The minimum wage and employment dynamics

Jonathan Meer, Jeremy West 10 September 2013

The recent proposal by President Obama to raise the federal minimum wage has brought this issue back into the limelight. This column presents new research suggesting minimum-wage policies may not cause an immediate shock to employment, as is often feared, but do cause a reduction in the rate of net job growth. The long-run prospects for individuals are damaged, as they are delayed the opportunity to develop skills and work experience – that crucial first rung on the career ladder.

The minimum wage remains one of the most controversial policies in both the public discourse and labour economics. The recent proposal by President Obama to raise the federal minimum wage has brought this issue to the fore once again (see Aaronson and French 2013). The reaction was predictable: some argued that this would cause serious unemployment problems, while others pointed to opposing research showing that the minimum wage has little, if any, effect on employment.

New research

In recent research, we revisit the question of the effects of the minimum wage using an alternative approach (Meer and West 2013). We directly examine employment dynamics – namely, the rate of net job growth – rather than the total number of jobs. The minimum wage is more likely to impact employment dynamics for a number of reasons, and we estimate the effects on net job growth using data from the US Census Bureau, finding that the minimum wage reduces net job growth, primarily through its effect on job creation by expanding establishments.

Minimum wage and fast food, a classic but contentious study

The most commonly cited economics research on the minimum wage is a 1994 paper by David Card and Alan Krueger. The authors surveyed about 400 fast food restaurants in New Jersey and Pennsylvania immediately before and about nine months after New Jersey increased its minimum wage. They compared employment at these restaurants before and after the increase, between the state with and the state without an increase, and found no impact of the minimum wage. There have been numerous papers in the two decades following the publication of Card and Krueger’s work, some of which criticised their methodology and found negative effects of the minimum wage on employment. Others, using increasingly sophisticated econometric techniques and broader data, have also found no effects. It would be safe to characterise the state of the literature on the subject as ‘contentious’.

While nearly every paper in the long literature on minimum wages and employment has focused on the number of people employed, there are several reasons, grounded both in theory and data, to expect the effects to be reflected in the rate of net job growth (see, e.g., Sorkin 2013). Despite the predictions of neoclassical economics, a near-instantaneous adjustment to a new level of employment in response to higher labour costs is unlikely (Hamermesh 1989). These transitions
may be slow due to adjustment costs or even an aversion to firing existing employees, so it is more likely that minimum wage increases result in a change in the rate at which employment grows.

This phenomenon becomes more clear when one considers the composition of the minimum-wage work force. Using the Current Population Survey’s Merged Outgoing Rotation Groups from 1979 to 2011, we found that, although only about 3.3% of all employees are paid the minimum wage, nearly 12% of those who enter the workforce are paid that amount. Indeed, nearly a third of minimum-wage workers are recent workforce entrants. Minimum-wage workers are also likely to transition to higher pay quickly: of those who remain employed after one year, about 60% are paid in excess of the minimum wage the following year. As such, it seems likely that any effects of the minimum wage are more likely to be reflected among new workers and in new job openings than on the existing stock of employment.

Dynamics

Yet, the previous literature has not focused on dynamics. This is particularly worrisome because, unlike many of the other policies that economists study, the minimum wage is characterized by frequent, relatively small increases. This means that slow adjustments in response to these increases are difficult to detect. Moreover, in Moen and West (2013), we use a simulation to show that a common practice in regression analysis in this literature — including state-specific time trends — leads to incorrect estimation of the effect of the minimum wage on the level of employment when the true effect is on the rate of employment growth. Essentially, the deck is often stacked against finding any effect.

The data for our study are drawn from the Business Dynamics Statistics, which covers the population of non-agricultural private employer businesses between 1977 and 2011. The underlying data are sourced from mandatory employer tax filings and aggregated by state in each year. The Business Dynamics Statistics includes not only the number of jobs in each state for every year, but the number of jobs created by expanding establishments and the number of jobs destroyed by contracting establishments. These numbers are used to calculate the rate of net job growth.

