ISSUE BRIEF

Unprecedented Minimum-Wage Hike Would Hurt Jobs and the Economy

James Sherk and John L. Ligon

President Obama and some Senators have proposed increasing the federal minimum wage to $10.10 per hour over the next two years—its highest level ever, after accounting for inflation. The proposed increase far outstrips the productivity growth of minimum-wage workers and would force employers to curtail hiring.

Some proponents of the increase theorize that increased spending power for low-income workers stimulates the economy and offsets these job losses. However, conventional macroeconomic modeling shows that this minimum-wage hike would likely eliminate 300,000 jobs per year and reduce gross domestic product (GDP) by over $40 billion annually.

Unprecedented Increase. President Obama and Senator Tom Harkin (D–IA) support legislation that would raise the minimum wage to $10.10 per hour by early 2016 and subsequently index it to inflation via the Consumer Price Index (CPI).[1]

This proposal would raise the minimum wage to unprecedented levels. The minimum wage already stands above its historical average. Since 1950, the federal minimum wage has averaged $6.62 per hour in 2013 dollars.[2] It peaked in purchasing power at $8.28 per hour in 1968.[3]

This legislation would raise the minimum wage one-seventh above its all-time high.[4] It would significantly raise the cost of hiring unskilled and inexperienced workers during an already weak economy.

Many advocates of the increase argue that a $10 rate would simply restore the minimum wage to its purchasing power in 1968.[5] They argue it would no more burden the economy today than it did then. They can make this argument because the government calculates several different measures of inflation, notably the Consumer Price Index (CPI) and Personal Consumption Expenditures deflator (PCE). The minimum wage stood at $1.58 per hour in 1968. Using the PCE to adjust for inflation equates that to $8.28 per hour in 2013 dollars, while the CPI equates it to $10.56 per hour in today's money. Proponents of minimum-wage increases use the latter figure.

However, the CPI suffers from several serious biases. Economists have found that the CPI:

- Inadequately accounts for changing consumption patterns (such as Americans purchasing more smartphones as prices fall),

- Does not account for savings when consumers shift to less expensive retail outlets (such as Wal-Mart or online stores),

- Takes several years to incorporate new products (such as the iPhone) after they are introduced—precisely the time they tend to fall rapidly in price, and

- Inadequately adjusts for quality improvements in goods and services.

CHART 1

Proposed Minimum Wage Increase Well Above Historical Rates

INFLATION-ADJUSTED FEDERAL MINIMUM WAGE (DOLLARS PER HOUR)
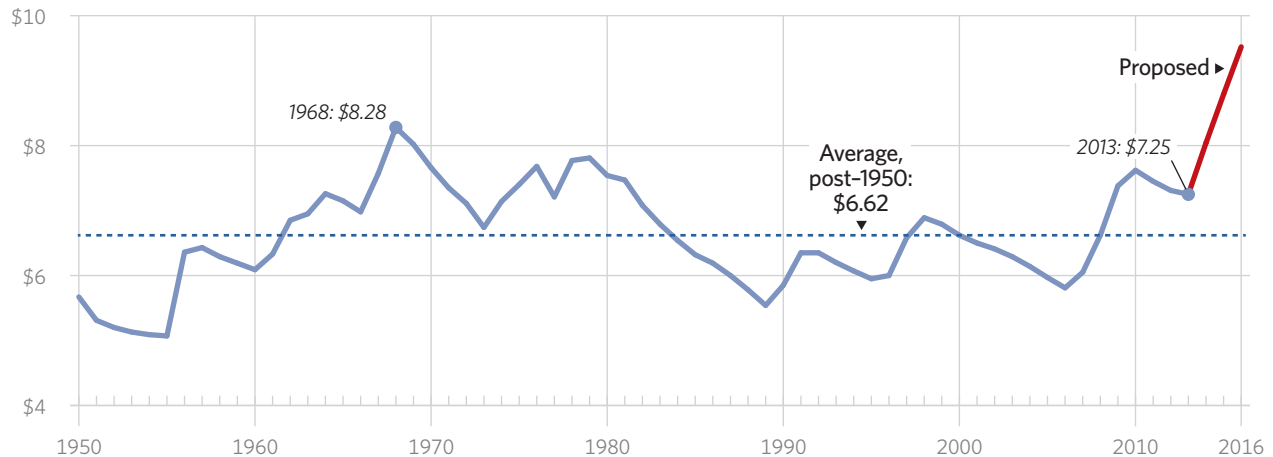
Note: The proposed increases are expressed in 2013 dollars, not current dollars, and are thus lower than the proposed nominal statutory rates of $8.20, $9.15, and $10.10 per hour.
Source: Heritage Foundation calculations using data on historical minimum wage rates and the Personal Consumption Expenditure (PCE) deflator. Future years are projected assuming a 2.0 percent increase in the PCE deflator.

