

Giving Caregivers a Raise:

The Impact of a \$15 Wage Floor in the Home Care Industry

Introduction

Thousands of home care workers have taken to the streets in recent months, adding their voices to the growing call for a \$15 hourly wage and a union. Home care workers, who provide critical in-home support to older adults and people with disabilities, make a compelling case for a higher wage standard. Like the fast-food industry where the campaign for \$15 originated, home care is growing at a rapid rate but remains marred by poverty-level wages. Low wages have profound implications beyond the workers and their families, driving alarmingly high turnover and burnout, jeopardizing critical services, and straining the home care system just as more and more Americans come to rely on its services.

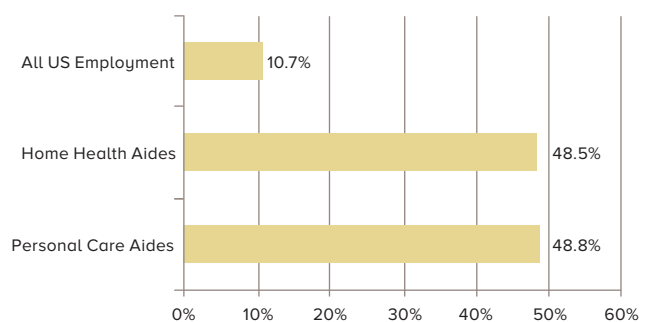
Stabilizing the home care system through higher wages and better conditions is not only fair; it eases worker reliance on public benefits and allows recipients of home care services to stay in their homes and out of more costly institutional care. And when low-wage workers like home care workers experience a wage hike, they spend most of that increase on basic necessities like food, housing, and clothing, contributing to their local economies and spurring economic growth. A \$15 wage for home care workers is the right thing to do—for the workers and their communities, for the people they care for, and for our economy.

America's fastest-growing job pays poverty wages

The home care workforce encompasses workers in two main occupations: home health aides and personal care aides. Both assist older adults or people with disabilities at their homes with personal care (assistance with eating, dressing, bathing, and toileting) and household services (meal preparation, shopping, light cleaning, and transportation). In some states, home health aides may administer medication or check a client's vital signs under the direction of a nurse or other healthcare practitioner. The number of home care jobs in the United States is projected to grow five times faster than jobs in all other occupations. According to the Bureau of Labor Statistics, the country will need one million new home care workers by 2022.¹

While demand for home care workers is projected to grow, wages in this sector remain low. In 2013, the country's two million home care workers had average annual earnings of \$18,598.² Average annual earnings for all wage and salary workers in the United States were \$46,440.³

Figure 1. Projected growth in employment, 2012 to 2022



Source: Bureau of Labor Statistics, Employment Projections, available at <http://data.bls.gov/projections/occupationProj>

Home care wages have been declining

Revenues in the home health industry have grown 48 percent over the past 10 years.⁴ In contrast, when adjusted for inflation, average hourly wages for home care workers have declined by nearly 6 percent since 2004.⁵ At this rate, home care workers' earnings will be worth less than \$18,000 (in 2013 dollars) when this workforce reaches its predicted growth to nearly three million in 2022.⁶

Meanwhile, executive compensation in the home care industry has been growing rapidly. CEO compensation at the four publicly traded national home healthcare chains, adjusted for inflation, has increased over 150 percent since 2004.⁷ Home care workers' wages would have had to keep pace with this growth to even approach middle-class yearly earnings of \$49,000.

Almost half of all home care workers rely on public assistance

A significant number of home care workers rely on public assistance because their earnings are not enough to make ends meet. Among home care workers, nearly 50 percent

live in households that receive public assistance benefits such as Medicaid, food stamps, and housing and heating assistance.

Program	Number of workers with families enrolled	Percent of workers with families enrolled	Average program costs per enrolled family	Total cost across the five programs (millions)*
EITC	731,000	42%	\$2,660	\$1,915
Medicaid (adults)	274,000	16%	\$7,490	\$1,980
Medicaid/CHIP (children)	337,000	19%	\$4,290	\$1,412
Food Stamps	370,000	21%	\$2,520	\$914
TANF	35,000	2%	\$3,130	\$106
All Programs	839,000	48%	\$7,740	\$6,313

* Since many families have more than one worker per family, column (4) will not equal (1)x(3)

Note: All costs presented in 2011 dollars.

