The Negative Effects of Minimum Wage Laws

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Overview

The federal government through the Department of Labor has imposed a minimum wage since 1938. Nearly all the state governments also impose minimum wages. These laws prevent employers from paying wages below a mandated level. While the aim is to help workers, decades of economic research show that minimum wages usually end up harming workers and the broader economy. Minimum wages particularly stifle job opportunities for low-skill workers, youth, and minorities, which are the groups that policymakers are often trying to help with these policies.

There is no "free lunch" when the government mandates a minimum wage. If the government requires that certain workers be paid higher wages, then businesses make adjustments to pay for the added costs, such as reducing hiring, cutting employee work hours, reducing benefits, and charging higher prices. Some policymakers may believe that companies simply absorb the costs of minimum wage increases through reduced profits, but that's rarely the case. Instead, businesses rationally respond to such mandates by cutting employment and making other decisions to maintain their net earnings. These behavioral responses usually offset the positive labor market results that policymakers are hoping for.

This study reviews the economic models used to understand minimum wage laws and examines the empirical evidence. It describes why most of the academic evidence points to negative effects from minimum wages, and discusses why some studies may produce seemingly positive results.

Some federal and state policymakers are currently considering increases in minimum wages, but such policy changes would be particularly damaging in today's sluggish economy. Instead, federal and state governments should focus on policies that generate faster economic growth, which would generate rising wages and more opportunities for all workers.

Background

The federal minimum wage originated in the Fair Labor Standards Act (FLSA) signed by President Franklin Roosevelt on June 25, 1938. The law established a minimum wage of 25 cents per hour for all employees who produced products shipped in interstate commerce. That wage is equivalent to $4.04 in today's purchasing power.

Originally, the FLSA covered only about 38 percent of the labor force, mostly in the manufacturing, mining, and transportation industries.1 Over the years, Congress has significantly expanded the coverage and increased the minimum wage rate. The air transport industry was added in 1947, followed by retail trade in 1961. The construction industry, public schools, farms, laundries, and nursing homes were added in 1966, and coverage was extended to state and local government employees in 1974. Currently, the FLSA covers about 85 percent of the labor force.2

Since 1938 the federal minimum wage has been raised 22 times. From 1949 to 1968 the real value of the minimum wage (in 2011 dollars) rose rapidly from $3.78 to $10.34. At $7.25 per hour, the minimum wage today in real dollars is 85 percent greater than the original benchmark, and just below its average for the past 60 years of $7.59. Since the 1970s, the federal minimum wage has fluctuated around roughly 40 percent of the average private sector hourly wage.

The FLSA requires employers to comply with state minimum wage laws that may set a state minimum wage rate higher than the federal rate.3 Currently, 45 states and the District of Columbia have their own minimum wages, of which 18 are higher than the current federal minimum of $7.25 per hour.4 Only five states do not have their own minimum wage laws and rely on the FLSA. Moreover, even state minimum wages that are below the federal minimum often have an effect because they can apply to employers or workers who are exempt from the federal statute.

Who Is Paid the Minimum Wage?
higher wage costs may be passed forward to consumers or backward to other workers or suppliers of business inputs. In some circumstances, firms may reduce work hours, such as with fixed employment costs and worker heterogeneity, but maintain headcount. The employment and hours worked may also be affected by wage-related changes in employee productivity.

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percent are young Americans enrolled in school. The popular belief that minimum wage workers are poor adults (25 years old or older), only 20.8 percent of all minimum wage workers are family heads or spouses working full time, 30.8 percent were children, and 32.2 percent are young Americans enrolled in school. The popular belief that minimum wage workers are poor adults (25 years old or older), working full time and trying to raise a family is largely untrue. Just 4.7 percent match that description. Indeed, many minimum wage workers live in families with incomes well above the poverty level.

