



Living on the Edge: Where Very Low-wage Workers Live in Pennsylvania

By Mark Price and David Cooper¹

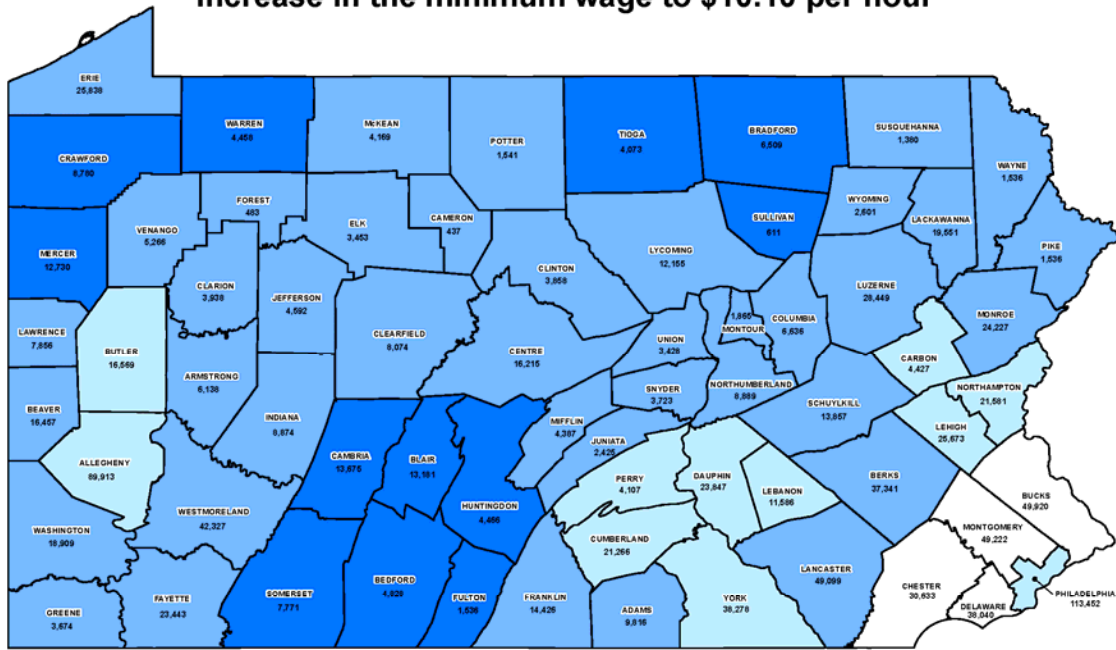
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Executive Summary

This briefing paper estimates the number of workers in each Pennsylvania county and metropolitan area that would be affected by a minimum wage increase to \$10.10 an hour by 2016.

In 52 of Pennsylvania's 67 counties, more than one fifth of workers (21% or more) would benefit from an increase in the minimum wage to \$10.10 per hour



Percentage of total employment represented by workers affected by a minimum wage increase to \$10.10 an hour
13% - 16% 17% - 20% 21% - 24% 25% - 27%

Note: Workers affected a minimum wage increase includes workers "directly affected" (earning less than \$10.10 per hour currently) plus workers "indirectly affected" (who have an hourly wage just above the new minimum wage). The directly affected group is two thirds of the total.
Source: Keystone Research Center based on Economic Policy Institute and American Community Survey data

Our findings in brief:

- In 52 of Pennsylvania's 67 counties, more than one fifth of workers (21% or more) would benefit from an increase in the minimum wage to \$10.10 per hour.

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- Philadelphia and Allegheny counties have the largest number of workers that would benefit from an increase in the minimum wage at 113,452 and 89,913 respectively.
- In 48 rural counties in Pennsylvania, 341,528 workers – or nearly one out of every four (23%) rural workers – would benefit from a minimum wage increase.
- In the remaining 19 urban counties, three quarters of a million (732,472) workers, 18% of the region’s workforce, would benefit from a minimum wage increase.