Source: University of California, Berkeley Labor Center calculations from 2008-2012 March CPS, 2007-2011 ACS, 2011 OES, program administrative data.

Raising home care workers' wages would benefit workers and the economy

With the creation of a \$15 wage floor, the average home care worker would receive approximately 50% more in her or his hourly wage rate, an approximate increase of more than \$8,000 in yearly earnings. The home care workforce as a whole would see about \$16.5 billion in additional yearly earnings.⁸

Low-wage workers, such as home care aides and personal care aides, are more likely to spend these extra earnings immediately for basic necessities.⁹ We estimate that increased consumer spending from additional earnings in the home care sector would generate new economic activity of between \$3.9 billion and \$6.6 billion. On

average, for each of the two million home care workers, this would translate to approximately \$2,000 in new economic activity, as workers spent their earnings in their local communities. Additionally, we estimate that this economic activity would create between 29,000 and 50,000 jobs outside the home care industry.¹⁰

Raising wages would benefit a workforce that is primarily women of color. Eighty-nine percent, or more than 1.7 million home care workers, are women. Thirty percent, or 600,000, are African American, and 16 percent, or 320,000, are Latino.¹¹

Home care workers play a critical role in providing services for our aging population

The elderly population is growing at record levels. Every day, 10,000 baby boomers turn 65.¹² By 2050, the elder population is expected to more than double, from about 40 million to 84 million.¹³

Approximately half of the senior population needs help with activities of daily living.¹⁴ A recent policy paper by the AARP noted that the majority of long-term services and supports are provided by family members but that

the supply of family caregivers is unlikely to meet the projected demand brought on by the aging baby boomer population. The report found that in 2010, there were seven potential caregivers aged 45-64 for every person 80 years or older. By 2030, the report predicts, this ratio will drop to 4:1 and again to 3:1 in 2050.¹⁵ A decent wage would help stabilize a workforce that currently has high turnover because of low wages and irregular hours.¹⁶

The home care model is more cost-effective than public institutionalization

Home care will be increasingly critical to our long term care system, not only because it is the preferred form of services for a rapidly expanding number of consumers, but also because it is cost-effective. For more than a decade, the states have been shifting their long term care spending away from more costly institutional care, such as nursing homes, and toward home care.¹⁷ Illinois Attorney General Lisa Madigan and U.S. Secretary of Labor Thomas Perez recently noted the tremendous cost

savings to the state from this shift: “Illinois saves over \$600 million a year in Medicaid costs via the home-care model instead of more costly public institutionalization.”¹⁸ This suggests that home care workers are already saving state, local and the federal government around the country billions of dollars. Improving worker pay will help ease the turnover and recruitment problems that have prevented states from rebalancing the long term care system by expanding the use of home care.

Conclusion

Transitioning the fast-growing home care industry to a more stable, higher wage staffing model is essential if our nation is to meet the long term needs of both the caregiving workforce and our aging population. Fortunately, in recent years we have seen some of the first steps towards rebuilding wage and job standards, and paving the way for a \$15 wage. For example, after years of advocacy by worker and consumer advocates, the U.S. Department of Labor in 2013 finalized rules extending federal minimum wage and overtime protections to the workforce, while domestic worker bills of rights have won greater state wage protections and industry standards in several states and spurred campaigns in others.

Several states and cities have recognized that raising wages for workers employed in such publicly funded programs also saves public funds by easing workers’ reliance on public benefits and stemming the tremendous financial and human cost of recruiting and retraining what has been a constantly churning workforce. They have passed reforms such as New York’s Wage Parity Act, which raised compensation for Medicaid-funded home care workers to \$14 per hour in wages and benefits.

Despite repeated attacks on their unions, home care workers continue to organize. Tens of thousands of workers in Minnesota and Missouri recently voted to join SEIU and AFSCME, joining hundreds of thousands of home care union members who are fighting for job improvements and quality services.