We combine the Business Dynamics Statistics with data on state minimum wages and other state attributes, like the state economic environment, to estimate how the minimum wage affects the rate of net job growth. We also account for annual shocks to the outcome variables occurring at the regional level, to account for any conditions that lead a state to see both a change in the minimum wage and job growth. This would be a concern if, for instance, a state legislature responded to lower job growth with a minimum-wage increase. We also conduct a number of robustness checks to ensure that our results are not driven by spurious correlation. For instance, we show that future increases in the minimum wage do not predict current job growth outcomes. If they did, we would be concerned that other factors are driving the correlation.

Results

Our findings are unequivocal: higher minimum wages lead to lower rates of job growth. Indeed, a ten percent increase in the minimum wage causes roughly half a percentage point reduction in the rate of job growth, a very large effect. The effect of this hypothetical increase is not permanent, though, since it is eroded by inflation and increases in the state’s comparison group. Our calculations show that this ten percent increase in a state’s real minimum wage, relative to its regional neighbors, causes a 1.2% reduction in total employment relative to what it would have been. We further find that this appears to be driven primarily by reductions in job creation by expanding establishments, not by increases in job destruction by contracting establishments. Essentially, then, the intuition is that employers respond to the minimum wage by growing more slowly.

Judging whether the effect we find is large or small is not necessarily simple. Some might point to a 1.2% reduction in the level of employment after five years and argue that is relatively small — it represents about 23,000 fewer jobs for the average state — and that those who earn the minimum wage and remain in the labour force would earn more. But that argument seems coldly indifferent to those who remain outside of the labour market, unable to take advantage of the relatively rapid transitions out of minimum-wage jobs. At a broader level, it is important to note that, in contrast to
much of the previous literature and the dismissiveness of some advocates, we document that the minimum wage does, in fact, affect employment.

Conclusions

The District of Columbia City Council recently passed an ordinance that would raise the District’s minimum wage to $12.50 per hour, but that would apply only to large retailers. In response, Wal-Mart announced that it would no longer build three of the stores it had planned to open in the city. This sort of response is precisely the type of effect that we found in our study: a reduction of job creation, not a loss of existing jobs. Minimum-wage policies may not cause an immediate shock to employment, as is often feared, but a reduction in the rate of net job growth. This effect is all the more insidious for being difficult to detect. Employment growth is slowed, but more importantly, the long-run prospects for individuals are damaged, as they are delayed in the opportunity to develop skills and work experience – to grasp that crucial first rung on the career ladder.

References


Topics: Labour markets

Tags: US, minimum wage

Related

Spending, income, and debt responses to minimum-wage hikes
Daniel Aaronson, Eric French

22,126 reads
Printer-friendly version
The Great Divide is a series about inequality.

During most of the 20th century, wages in the United States were set not just by employers but by a mix of market and institutional mechanisms. Supply and demand were important factors; collective bargaining and minimum wage laws also played a key role. Under Presidents Franklin D. Roosevelt and Richard M. Nixon, we even implemented more direct forms of wage controls.

These direct interventions, however, were temporary, and unions have become rare in most parts of the United States — virtually disappearing from the private sector. This leaves minimum wage policies as one of the few institutional levers for setting a wage standard. But while we can set a wage floor using policy, should we? Or should we leave it to the market and deal with any adverse consequences, like poverty and inequality, using other policies, like tax credits and transfers? These longstanding questions take on a particular urgency as wage inequality continues to grow, and as we consider specific proposals to raise the federal minimum wage — currently near a record low — and to index future increases to the cost of living.