The Falling Purchasing of the Minimum Wage

Although the Pennsylvania economy continues to generate a substantial amount of new income each year, an increasing share of that income growth over last several decades has been captured by a tiny fraction of very high-income households.² In stark contrast the inflation-adjusted earnings of very low-wage workers have actually fallen by 6% since 1979.³



A key driver of falling wages for low-wage workers is the failure to raise the minimum wage to keep pace with inflation or productivity growth. Figure 1 presents the growth in the purchasing power of the minimum wage and U.S. productivity since 1947. From 1947 to 1968 the growth in the minimum wage kept pace with the growth in productivity in the U.S. economy. It is no coincidence that this was also a period of broadly shared growth in wages and incomes for low-, middle- and high-wage workers. Since 1968, not only has the minimum wage failed to keep pace with overall productivity growth but policy makers also failed to raise the minimum wage enough to even keep pace with rising consumer prices. As

² Mark Price, *Increasingly Unequal in Pennsylvania Income Inequality, 1917 to 2011*, February 19, 2014. Available at http://keystoneresearch.org/sites/default/files/KRC_IncreasinglyUnequal.pdf

³ Summarized here is the change in inflation adjusted hourly earnings for the Pennsylvania workers at the 10th percentile between 1979 and 2013.

a result the minimum wage is 23% lower today than it was in 1968. The impact of the falling purchasing power of the minimum wage is reflected in declining wages at for low-wage workers in Pennsylvania.⁴

Raising the Minimum Wage to \$10.10 Would Benefit One in Five Pennsylvania Workers

Today there are proposals before both the U.S. Congress and the Pennsylvania legislature to raise the minimum wage to begin to reverse the decline in earnings that low-wage workers have experienced. This briefing paper estimates the number of workers in each county and metropolitan area in Pennsylvania that would be affected by an increase in the minimum wage to \$10.10.⁵ Statewide, more than a million workers would benefit from a minimum wage increase to \$10.10 per hour, including 721,000 workers that would benefit directly and 353,000 workers who would benefit indirectly.⁶

This total of 1.07 million workers is nearly one in five workers (19.4%) in Pennsylvania.

In the tables that follow we present the total number (direct plus indirect) of workers affected in Pennsylvania based on their county of residence (Table 1), whether they live in rural or urban areas (Table 2) and by metropolitan area (Table 3).

In summary we find:

- In 52 of Pennsylvania's 67 counties, more than one fifth of workers (21% or more) would benefit from an increase in the minimum wage to \$10.10 per hour.
- Philadelphia and Allegheny counties have the largest number of workers that would benefit from an increase in the minimum wage at 113,452 and 89,913 respectively.
- In 48 rural counties in Pennsylvania, 341,528 workers or one out of every four (23%) workers in the region workers would benefit from a minimum wage increase.
- In the remaining 19 urban counties three quarters of a million (732,472) workers or 18% of the regions workforce would benefit from a minimum wage increase.

⁴ Between 1979 and 2013 hourly earnings for very low wage workers (at the 10th percentile) fell 6%, for low wage workers (those at the 20th percentile) fell 2%, wages over the same period stagnated for the next three deciles (30th, 40th, and 50th) rising in total over 34 years by 1%, 2% and 4% respectively.

⁵ Statewide estimates of the number of workers affected are from David Cooper, *Raising The Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide A Modest Economic Boost*, Economic Policy Institute, Briefing Paper #371, December 2013, available at <http://s2.epi.org/files/2013/minimum-wage-state-tables.pdf>

⁶ Directly affected workers are those whose wages would rise because the new minimum wage rate would exceed their current hourly pay. Indirectly affected workers have an hourly wage just above the new minimum wage (between the new minimum wage and the new minimum wage plus the dollar amount of the increase over the preceding minimum wage (i.e., between \$10.10 per hour and \$11.05 per hour). Indirectly affected workers would receive a raise as employers adjusted pay scales upward to reflect the new minimum wage.