The fight for a \$15 wage has raised expectations for what workers can achieve and has inspired many workers and supporters to join the fight. Since fast-food workers took the streets in New York City in 2012, several cities have proposed or enacted \$15 minimum wages.¹⁹

A \$15 wage for the home care industry will ensure that all home care workers across the country earn a decent wage that supports their families and communities and helps stabilize a workforce that growing numbers of Americans will be counting on to deliver dependable, quality care in the years and decades to come. ■

Technical Appendix

1. Estimating the size of the workforce

Employment and wage figures are based on 2013 estimates that the Bureau of Labor Statistics (BLS) publishes through its Occupational Employment Statistics (OES) program. We define home care workers as those workers classified under two occupational codes: Personal Care Aides (SOC 39-9021) and Home Health Aides (SOC 31-1011). It is important to note that the OES survey does not cover the self-employed, which excludes many individuals who participate in the workforce as Personal Care Aides, and thus likely underestimates the size of the home care workforce.

2. Estimating average annual earnings

This study combines data from the Current Population Survey (CPS) and Occupational Employment Statistics (OES) in order to estimate annual earnings for home care workers.²⁰ Combining data from the CPS for annual hours worked with OES hourly wage estimates produces a better estimate of yearly earnings for home care workers than using either data source alone. This is because OES assumes full-time, year-round employment for all workers when estimating annual earnings. While the CPS provides more precise information on hours and weeks worked, it has the drawback of grouping the occupation of Home Health Aide with the higher-earning occupations of Nursing Assistants and Psychiatric Aides.

To estimate average annual earnings, we take the weighted average of the OES-published mean hourly wages for workers classified under two occupation codes: Home Health Aides and Personal Care Aides. This yields an average hourly wage of \$10.30. We then estimate the average number of hours worked in a year for home care workers using CPS microdata that the Center for Economic and Policy Research (CEPR) makes publicly available, constructing an annual-hours-worked variable by combining usual hours a week (uhours) and weeks

worked in a year (weeks). Pooling data from the 2012 and 2013 March Supplement of Current Population Survey, we included workers age 16 and older, working at least 10 hours a week, and 27 weeks per year. We included workers in the Home Health Care Services Industry (NAICS 621610) who reported working in either of two occupational categories: Personal or Home Care Aide and Nursing Assistant, Psychiatric Aide or Home Health Aide. Following previous studies, we use this group as a proxy for the home care workforce as a whole.²¹ We find that the average number of hours worked in a year is 1806. Multiplying that number with the weighted mean hourly wage yields an average annual wage of \$18,597.89. Our calculations for what home care worker earnings would be had they kept pace with growth in executive compensation assume a constant number of annual hours worked based on the above estimate for 2012-2013.

3. Estimating the economic stimulus impact

Due to the limitations of available wage data for this workforce, this report makes several assumptions about the current wages that home care workers earn. We assume that all home care workers currently make less than \$15 an hour, and would therefore receive a raise. While precise figures are not available, we believe this to be a fair approximation given the available OES data, which show that at the 90th percentile, home health aides earn \$14.17 an hour, and personal care aides earn \$13.34 an hour. We also assume that raising the wage floor to \$15 dollars would result in all home care workers making exactly \$15. Additionally, we assume that the average raise for all home health aides would be equivalent to \$4.40 (the difference between the 2013 mean hourly wage and \$15). Likewise, we assume that the average raise for all personal care aides would be equivalent to \$4.91. Table A.1 shows the latest available wage distribution for home care workers.

Table A.1. 2013 Wage Distribution for Home Health Aides and Personal Care Aides

Occupation	Total Employment	Hourly mean	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Home Health Aides	806,710	\$10.60	\$8.03	\$8.78	\$10.10	\$11.59	\$14.17
Personal Care Aides	1,135,470	\$10.09	\$7.91	\$8.57	\$9.67	\$11.17	\$13.34

Source: May 2013 OES

We construct GDP and job creation macroeconomic models based on models developed by the Economic Policy Institute (EPI).²² These models adapt standard fiscal multipliers calculated by Mark Zandi, chief economist of Moody's Analytics, to estimate additional GDP spending resulting from an increase in earnings for minimum wage workers.²³ Other studies have used similar methods to estimate economic stimulus effects for workers in particular industries.²⁴