Modeling the Minimum Wage

When economists want to understand the effects of a policy change, they build a model or set of equations to figure out how variables such as wages and prices might be affected. There have been decades of research on the effects of the minimum wage, and economists have used three types of models to explore the issue: competitive, monopsony, and institutional. With each of these models, the cost increase associated with the minimum wage changes the behavior of firms, with resulting impacts on workers, consumers, owners, and others. The three alternative models emphasize different types of adjustments that employers use to adapt to increases in the minimum wage.

Much of the empirical research has focused on estimating how much an increase in the minimum wage will reduce employment in affected industries and affected groups of workers. Other research has examined the effects of minimum wages on the number of hours worked, firm profits, worker training, level of work effort, human resource practices, operational efficiencies, internal wage structures, and other parameters. The important thing to understand is that markets often respond to changes in mandated minimum wages in ways that create negative effects that are unplanned and are not desired by policymakers or the general public.

Basic Competitive Model

The competitive model has been most often used for evaluating the minimum wage. This is the basic textbook model that has been taught in university economics courses for decades. The core components of the model are a negatively sloped labor demand curve and a wage rate that clears the market and is not controlled by individual agents. In competitive markets, the imposition of a minimum wage provides a classic example of a government distortion that creates negative side effects in the marketplace.

The figure shows a hypothetical competitive local labor market. The market demand curve for labor is DD, and the market supply curve is SS. Their intersection determines the competitive wage, Wc, with employment Ec. If the minimum wage is set at Wm, employment is reduced to Em. The reduction in employment is smaller than the excess supply of labor (the distance AC). The excess supply of labor includes both a reduction in employment (fewer hours and job opportunities, or AB) along with a second component consisting of workers who are drawn into the labor market by the prospect of earning the higher minimum wage (BC). Although some of the workers who are drawn into the labor market (typically those with higher skills) may succeed in finding one of the minimum wage jobs, it comes at the expense of lower skilled workers who are shut out of the labor market.

The excess supply of labor in this example is dispersed in several ways: 1) a reduction in hours, fewer job opportunities, and a shift in employment from sectors covered by the wage law to sectors not covered, including the underground economy. The employment effects are typically the most pronounced in labor markets for low-skilled youth.

In the case of a nationwide minimum wage, large numbers of firms will be affected, albeit by different amounts depending on the industry, region of the country, and other factors. In addition to the mandated cost increase possibly causing employment reductions, a portion of the higher wage costs may be passed forward to consumers or backward to other workers or suppliers of business inputs. In some circumstances, firms may reduce work hours, such as with fixed employment costs and worker heterogeneity, but maintain headcount. The employment and hours worked may also be affected by wage-related changes in employee productivity.

Other channels of adjustment in the competitive model besides employment reductions include reduced job training, reductions in worker benefits, the substitution of more skilled labor for less-skilled labor, reduced turnover and more selective hiring, and a greater ease in filling vacancies. If the minimum wage reduces profitability below the normal level, the number of businesses and investment in affected industries may shrink over time until normal returns are restored. In sum, the textbook competitive model assumes that firms respond to minimum wage increases by minimizing other production costs and by making various adjustments to offset the negative effects on their bottom line.
Monopsony Model

Some economists think that some labor markets may better approximate monopsonies rather than being fully competitive, and their models of the minimum wage may produce different results than the competitive models. A classic monopsony is a market with only a few employers in a particular marketplace. These firms have more market power than firms in competitive markets.

Since 1990 the monopsony model of labor markets has increasingly been the focus of empirical minimum wage research. In newer or dynamic versions of the monopsony model, it is labor market frictions related to hiring, turnover, search, and mobility costs on the supply side that drive the model. Although the particulars differ, the core components of monopsony models are an upward sloping labor supply curve facing firms and some employer discretion in wage setting.

Competitive and monopsony models offer different predictions about the employment effects of minimum wage changes. For minimum wage increases that push below-competitive wages toward competitive levels, monopsony models predict employment and/or hours will rise rather than fall. However, minimum wage increases above competitive levels will decrease employment, just as in the competitive model. The rise in employment in the first case will also expand industry output until the minimum wage equals the competitive wage and product prices should fall. In a classic monopsony, profits fall and the firms may exit in the long run. In new monopsony models, savings from decreased turnover may offset the profit effect. Unlike the competitive model, expenditures on general training may increase because the monopsony employer can capture some of the return.

