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The Minimum Wage and Job Creation

Raising the state minimum wage results in higher pay rates for low-wage workers, but how does it affect jobs and the economy? This is a key question whenever proposals to increase the minimum wage arise. Some argue that minimum wage increases do not lead to job loss and suggest that raising the minimum wage enhances worker morale and productivity, while others argue that raising the minimum wage causes employers to cut jobs and working hours for low-wage workers. Our analysis of job growth in Massachusetts over almost two decades—during which the state minimum wage increased several times—provides evidence that these increases have not impeded job growth. Likewise, the latest economic studies that address this question and that are summarized below also show that minimum wage increases do not have a negative effect on employment.

[This fact sheet is one in a series of MassBudget reports addressing various aspects of the Massachusetts minimum wage.]

The Massachusetts Experience

The Massachusetts minimum wage has increased six times since 1995, and during this time employment growth in industry sectors with high concentrations of minimum wage workers has been more positive than total employment growth, and markedly higher than growth in sectors with low concentrations of minimum wage workers.

For many years the Massachusetts minimum wage was the same as, or close to, the federal minimum wage level. Legislation passed in 1995 increased the state's hourly minimum wage from $4.25 to $4.75 starting in January, 1996 and to $5.25 in January, 1997, slightly ahead of increases in the federal minimum wage. Two sets of subsequent increases followed during the next decade—to $6.00 and $6.75 in 2000 and 2001, and to $7.50 and $8.00 in 2007 and 2008. Figure 1 shows the change in employment levels for all industry sectors and for sectors with high and low concentrations of minimum wage workers from January 1995 to January 2012.[1] During the first part of this period, in the 1990s, all sectors—including those with a high concentration of minimum wage workers—experienced roughly similar growth levels, despite implementation of a higher minimum wage.

The minimum wage increases that went into effect in 2000-01 were followed by a slight dip in employment levels for sectors with higher concentrations of minimum wage workers, and a deeper dip followed the phase-in of the 2007-08 increase. However, sectors with low concentrations of minimum wage workers experienced much deeper declines during these

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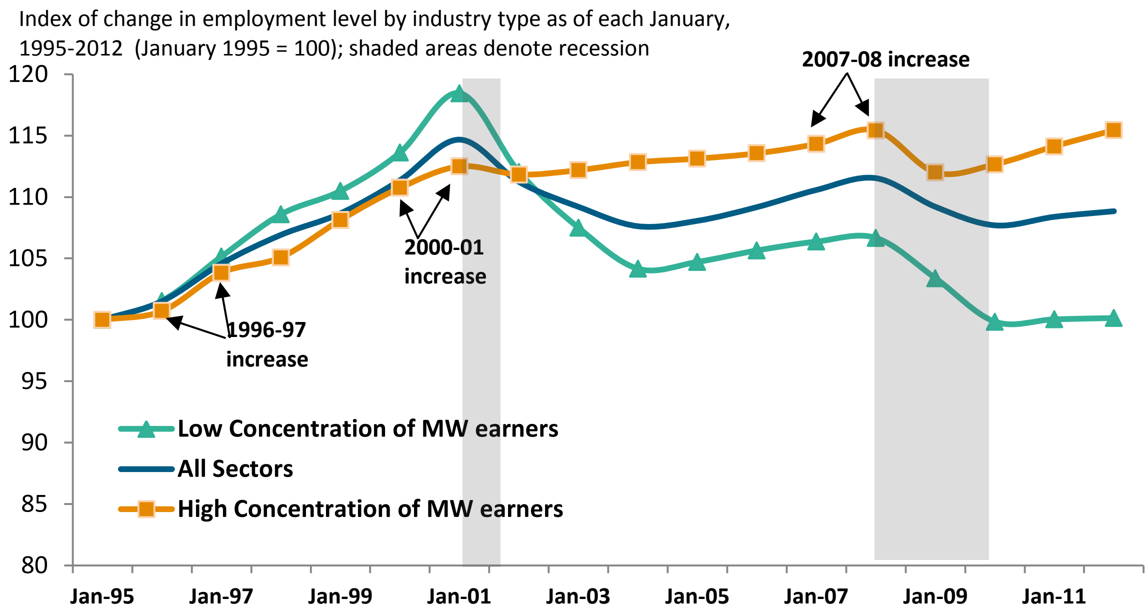
[1] Sectors with high concentrations of minimum wage workers include retail trade, leisure and hospitality, and other services; low concentration sectors include manufacturing, construction, transportation and utilities, information, financial activities, professional and business services, and governments.

