

Raising the Minimum Wage:

Reviewing the Evidence on Why Minimum Wage Increases Boost Incomes Without Reducing Employment

More than four years after the Great Recession, job growth continues to improve steadily across the country but is concentrated in low-wage industries. In response, many states, including California, have begun to focus on raising their minimum wage rates to boost incomes for low-paid workers and their families in these high-growth jobs such as restaurants and retail. Yet, despite wide agreement among economists, small business owners, and voters on the economic benefits of raising the minimum wage, some industry opponents continue to repeat outdated claims that higher wages will reduce employment or slow job growth.

The evidence is clear: two decades of rigorous research, examining hundreds of case studies of minimum wage increases on the state level, consistently demonstrate that ***raising the minimum wage boosts incomes for low-paid workers without reducing overall employment.***

This paper reviews the main research on the impact of raising the minimum wage, drawing three conclusions:

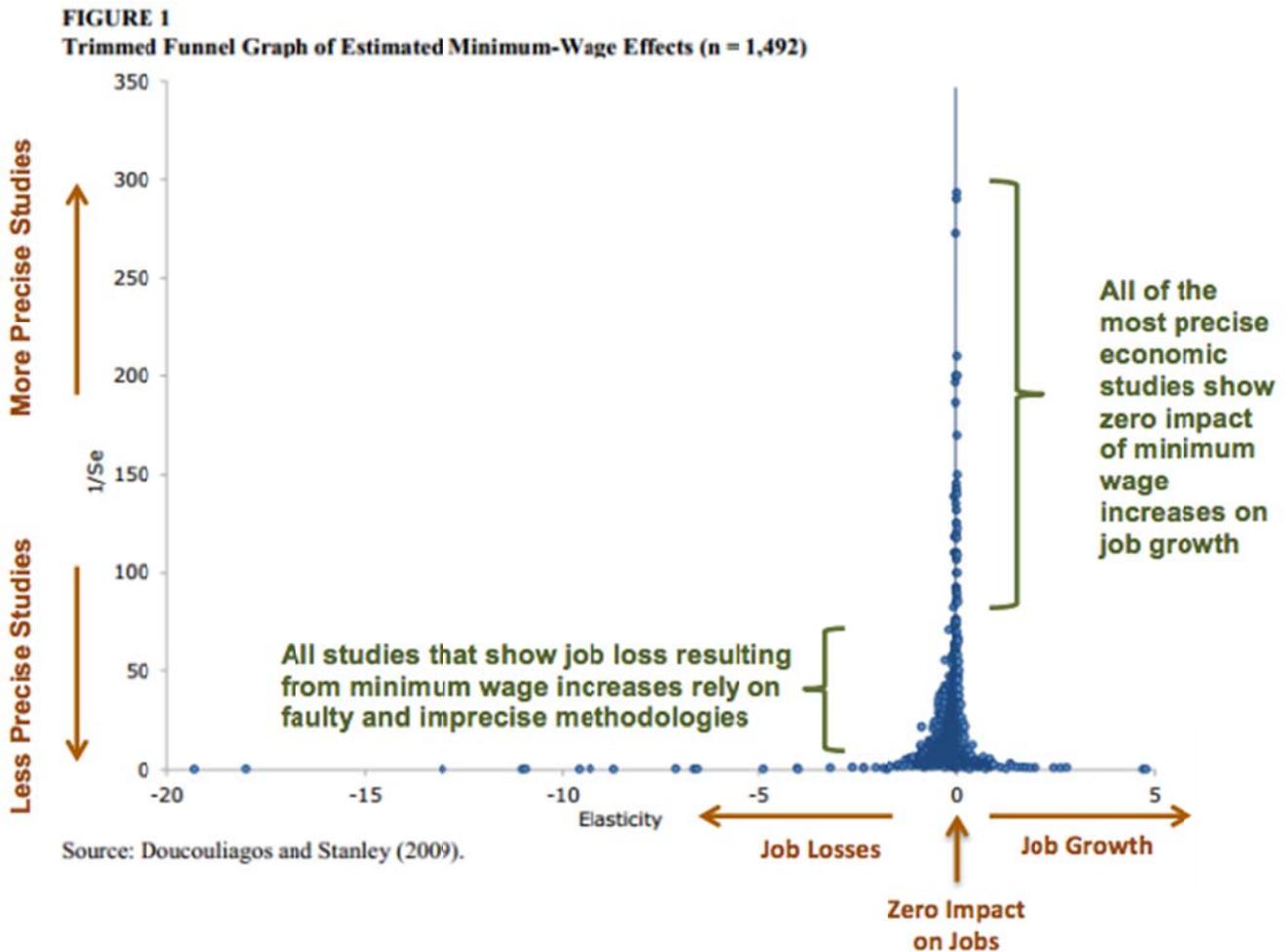
1. **Mainstream economists and a majority of recent studies agree: raising the minimum wage boost incomes for low-paid workers without reducing overall employment.**
2. **Opponents of raising the minimum wage rely on outdated studies that use imprecise methodologies and fail to take advantage of the most recent advancements in economic research.**
3. **Businesses are able to pay higher wages without reducing employment due to a range of factors, including higher productivity and reductions in employee turnover that consistently result from minimum wage increases.**

