



## *Is Wisconsin Becoming a Low-Wage Economy?*

### *Employment Growth in Low, Middle, and High Wage Occupations: 2000-2013*

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Stagnant wages and deepening inequality have become central concerns across the United States.<sup>1</sup> Academic studies have shown for some time now that labor market polarization --the so-called hollowing out of “middle skill” (and middle wage) jobs accompanied by employment growth at the lower and upper ends of the skills and wage spectrums—has been occurring nationally for over thirty years.<sup>2</sup> Since 2000, however, as research by M.I.T. economist David H. Autor has revealed, there has been not only continuing erosion in the number of middle-wage jobs, but also a marked “deceleration” in “high-skill, high-wage” employment growth, and a proliferation of low-wage jobs. Consequently, writes Autor, the national labor market has increasingly resembled a “downward ramp” since 2000, with low-wage employment growth dominating the job creation process.<sup>3</sup> In addition, as numerous recent reports have documented, the post-2010 economic bounce-back from the Great Recession has been a “low-wage recovery.” “During the recession,” one study concluded, “employment losses occurred throughout the economy, but were concentrated in mid-wage occupations. By contrast, during the recovery, employment gains have been concentrated in lower-wage occupations.”<sup>4</sup> Real median earnings have been stagnant, at best and the economy increasingly faces a “good jobs deficit.”<sup>5</sup>

This brief provides some basic data on the extent to which employment growth in Wisconsin over the past decade been concentrated in low-wage occupations. As the following charts and tables show, there has been a marked increase in the share of Wisconsin employment in low-wage occupations since 2000, with a significant acceleration in the growth of jobs in low-wage occupations during the post-recession recovery period of 2010-2013. The number of jobs in “middle-wage” occupations has contracted consistently over the past decade (especially during the Great Recession), while jobs in high-wage occupations, after increasing between 2000-2007, have declined steadily since 2007.

Using data on the median wages of occupations in the Bureau of Labor Statistics’ Occupational Employment Statistics (OES), we calculate the number of Wisconsin jobs in occupations paying low, middle, and high wage levels, in 2000, 2007, 2010, and 2013 (the most recent year for which OES data is available). For the purposes of this report, we categorize the wage levels of occupations in the following ways: 1) Low-wage

occupations, where the median hourly wage is below \$12.50; 2) Middle-wage occupations, where the median hourly wage is between \$12.51 and \$24.99; and 3) High-wage occupations, where the median hourly wage is over \$25.00. (See Appendix 1 for more on the data and methods used here).

Tables 1 and 2 show the employment trends in low-wage, middle-wage, and high-wage occupations in Wisconsin during three periods: the 2000-2007 growth cycle; the deep contraction between 2007-2010 during the Great Recession; and the post-2010 recovery. Employment growth in Wisconsin between 2000-2007 was marked by the polarized pattern identified by David Autor and others nationally: jobs increases in low and high wage occupations, shrinking employment in middle wage occupations. During the 2007-2010 recession employment in Wisconsin declined across all wage levels, although the losses were heavily concentrated in occupations paying “middle wages” (90 percent of the 2007-2010 job losses in Wisconsin were in middle-wage occupations). Finally, between 2010-2013, employment continued to decline in both middle and high wage occupations in Wisconsin; all of the net job growth between 2010-2013 occurred in low wage occupations. More troubling still: over 60 percent of the 2010-2013 growth of employment in low-wage occupations in Wisconsin occurred in *very* low-wage occupations – those with median hourly wages below \$10.00 (in inflation-adjusted 2013 dollars). This marked a continuation of the decade-long trend: between 2000-2013, the number of Wisconsinites working in very low-wage occupations grew from 234,450 to 405,780, an increase of 73 percent (see Table 3 below, as well as Appendix 2).