The idea of fairness has been at the heart of wage standards since their inception. This is evident in the very name of the legislation that established the minimum wage in 1938, the Fair Labor Standards Act. When Roosevelt sent the bill to Congress, he sent along a message declaring that America should be able to provide its working men and women “a fair day’s pay for a fair day’s work.” And he tapped into a popular sentiment years earlier when he declared, “No business which depends for existence on paying less than living wages to its workers has any right to continue in this country.”
This type of concern for fairness actually runs deep in the human psyche. There is a widespread sense that it is unfair of employers to take advantage of workers who may have little recourse but to work at very low wages. For example, the economists Colin F. Camerer and Ernst Fehr have documented in numerous experimental studies that the preference for fairness in transactions is strong: individuals are often willing to sacrifice their own payoffs to punish those who are seen as acting unfairly, and such punishments activate reward-related neural circuits. People also strongly support banning transactions they see as exploitative of others — even if they think such a ban would entail some economic costs.

Of course, if most minimum wage workers were middle-class teenagers, many of us might shrug off concerns about their wages, since they are taken care of in other ways. But in reality, the low-wage workforce has become older and more educated over time. In 1979, among low-wage workers earning no more than $10 an hour (adjusted for inflation), 26 percent were teenagers between 16 and 19, and 25 percent had at least some college experience. By 2011, the teenage composition had fallen to 12 percent, while over 43 percent of low-wage workers had spent at least some time in college. Even among those earning no more than the federal minimum wage of $7.25 in 2011, less than a quarter were teenagers.

Support for increasing the minimum wage stretches across the political spectrum. As Larry M. Bartels, a political scientist at Vanderbilt, shows in his book “Unequal Democracy,” support in surveys for increasing the minimum wage averaged between 60 and 70 percent between 1965 and 1975. As the minimum wage eroded relative to other wages and the cost of living, and inequality soared, Mr. Bartels found that the level of support rose to about 80 percent. He also demonstrates that reminding the respondents about possible negative consequences like job losses or price increases does not substantially diminish their support.

These patterns show up in recent survey data as well, as over three-quarters of Americans, including a solid majority of Republicans, say they support raising the minimum wage to either $9 or $10.10 an hour. It is therefore not a surprise that when they have been given a choice, voters in red and blue states alike have consistently supported, by wide margins, initiatives to raise the minimum wage. In
2004, 71 percent of Florida voters opted to raise and inflation-index the minimum wage, which today stands at $7.79 per hour. That same year, 68 percent of Nevadans voted to raise and index their minimum wage, which is now $8.25 for employees without health benefits. Since 1998, 10 states have put minimum wage increases on the ballot; voters have approved them every time.

But the popularity of minimum wages has not translated into legislative success on the federal level. Interest group pressure — especially from the restaurant lobby — has been one factor. Ironically, the very popularity of minimum wages may also have contributed to the failure to automatically index the minimum wage to inflation: Democratic legislators often prefer to increase the wage themselves since it allows them to win more political points. While 11 states currently index the minimum wage, only one, Vermont, did so legislatively; the rest were through ballot measures.

As a result of legislative inaction, inflation-adjusted minimum wages in the United States have declined in both absolute and relative terms for most of the past four decades. The high-water mark for the minimum wage was 1968, when it stood at $10.60 an hour in today’s dollars, or 55 percent of the median full-time wage. In contrast, the current federal minimum wage is $7.25 an hour, constituting 37 percent of the median full-time wage. In other words, if we want to get the minimum wage back to 55 percent of the median full-time wage, we would need to raise it to $10.78 an hour.

International comparisons also show how out of line our current policy is: the United States has the third lowest minimum wage relative to the median of all Organization for Economic Cooperation and Development countries. This erosion of the minimum wage has been an important contributor to wage inequality, especially for women. While there is some disagreement about exact magnitudes, the evidence suggests that around half of the increase in inequality in the bottom half of the wage distribution since 1979 was a result of falling real minimum wages. And unlike inequality that stems from factors like technological change, this growth in inequality was clearly avoidable. All we had to do to prevent it was index the minimum wage to the cost of living.
The social benefits of minimum wages from reduced inequality have to be weighed against possible costs. When it comes to minimum wages, the primary concern is about jobs. The worry comes from basic supply and demand: When labor is made more costly, employers will hire less of it. It’s a valid concern, but what does the evidence show?