1. Leading mainstream economists and a majority of recent studies agree: raising the minimum wage boosts incomes for low-paid workers without reducing overall employment

- Over the past twenty years, there has been a tremendous amount of research on the employment impact of raising the minimum wage. Most prominently, two leading “meta-studies” survey and pool the data from over four decades of recent research¹ -- and, as summarized by the Center for Economic and Policy Research in recent review, these leading meta-studies show that the most rigorous research demonstrates that there is “little or no significant impact of minimum wage increases on employment.”² These meta-studies represent the most accurate and sophisticated approaches to

studying the employment impact of raising the minimum wage, as they aggregate data from dozens of studies containing thousands of different estimates of the employment impact of minimum wage increases.

- A single graph from one of the meta-studies illustrates the findings – below, the graph arrays 1,492 different findings from 64 different studies, mapping the employment impact that they find against the statistical precision of the findings. As economist Jared Bernstein summarizes, “the strong clumping around zero [impact on jobs] provides a useful summary of decades of research on this question [of whether minimum wage increases cost jobs].”³



Source: Doucougliagos and Stanely, “Publication Selection Bias in Minimum Wage Research? A Meta-Regression Analysis,” British Journal of Industrial Relations, 2009. (with NELP annotations)

- This body of research has led to a tremendous shift in the views of mainstream economists on the employment impact of minimum wage increases. Indicative is a February 2013 poll of leading economists by the University of Chicago’s Booth School of Business, in which economists opined by a more than 3 to 1 margin that the benefits of raising the minimum wage and indexing it for inflation outweigh any costs.⁴
- While there are dozens of recent studies confirming that the employment effects of raising the minimum wage are negligible, the newest and most methodologically sophisticated research in the

area has been receiving special attention. It consists of two landmark studies, published in 2010 and 2011. The 2011 study, “Do Minimum Wages Really Reduce Teen Employment?,” has received substantial attention for demonstrating the very straight-forward errors in the studies in which economists have erroneously attributed reductions in employment to the minimum wage. (See discussion below.)⁵

- The 2010 study, “Minimum Wage Effects Across State Borders,” applies innovative new research methods to examine the real-world impact of state minimum wage increases on employment. In order to completely isolate other factors influencing state job growth trends, the study compares employment trends in neighboring counties that are economically similar except for having different minimum wages (by virtue of being on different sides of a state border). The study looks at employment levels among every pair of neighboring U.S. counties that had differing minimum wage levels at any time between 1990 and 2006 – and finds that higher minimum wages did not lead business in those states to reduce their hiring or shift their hiring to neighboring counties with lower minimum wage rates.⁶
- The innovative approach used by the 2010 study has won praise from leading labor economists at top universities, such as **Harvard economist Lawrence Katz**, and **Massachusetts Institute of Technology economists David Autor and Michael Greenstone**. As Autor explained, “The paper presents a fairly irrefutable case that state minimum wage laws do raise earnings in low wage jobs but do not reduce employment to any meaningful degree. Beyond this substantive contribution, the paper presents careful and compelling reanalysis of earlier work in this literature, showing that it appears biased by spatial correlation in employment trends.”⁷
- The fact that the bulk of recent research demonstrates the beneficial impact of raising the minimum wage has led many leading economists – including **University of California-Berkeley economists Robert Reich, Laura Tyson, and Michael Reich** – to call for raising the federal minimum wage to approximately \$10 per hour and indexing it to rise with inflation. Supporters also include: **Daron Acemoglu**, Elizabeth and James Killian Professor of Economics, Massachusetts Institute of Technology; **Robert Frank**, H.J. Louis Professor of Management and Professor of Economics, Cornell University; **Richard Freeman**, Herbert Ascherman Professor of Economics, Harvard University, Department of Economics; **Lawrence Katz**, Elisabeth Allison Professor of Economics, Harvard University, Department of Economics; **Lawrence Mishel**, President, Economic Policy Institute; **Jeffrey Sachs**, Director, The Earth Institute, Columbia University; **Joseph Stiglitz**, Nobel Laureate, Professor of Economics, Columbia University.⁸

2. Opponents of raising the minimum wage rely on outdated studies that use imprecise methodologies and fail to take advantage of the most recent advancements in economic research.