**Table 1:  
Numeric Change in Employment by Wage Category  
Wisconsin: 2000-2013**

Wage Category	Emp Change 2000-2007	Emp Change 2007-2010	Emp Change 2010-2013
<b>Jobs in Low Wage Occupations</b>	<b>+55,050</b>	<b>-6,200</b>	<b>+130,680</b>
<b>Jobs in Middle Wage Occupations</b>	<b>-35,300</b>	<b>-121,330</b>	<b>-16,220</b>
<b>Jobs in High Wage Occupations</b>	<b>+69,960</b>	<b>-7,080</b>	<b>-19,450</b>
<b>Jobs in All Occupations</b>	<b>+89,710</b>	<b>-134,610</b>	<b>+95,010</b>

Source: BLS, Occupational Employment Statistics, 2000, 2007, 2010, 2013

**Table 2:  
Percentage Change in Employment by Wage Category  
Wisconsin: 2000-2013**

Wage Category	Emp Change 2000-2007	Emp Change 2007-2010	Emp Change 2010-2013
<b>Jobs in Low Wage Occupations</b>	<b>+8.5%</b>	<b>-0.9%</b>	<b>+18.7%</b>
<b>Jobs in Middle Wage Occupations</b>	<b>-2.5%</b>	<b>-9.0%</b>	<b>-1.3%</b>
<b>Jobs in High Wage Occupations</b>	<b>+11.4%</b>	<b>-1.0%</b>	<b>-2.9%</b>
<b>Jobs in All Occupations</b>	<b>+3.4%</b>	<b>-4.9%</b>	<b>+3.6%</b>

Source: BLS, Occupational Employment Statistics, 2000, 2007, 2010, 2013

**Table 3:  
Employment Growth in Very Low-Wage Occupations  
In Wisconsin: 2000-2013**

Employment Change in Occupations Paying Median Hourly Wages  
Under \$10.00 (in 2013 constant dollars)

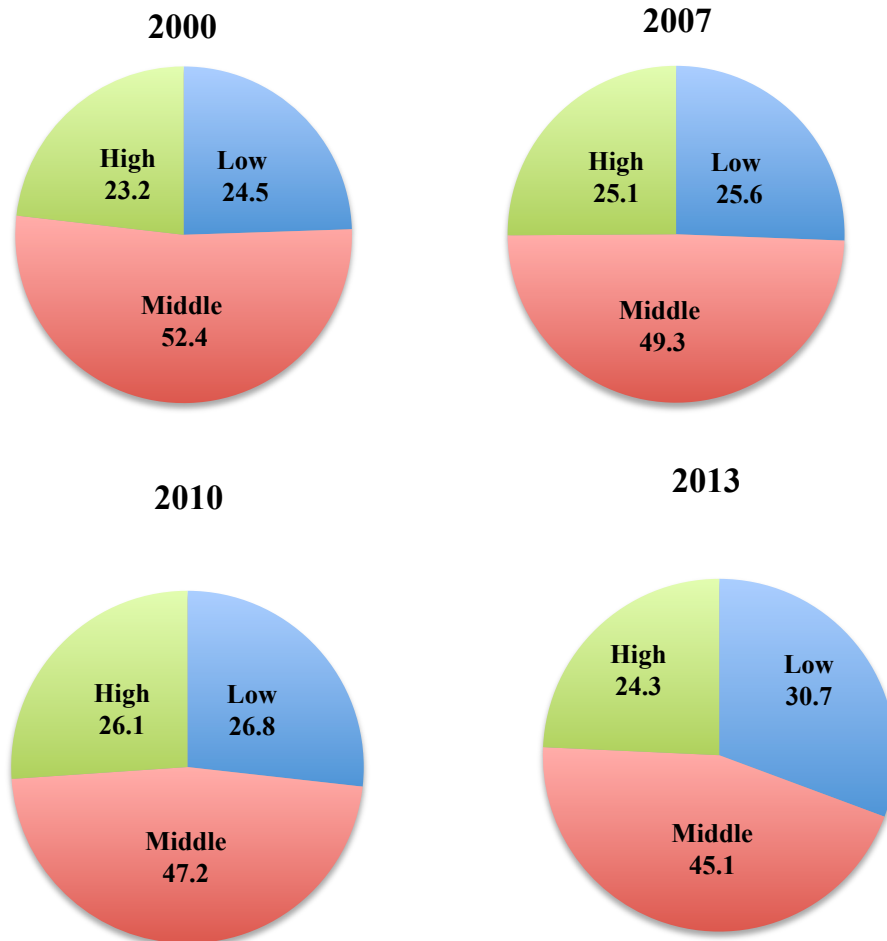
Wage Category	Emp Change 2000-2007	Emp Change 2007-2010	Emp Change 2010-2013
<b>Numeric Growth: Jobs in Very Low Wage Occupations</b>	<b>+69,820</b>	<b>+17,150</b>	<b>+84,360</b>
<b>Percentage Growth: Jobs in Very Low-Wage Occupations</b>	<b>+29.8%</b>	<b>+5.6%</b>	<b>+26.2%</b>