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These biases artificially inflate CPI-measured inflation by about one percentage point per year.[6] In the short term, this has only small effects, but when compounded over decades, it heavily distorts perceptions of prior earnings. The Bureau of Labor Statistics (BLS) recognizes these problems and has made some changes to the CPI methodology to address them.

An alternative measure of inflation, the CPI Research Series (CPI-RS), calculates past inflation rates using the current methodology. Inflation adjusting with the CPI-RS shows the minimum wage at $9.24 per hour in 1968.

Nonetheless, many significant biases remain in both the CPI and the CPI-RS.[7] Although the PCE does not correct all of them, it more accurately

1. The Minimum Wage Fairness Act, S. 1713.

2. Heritage Foundation calculations using historical minimum wage data from the Department of Labor and inflation adjusted using the PCE deflator.

3. The minimum wage rose from $1.40 per hour to $1.60 per hour in February 1968. It averaged $1.58 per hour across that whole year. Inflation-adjusted with the PCE deflator, this equates to $8.28 per hour in 2013 dollars. Note that the Bureau of Economic Analysis published revisions to the historical PCE deflator in mid-2013 as part of the updates to the National Income and Products Accounts. Consequently, inflation adjustments made with the current PCE deflator differ slightly from those made with the previously published figures.

4. A $10.10 minimum wage in 2016 equates to $9.52 in 2013 dollars, 15 percent higher than the historical peak value of $8.28 per hour in 1968.

5. See Arindrajit Dube, "Keeping up with a Changing Economy: Indexing the Minimum Wage," testimony before the Committee on Health, Education, Labor, and Pensions, U.S. Senate, March 14, 2013, http://www.help.senate.gov/imo/media/doc/Dube1.pdf (accessed December 4, 2013).

6. For an overview of these problems, see Robert Gordon, "The Boskin Commission Report: A Retrospective One Decade Later," *International Productivity Monitor*, Vol. 12 (Spring 2006), pp. 7–22, http://www.csls.ca/ipm/12/IPM-12-Gordon-e.pdf (accessed December 4, 2013). See also Jerry Hausman, "Sources of Bias and Solutions to Bias in the Consumer Price Index," *Journal of Economic Perspectives*, Vol. 17, No. 1 (Winter 2003), pp. 23–44.

7. Gordon, "The Boskin Commission Report," and Hausman, "Sources of Bias and Solutions to Bias in the Consumer Price Index."

CHART 2

Value of the Minimum Wage in 1968 in 2013 Dollars

$10.56

$9.24

$8.28

$1.58

| Unadjusted | PCE Deflator | CPI-RS | CPI |
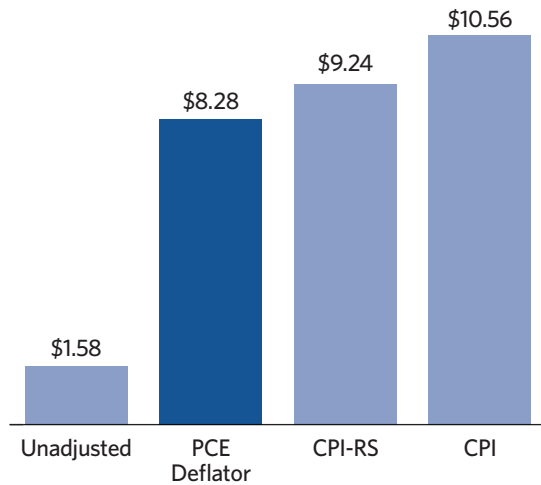
Note: The federal minimum wage increased from $1.40 per hour to $1.60 per hour in February 1968. For all of 1968, the minimum wage averaged $1.58 per hour.
Source: Heritage Foundation calculations using the Personal Consumption Expenditures deflator, the Consumer Price Index for All Urban Consumers Research Series, and the Consumer Price Index for All Urban Consumers.