Table 1.

Number and share of Pennsylvania workers that would benefit from a minimum wage increase to \$10.10 an hour.

County	Total Affected	Share of Estimated Workforce	County	Total Affected	Share of Estimated Workforce
Pennsylvania	1,074,000	19%	Juniata	2,425	23%
Adams	9,816	21%	Lackawanna	19,551	21%
Allegheny	89,913	19%	Lancaster	49,099	21%
Armstrong	6,138	23%	Lawrence	7,856	22%
Beaver	16,457	22%	Lebanon	11,586	19%
Bedford	4,828	25%	Lehigh	25,673	20%
Berks	37,341	21%	Luzerne	28,449	21%
Blair	13,181	25%	Lycoming	12,155	23%
Bradford	6,509	25%	McKean	4,169	24%
Bucks	49,920	14%	Mercer	12,730	27%
Butler	16,569	19%	Mifflin	4,387	23%
Cambria	13,675	25%	Monroe	24,227	22%
Cameron	437	24%	Montgomery	49,222	13%
Carbon	4,427	20%	Montour	1,865	23%
Centre	16,215	23%	Northampton	21,581	20%
Chester	30,633	13%	Northumberland	8,889	23%
Clarion	3,938	24%	Perry	4,107	19%
Clearfield	8,074	24%	Philadelphia	113,452	20%
Clinton	3,858	23%	Pike	1,536	23%
Columbia	6,636	21%	Potter	1,541	24%
Crawford	8,780	25%	Schuylkill	13,857	23%
Cumberland	21,266	19%	Snyder	3,723	23%
Dauphin	23,847	19%	Somerset	7,771	25%
Delaware	38,040	15%	Sullivan	611	25%
Elk	3,453	24%	Susquehanna	1,380	23%
Erie	25,838	21%	Tioga	4,073	25%
Fayette	23,443	24%	Union	3,428	23%
Forest	483	24%	Venango	5,266	24%
Franklin	14,426	21%	Warren	4,458	25%
Fulton	1,536	25%	Washington	18,909	21%
Greene	3,674	21%	Wayne	1,536	23%
Huntingdon	4,466	25%	Westmoreland	42,327	21%
Indiana	8,874	23%	Wyoming	2,601	21%
Jefferson	4,592	24%	York	38,278	19%

Source. Keystone Research Center analysis based on data from the American Community Survey and Cooper, David. "Raising the Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide a Modest Economic Boost." Economic Policy Institute. Briefing Paper #371.

Table 2.

Number and share of Pennsylvania workers that would benefit from a minimum wage increase to \$10.10 an hour.

Urban/Rural	Total Affected	Share of Estimated Workforce
Urban ¹	732,472	18%
Rural ²	341,528	23%

¹ Urban counties are defined here as those with at least 254 people per square mile (the statewide average population per square mile). Urban counties include: Beaver, Cumberland, Lackawanna, Lehigh, Luzerne, Northampton, Erie, Allegheny, Westmoreland, Dauphin, Lebanon, York, Lancaster, Berks, Philadelphia, Bucks, Montgomery, Chester, Delaware county.

² Rural counties are defined here as those with fewer than 254 people per square mile. Rural counties include: Adams, Armstrong, Bedford, Blair, Bradford, Cambria, Cameron, Carbon, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Juniata, Lawrence, Lycoming, McKean, Mifflin, Montour, Northumberland, Perry, Pike, Potter, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Washington, Wayne, Wyoming, Centre, Mercer, Butler, Fayette, Monroe, and Schuylkill county. Source: Keystone Research Center analysis based on data from the American Community Survey and Cooper, David. "Raising the Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide a Modest Economic Boost." Economic Policy Institute. Briefing Paper #371.

Table 3.