periods. The declines in both sets of sectors were at least partly the result of recessions that began in March of 2001 and December of 2007, but by January, 2012 the low wage job sector had recovered the jobs lost during the recession, in contrast to other sectors. This experience suggests that the six increases in the minimum wage have not impeded growth in jobs for minimum wage workers. In fact, a recent analysis of the effects of a potential increase in the national minimum wage to $9.80 suggests that such an increase could help stimulate the local economy.[2]

Figure 1. After Minimum Wage Increases Job Growth in Low-Wage Sectors Outpaced Growth in High-Wage Sectors



Source: Economic Policy Institute Analysis of Current Employment Statistics survey data. High concentration industries include Retail Trade; Low concentration industries include Manufacturing, Construction, Transportation & Utilities, Information, Financial Activities, Professional & Business Svs, and Government

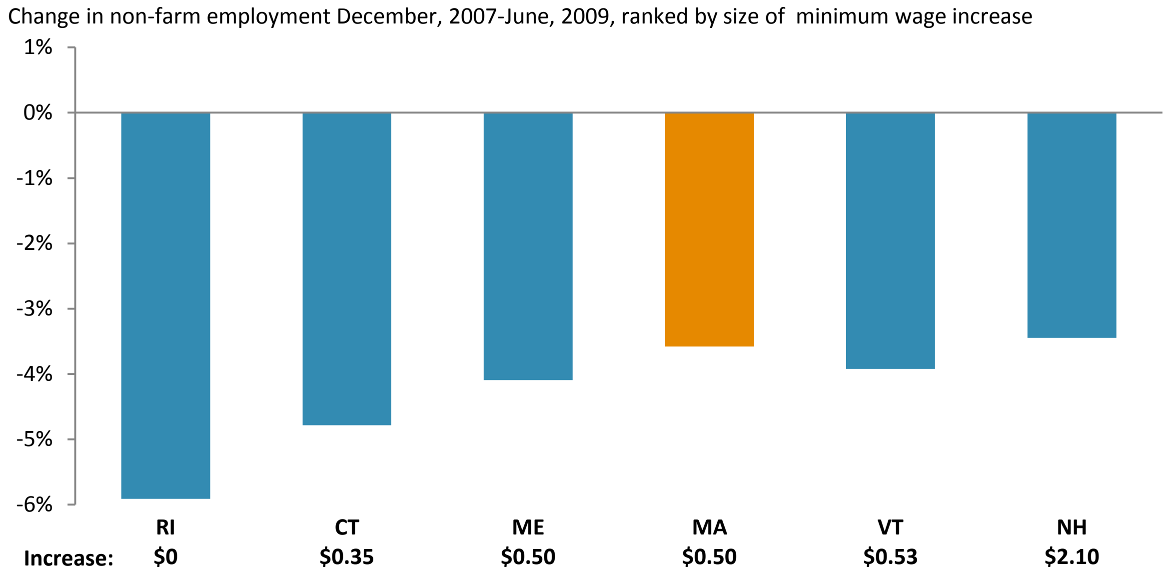
The New England Experience

Comparing job growth and minimum wage levels across New England states during the recent recession and its aftermath also suggests that minimum wage increases and higher minimum wage levels do not affect job growth significantly. The minimum wage is set at a different rate in each of the six New England states and five of these states increased their minimum wages between January 2007 and January 2009, even as the economy entered a recession that lasted from December 2007 to June 2009. (See Appendix A for state-by-state wage levels.) During this recession all six states—like most of the rest of the nation—experienced a decline in employment. However, as Figure 2 shows, states with larger minimum wage increases actually had *smaller* drops in employment during this period. Notably, New Hampshire, which raised its minimum wage several times during this period due to both changes in the federal minimum wage and state initiatives, experienced the smallest decline in employment. Rhode Island, the

[2] Doug Hall and David Cooper, "How Raising the Minimum Wage Help Working Families and Give the Economy a Boost" (Economic Policy Institute, August 2012).

one state that did not increase its minimum wage at all, had the largest decline in employment—5.9 percent, 2.5 percentage points higher than the 3.4 percent drop in New Hampshire.