As a result of these trends, the distribution of employment by the wage level of Wisconsin occupations changed significantly between 2000 and 2013. As Chart 1 below shows, occupations paying “middle” wages accounted for 52.4 percent of Wisconsin jobs in 2000; by 2013, that share had declined to 45.7 percent. On the other hand, the share of total employment in “low-wage” occupations rose from 24.5 percent in 2000 to 30.7 percent in 2013. The shift between 2010 and 2013 is particularly striking. In 2010, about the same percentage of Wisconsinites (around 26 percent) were employed in high-wage occupations (over \$25.00 median hourly wage in inflation adjusted dollars) and low-wage occupations (under \$12.50 median hourly wage). By 2013, as Chart 1 graphically illustrates, the share of Wisconsin employment in low-wage occupations was more than 6 percentage points greater than the percentage of workers in high-wage occupations.

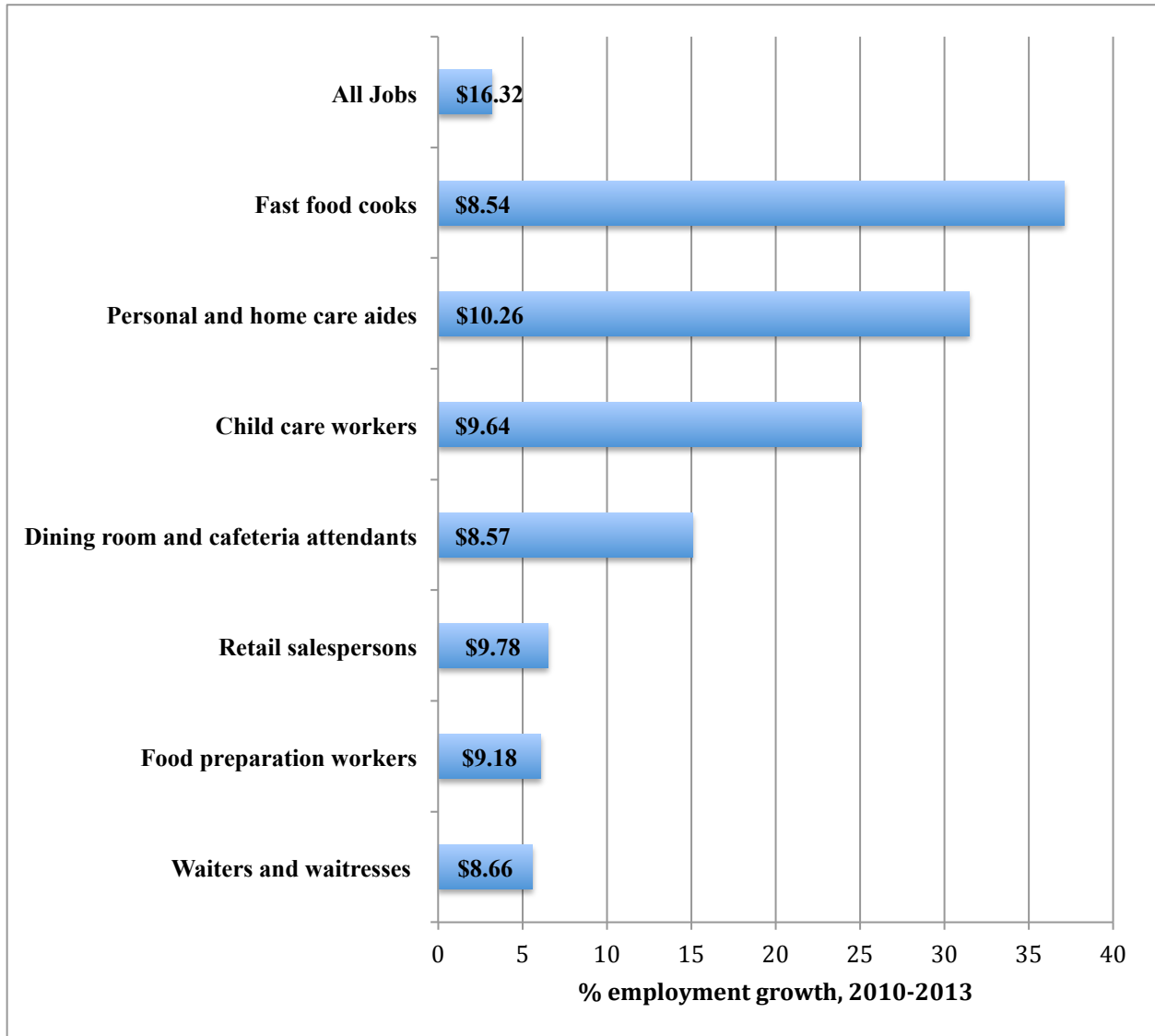
In short, although employment in low-wage occupations has grown consistently in Wisconsin since 2000, it has especially surged since 2010. Chart 2 and Tables 4 and 5 show why. First – and rather obviously—employment in historically low-wage