- The shrinking body of economic research that continues to argue that minimum wage increases cost jobs emanates in large part from a single source: University of California-Irvine economist David Neumark. Neumark is the author of both a survey that claims that the weight of the minimum wage research points towards evidence of job losses, and of several studies that claim to show the same. However, both Neumark’s survey and the methodology that he uses in his individual studies have been shown to be skewed and inaccurate.
- Neumark’s 2006 survey, “Minimum Wages and Employment: A Review of Evidence from the New Minimum Wage Research,” maintains that 85 percent of the “most credible” research on the impact of

raising the minimum wage finds job loss as a result. However, more careful researchers have pointed out that his survey, which is not a true meta-study, was conducted in a highly subjective manner, which generated its unrepresentative conclusions. Specifically, Neumark's survey (1) fails to comprehensively review the economic research on the impact of raising the minimum wage, and instead selects just 33 studies that the author subjectively designates as the "most credible"; (2) the study omits several of the most important recent studies on the impact of minimum wage increases in the U.S., with the result that half of the studies analyzed by Neumark focus on foreign labor markets rather than the U.S.; and (3) the survey is skewed towards Neumark's own research, which makes up 25 percent of the U.S.-based studies that he elects to include.⁹

- Instead, it is the more rigorous, comprehensive, and up-to-date meta-studies noted above – which find that the bulk of recent research on the minimum wage shows negligible impact on jobs – that accurately capture the state of the economic evidence on the impact of minimum wage increases. As for Neumark's own research on the impact of minimum wage increases – and the other (minority) of studies that continue to maintain that minimum wage increases cost jobs – virtually all of this research has used variants on a single approach: comparing job growth trends in all of the states with higher minimum wages with those in all of the states with lower minimum wages. However, researchers using more modern economic methods have found that this research does not accurately isolate any impacts that higher minimum wages may be having since it does not adequately control for the wide range of varying local economic conditions that affect job growth in state labor markets. These include regional trends in manufacturing jobs losses, population shifts to the sun belt, the local severity of economic shocks such as the housing bubble collapse, and other major employment shifts. As a result of these inadequate controls, these studies erroneously attribute differences in regional job growth levels to minimum wage differences.
- By contrast, the more sophisticated research does a better job of controlling for those regional economic differences and finds that, when they are factored out, any suggestion that higher minimum wages cost jobs disappears. For example, the 2010 study "Do Minimum Wages Really Reduce Teen Employment?," uses Neumark's own methodology – but then, rather than comparing job growth rates among all states nationwide, focuses instead on comparisons among states in the same region of the country that have differing minimum wages. It shows that when one uses a regional focus to control for extraneous economic trends, there is no longer any evidence of job losses in the data.
- Major business publications have endorsed the new research that finds no job loss resulting from minimum wage increases, and have rejected opposition research as faulty and inaccurate. For example, **Bloomberg News** in 2012 called for increasing the minimum wage and indexing it for inflation, writing that, "[a] wave of new economic research is disproving those arguments about job losses and youth employment. Previous studies tended not to control for regional economic trends that were already affecting employment levels, such as a manufacturing-dependent state that was shedding jobs. The new research looks at micro-level employment patterns for a more accurate employment picture. The studies find minimum-wage increases even provide an economic boost, albeit a small one, as strapped workers immediately spend their raises."¹⁰

3. Business are able to pay higher wages without reducing employment due to a range of factors, including higher productivity and reductions in employee turnover that consistently result from minimum wage increases.