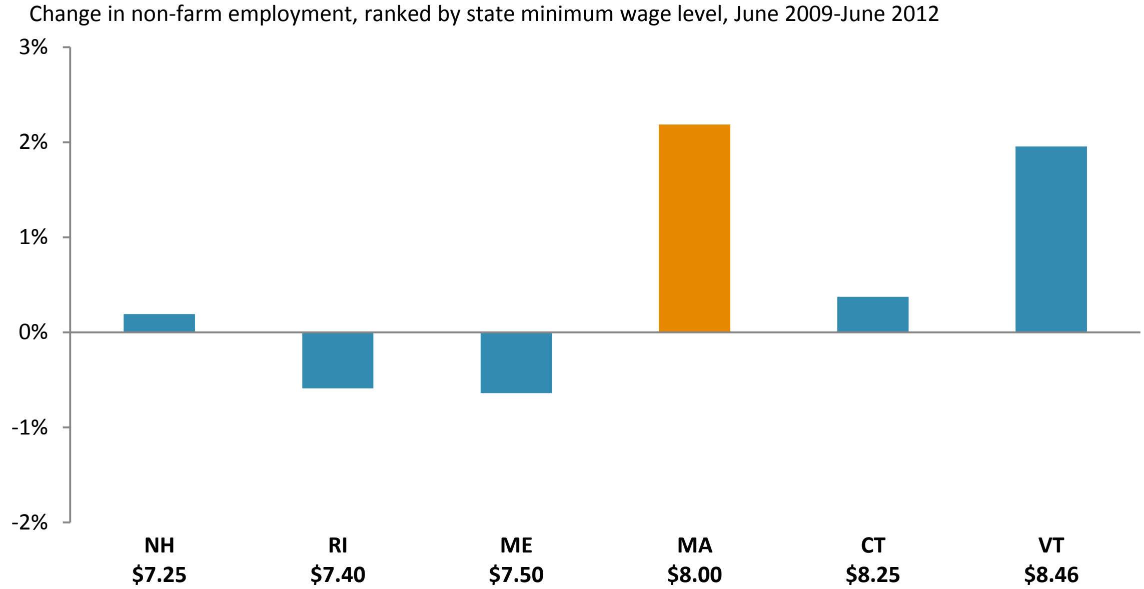
Figure 2. States With Larger Wage Increases Had Less Job Loss in the Recession



Source: EPI analysis of Bureau of Labor Statistics data; Department of Labor data on mnimum wage levels; increase in state minimum wage between January, 2007 and January, 2009.

Looking at the relationship between the actual value of each state's minimum wage and the extent to which job growth has recovered since the end of the recession in June of 2009 likewise suggests that higher minimum wages do not impede job growth. Although employment has not returned to pre-recession levels in any of these states, growth has been faster—as Figure 3 shows—in the three states with the highest minimum wages. Among the three states with lower minimum wages, growth has varied—New Hampshire, with the lowest minimum wage has seen some employment growth, but two other states with lower minimum wages have had further job loss. Ultimately, a variety of factors affect job growth, and the recession has affected states in different ways. The different rates of employment loss and growth in New England states during this period was likely the result of a variety of factors, but the data do not provide any evidence that higher minimum wages prevent job growth.

Figure 3. Minimum Wage Levels Have Not Affected State Recovery from Recession



Source: EPI analysis of Bureau of Labor Statistics data; Department of Labor data on minimum wage levels; state minimum wage as of January, 2012.

Employment Effects of Minimum Wage Increases – Two Studies

The experience in Massachusetts described above is echoed in the results of the most recent major academic studies looking at whether minimum wage increases result in job loss. Attempts to answer this question have occupied economists in recent decades, particularly as states began to increase their minimum wages beyond the federal levels the 1990s. A number of studies during this period produced conflicting results—some suggested that minimum wage increases had no effect, while others found small negative effects (see summaries in Appendix B).

More recently, however, two studies that use improved methodology to build on the earlier work provide new evidence that minimum wage increases do not lead to job loss. The studies argue that job loss that has appeared to be associated with minimum wage increases in some studies is better explained by economic trends that are specific to individual states—in other words, a variety of factors affect job growth, and trends in job growth vary from state to state, as well as over time. After controlling for these factors, the two studies find no significant job loss following minimum wage increases.