occupations has grown much more rapidly than overall employment growth in Wisconsin. The proliferation of low-wage work in Wisconsin since 2010 has been fueled by rapid growth in occupations such as personal care and home health care aides; food preparation and serving; entertainment services (such as ushers or gaming dealers); child care providers; and retail salespersons. Almost all of these occupations report median hourly wages around \$10.00 or less.

**Chart 1:  
Distribution of Employment By Median Hourly Wage of Occupations  
In Wisconsin: 2000-2013**



**Chart 2:  
Employment Growth in Selected Lower-Wage Occupations  
In Wisconsin: 2010-2013**



Source: BLS, OES, 2010, 2013

**Table 4:  
Employment Growth in Selected Lower-Wage Occupations  
In Wisconsin: 2010-2013**

Occupation	2013 Median Hourly Wage	Numeric Employment Growth 2010-2013	% Employment Change 2010-2013
Fast Food Cooks	\$8.54	2,110	+37.1
Gaming Dealers	\$8.66	670	+66.3
Dining Room Attendants	\$8.57	1,030	+15.1
Waiters and Waitresses	\$8.66	2,430	+5.6
Ushers and Lobby Attendants	\$8.74	640	+35.6
Food Preparation Workers	\$9.18	700	+6.1
Short Order Cooks	\$9.54	780	+17.6
Child Care Workers	\$9.64	2,930	+25.1
Retail Salespersons	\$9.78	4,940	+6.5
Personal and Home Health Care Aides	\$10.26	13,120	+31.5
Counter and Rental Clerks	\$11.40	1,260	+16.2
<b>All Occupations</b>	<b>\$16.32</b>	<b>95,010</b>	<b>+3.6</b>