Following previous models, we use Zandi's fiscal multiplier for the Earned Income Tax Credit and Zandi's fiscal multiplier for the Making Work Pay tax credit for working individuals and families provided by the American Recovery and Reinvestment Act (ARRA). We average these two multipliers to create a proxy for the stimulus effect of redistribution toward low-wage workers. In order to account for the effect of higher costs to home care companies and potentially higher costs to taxpayers, we incorporate an offsetting multiplier that is then subtracted from the low-wage-worker multiplier. Our offsetting multiplier differs slightly from previous modeling of minimum-wage-raise multiplier effects in retail and other industries to account for the fact that the home care industry depends heavily on public funding. About 75 percent of the home care services are government-funded through Medicaid, Medicare, and other programs, while the rest is made up of consumers paying for their own care (commonly referred to as the private-pay portion of the industry).²⁵ We distinguish between the offsetting effects for these two sections of the industry. As such, the logic of our multiplier is the following:

> Home care worker stimulus multiplier = Low-wage-worker fiscal stimulus multiplier (average of EITC/ Making Work Pay) – [Offset for private-pay portion of market + Offset for Medicaid portion of market].

Given that the industry varies significantly across states, our model incorporates a range of values (from 0-100 percent) for the portion of the increased wage bill that home care companies would absorb. For the government-funded portion of the industry, our model assumes that 100 percent of the wage increase to home care workers is passed through to the public in the form of tax increases. It is important to note that this likely overestimates the cost to taxpayers and thus underestimates the multiplier effect of a raise to home care workers.

We use Zandi's across-the-board tax cut (0.98) to approximate the stimulus effect of costs passed to taxpayers and private-pay consumers, and Zandi's cut in the corporate tax rate to approximate the stimulus effect of costs absorbed by home care companies. In this model, we assume that private-pay consumers are similar in profile to the average U.S. taxpayer.

Assuming a 100 percent pass-through in the private-pay market yields a multiplier of 0.235: **$1.215 - [(0.25 * 0.98) + (0.75 * 0.98)] = 0.235$** .

Assuming a 0 percent pass-through in the private-pay market yields a multiplier of 0.4: **$1.215 - [(0.25 * 0.32) + (0.75 * 0.98)] = 0.4$** .

Our estimates for new job creation are based on the Economic Policy Institute's previous work modeling the number of new jobs that are created when GDP increases. EPI estimates that for every \$133,000 increase in GDP (in 2013 dollars), one full-time-equivalent job is created.²⁶

Although official unemployment rates have declined in recent years, we believe that these fiscal multipliers are still relevant given that the labor market has not fully recovered to its pre-recession state. Among the strongest measures of labor market health is the percentage of prime-age men (ages of 25 - 54) who are currently working, also known as the employment-to-population ratio. This measure is about 4 percent lower than it was when the recession began. The ratio for all prime-age workers is similarly depressed.²⁷ In addition, some economists have recently noted a trend in the US economy towards a long-term deficiency in demand, or "secular stagnation".²⁸ Accounting for these factors, it is reasonable to assume that generating increased consumer demand will continue to generate some level of new employment.

While we acknowledge the possibility that increasing wages could negatively impact employment levels, particularly in the private-pay sector, previous research has shown that raising wages actually increases demand for home care services and generates more home care jobs. A previous study examined a California county in which wages for home care workers in nearly doubled over a four-year period as a result of organizing and advocacy efforts. It found that the increase in wages actually led to a 54 percent increase the number of workers employed

Table A.2. Estimated Impact of a \$15 Wage for Home Care Workers on GDP and Job Creation

Number of workers	1.9 million
Average wage	\$10.30
Average annual hours	1806
Current total annual earnings (Annual hours worked × Hourly wage × Number of workers)	\$36.1 billion
Total annual earnings with \$15 minimum (Annual hours worked × 15.00)	\$52.6 billion
Increase to total annual earnings with \$15 minimum	\$16.5 billion
Increase to GDP as a result of increase in wages	\$3.8 billion to \$6.5 billion
New jobs created as a result of GDP increase	29,000 to 49,500

Sources: Data on size of workforce and wages are from OES; data on hours are from 2012-2013 CPS March Annual Supplement
 Note: All findings presented in 2013 dollars.

in the home care. As the wage rate rose, the job became more desirable for people who would otherwise be working in other industries. As such, it became much easier for consumers to find acceptable providers, which in turn increased overall demand for home care services and increased accessibility to consumers who had previously been underserved.²⁹ Given labor shortages in home care around the country, it is fair to assume that with a \$15 dollar wage floor, these effects on employment would at least be partially replicated in both the private-pay and government-funded portions of the industry.³⁰ However, without more precise estimates, our study assumes no change in home care employment directly resulting from the wage increase. In addition, we believe that creating a subsidy for private-pay consumers (for example, a refundable home care worker tax credit) could help to maintain demand and help consumers to access needed services.