- The first study, published in 2010 by Arindrajit Dube, T. William Lester, and Michael Reich,[3] focuses on employment in restaurants in contiguous counties on state borders in the U.S., and measures average earnings and total employment over a 16 ½ year period. The authors look at restaurant employment because this industry employs large

[3] "Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties," *The Review of Economics and Statistics*" 92(4) (November 2010): 945-964.

numbers of minimum wage workers—33 percent of restaurant workers earn within 10 percent of the minimum wage, and 30 percent of minimum wage workers work in restaurants. Using contiguous counties on either side of a state border allows the authors to look at sets of counties that are economically similar, but that have different state minimum wages, and thus helps control for variation in employment trends that is unrelated to minimum wage levels. Using a longer time frame—16 ½ years—than that used in earlier state-specific case studies of the restaurant industry also allows them to control for the possibility of time-lags in the effect of minimum wage changes on employment. **The analysis finds that minimum wage increases have a generally positive effect on earnings and no meaningful effect on employment levels.**

- In the second study, published in 2011, Sylvia Allegretto, Arindrajit Dube, and Michael Reich[4] use census data to look at changes in wages, employment, and hours among teenagers aged 16 to 19 years following minimum wage increases in the 1990-2009 period (as in the case of restaurant workers a high proportion of teenage workers earn at or near the minimum wage). After adjusting for variation among census districts and state-specific trends in employment **this study again finds a slight positive effect of minimum wage increases on wages for teen workers, but finds no significant effect on employment levels,** and it also finds no evidence that minimum wage increases cause employers to decrease the number of work hours for teen workers.

There are a number of reasons why these studies do not find a negative impact on employment. One explanation is that raising wages may reduce employee turnover, and thus reduce the costs employers incur when they must hire and train new workers. Higher wages may also lead to improved morale and increased productivity, and employers may be able to pass on a portion of the costs of the increase to consumers or otherwise absorb it.[5]

Minimum Wage Increases & Small Businesses

While there are many small businesses in Massachusetts, they account for a relatively small number of jobs. In 2009 (the most recent year for which data are available), around 119,000 firms, or 86 percent of Massachusetts businesses, had fewer than 20 workers.[6] At the same time, only 17 percent of workers are employed in businesses with fewer than 20 employees, and more than two-thirds of workers in Massachusetts are employed in businesses with 100 or more employees. While some small businesses—for instance, small restaurants or stores—may pay minimum wage rates, others, such as small law or architecture firms and construction businesses, are likely to pay well above the minimum wage.

[4] "Do Minimum Wages Really Reduce Employment? Accounting for Heterogeneity and Selectivity in State Panel Data," *Industrial Relations* Vol. 50, No. 2 (April 2011): 205-39

[5] See "Big Business, Corporate Profits, and the Minimum Wage," a recent report by the National Employment Law Project showing that on a national level two-thirds of low-wage workers, including minimum wage workers, are employed by corporations with over 100 employees, and that the majority of these businesses have seen increases in profits and executive pay following the recession. (http://www.nelp.org/page/-/rtmw/NELP-Big-Business-Corporate-Profits-Minimum-Wage.pdf?nocdn=1)

[6] Census, Statistics of U.S. Businesses (http://www.census.gov/epcd/susb/latest/ma/MA--.HTM)

Nevertheless, it is worth considering the potential impact of a minimum wage increase on small businesses, since some of them may be less able to easily absorb changes in the price of labor. Studies of the effect of minimum wage increases, such as those discussed above have typically not addressed differences in effect among small and large employers. One analysis that did focus on small employers (published in 2004, and then updated in 2006) compared states with minimum wages above the federal level to those with wages at the federal level, and found that the group with higher minimum wages had faster rates of small business growth (small businesses are defined in this study as establishments with fewer than 50 employees).[7] As noted above, a variety of factors can influence job growth in a particular state, but this study suggests that minimum wage increases are unlikely to have a negative economic impact on small businesses in the long term.

[7] "States with Minimum Wages above the Federal Level have had Faster Small Business and Retail Job Growth", Fiscal Policy Institute, March 30, 2006.