Number and share of Pennsylvania workers that would benefit from a minimum wage increase to \$10.10 an hour by metropolitan area[¥]

Metropolitan area	Total Affected	Share of Estimated Workforce	Metropolitan area ¹	Total Affected	Share of Estimated Workforce
Pennsylvania	1,074,000	19%	Meadville	8,780	25%
Allentown-Bethlehem-Easton	51,681	20%	New Castle	7,856	22%
Altoona	13,181	25%	Oil City	5,266	24%
Bloomsburg-Berwick	8,501	21%	Philadelphia City	113,452	20%
Bradford	4,169	24%	Philadelphia metro ²	281,267	16%
Chambersburg-Waynesboro	14,426	21%	Pittsburgh City	34,411	25%
DuBois	8,074	24%	Pittsburgh metro ³	213,755	20%
East Stroudsburg	24,227	22%	Pottsville	13,857	23%
Erie	25,838	21%	Reading	37,341	21%
Gettysburg	9,816	21%	Sayre	6,509	25%
Harrisburg-Carlisle	49,220	19%	Scranton ⁴	50,601	21%
Huntingdon	4,466	25%	Selinsgrove	3,723	23%
Indiana	8,874	23%	Somerset	7,771	25%
Johnstown	13,675	25%	State College	16,215	23%
Lancaster	49,099	21%	Sunbury	8,889	23%
Lebanon	11,586	19%	Warren	4,458	25%
Lewisburg	3,428	23%	Williamsport	12,155	23%
Lewistown	4,387	23%	York-Hanover	38,278	19%
Lock Haven	3,858	23%			

¹ Metropolitan areas defined here to include the Pennsylvania counties that make up core based statistical areas (CBSAs) <http://www.census.gov/population/metro/files/lists/2013/List1.xls>

² The Philadelphia metro is defined here to include Bucks, Chester, Delaware, Montgomery and Philadelphia county

³ The Pittsburgh metro is defined here to include Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland county

⁴ Scranton--Wilkes-Barre—Hazleton

Source. Keystone Research Center analysis based on data from the American Community Survey and David Cooper, *Raising the Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide a Modest Economic Boost*. Economic Policy Institute. Briefing Paper #371.

Conclusion

A generation has passed since the beginning of what has proved to be a failed experiment in American economic policy towards low-wage workers. Policy makers, urged on by business associations who represent low-wage employers, argued that wage standards like the minimum wage interfered with “the market” and actually reduced job prospects for low-wage workers. According to these advocates, shrinking the purchasing power of the minimum wage would unleash more economic growth with the result that wages for low-wage workers would rise even without increases in the mandated minimum.

The results of the last 30 plus years prove these advocates wrong. The overall growth of the economy has been worse in the last generation than it was in the previous. And, as the purchasing power of the minimum wage has declined, wages for low-paid workers generally have stagnated or fallen.

In contrast, since the late 1970s average CEO pay in the United States, adjusted for inflation, has risen \$12.6 million, or 876%. In 1978 CEOs made, on average, 29 times the average pay for private-sector production and nonsupervisory workers. In 2012, average CEOs made 273 times the compensation of average workers.⁷ In that same year, the sector that relies the most on low-wage workers, Accommodation and Food Services, CEOs earned 543 times the annual income of the average worker, the highest CEO-to-worker ratio of any sector in the economy in any year since 2000.⁸

It is time to reverse course and once again focus on economic growth powered by rising wages for working families. Several decades of careful research on the impact of state-level minimum wage increases has shown that it is possible to make modest improvements in the purchasing power of the minimum wage without causing job loss among low-wage workers.⁹ National U.S. experience also shows large increases in the minimum wage are perfectly compatible with very low unemployment: from the late 1940s to the late 1960s, as Figure 1 shows, the purchasing power of the minimum wage roughly doubled, and the U.S. enjoyed its most sustained period of very low unemployment ever. Studies of individual industries and companies also show that increasing the minimum wage spurs businesses to use workers more efficiently, and to innovate technologically, leading to higher productivity growth.¹⁰