4. Estimating levels of public assistance enrollment³¹

Data analysis and modeling for these estimates were provided by the University of California Berkeley Labor Center.

We focus on four vital public benefits programs that account for hundreds of billions in assistance to working families: Health insurance (Medicaid and Children’s Health Insurance Program, or CHIP, coverage),³² the Federal Earned Income Tax Credit (EITC), food stamps (the Supplemental Nutrition Assistance Program, or SNAP) and basic household income assistance (Temporary Assistance for Needy Families, or TANF).

To arrive at this list, we used the following criteria:

- > **Major Means-Tested Programs Supporting Families and Workers.** We limit the study to the largest nationwide programs that restrict benefits to families with low incomes. Our analysis covers programs used by families with active jobseekers and workers, even when the availability of those benefits does not depend on a family’s working status. We analyze only programs that function as income supplements, omitting job-training, educational and other programs that indirectly assist low-income families.
- > **Data Availability.** An ideal analysis of the hidden public cost of low-wage work would piece together data on a broad range of income support programs, including child care subsidies and reduced-price school lunches. But our method for linking these costs to a worker’s employment status requires both national-level program enrollments and administrative data, and individual-level survey data on the benefits consumption of workers. As a result, our estimates necessarily exclude some federal and many state and local programs for which the required data were unavailable, such as state earned income tax credit programs and local services to the poor.

This report combines data from three sources. First, we gathered aggregate government administrative data for the four public support programs named above for all 50 states and Washington, D.C. These data document both

the annual enrollment and the annual benefits paid by each program (please note that we exclude the costs of program administration and oversight).

Second, we used the March Supplement of the U.S. Bureau of Labor Statistics' Current Population Survey (CPS) to obtain information on employment, worker demographics and public benefits usage. Together, these sources allow us to estimate the total amount of public benefits paid to different groups of workers. To correct for the well-documented undercount of program enrollment in the CPS, we adjust the CPS so that estimated program costs match the administrative program data for each state.³³

To combine the CPS and administrative data, we selected a multiyear period (2007–2011) that minimized the impact of annual fluctuations in program costs and enrollment. For the Earned Income Tax Credit and the Supplemental Nutrition Assistance Program, we were able to pool data for all five years. Because the release of administrative data for Temporary Assistance for Needy Families lags slightly, our data for that program cover the shorter 2007–2010 period. The release of Medicaid data lags an additional year, limiting our sample to the three-year period 2007–2009. To link program costs to worker characteristics, we matched CPS data for the same time period to each program.

Using multiple years allows us to smooth the changes in enrollment and cost over the course of the recession. During the past decade, each of these programs has experienced changes in funding, enrollment and aggregate benefits payouts. The 2007–2009 recession and the subsequent period of slow employment growth increased the working population eligible for public assistance. In some states policymakers responded to declines in state tax revenues by restricting program eligibility and benefits levels. Other states selectively expanded program eligibility, particularly for Medicaid and CHIP, in response to the widespread loss of jobs and employer-provided health insurance.³⁴

This process yielded national-level estimates of the hidden public cost of low-wage work. To translate those numbers into public benefits payments at the state level and to develop estimates for the home care industry,

we constructed a model that made it possible to integrate data from a third source, the U.S. Census Bureau's American Community Survey (ACS), which contains a larger sample size than the CPS. The use of the ACS allows us to estimate costs for all U.S. workers, for our subset of home care workers and for some states with large populations.

We included workers who reported working in either of two occupational categories: Personal or Home Care Aide and Nursing Assistant, Psychiatric Aide or Home Health Aide. To be included in the analysis, a worker had to meet the requirement of working at least 27 weeks and at least 10 hours per week in a given year.