For the type of minimum wage increases we have implemented in the United States, the best evidence shows that the impact on jobs is small, although there is still a debate in the literature. There are estimates that do suggest job losses — most prominently associated with work by the economists David Neumark and William Wascher. Since the early 1990s, they have consistently argued that minimum wage increases lead to substantial job losses for low-wage workers: a 10 percent increase in the minimum wage can be expected to reduce jobs among a group like teenagers by between 1 and 3 percent. The methodology pioneered by Mr. Neumark and Mr. Wascher has a critical problem, however: it does not properly account for differences between high- and low-minimum-wage states. Essentially, they make the unrealistic assumption that low-wage employment trajectories are similar in states as diverse as Texas and Massachusetts.

As my colleagues and I show in our research, the states raising minimum wages have had very different trajectories when it comes to trends in demand conditions and business cycle variability. In fact, low-wage employment was often already falling (or growing more slowly) in the states raising the minimum wage — sometimes years before the actual wage increase. Such divergence in trends between the “treatment” and “control” groups is a telltale sign that the control group is being constructed improperly — a major issue for evaluating policies using nonexperimental evidence, otherwise known as real life.

The good news is that today we have much better tools in our toolbox. A particularly reliable methodology compares adjacent counties that are right across the state border but that experience different minimum wage shocks. Originally performed for a single case study of Pennsylvania and New Jersey by the economists David Card and Alan B. Krueger in 1994 and then again in 2000, this methodology has been substantially refined and expanded.
In my work with T. William Lester and Michael Reich, we use nearly two decades’ worth of data and compare all bordering areas in the United States to show that while higher minimum wages raise earnings of low-wage workers, they do not have a detectable impact on employment. Our estimates — published in 2010 in the Review of Economics and Statistics — suggest that a hypothetical 10 percent increase in the minimum wage affects employment in the restaurant or retail industries, by much less than 1 percent; the change is in fact statistically indistinguishable from zero.

In my most recent work with Sylvia Allegretto, Ben Zipperer and Michael Reich, we confirm these results using four data sets covering over two decades, other low-wage groups like teenagers, and five different statistical techniques, including an increasingly popular method that uses past economic trends to construct a “synthetic” control group. And other researchers have independently reached the same conclusion: minimum wage effects on employment are small.

While the evidence may not convince the most strident of critics, it has shifted views among economists. A panel of 41 leading economists was asked recently by the University of Chicago’s Booth School of Business to weigh in on President Obama’s proposal to increase the minimum wage and automatically index it to inflation. A plurality, 47 percent, supported the policy, and only 11 percent opposed it, while the rest were uncertain or had no opinion. Only a third thought that the raise “would make it noticeably harder for low-skilled workers to find employment.”

But how can minimum wages rise without causing job losses? For starters, if the demand for burgers is not price sensitive, some of the cost increase can be passed on to customers without substantially reducing demand or jobs. Existing research suggests that if you raise the minimum wage by 10 percent, you can expect the price of a $3 burger to rise by a few cents, which is enough to absorb a sizable part of the wage increase.

 Going beyond simple supply and demand, economic models are getting better at incorporating frictions caused by the costs of finding jobs and filling vacancies, which turn out to be quite important when analyzing labor markets. There are good jobs and bad jobs at the low end of the labor market, and movements between these
lead to vacancies and turnover. If McDonald's is required to pay a higher wage, fewer of its workers will leave to take other jobs. This means fewer vacancies at McDonald's, and it means other employers are more likely to fill their job openings from the ranks of the unemployed — both of which can help keep unemployment down. So while higher costs may dissuade some employers from creating new positions, it also helps other employers recruit and retain workers. Moderate increases in the minimum wage, in other words, can reduce vacancies and turnover instead of killing jobs. In a follow-up study using our bordering areas methodology, we provide empirical evidence for this argument: while overall employment in low-wage sectors does not change much following a minimum-wage increase, worker turnover falls sharply as workers stay with their jobs longer.