While the results of monopsony models are interesting, most economists don't think the results are generally applicable because few low-wage employers are large enough to face an upward-sloping labor supply curve that typically characterizes an entire labor market.

Institutional Model

Institutional (or behavioral) models of labor markets were often used for evaluating the minimum wage up until the 1950s, but this approach has gradually faded from use. The institutional model draws on the concepts in behavioral economics and emphasizes (1) the rejection of a well-defined downward sloping labor demand curve, (2) the fact that labor markets are imperfectly competitive, institutionally segmented, socially embedded, and prone to excess supply, and (3) the fact that technological and psycho-social factors in firms and internal labor markets are determinants of cost and productivity.

A key proposition of economists who favor institutional labor market models is that moderate minimum wage increases may, in the short-run, have either no employment effect or a small positive effect. The expected response of employers to a minimum wage increase is not to lay off workers but to search for ways to absorb the cost impact by expanding sales, improving service, and general economic expansion. It is also believed that costs from the minimum wage are partially offset by reducing organizational slack and improved productivity. That is achieved through tighter human resource practices (such as better scheduling), increased performance standards, increased work effort, and enhanced customer service. Costs that cannot be absorbed are passed on to customers through higher prices. The institutional model also predicts that a higher minimum wage leads to a "ripple effect" in the internal wage structure as firms raise the pay of above-minimum wage employees to maintain morale while still allowing for some internal wage compression among employees with higher seniority.

The Effect of Minimum Wages on Employment

Despite the use of different models to understand the effects of minimum wages, all economists agree that businesses will make changes to adapt to the higher labor costs after a minimum wage increase. Empirical research seeks to determine what changes to variables such as employment and prices firms will make, and how large those changes will be. The higher costs will be passed on to someone in the long run; the only question is who. The important thing for policymakers to remember is that a decision to increase the minimum wage is not cost-free; someone has to pay for it.