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accounts for consumers' changing spending patterns. Economists who study these issues consider the PCE a better inflation measure than the CPI.[8] Both the Federal Reserve and the Congressional Budget Office use the PCE as their preferred mea-

sure of inflation.[9] Using the PCE shows that Senator Harkin would increase the minimum wage to an unprecedented level.

Fewer Entry-Level Jobs. Businesses would respond to this increase the same way they respond to other cost increases—by purchasing less of the more expensive good or service.[10] This would hurt less-skilled workers' prospects for advancement.

Most minimum-wage jobs are entry-level positions filled by workers with limited education and experience. Almost three-fifths of minimum-wage workers have no more than a high school education, and half are under the age of 25.[11] They work for the minimum wage because they currently lack the productivity to command higher pay.

Minimum-wage jobs give these workers experience and teach them essential job skills. Often these skills pertain more to general employability than to a particular job: the discipline of being a reliable employee, learning how to interact with customers and coworkers, how to accept direction from a boss, etc. These skills are essential to getting ahead in the workplace but difficult to learn without actual on-the-job experience.

Once workers gain these skills, they become more productive, and most quickly earn raises or move to higher-paying jobs. Over two-thirds of workers starting out at the minimum wage earn more than that a year later.[12] Minimum-wage increases saw off this bottom rung of many workers' career ladders.
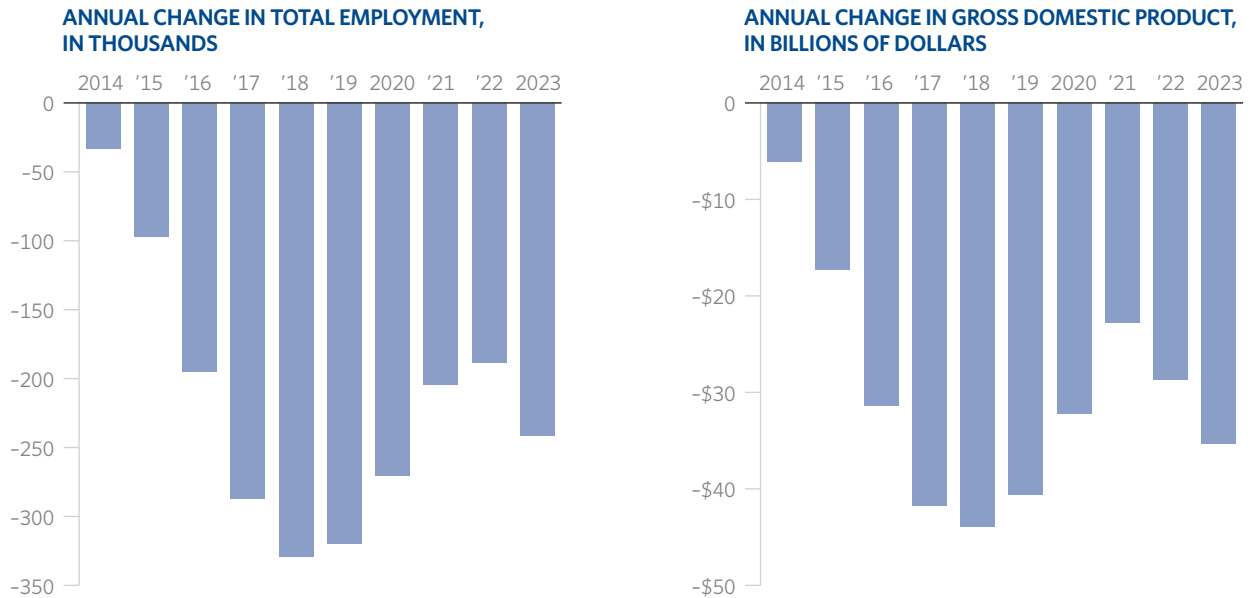
Negative Macroeconomic Effects. Proponents of minimum-wage increases argue that increasing minimum-wage workers' pay would boost their

8. See Jessie Handbury, Tsutomu Watanabe, and David E. Weinstein, "How Much Do Official Price Indexes Tell Us about Inflation?" National Bureau of Economic Research *Working Paper* No. 19504, October 2013. The researchers used scanner data with price and quantity data on essentially all grocery store sales in Japan over the past two decades. This enabled them to calculate the true inflation rate using the theoretically correct (but difficult to implement due to data limitations) Tornqvist index. In contrast to this true rate, the methodology employed in the CPI overstated annual inflation rates by an average of 1.1 percentage points per year, while a methodology similar to that employed by the PCE overstated inflation by approximately 0.7 point per year. Note that Handbury et al. found that this bias changed over time—with greater error during periods of low inflation.