Additionally, our analysis cannot take into account enrollment in other federal or state programs for which data are not readily available. These programs include Child Care Assistance, Women, Infants and Children Nutrition Program, Free or Reduced Price Lunches, Section 8 Housing, the Low-Income Heat and Energy Assistance Program and all state-based programs. Previous analyses of these programs find that significant shares of their expenditures likewise support low-income, working families.³⁵ This report focuses only on the largest federal public assistance programs and covers a limited segment of the fast-food workforce. Thus, our estimates of both program enrollments and costs are conservative, and by definition undercount total public costs.

A final methodological specification concerns the family basis of public benefits programs. While low earnings is the basic criterion for program eligibility, public benefits do not necessarily go directly to the worker. For example, some workers have neither public nor private health insurance, but enroll their children in the CHIP program. Other benefits, such as SNAP and EITC, are provided at the family level. Accordingly, our measure of public benefits to employed workers covers benefits provided to the family as a whole, rather than only those provided directly and exclusively to the worker.

Endnotes

1. Bureau of Labor Statistics, Employment Projections. At: <http://data.bls.gov/projections/occupationProj>.
2. Data on size of workforce from the Bureau for Labor Statistics' (BLS) May 2013 Occupational Employment Statistics (OES) survey. Annual earnings are NELP estimates from 2012 and 2013 March Supplement of the Current Population Survey. There is significant variation depending on where home care workers live. Annual earnings for home care workers ranged from \$15,100 in West Virginia to almost \$25,000 in Alaska.
3. May 2013 OES.
4. BLS Quarterly Service Survey (QSS) and Service Annual Survey (SAS). Growth is calculated after adjusting for inflation using the CPI.
5. To convert nominal wages to real wages, we used the Bureau of Labor Statistics' Consumer Price Index (CPI-W).
6. May 2004-2013 OES, adjusted for inflation.
7. Standard and Poor Capital IQ database, which compiles Securities and Exchange filings. The four publicly-traded home health companies are include Amedysis, Almost Family, Gentiva, and LHC Group.
8. NELP estimates from May 2013 OES and 2012 and 2013 March Supplement of the Current Population Survey.
9. Aaronson, Daniel and Eric French. 2013. "How does a federal minimum wage hike affect aggregate household spending?" Chicago Fed Letter. Chicago: Federal Reserve Bank of Chicago.
10. See Technical Appendix.
11. PHI. 2011. "Facts 3" New York: PHI. At: <http://www.phinational.org/sites/phinational.org/files/clearinghouse/NCDCW%20Fact%20Sheet-1.pdf>
12. Pew Research Center. 2010. "Baby Boomers Retire." Washington: Pew Research Center. At: <http://www.pewresearch.org/daily-number/baby-boomers-retire/>.
13. West, Loraine Samantha Cole, Daniel Goodkind, and Wan He, "65+ in the United States: 2010" 2014. Current Population Reports. Washington: US Census Bureau. At: <http://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf>
14. Gleckman, Howard. 2014. "Nearly Half of All Seniors Need Help With Daily Activities, Far More Than We Thought," Forbes.
15. Redfoot, Donald, Lynn Feinberg, and Ari Houser. 2013. "The Aging of the Baby Boom and the Growing Care Gap: A Look at Future Declines in the Availability of Family Caregivers." Washington: AARP Public Policy Institute. At: http://www.aarp.org/content/dam/aarp/research/public_policy_institute/ltc/2013/baby-boom-and-the-growing-care-gap-insight-AARP-ppi-ltc.pdf
16. Seavey, Dorie. 2014. "The Cost of Frontline Turnover in Long-Term Care" New York: PHI. At: <http://tinyurl.com/PHI-Seavey2>
17. Kassner, Enid, et al., A Balancing Act: State Long Term Care Reform (AARP Public Policy Institute, July 2008), http://assets.aarp.org/rgcenter/il/2008_10_ltc.pdf