But even if minimum wage policies reduce inequality and improve the functioning of low-wage labor markets, are there better alternatives when it comes to helping low-income families?

In a forthcoming study commissioned by the Department of Labor, I review the evidence using data from the past two decades and find clear evidence that minimum wage raises have helped lift family incomes at the bottom: a 10 percent increase in the minimum wage reduces poverty by around 2 percent.

The minimum wage can also increase the efficacy of a policy that is sometimes pushed as a substitute: the earned-income tax credit. This encourages more people to seek work, but can push wages down; a minimum wage ameliorates this. Of course, many families under the poverty line simply have no workers, making any work-based policy of limited help. This is why raising and indexing the minimum wage is just a part of the portfolio of policies we need to enact to ensure a decent living standard.

What are actual policy options when it comes to raising the minimum wage? At the federal level, the legislation proposed by Senator Tom Harkin, Democrat of Iowa, and Representative George Miller, Democrat of California, would raise the minimum wage to $10.10 an hour, and index it to future cost of living increases. This is a sensible target that would be likely to put the minimum wage right around 50 percent of the median wage for full-time workers — close to the international
standard and our own norm during the 1960s and ’70s. Indexation is critical — it replaces politics with economics as the adjustment mechanism and makes changes predictable. This is why even economists opposed to higher minimum wages support indexation.

Other policies can complement the federal minimum wage in building higher wage standards. City and state minimum wages play an important role in ensuring that places with higher costs of living have similarly higher wage standards. A number of cities have instituted “living wage” ordinances covering public sector workers and private city contractors. The most expansive of these ordinances cover major airports, like in the metropolitan areas of San Francisco, Los Angeles and most recently Seattle. Fast food workers in urban centers are beginning to organize and push for substantially higher voluntary wage standards at major chains. Together with a sensible federal minimum wage, these local initiatives can help rebuild wage standards and reduce inequality in a way that reflects our internal sense of fairness.

———

*Arindrajit Dube is an associate professor of economics at the University of Massachusetts, Amherst, and a research fellow at IZA.*

A version of this article appears in print on 12/01/2013, on page SR5 of the New York edition with the headline: The Minimum We Can Do.
IN THE ARENA

No, a Minimum-Wage Boost Won't Kill Jobs

By MICHAEL REICH | February 21, 2014

On Tuesday, the Congressional Budget Office, one of the last nonpartisan arbiters in a town where the trench lines are deep and getting deeper, dropped a political bombshell on Democrats.

The bombshell came in the form of a new report with an innocuous title, “The Effects of a Minimum-Wage Increase on Employment and Family Income.” In it, the CBO examines the effects of a bill to raise the federal minimum wage from its current $7.25 to $10.10 by 2016, an increase of 39 percent.

Based on its own research, the CBO report estimates some stunning benefits: about 23 million people would receive pay increases and 900,000 people would be lifted above the federal poverty level. Pretty good news for a White House that has been touting the virtues of a minimum-wage increase.
Then came the bad news. The CBO also reported a definite cost: Employment would fall by 500,000—a number immediately seized upon by opponents of a wage increase, including House Speaker John Boehner, who said, “This report confirms what we’ve long known: while helping some, mandating higher wages has real costs, including fewer people working.”

These estimated employment losses have become the subject of considerable disagreement among wonks and economists. Jason Furman, chair of the White House’s Council of Economic Advisers, and his colleague Betsey Stevenson argue that the CBO could easily have picked a much lower job-loss number, including one that would be so small as to be negligible. Conservative groups, such as the Heritage Institute and the Employment Policies Institute, which channels the views of the restaurant and other low-wage industries, have said that the CBO’s job loss figures are consistent with their own estimates.

So who’s right?