9. See Board of Governors of the Federal Reserve, "What Is Inflation and How Does the Federal Reserve Evaluate Changes in the Rate of Inflation?," http://www.federalreserve.gov/faqs/economy_14419.htm (accessed December 4, 2013), and Congressional Budget Office, *Distribution of Household Income and Federal Taxes, 2008 and 2009*, July 10, 2012, http://www.cbo.gov/publication/43373 (accessed December 4, 2013).

10. David Neumark and William Wascher, *Minimum Wages* (Cambridge, MA: MIT Press, 2008).

11. See James Sherk, "What Is the Minimum Wage: Its History and Effects on the Economy," testimony before the Committee on Health, Education, Labor, and Pensions, U.S. Senate, June 25, 2013, Table 1, http://www.heritage.org/research/testimony/2013/06/what-is-minimum-wage-its-history-and-effects-on-the-economy.

12. David Macpherson and William Even, "Wage Growth Among Minimum Wage Workers," Employment Policies Institute, June 2004, pp. 3–5, http://www.epionline.org/studies/macpherson_06-2004.pdf (accessed December 4, 2013).

CHART 3

Minimum Wage Hike Would Hurt Jobs and the Economy

The proposed increase to the minimum wage would eliminate an average of 217,000 jobs each year and reduce GDP by an average of $30 billion per year.

ANNUAL CHANGE IN TOTAL EMPLOYMENT, IN THOUSANDS

ANNUAL CHANGE IN GROSS DOMESTIC PRODUCT, IN BILLIONS OF DOLLARS

Source: Heritage Foundation calculations using data from the IHS-Global Insight March Short-Term U.S. Macroeconomic Model.

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spending and stimulate the economy, offsetting potential job losses.[13] Macroeconomic modeling does not support these claims.

The Heritage Foundation used the IHS Global Insight macroeconomic model—which many financial institutions, manufacturers, and government agencies use to make economic forecasts—to estimate the consequences of increasing the minimum wage. The Global Insight modeling accounts for minimum-wage workers' higher pay, employer reactions to higher labor costs, and price increases passed onto consumers.

The model shows that increasing the minimum wage would hurt the economy on net—real GDP would decline by $42 billion in 2017 relative to the baseline. Moreover, by 2017 the legislation would reduce employment by 287,000 jobs annually.[14]

Minimum-Wage Pay Tracks Productivity. Minimum-wage hike advocates further argue that productivity gains have enabled businesses to absorb higher minimum wages.[15] *The New York Times*, for example, recently editorialized that "if the minimum wage had kept pace over time with the average growth in productivity, it would be about $17 per hour."[16] In this view, minimum-wage employers could easily pay more if the government forced them to.

This argument conflates economy-wide average productivity with the productivity of minimum-

13. See, for example, David Cooper and Doug Hall, "Raising the Federal Minimum Wage to $10.10 Would Give Working Families, and the Overall Economy, a Much-Needed Boost," Economic Policy Institute, March 13, 2013, http://www.epi.org/publication/bp357-federal-minimum-wage-increase/ (accessed December 4, 2013).