Source: BLS, OES, 2010, 2013

**Table 5:  
Selected “Middle-Wage” Occupations That Became  
“Low-Wage” Occupations in Wisconsin Between 2010-2013  
(all wages in inflation-adjusted 2013 dollars)**

Occupation	2010 Median Hourly Wage	2013 Median Hourly Wage	Total Employment 2013
Assemblers and Fabricators (other)	\$15.44	\$11.86	9,840
Laborers and Freight/Stock/Materials Movers	\$13.03	\$12.16	55,520
Helpers- Installation, Maintenance, Repair	\$13.00	\$12.05	1,500
Helpers- Production Workers	\$12.86	\$12.10	13,240
Nursing Assistants	\$12.82	\$12.39	37,240
Food Cooking Machine Operators	\$12.78	\$11.92	1,120
Landscaping and Groundskeeping	\$12.63	\$12.46	14,950
Driver/Sales Workers	\$12.60	\$10.43	8,150

Source: BLS, OES, 2010, 2013

Second, however, the surging employment in historically low-wage occupations in Wisconsin is only part of the story. There has also been considerable downward pressure on wages in occupations that have historically offered “middle-wage” median hourly pay, in effect turning many middle-wage occupations into low-wage occupations and thereby adding to the pool of low-wage employment. Consequently, as Table 5 suggests, an important share of Wisconsin’s employment growth in low-wage occupations and concomitant decline in middle-wage employment between 2010 and 2013 stemmed from real wage declines in formerly middle-wage occupations, transforming them into low-wage occupations. Several occupations that were “middle-wage” in 2010-- such as laborers and freight, stock, and materials movers; nursing assistants; and driver/sales workers-- all saw their inflation-adjusted median hourly wages drop below \$12.50 by 2013, thus adding thousands to the low-wage segment of the Wisconsin labor market. Moreover, perhaps as ominously, even in many occupations that remained “middle-wage,” especially in manufacturing, real wages fell noticeably between 2010 and 2013. The inflation-adjusted median hourly wage for production occupations in Wisconsin fell by 5.2 percent between 2010-2013. Even in occupations like welders or CNC machine tool operators, supposedly in such high demand that employers claim there is a “skills gap” in Wisconsin, real wages fell by 6.5 percent and 4.7 percent respectively between 2010 and 2013. While the median hourly pay in these occupations remained solidly in the middle-wage category through 2013, ranging between \$15 and \$18 an hour, the downward trend in real wages suggests a pervasive, continuing erosion of the middle-tier of Wisconsin’s occupational wage structure.

Indeed, as Table 6 suggests, if the projections for future job growth in Wisconsin by the state’s Department of Workforce Development (DWD) are correct, the transformation of Wisconsin into a low-wage economy is likely to continue – unless there are changes in labor market institutions or public policies. Of the 15 occupations projected by DWD to generate the most openings through employment growth (as opposed to replacements) between 2010 and 2020, ten paid median hourly wages in the low-wage tier (under \$12.50) and, of those, six paid median hourly wages around or under \$10.00 – a very low-wage threshold. If the goal of economic development is to create family-supporting



jobs, recent trends and future projections provide little evidence that Wisconsin is moving in the right direction.

**Table 6:  
15 Occupations in Wisconsin With Most  
Projected Job Growth : 2010-2020**

Occupation	2010	2020 Projected	Growth Openings	Median Hourly Wage \$
Food Preparation/Serving	61,400	76,760	15,360	9.18
Registered Nurses	57,760	71,540	13,780	30.41
Personal/ Home Care Aides	31,130	42,600	11,470	10.26
Truck Drivers	45,460	54,950	9,490	18.81
Office Clerks	70,190	79,480	9,290	14.16
Waiters and Waitresses	43,340	51,920	8,580	8.66
Retail Salespersons	75,930	84,260	8,350	9.78
Customer Service Reps	49,930	57,690	7,760	15.59
Nursing aides	37,980	44,270	6,290	12.39
Laborers/ Movers	47,800	53,210	5,410	12.16
Bartenders	28,070	33,250	5,180	8.33
Janitors and Cleaners	47,240	51,710	4,470	11.01
Landscaping/Groundskeeping	21,440	25,880	4,360	12.46
Restaurant Cooks	16,170	20,180	4,030	10.20
Medical Secretaries	13,670	17,630	3,940	15.39