The main finding of economic theory and empirical research over the past 70 years is that minimum wage increases tend to reduce employment. The higher the minimum wage relative to competitive-market wage levels, the greater the employment loss that occurs. While minimum wages ostensibly aim to improve the economic well-being of the working poor, the disemployment effects of a minimum wages have been found to fall disproportionately on the least skilled and on the most disadvantaged individuals, including the disabled, youth,
Downturns. And based on his studies, Nobel laureate economist Milton Friedman observed: "The real tragedy of minimum wage laws is that they are supported by well-meaning groups who want to reduce poverty. But the people who are hurt most by higher minimums are the most poverty stricken." In a generally competitive labor market, employers bid for the most productive workers and the resulting wage distribution reflects the productivity of those workers. If the government imposes a minimum wage on the labor market, those workers whose productivity falls below the minimum wage will find few, if any, employment opportunities. The basic theory of competitive labor markets predicts that a minimum wage imposed above the market wage rate will reduce employment. Evidence of employment loss has been found since the earliest implementation of the minimum wage. The U.S. Department of Labor's own assessment of the first 25-cent minimum wage in 1938 found that it resulted in job losses for 30,000 to 50,000 workers, or 10 to 13 percent of the 300,000 covered workers who previously earned below the new wage floor. It is important to note that the limited industries and occupations covered by the 1938 FLSA accounted for only about 20 percent of the 30 million private sector, nonfarm, nonsupervisory, production workers employed in 1938. And of the roughly 6 million workers potentially covered by the law, only about 5 percent earned an hourly rate below the new minimum. Following passage of the federal minimum wage in 1938, economists began to accumulate statistical evidence on the effects. Much of the research has indicated that increases in the minimum wage have adverse effects on the employment opportunities of low-skilled workers. And across the country, the greatest adverse impact will generally occur in the poorer and lower-wage regions. In those regions, more workers and businesses are affected by the mandated wage, and businesses have to take more dramatic steps to adjust to the higher costs. As an example, with the original 1938 imposition of the minimum wage, the lower-income U.S. territory of Puerto Rico was severely affected. An estimated 120,000 workers in Puerto Rico lost their jobs within the first year of implementation of the new 25-cent minimum wage, and the island's unemployment rate soared to nearly 50 percent. Similar damaging effects were observed on American Samoa from minimum wage increases imposed between 2007 and 2009. Indeed, the effects were so pronounced on the island's economy that President Obama signed into law a bill postponing the minimum wage increases scheduled for 2010 and 2011. Concern over the scheduled 2012 increase of $0.50, compelled Governor Togiloa Tulafono to testify before Congress: "We are watching our economy burn down. We know what to do to stop it. We need to bring the aggressive wage costs decreed by the Federal Government under control... Our job market is being torched. Our businesses are being depressed. Our hope for growth has been driven away." In 1977 ongoing debate about the minimum wage prompted Congress to create a Minimum Wage Study Commission to "help it resolve the many controversial issues that have surrounded the federal minimum wage and overtime requirement since their origin in the Fair Labor Standards Act of 1938." The commission published its report in May 1981, calling it "the most exhaustive inquiry ever undertaken into the issues surrounding the Act since its inception." The landmark report included a wide variety of studies by a virtual "who's who" of labor economists working in the United States at the time. A review of the economic literature amassed by the Commission by Charles Brown, Curtis Gilroy, and Andrew Kohen found that the "time-series studies typically find that a 10 percent increase in the minimum wage reduces teenage employment by one to three percent." This range subsequently came to be thought of as the consensus view of economists on the employment effects of the minimum wage. It is important to note that different academic studies on the minimum wage may examine different regions, industries, or types of workers. In each case, different effects may predominate. A federal minimum wage increase will impose a different impact on the fast-food restaurant industry than the defense contractor industry, and a different effect on lower-cost Alabama than higher-cost Manhattan. This is why scholarly reviews of many academic studies are important. In 2006 David Neumark and William Wascher published a comprehensive review of more than 100 minimum wage studies published since the 1990s. They found a wider range of estimates of the effects of the minimum wage on employment than the 1982 review by Brown, Gilroy, and Kohen. The 2006 review found that "although the wide range of estimates is striking, the oft-stated assertion that the new minimum wage research fails to support the traditional view that the minimum wage reduces the employment of low-wage workers is clearly incorrect. Indeed...the preponderance of the evidence points to disemployment effects." Nearly two-thirds of the studies reviewed by Neumark and Wascher found a relatively consistent indication of negative employment effects of minimum wages, while only eight gave a relatively consistent indication of positive employment effects. Moreover, 85 percent of the most credible studies point to negative employment effects, and the studies that focused on the least-skilled groups most likely to be adversely affected by minimum wages, the evidence for disemployment effects were especially strong. In contrast, there are very few, if any, studies that provide convincing evidence of positive employment effects of minimum wages. These few studies often use a monopsony model to explain these positive effects. But as noted, most economists think such positive effects are special cases and not generally applicable because few low-wage employers are big enough to face an upward-sloping labor supply curve as the monopsony model assumes.
Aside from changes in employment, empirical studies have documented other methods by which businesses and markets adjust to minimum wage increases. The congressional Joint Economic Committee published a major review of 50 years of academic research on the minimum wage in 1995. The study found a wide range of direct and indirect effects of increased minimum wages that may occur. These include

- Increasing the likelihood and duration of unemployment for low-wage workers, particularly during economic downturns;
- Encouraging employers to cut worker training;
- Increasing job turnover;
- Discouraging part-time work and reducing school attendance;
- Driving workers into uncovered jobs, thus reducing wages in those sectors;
- Encouraging employers to cut back on fringe benefits;
- Encouraging employers to install labor-saving devices;
- Increasing inflationary pressure;
- Increasing teenage crime rates as a result of higher unemployment; and
- Encouraging employers to hire illegal aliens.