14. There is substitution between labor and capital as the economy adjusts to the higher cost of labor. While total employment declines relative to the baseline by 0.15 percent, real non-residential business investment increases by 0.14 percent relative to the baseline.
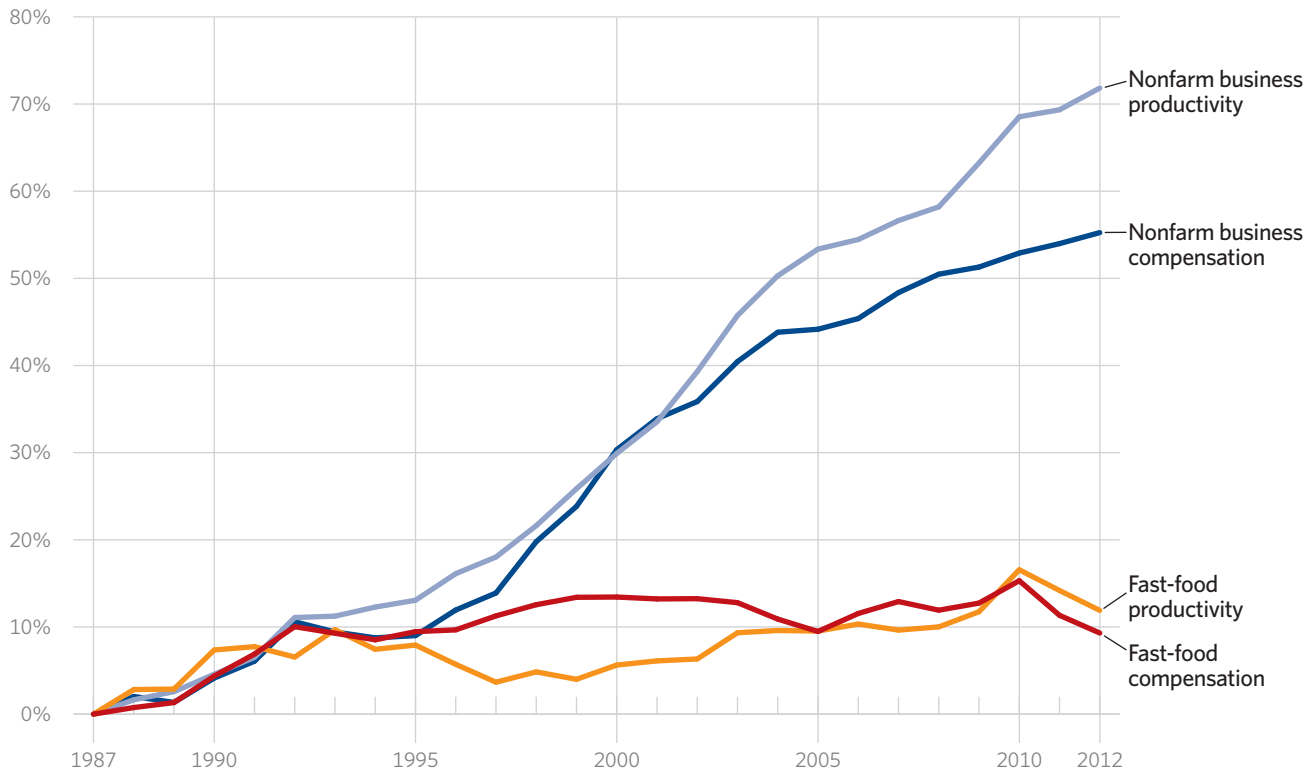
15. See Dube, "Keeping up with a Changing Economy."

16. Editorial, "Redefining the Minimum Wage," *The New York Times*, November 11, 2013, http://www.nytimes.com/2013/11/12/opinion/redefining-the-minimum-wage.html (accessed December 4, 2013).

CHART 4

Compensation and Productivity Track Closely in Private Sector and in Fast-Food Restaurants

PERCENTAGE CHANGE SINCE 1987

Source: Heritage Foundation calculations using data from the Bureau of Labor Statistics, "Labor Productivity and Costs: Nonfarm Business Sector and Accommodation and Food Services, Limited-Service Restaurants," http://www.bls.gov/lpc/ (accessed December 4, 2013). Figures are inflation-adjusted with the implicit price deflator for output for the limited-service restaurant sector and for the nonfarm business sector.

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wage workers. Labor productivity in nonfarm businesses increased 72 percent between 1987 and 2012. Compensation increased almost as much—55 percent.[17] However, the productivity of minimum-wage workers increased much less. Between 1987 and 2012, the average productivity of fast-food workers rose 12 percent—very close to the 9 percent increase in hourly compensation in the fast-food sector.[18]

The pay of workers in entry-level jobs (such as fast food) closely tracks their productivity. Restaurants that gave 72 percent raises to workers whose productivity increased by one-tenth would soon go out of business.