18. U.S. Department of Labor. 2014. "Taking Care of Our Caretakers." Washington: US DOL. At: <http://social.dol.gov/blog/taking-care-of-our-caretakers/>
19. Seattle's minimum wage will rise to \$15 by 2018 and San Francisco's will rise to \$15 by 2018-21. <http://www.nelp.org/page/-/rtmw/City-Minimum-Wage-Laws-Recent-Trends-Economic-Evidence.pdf?nocdn=1>
20. Wicks-Lim, Jeannette and Robert Pollin. 2013. "The Costs to Fast-Food Restaurants of a Minimum Wage Increase to \$10.50 per Hour." Amherst: PERI, University of Massachusetts-Amherst.
21. PHI, supra note 17.
22. Bivens, Josh. 2011. "Method Memo on Estimating the Jobs Impact of Various Policy Changes." Washington: Economic Policy Institute. At: <http://www.epi.org/publication/bp251>; Hall, Doug and David Cooper. 2012. "How Raising the Federal Minimum Wage Would Help Working Families and Give the Economy a Boost" Washington: Economic Policy Institute. At: <http://www.epi.org/publication/ib341-raising-federal-minimum-wage/>. Gable and Douglas Hall. 2012. "The Benefits of Raising Illinois' Minimum Wage, Economic Policy Institute Issue Brief #321." At: <http://www.epi.org/publication/ib321-illinois-minimum-wage/>.
23. Zandi, Mark. 2012. "Written Testimony of Mark Zandi, Chief Economist and Co-Founder, Moody's Analytics Before the Joint Economic Committee, February 7, 2012." <https://www.economy.com/mark-zandi/documents/2012-02-07-JEC-Payroll-Tax.pdf>
24. Ruetschlin, Catherine. 2012. "Retail's hidden potential: How raising wages would benefit workers, the industry and the overall economy." <http://www.demos.org/sites/default/files/publications/RetailsHiddenPotential.pdf>. New York: Demos.
25. PHI, 2014. "Facts 5: Home Care Aides at a Glance". New York: PHI.
26. Cooper, David. 2013. "Raising the Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide a Modest Economic Boost." Washington: Economic Policy Institute At: <http://www.epi.org/publication/raising-federal-minimum-wage-to-1010/>
27. Bureau of Labor Statistics. 2015. Labor force statistics from the Current Population Survey. At: <http://data.bls.gov/timeseries/LNS12300000>
28. Summers, Lawrence. (2014) "U.S. Economic Prospects: Secular Stagnation, Hysteresis, and the Zero Lower Bound." *Business Economics*, 44 (2):65-73.
29. Howes, Candace. 2002. "The Impact of a large wage increase on the workforce stability of IHSS Home Care Workers in San Francisco County." Berkeley: UC Berkeley Labor Center. At: <http://laborcenter.berkeley.edu/pdf/2002/Howes.pdf>
30. Hagerty, James. 2013. "As America Ages, Shortage of Help Hits Nursing Homes." *Wall Street Journal*.
31. This section is adapted with permission from Allegretto, Sylvia, Marc Doussard, David Graham-Squire, Ken Jacobs, Dan Thompson and Jeremy Thompson. 2013. "Fast Food, Poverty Wages: The Public Cost of Low-Wage Jobs in the Fast Food Industry." Berkeley: UC Berkeley Labor Center. Urbana-Champaign: University of Illinois at Urbana-Champaign.
32. Due to potential overlap between Medicaid and Medicare receipt for seniors ages 65 and older, the analysis of Medicaid was limited to benefits provided to individuals age 64 and younger.
33. See Davern, Michael, Jacob Alex Klerman, David K. Baugh, Kathleen Thiede Call and George K. Greenberg. 2009. "An Examination of the Medicaid Undercount in the Current Population Survey: Preliminary Results from Record Linking." *Health Services Research* 44 (3): 965-987; Wheaton, Laura. No date. "Under-Reporting of Means-Tested Transfer Programs in the CPS and SIPP." Washington, D.C.: The Urban Institute.
34. Kaiser Family Foundation. 2009. "A Foundation for Health Reform: Findings of An Annual 50-State Survey of Eligibility Rules, Enrollment and Renewal Procedures and Cost-Sharing Practices in Medicaid and CHIP for Children and Parents During 2009." At: <http://kff.org/medicaid/report/afoundation-for-health-reform-findings-of/>.
35. Zabin, Carol, Arindrajit Dube and Ken Jacobs. 2004. "The Hidden Public Cost of Low-Wage Jobs in California." Berkeley: University of California, Berkeley, Center for Labor Research and Education.