Source: State of Wisconsin, Department of Workforce Development

## Appendix 1

The analysis in this paper is based on data provided annually by the Bureau of Labor Statistics, Occupational Employment Statistics (OES) on median wages and employment by occupation, for all states and metropolitan areas in the United States. (Access at: <http://www.bls.gov/oes/>). The OES provides data, for May of each year, on employment and wage levels in “major” occupational groups as well as “detailed” occupations; the May 2013 OES release, for example, included wage and employment data for 756 detailed occupations in Wisconsin. For each year in this analysis – 2000, 2007, 2010, and 2013—we divided Wisconsin’s detailed occupations into three categories: 1) Low-wage occupations (paying median hourly wages of less than \$12.50 in 2013 inflation-adjusted dollars); 2) Middle-wage occupations (paying median hourly wages between \$12.51 and \$24.99); and High-wage occupations (paying median hourly wages over \$25.00). Although any wage classification is somewhat arbitrary, this one makes sense – both intuitively and statistically: in 2000, for example, the three wage tiers distributed in a bell-shape (approximately 25% of total employment in both low-wage and high-wage occupations; 50% in middle-wage occupations). As Wisconsin employment has grown more rapidly in low-wage occupations since 2000, that distribution has obviously begun skewing downward, as Chart 1 in the data brief clearly shows.

For the analysis each year, we aggregated employment in all of the detailed OES occupations falling into each wage category. Thus, for any given year, the tabulation “employment in low-wage occupations” represents the aggregate employment of all occupations with a median hourly wage less than \$12.50 (in 2013 dollars); the same calculation was performed for jobs in middle-wage and high-wage occupations. We then compared the aggregate employment for each wage tier of occupations in 2000, 2007, 2010, and 2013, yielding the analysis and conclusions in the data brief. This analysis is not the same as identifying the precise wage level of every worker in each occupation – the OES data do not cleanly permit that kind of calculation. But this breakdown does nevertheless convey the extent to which the occupational mix in the state, and employment in those occupations, is trending towards low, middle, or high wage jobs.

## Appendix 2

As we point out in this paper (p. 3-4), Wisconsin’s recent employment growth has been concentrated not merely in low-wage occupations, but in *very* low-wage occupations (those paying a median hourly wage under \$10.00). The table below shows this concentration by breaking down the low-wage category of Table 1 into two groups: 1) employment in very low-wage occupations (under \$10.00/hour); and 2) employment in remaining low-wage occupations (those paying between median hourly wages between \$10.01 and \$12.50). As this table illustrates, it is the “under \$10.00/hour” occupations that have dominated Wisconsin’s employment growth since 2000, and especially during the Great Recession and in the post-2010 recovery period. This reality has important implications for a host of policy issues, not the least of which is whether the state’s minimum wage should be increased. As a response to the proliferation of very low-wage jobs, several communities in Wisconsin have scheduled advisory ballot measures in the November 4, 2014 elections on whether the state should raise the minimum wage from \$7.25 to \$10.10 an hour.<sup>6</sup> On the other hand, Governor Scott Walker stated that he doesn’t think the minimum wage “serves a purpose,” in part because he wants to create “jobs that pay two or three times the minimum wage.”<sup>7</sup> The data, however, show that since Walker took office, Wisconsin’s relatively slow pace of job creation<sup>8</sup> has been dominated by growth in very low-wage occupations, an indication that raising the minimum wage would make a difference for thousands of Wisconsin wage earners.