- There are significant savings that result from paying higher wages – including reduced employee turnover and increased productivity – and these savings help offset the cost to employers of a minimum wage increase. The increased efficiency and productivity gained by paying higher wages helps explain why many leading companies such as Costco and Trader Joe’s choose to invest in higher wages for their front-line employees as part of a highly competitive business strategy.
- For example, a Harvard Business Review study by MIT Professor Zeynep Ton shows that the starting wage for full-time employees at Trader Joe’s ranges between \$40,000 and \$60,000 per year, more than twice what many of its competitors offer, and yet the sales revenue per square foot at Trader Joe’s are three times higher than the average U.S. supermarket.¹¹
- In calling for an increase in the federal minimum wage to \$10.10 per hour earlier this year, **Costco CEO Craig Jelinek** affirmed the significant business savings and efficiencies gained through higher wages, stating, “We pay a starting hourly wage of \$11.50 in all states where we do business, and we are still able to keep our overhead costs low. An important reason for the success of Costco’s business model is the attraction and retention of great employees. Instead of minimizing wages, we know it’s a lot more profitable in the long term to minimize employee turnover and maximize employee productivity, commitment and loyalty. We support efforts to increase the federal minimum wage.”¹²
- A 2003 study by economists at the University of California-Berkeley examined the effects of a wage increase for workers at the San Francisco Airport, finding that annual turnover among security screeners plunged from 95 percent to 19 percent when their hourly wage rose from \$6.45 to \$10 per hour. After wages increased at the airport under a living wage policy, 35 percent of employers reported improvements in work performance, 47 percent reported better employee morale, 44 percent reported fewer disciplinary issues, and 45 percent reported that customer service had improved.¹³
- **67% of small business owners** support raising the minimum wage and adjusting it for inflation each year, according to an April 2013 survey.¹⁴ **Two-thirds of low-wage employees work for large companies** with over 100 employees, not the small businesses that many opponents claim.¹⁵

¹ See: Hristos Doucouliagos and T.D. Stanley, “Publication Selection Bias in Minimum-Wage Research?” *British Journal of Industrial Relations* (2009), vol, 47. no. 2, pp.406-428.

See: Paul Wolfson and Dale Belman. Forthcoming. *What Does the Minimum Wage Do?* Kalamazoo, MI: Upjohn Institute for Employment Research.

² John Schmitt, “Why Does the Minimum Wage Have No Discernible Impact on Employment?” Center for Economic and Policy Research, February 2013. Available at: <http://www.cepr.net/documents/publications/min-wage-2013-02.pdf>

³ Jared Bernstein, “On the Economy: Raising the Minimum Wage: The Debate Begins...Again,” February 14, 2013. Available at: <http://jaredbernsteinblog.com/raising-the-minimum-wage-the-debate-begins-again/>

⁴ University of Chicago Booth School of Business IGM Economic Experts Panel, February 26, 2013, available at http://www.igmchicago.org/igm-economic-experts-panel/poll-results?SurveyID=SV_br0IEq5a9E77NMV

⁵ See: Sylvia A. Allegretto, Arindrajit Dube, and Michael Reich, “Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data,” *Industrial Relations* (April 2011), available at <http://www.irle.berkeley.edu/workingpapers/166-08.pdf>. See NELP summary here: http://nelp.3cdn.net/eb5df32f3af67ae91b_65m6iv7eb.pdf

⁶ See: Arindrajit Dube, T. William Lester, and Michael Reich, “Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties,” *The Review of Economics and Statistics*, 92(4): 945–964 (November 2010), available at <http://www.irle.berkeley.edu/workingpapers/157-07.pdf>. See NELP summary here: http://nelp.3cdn.net/98b449fce61fca7d43_j1m6iizwd.pdf

⁷ See NELP research brief here: http://nelp.3cdn.net/98b449fce61fca7d43_j1m6iizwd.pdf.

⁸ “Time to Raise the Minimum Wage,” Economic Policy Institute, July 23, 2012, available at: <http://www.epi.org/files/2012/minimum-wage-letter.pdf>

⁹ See Schmitt, “Why Does the Minimum Wage Have No Discernable Impact on Employment?” February 2013.

¹⁰ “Raise the Minimum Wage,” *Bloomberg News*, April 16, 2013, available at <http://www.bloomberg.com/news/2012-04-16/u-s-minimum-wage-lower-than-in-lbj-era-needs-a-raise.html>

¹¹ Zeynep Ton, “Why Good Jobs are Good for Retailers,” *Harvard Business Review*, January 2012, available at <http://hbr.org/2012/01/why-good-jobs-are-good-for-retailers/ar/1>

¹² See <http://www.businessforafairminimumwage.org/news/00272/costco-eileen-fisher-and-small-business-owners-nationwide-support-fair-minimum-wage-act-i>

¹³ Michael Reich, Peter Hall, Ken Jacobs, “Living Wages and Economic Performance,” *Institute of Industrial Relations*, March 2003, available at http://www.irle.berkeley.edu/research/livingwage/sfo_mar03.pdf

¹⁴ Small Business Majority, Opinion Poll: Small Businesses Support Increasing Minimum Wage, April 24, 2013, available at <http://www.smallbusinessmajority.org/small-business-research/minimum-wage/>

¹⁵ Big Business, Corporate Profits, and the Minimum Wage, National Employment Law Project, July 2012, available at <http://www.raisetheminimumwage.org/pages/corporate-profits>