Hurting Low-Income Workers. President Obama has proposed an unprecedented minimum-wage increase. A $10.10 per hour minimum wage

17. Heritage Foundation calculations using data from BLS, "Labor Productivity and Costs: Nonfarm Business Sector," http://www.bls.gov/lpc/ (accessed December 4, 2013). Inflation adjusted with the implicit output deflator for the nonfarm business sector. Note that much of the remaining gap between compensation and pay is accounted for by (1) greater depreciation, which reduces net earnings but not gross productivity, and (2) measurement errors artificially inflating reported productivity. See James Sherk, "Productivity and Compensation: Growing Together," Heritage Foundation *Backgrounder* No. 2825, July 17, 2013, http://www.heritage.org/research/reports/2013/07/productivity-and-compensation-growing-together.

18. Heritage Foundation calculations using data from BLS, "Labor Productivity and Costs: Accommodation and Food Services, Limited-Service Restaurants," http://www.bls.gov/lpc/ (accessed December 4, 2013). Inflation adjusted with the implicit output deflator for the limited-service restaurant sector.

would set it one-seventh above its inflation-adjusted historical high. Businesses would have difficulty absorbing these cost increases—minimum-wage workers' pay has closely tracked their productivity. Businesses would have to instead cut jobs, making it more difficult for unskilled workers to gain the experience necessary to get ahead.

While proponents of raising the minimum wage theorize that higher pay would stimulate economic growth, macroeconomic modeling shows that this proposal would in fact eliminate jobs and reduce GDP.

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Appendix A: Methodology

Heritage analysts used the IHS Global Insight (GII) 2013 November Short-Term U.S. Macroeconomic model adjusted to reflect per hourly federal minimum wage set to $7.25. The series in the GII model reflecting the federal hourly minimum wage is set to $7.25 in 2013 and $8.00 in 2014, with annual increases to $10.065 in 2023, the last year of the forecast period. This series was adjusted to reflect a federal hourly minimum wage rate of $7.25 for each quarter of the forecast period (2013:4 to 2023:4).

IHS Global Insight is a leading economic forecasting firm in the United States. This model is used by private-sector and government economists to estimate how changes in the economy and public policy are likely to affect major economic indicators. The methodologies, assumptions, conclusions, and opinions presented here are entirely the work of ana-lysts in the Center for Data Analysis at The Heritage Foundation. They have not been endorsed by, and do not necessarily reflect the views of, the owners of the Global Insight model.

The analysis in this report reflects a counter-factual forecast scenario where the federal hourly minimum-wage rate adjusts to the schedule outlined below. The counterfactual minimum wage assumes annual CPI growth of 2.4 percent per year after 2016. This counterfactual forecast scenario is run against the adjusted baseline reflecting a federal hourly minimum-wage rate of $7.25 for each year of the forecast period (2013 to 2023). The change in the model in this simulation is the adjustment to the minimum-wage rate series in the GII model. There were no other adjustments made to the GII model.

APPENDIX TABLE 1

Economic Effects of Raising the Federal Minimum Wage to $10.10 per Hour and Subsequently Indexing It to Inflation

Gross Domestic Product *(Billions of Dollars, Inflation-Adjusted to the 2009 Price Level)*

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total, 2014–2023
Forecast	16,115.3	16,614.2	17,150.1	17,673.5	18,171.8	18,669.4	19,149.3	19,618.4	20,070.3	20,528.1	183,760.4
Baseline	16,121.4	16,631.6	17,181.4	17,715.2	18,215.7	18,709.9	19,181.6	19,641.2	20,098.9	20,563.3	184,060.1
Difference	–6.0	–17.3	–31.3	–41.7	–43.9	–40.6	–32.2	–22.8	–28.6	–35.3	–299.7

Total Employment *(Thousands of Jobs)*

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Average, 2014–2023
Forecast	138,084	140,520	143,140	145,398	147,081	148,362	149,451	150,111	150,885	151,602	146,463
Baseline	138,117	140,617	143,334	145,685	147,411	148,682	149,721	150,315	151,073	151,843	146,680
Difference	–33	–97	–195	–287	–329	–320	–270	–204	–188	–241	–217

Source: Heritage Foundation calculations using data from the IHS-Global Insight 2013 November Short-Term U.S. Macroeconomic Model reflecting a federal hourly minimum wage rate of $7.25. See Appendix A for description of the adjusted baseline.

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