Modest proposals to increase the minimum wage now under consideration in the United States Congress, and also in the Pennsylvania General Assembly, would raise the minimum wage to at least \$10.10 per hour. This would raise the wages of more than a million workers, or one in five Pennsylvania workers. As this briefing paper has demonstrated, the workers that would benefit from such an increase live in every county in the Commonwealth. Although most of the workers that would benefit live in the

⁷ Lawrence Mishel and Natalie Sabadish, *CEO Pay in 2012 Was Extraordinarily High Relative to Typical Workers and Other Higher Earners*, Economic Policy Institute, Issue Brief #367

⁸ Catherine Ruetschlin, *Fast Food Failure: How CEO-to-Worker Pay Disparity Undermines the Industry and the Overall Economy*, April 2014. Available at .

⁹ For a complete and readable review of the economic literature on the employment impact of minimum wage increases see John Schmitt, *Why Does the Minimum Wage Have No Discernible Effect on Employment?*, Center for Economic and Policy Research, February 2013, available at <http://www.cepr.net/index.php/publications/reports/why-does-the-minimum-wage-have-no-discernible-effect-on-employment>

¹⁰ For a classic article on the productivity impact of minimum-wage increases, see Michael Piore, “Labor Standards and Business Strategies,” in Stephen A. Herzenberg and Jorge F. Perez Lopez, *Labor Standards in the Global Economy*, U.S. Department of Labor, Bureau of International Labor Affairs, 1990.

Commonwealth's urban areas (reflecting where most people live), a larger share (23%) of workers would benefit in the Commonwealth's 48 rural counties.

Methodological Appendix

Estimating the number of affected workers statewide

Using data from the Current Population Survey from the 4th quarter of 2012 to the 3rd quarter of 2013, David Cooper of the Economic Policy Institute has estimated that a minimum wage increase to \$10.10 in three stages between 2014 and 2016 would affect 1,074,000 Pennsylvania workers (721,000 directly and another 353,000 indirectly).¹¹

Comparing Economic Policy Institute estimates to the Congressional Budget Office

In his national analysis Cooper estimated that 16.7 million workers would benefit directly from a minimum wage increase to \$10.10 an hour. The Congressional Budget Office¹² estimate for workers that would benefit directly from a minimum wage increase is 16.5 million.

Cooper estimates another 11.1 million workers would benefit indirectly from a minimum wage increase. The Congressional Budget Office estimate for workers that would benefit indirectly is 8 million.

Comparing Economic Policy Institute estimates to the Pennsylvania Department of Labor and Industry

The last increase in the state minimum wage in Pennsylvania from \$5.15 to \$7.10 included a provision establishing a minimum wage advisory board which issues an annual analysis of data on minimum wage workers in Pennsylvania. The most recent report issued in March of this year did not address specifically the number of workers that would be impacted by an increase to the \$10.10 an hour.¹³ The closest the report came to estimating that figure was an estimate that 17.8% of workers paid an hourly rate earned between \$7.25 and \$9.25.¹⁴ Cooper's estimate for Pennsylvania is that 19.4% of the workforce would see their earnings rise.

¹¹ David Cooper, Raising The Federal Minimum Wage to \$10.10 Would Lift Wages for Millions and Provide A Modest Economic Boost, Economic Policy Institute, Briefing Paper #371, December 2013, available at <http://s2.epi.org/files/2013/minimum-wage-state-tables.pdf>

¹² Congressional Budget Office, The Effects of a Minimum Wage Increase on Employment and Family Income, February 2014. Available at <http://www.cbo.gov/sites/default/files/cbofiles/attachments/44995-MinimumWage.pdf>

¹³ Minimum Wage Advisory Board, Analysis of the Pennsylvania Minimum Wage in 2013, March 2014. Available at http://www.portal.state.pa.us/portal/server.pt/document/1400264/minimum_wage_report_2014_pdf?qid=89498529&rank=1

¹⁴ In analyzing data on earnings from the Current Population Survey the Pennsylvania Department of Labor and Industry does not currently have the capacity to impute hourly earnings for workers who report their weekly rather than hourly wage and as a result excludes some observations from its analysis and producing slightly lower counts of workers that would be impacted by a minimum wage increase.

