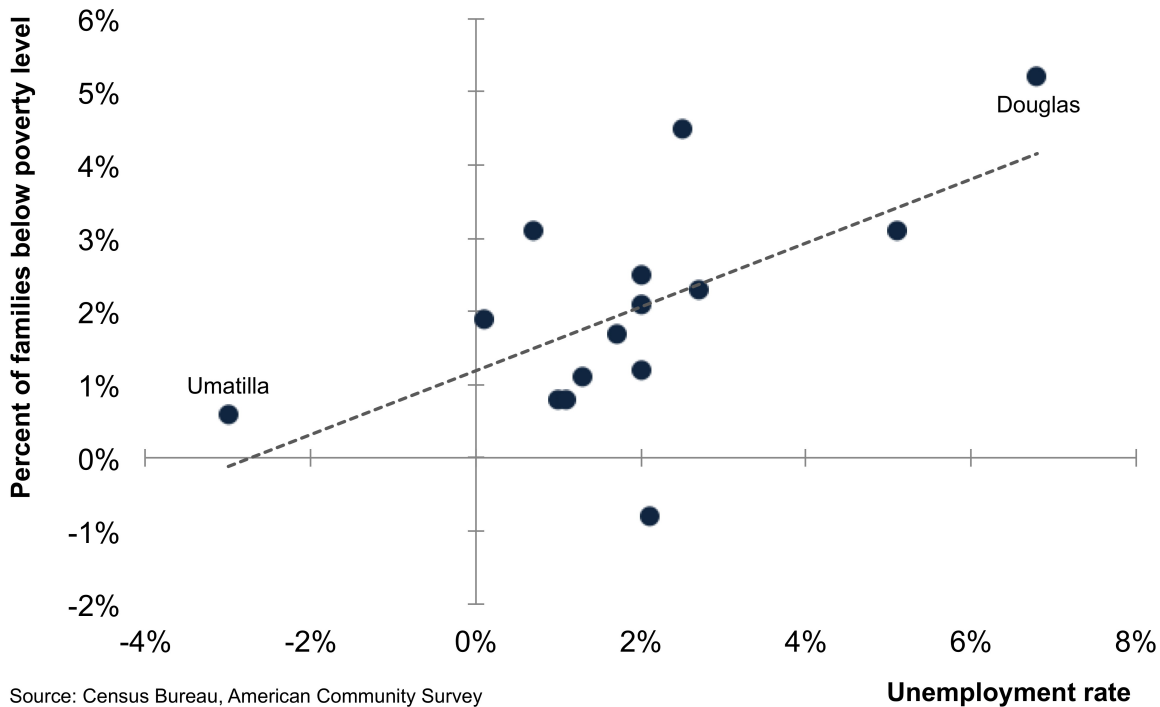


Source: Census Bureau, American Community Survey

Each gray point represents one year's unemployment and poverty for an Oregon county for the years 2005 through 2014. Each red square represents Multnomah County unemployment and poverty for each year 2005 through 2014.

Figure 6 shows for an individual county (Multnomah), in years in which the county has higher poverty rates, the county also has higher unemployment rates. Contrast two years in the figure: In 2010, Multnomah County's unemployment rate was 6.6 percentage points higher than in 2007, while the poverty rate in 2010 was 3.4 percentage points higher ($6.6 \div 3.4 = 1.9$, or approximately a 2-to-1 ratio).

Figure 7: More unemployment, more poverty in Oregon counties, 2006–2014
Change from 2006 to 2014



Source: Census Bureau, American Community Survey

Each point represents the percentage point change in unemployment and poverty for an Oregon county between the years 2006 and 2014.

Figure 7 shows that, in a cross-section over time, *changes* in the unemployment rate associated with *changes* in the poverty rate. Between 2006 and 2014, the unemployment rate in Douglas County grew by 6.8 percentage points and the county poverty rate grew by 5.2 percentage points. In contrast, over the same period, Umatilla County’s unemployment rate dropped by 3.0 percentage points and its poverty rate grew by less than 1 percent. The relationship is clear: Counties with increasing unemployment rates will see increasing poverty rates. ■