We’re not in the simple world of Econ 101 here, in which a higher price, i.e. a higher minimum wage, automatically means less demand for workers. Labor supply can also respond, for example, making it easier for employers to recruit workers and retain them longer. Those more experienced workers are then more productive workers. Firms can also raise their prices rather than reduce the number of employees. So economists regard the employment effect of a minimum-wage hike as a question to be decided by empirical testing.
The CBO report's appendix describes, but not very clearly, how it estimated the likely job losses. Remarkably, the CBO did not do its own research on the potential employment effects. Instead, it reviewed a number of recent research papers on this subject, including several of my own. Since these studies contain a range of estimates, CBO constructed its own "synthesis" estimate.

Most of the CBO's discussion of job losses focuses on the effects on teens. (Who, along with restaurant workers, make up the two groups most affected by minimum wages.) According to the CBO's "synthesis" estimate, a 1 percent increase in the minimum wage reduces teen employment by 0.075 percent in the first year and by 0.1 percent in later years. (The 0.1 figure comes from left field; CBO expects the effects to increase over time, but there is no evidence for this assumption.) The bill's proposed 39 percent minimum wage increase would therefore reduce teen employment by 3-4 percent. Furman and Stevenson responded that CBO's chosen estimate is much too high and does not reflect the consensus of the research literature. Douglas Elmendorf, the CBO's director, has replied that it does.
IN THE ARENA

No, a Minimum-Wage Boost Won’t Kill Jobs

By MICHAEL REICH | February 21, 2014

Unfortunately, the CBO’s appendix does not provide enough detail to clarify how it arrived at its “synthesis” estimate. As it happens, the 0.075 figure for teens lies halfway between the two most widely cited estimates in the research literature. One estimate comes from research, authored primarily by David Neumark and William Wascher (the CBO report lists Wascher as an external reviewer), that has long found substantial negative effects, but only for teens. The other estimate comes from more recent studies, authored primarily by me and Arindrajit Dube. We find employment effects for teens (and for restaurant workers) that are very close to zero. The CBO report cites both groups of studies.

The CBO’s apparent strategy—to adopt the average of these studies—might seem reasonable. Splitting the difference between studies that are not far apart makes sense if
the different findings reflect small differences in datasets or in the time period under study. That, however, is definitely not the case here, as my research has confirmed.

My co-authors and I show that comparisons between states that have increased minimum wages are not a random sample of all the states. They differ from the other states in ways that affect their low-wage employment trends, but which are unrelated to minimum-wage policy. We then show that teen employment was already growing more slowly in the higher minimum-wage states than in the other states, even as much as two years before a minimum wage increase is introduced. In other words, higher minimum wages are correlated with less employment growth, but it doesn't follow that the higher minimum wages caused it.

The negative correlation implies that comparing employment trends in states that are far apart—essentially Neumark and Wascher’s method—will generate misleading negative employment effects. Both intuitive appeal and our statistical evidence show that neighboring areas make good comparison groups, provided there are enough to conduct a statistical analysis. Neumark and Wascher have criticized our approach, and we have refuted their comparisons decisively—in one of our papers the CBO cites. We compare, over a 20-year period, teen employment trends in several hundred pairs of adjacent counties lying on state borders with minimum-wage differences. We do not find statistically significant evidence of negative employment effects—even four years later. We do find that employee turnover goes down, which is important when annual turnover rates reach 100 percent and jobs often remain unfilled, even when unemployment is high. In other words, we do not find evidence that raising the minimum wage kills jobs, but we do find evidence that it kills job vacancies.

We conclude, and many other labor economists agree, that our studies invalidate the previous approach used in many studies by Neumark and Wascher and others. It makes no sense to take an average between a rigorous study and one that has been shown to be flawed. That is why Furman and Stevenson’s response to the CBO report cited my research with Dube as reflecting the current research consensus and why former CEA Chair Alan Krueger, now back at Princeton, called it “particularly compelling.” If the CBO had done more homework, they would have agreed.