Allocating affected workers to each county

To allocate statewide figures for the number of workers affected by a minimum wage increase to each county, estimates of each county's share of workers earning between \$7.25 and \$11.25 an hour was calculated using public use microdata data from the 2010-2012 American Community Survey.¹⁵

Public Use Microdata Areas

A wide variety of data from the American Community Survey (ACS) are published by the Census Bureau on its site, American FactFinder, for geographies as small as the local school district. For researchers wishing to do more complex calculations, such as calculating hourly earnings using the ACS, it is necessary to access survey data through public use microdata. These are anonymous records of individual responses of Pennsylvania citizens to each of the ACS survey questions on subjects including annual earnings from work, usual hours worked in a week and weeks worked in the last year. One limitation of using this data is that the smallest geographic area identifiable is a Public Use Microdata Area (PUMA) - a geographic area that has at least 100,000 people. This means that larger counties like Philadelphia County are comprised of multiple PUMAs which for this analysis are combined into a single group. There are also many counties in Pennsylvania like Perry County which have fewer than 100,000 people and, as a result, individual survey responses from Perry County are grouped with survey responses from people living in neighboring Cumberland County (See Table M1 for a list of the county groups).¹⁶ For those Pennsylvania counties that are grouped with a neighboring county we first estimate the number of workers earning between \$7.25 and \$11.25 in the larger group. We then allocated these totals to the individual counties that comprise this group using each county's share of resident employment (averaged over 2010, 2011 and 2012); resident employment data is published by the Bureau of Labor Statistics in its Local Area Unemployment Statistics data.¹⁷

¹⁵ Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

¹⁶ PUMA boundaries in the 2010-2011 American Community Survey were based on the 2000 Census. PUMA boundaries in the 2012 American Community Survey were based on the 2010 Census. In order to conduct our analysis we combined PUMAs to create county groups that were consistent across the two different PUMA boundary definitions.

¹⁷ We used the same procedure to allocate Cooper's statewide estimate of the estimated workforce (5,540,000) to individual counties.

Table M1

Pennsylvania counties grouped together in public use American Community Survey microdata

Crawford & Warren

Clinton, Juniata, Lycoming, Mifflin, Snyder, & Union

Bradford, Sullivan & Tioga

Pike, Susquehanna, & Wayne

Lackawanna & Wyoming

Columbia & Luzerne

Cameron, Clarion, Clearfield, Elk, Forest, Jefferson, McKean, Potter, & Venango

Armstrong & Indiana

Beaver & Lawrence

Greene & Washington

Bedford, Blair, Cambria, Fulton, Huntingdon, & Somerset

Cumberland & Perry

Adams & Franklin

Montour & Northumberland

Carbon, Lehigh, & Northampton

Source. Keystone Research Center

Imputing Weeks Worked

Earnings data in the American Community Survey (ACS) is reported on an annual basis. Hourly earnings was calculated by dividing annual income from work by the product usual weekly hours and weeks worked. Weeks worked is reported in ACS public use microdata in intervals. For example people that worked 28 weeks during the year are identified as having worked between 27 and 39 weeks. In order to calculate hourly earnings it is necessary to have an estimate of weeks worked rather than a range of weeks worked for each person in our Pennsylvania sample. Using three years of data from the Current Population Survey, Annual Social and Economic Supplement, we use a regression model of standard demographic and labor market variables to predict the discrete number of weeks worked per year for workers within each interval. The estimators from this model are then applied to the ACS data to impute a discrete value of weeks worked per year for all workers, allowing us to calculate an hourly wage.