Another channel of adjustment to minimum wage changes is labor-labor substitution within businesses. Research finds that some employers will replace their lowest-skilled workers with somewhat higher-skilled workers in response to increases in the minimum wage. As a result, minimum wage increases may harm the least skilled workers more than is suggested by the net disemployment effects estimated in many studies because more-skilled workers are replacing some less-skilled workers. Nobel laureate economist Gary Becker has noted that this effect helps generate political support from labor unions for higher minimum wages:

A rise in the minimum wage increases the demand for workers with greater skills because it reduces competition from low-skilled workers. This is an important reason why unions have always been strong supporters of high minimum wages because these reduce the competition faced by union members from the largely non-union workers who receive low wages.

A 2011 study by Barry Hirsch and coauthors found yet further methods of business adjustment. Some firms partially offset increases in the minimum wage by awarding smaller than normal pay increases to their workers who earn more than the minimum wage. Some firms try to increase worker productivity by requiring better attendance, insisting that job duties are completed faster, imposing additional tasks on workers, minimizing hours worked with better scheduling, and terminating poor performers more quickly.

A final method for businesses to respond to minimum wage increases is to try to push forward the additional costs to consumers. If a minimum wage increase is imposed economywide, it may be partly passed on in prices. However, in a global economy, this is less likely for internationally traded goods because domestic producers facing higher labor costs will be undercut by imports. So price effects may be more prevalent in goods and services less subject to competition from imports.

In 2004 a comprehensive review more than 20 minimum wage studies looking at price effects found that a 10 percent increase in the U.S. minimum wage raises food prices by up to 4 percent and overall prices by up to 0.4 percent. A 2007 study from the Federal Reserve Bank of Chicago found that restaurant prices unambiguously increase in response to minimum wage increases. And a 2011 study of quick-service restaurants found that two-thirds of the minimum wage cost increases were offset by higher menu prices, and that higher prices rather than cuts in employment and hours was the most important channel of adjustment for this type of firm.

These results help to reconcile the few minimum wage studies that do not find negative employment effects with the large majority of studies that do. Economic theory suggests that firms can respond to minimum wage increases by reducing employment, raising prices, or both. In the studies that find small or no employment effects, it may be that the businesses studied were able to pass on the added costs solely in higher prices. Indeed, the Federal Reserve study concluded that the results are consistent with the small disemployment effects found in some studies. Note finally that empirical studies finding that minimum wage increases affect prices in some cases is consistent with the competitive model of labor markets, but not with the monopsony model.

Minimum Wages and Poverty

Proposals to increase the minimum wage can be politically popular because they are viewed as being a way of helping the poor. However, evidence from a large number of academic studies suggests that minimum wage increases don’t reduce poverty levels. Some of the reasons include

- Many poor Americans (63.5%) do not work, and thus aren’t earning wages.
- Even among the working poor, the relationship between earning a low hourly wage rate and living in poverty is weak and has become weaker over time. That is because most workers who gain from a minimum wage increase live in nonpoor families and most of the working poor already have wages above the required minimums.
- While an increase in the minimum wage will lift some families out of poverty, other low-skilled workers may lose their jobs, which reduces their income and drops their families into poverty.
- If a minimum wage is partly or fully passed through to consumers in the form of higher prices, it will hurt the poor because they disproportionately suffer from price inflation.

Relatively few poor households would benefit from a minimum wage increase even if there were no negative employment or other affects. In the recent federal minimum wage increase from $5.15 to $7.25, only 15.8 percent of the workers who were expected to gain from it lived in poor households. In the current proposal to raise it to $9.50, only 11.3 percent of the workers who would gain live in poor households.
Conclusions

In the American economy, low wages are usually paid to entry-level workers, but those workers usually do not earn these wages for extended periods of time. Indeed, research indicates that nearly two-thirds of minimum wage workers move above that wage within one year. For full-time minimum wage workers, research has found that the median first-year raise is about 14 percent.