Appendix A

New England State Minimum Wages, 2007-2012						
State	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Maine	6.75	7.00	7.25	7.50	7.50	7.50
New Hampshire	5.15	6.50	7.25	7.25	7.25	7.25
Vermont	7.53	7.68	8.06	8.06	8.15	8.46
Massachusetts	7.50	8.00	8.00	8.00	8.00	8.00
Rhode Island	7.40	7.40	7.40	7.40	7.40	7.40
Connecticut	7.65	7.65	8.00	8.25	8.25	8.25

Notes: All wages are as of January of each year. Wage increases in Massachusetts, Connecticut, and Vermont were effective on January 1st of each year. Maine and New Hampshire changes took effect at different points in the year:

- **Maine:** Each of the minimum wage increases in Maine took effect the preceding October (e.g., the minimum wage increased to $7.00 on October 1, 2007).
- **New Hampshire:** The minimum wage increased to $5.85 in July 2007 (due to an increase in the federal minimum wage to that level) and to $6.50 in September 2007 (due to state legislation). It increased to $6.55 in July 2008 (due to an increase in the federal minimum wage) and to $7.25 (due to legislation) in September 2008, almost a year ahead of a scheduled increase in the federal minimum wage to that level.

Note that as of January 1, 2013 the Vermont minimum wage will increase to $8.60 and the Rhode Island minimum wage will increase to $7.75.

Appendix B: Selected Minimum Wage Studies

Dozens of studies of the effect of minimum wage increases on employment have appeared since the early 1990s. The following list includes key articles by two sets of scholars on opposite sides of the debate, David Neumark and William Wascher (who argue that minimum wage increases have negative effects) and David Card and Alan Krueger (who argue that they do not have negative effects). This works forms a backdrop for the two studies described in this fact sheet.

2007

David Neumark and William Wascher, "Minimum Wages and Employment," ***Foundations and Trends in Microeconomics*** **3: 1-2 (2007): 1-182.**
Reviews the research literature on the employment effects of the minimum wage from the early 1990s on and suggests that while there is a wide range of existing estimates the majority of studies point to a negative (although not always significant) effect. Further suggests that studies that focus on groups with lowest skills provides stronger evidence of a negative effect on employment for these groups.

2000

These two articles appeared in the American Economic Review, 90(5) (2000).

David Neumark and William Wascher, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment," 1362-96.
This study examines the effect of an increase in the New Jersey minimum wage in order to reevaluate the conclusion of the 1994 study by Card and Krueger that found no negative effect on employment levels. Using data from administrative payroll records from a sample of large fast food restaurants, instead of the employer survey data used in the 1994 study (which the authors consider flawed), they find that the minimum wage increase led to a significant decline in fast-food employment.

David Card and Alan M. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply," 1397-420.
Like a 1994 study by the same authors, this article analyzes the effect of an increase in the New Jersey minimum wage on employment, but in response to Neumark and Wascher's criticisms of their methodology (in the article above), it uses data reported by employers to the Bureau of Labor Statistics rather than the survey data used in the earlier study. The article again finds no evidence that the minimum wage increase had a significant effect on employment, and some evidence for a small, but insignificant, positive effect. The authors suggest the negative effect of an increase found by Neumark and Wascher is the consequence of a failure to adjust for reporting differences that led to a less representative data sample.

1994
David Card and Alan Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," ***American Economic Review*** **84:4 (1994): 772-793.**
This paper analyzes the effect of an increase in the New Jersey minimum wage on employment, wages, and prices, using data from a survey of fast food restaurants in New Jersey and eastern Pennsylvania (where the minimum wage did not rise). It finds a small increase in employment in New Jersey, and some evidence that some costs were passed on to consumers in the form of higher prices for meals.

1992
These three articles appeared in the Industrial and Labor Relations Review, 46, No. 1 (October 1992).

Card, David. 1992. "Using Regional Variation in Wages to Measure the Effects of the Federal Minimum Wage," 22-37.
Card examines the effect of a 1990 increase in the federal minimum wages on teen wages and employment, using differences in incremental wage increases due to variation in state minimum wages at the time of the federal increase. He finds that the increase in the minimum wage raised wages for teens, but did not lead to a significant drop in teen employment rates.

Lawrence F. Katz and Alan B. Krueger, "The Effect of the Minimum Wage on the Fast Food Industry," 6-21.
The authors examine increases in the federal minimum wage on fast-food restaurants in Texas, using longitudinal survey data, and find that employment increased at employers most affected by the minimum wage increase.

David Neumark and William Wascher, "Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws," 55-81.
Neumark and Wascher analyze data on minimum wages and local economic conditions for all states for the period 1977-89 (and 1973-89 for a subset of states) and find that increases in the minimum wage have a small negative effect on employment among teenagers and young adults.