**Employment Change by Wage Category in Wisconsin: 2000-2013**

Wage Category	Emp Change 2000-2007	Emp Change 2007-2010	Emp Change 2010-2013
<b>Jobs in Very Low Wage Occupations (Under \$10/hr)</b>	<b>+69,820</b>	<b>+17,150</b>	<b>+84,360</b>
<b>Jobs in Remaining Low Wage Occupations (Between \$10.01-\$12.50/hr)</b>	<b>-14,770</b>	<b>-23,350</b>	<b>+46,320</b>
<b>Jobs in Middle Wage Occupations</b>	<b>-35,300</b>	<b>-121,330</b>	<b>-16,220</b>
<b>Jobs in High Wage Occupations</b>	<b>+69,960</b>	<b>-7,080</b>	<b>-19,450</b>
<b>Jobs in All Occupations</b>	<b>+89,710</b>	<b>-134,610</b>	<b>+95,010</b>

## Endnotes

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- <sup>1</sup> *The New York Times*, “Raising the Minimum Wage, City by City,” 11 October 2014. Accessed at: <http://www.nytimes.com/2014/10/12/opinion/sunday/raising-the-minimum-wage-city-by-city.html>
- <sup>2</sup> See, for example, David Autor, “The Polarization of Job Opportunities in the U.S. Labor Market,” (Washington, D.C.: Center for American Progress, April 2010). Accessed at: <http://economics.mit.edu/files/5554>. See also: John Schmitt and Janelle Jones, “Bad Jobs on the Rise,” Center for Economic Policy Research (September 2012). Accessed at: <http://www.cepr.net/documents/publications/bad-jobs-2012-09.pdf>.
- <sup>3</sup> David Autor, “Polanyi’s Paradox and the Shape of Employment Growth,” (Paper presented at Federal Reserve Bank of Kansas City economic policy symposium, August 2014), p. 19. Accessed at: <http://www.kansascityfed.org/publicat/sympos/2014/093014.pdf>.
- <sup>4</sup> See National Employment Law Project, “The Low-Wage Recovery and Growing Inequality,” (August 2012). Accessed at: [http://www.nelp.org/page/-/job\\_creation/lowwagerecovery2012.pdf?nocdn=1](http://www.nelp.org/page/-/job_creation/lowwagerecovery2012.pdf?nocdn=1). See also: National Employment Law Project, “The Low-Wage Recovery: Industry Employment and Wages Four Years Into the Recovery,” (April 2014). Accessed at: <http://www.nelp.org/page/-/Reports/Low-Wage-Recovery-Industry-Employment-Wages-2014-Report.pdf?nocdn=1>; and Innovation Ohio, “Ohio’s Low-Wage Recovery,” (August 2014). Accessed at: [http://innovationohio.org/wp-content/uploads/2014/08/IO\\_Wages\\_082014.pdf](http://innovationohio.org/wp-content/uploads/2014/08/IO_Wages_082014.pdf).
- <sup>5</sup> National Employment Law Project, “The Low-Wage Recovery and Growing Inequality,” p. 1.
- <sup>6</sup> Georgia Pabst, “Minimum wage hike among issues up for referendum votes in Milwaukee County,” *The Milwaukee Journal Sentinel*, 19 October 2014.
- <sup>7</sup> Daniel Bice, “Scott Walker says he doesn’t believe minimum wage ‘serves a purpose,’” *The Milwaukee Journal Sentinel*, 14 October 2014.
- <sup>8</sup> On the slow pace of job creation under the Walker Administration, see: Marc V. Levine, “Nine Charts on Recent Trends in Employment Growth in Wisconsin,” (UWM Center for Economic Development Data Brief, September 2014). Accessed at: <http://www4.uwm.edu/ced/publications/employmentwatch2014.pdf>; and Marc V. Levine, “Gauging Employment Growth in Wisconsin: State-By-State Comparisons,” (UWM Center for Economic Development Data Brief, March 2014), p. 3-8. Accessed at: <http://www4.uwm.edu/ced/publications/employgrowth.pdf>