While they are often low-paid, entry-level jobs are vitally important for young and low-skill workers because they allow people to establish a track record, to learn skills, and to advance over time to a better-paying job. Thus, in trying to fix a perceived problem with minimum wage laws, policymakers cause collateral damage by reducing the number of entry-level jobs. As Milton Friedman noted, “The minimum wage law is most properly described as a law saying employers must discriminate against people who have low skills.”

Seventy years of empirical research generally finds that the higher the minimum wage increase is relative to the competitive wage level, the greater the loss in employment opportunities. A decision to increase the minimum wage is not cost-free; someone has to pay for it, and the research shows that low-skill youth pay for it by losing their jobs, while consumers may also pay for it with higher prices. Moreover, evidence from a large number of academic studies shows that, even if there were no negative employment or other affects, minimum wage increases don't reduce poverty levels. Only 11.3 percent of the workers who would gain from a recent proposal to increase the minimum wage to $9.50 an hour even live in poor households.

Some current proposals on Capitol Hill and at the state level to raise minimum wages could not come at a worse time. The current unemployment rate for teenagers is 24.9 percent, and this group's employment rate is near its record low of 25.4 percent. For minority youth the situation is even worse. The unemployment rate for minority teenagers is 38.2 percent, and the employment rate is just 15.5 percent.

In these tough economic conditions, employers are simply not going to hire workers whose labor produces less than the cost of hiring them. Employers will not pay $8.25 an hour to hire a worker whose hourly efforts bring in $7.25. A higher minimum wage will price even more low-skilled individuals out of a job. Although a small share of workers will get a raise, others will lose opportunities for employment. Minimum wages generally don't distribute income to workers from employers, but to a small group of lucky workers from the unlucky workers who lose jobs.

Rather than pursuing policies such as minimum wage increases that create winners and losers, policymakers should focus on policies that generate faster economic growth to benefit all workers. While minimum wages may be a well-meaning attempt to help workers, economic research clearly shows that somebody must pay the price for any increase, and it is usually the least skilled and least fortunate among us.

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2 The self-employed are the largest group of workers not covered by the Fair Labor Standards Act, followed by federal employees and certain transportation employees.

3 Fair Labor Standards Act, 29 USC 218(a).


8 A minor exception is the 90-day "training" wage of $4.25 per hour allowed for youth under age 20. After the 90-day period, youth must be paid the full minimum wage.


“Standard economic theory predicts that minimum wage increases do not reduce profits because low wage firms are usually too small and too competitive to absorb the extra costs. It is then not surprising that empirical evidence is scanty on profit effects.” Sara Lemos, “The Effect of the Minimum Wage on Prices,” Institute for the Study of Labor (Germany), Discussion Paper no. 1072, March 2004.


Thomas Rustici, "A Public Choice View of the Minimum Wage," Cato Journal 5, no. 1 (Spring-Summer 1985): 103–31. Rustici points out that the DOL’s estimates of job losses were likely too low. He cites reports that in Texas alone the imposition of the minimum wage displaced 40,000 workers from pecan-shelling plants. The introduction of mechanical pecan-shelling equipment, which replaced manual shelling, closely followed the implementation of the minimum wage, despite the fact that the automated process produced a lower quality product (more broken nuts and shell pieces).

The total labor force in 1938 was about 54 million, including agricultural, self-employed, government, professional, administrative, and managerial workers, as well as unemployed persons.


Public Law 111-244, September 30, 2010.

Governor Togiola Tulafono, testimony before the Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs, House Committee on Natural Resources, "The Impact of Minimum Wage Increases on American Samoa,” September 23, 2011.


Charles Brown, Curtis Gilroy, and Andrew Kohen, “The Effect of the Minimum Wage on Employment and Unemployment,” Journal of Economic Literature 20, no. 2 (June 1982): 487–528. This research survey was a substantial revision of the previous work the authors conducted for the Minimum Wage Study Commission.


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