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Increasing The Minimum Wage Does More Harm Than Good

By R.W. Hafer

1. INTRODUCTION

Thousands of fast-food workers in dozens of cities across the country walked off the job a few days before Labor Day 2013 to protest the federal minimum wage of $7.25 an hour. They argued that at this wage, workers cannot live affordably. Workers demanded an increase to $15 an hour and their protest garnered support in some circles. After the walkout, the *New York Times* editorialized that increasing the minimum to $15 "would support the legitimate demands of the strikers and underscore the pressing needs of the country's growing ranks of low-wage workers."[1] Some political leaders have called for an even higher minimum wage. U.S. Sen. Elizabeth Warren (D-Mass.) stated during a March 2013 hearing of the Senate Committee on Education, Labor, and Pensions that a federal minimum wage of $22 an hour would not be unreasonable.

The recent protest is the latest event keeping the minimum wage issue at the forefront of public debate. Proponents of increasing the minimum wage often extoll the virtues of raising the minimum wage as an effective anti-poverty program, albeit one that clearly infringes upon the right of employers by legal enforcement.[2] While reducing poverty is a laudable goal, proponents often ignore the negative effects that raising the minimum wage has on

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workers, especially those just entering the labor market or those who lack sufficient skills to realize a higher wage. At its very core, setting a minimum wage is simply a form of price control, which economists of all stripes recognize as a recipe for resource misallocation.

With calls for further increases in the minimum wage unabated — even during times of economic distress — it is important to clarify the potential consequences and costs of such policy actions. It is useful, therefore, to consider the fundamentals of what happens in the labor market to workers and employers when the government sets wages that are different from those established in the market for labor. In this essay, we focus on the predictions from a simple model of the labor market, present evidence based on recent research, and consider the important though often ignored question of just who pays for increases in the minimum wage. Unlike popular wisdom, it is not just employers.

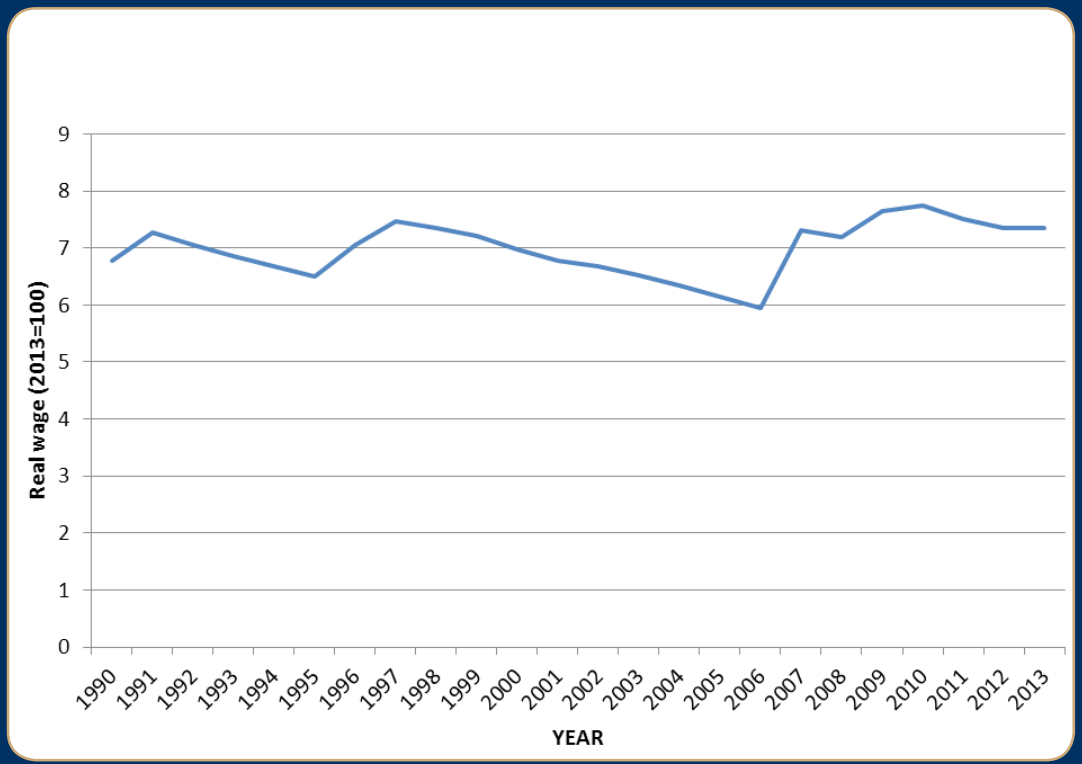
Establishing a minimum wage higher than the going wage rate for the low-skilled segment of the working population will harm many of the very workers for whom the minimum wage is supposed to help.[3]

II. WHAT IS THE MINIMUM WAGE? WHO IS PAID THE MINIMUM WAGE?

The federal minimum wage is $7.25, a level reached in 2009 after three

FIGURE 1

Minimum Wage In Missouri Adjusted For Inflation (2013 = 100)



successive increases beginning in July 2007. Historically, the federal minimum wage has been increased sporadically.[4] Since 1990, the federal minimum wage has been raised six times, from $3.80 in 1990 to its current level. Missouri's minimum wage is $7.35 for 2013, a 1.3 percent increase over 2012. Missouri has increased its minimum wage eight times since 1990, from $3.80 in 1990 to the current $7.35. It will automatically increase with the rate of inflation in coming years.

Figure 1 plots Missouri's minimum wage. To make the values comparable over time, it is useful to adjust these "nominal" wages for inflation. This makes it easier to compare changes in purchasing power over time. In Figure 1, therefore, all *real* minimum wages are stated in 2013 dollars.[5] Starting at $6.78 in 1990, the real minimum wage declined slightly until 1995, when it was increased to the equivalent of $7.47 in today's purchasing power. After decreasing through 2006, when it reached $5.95, the successive increases raised it to $7.65 in 2010. This increase is especially large in real terms because the underlying nominal minimum wage was raised from $6.65 to $7.05, a 6 percent jump during a time when the CPI actually fell. An increase in the nominal wage and a decrease in the price level translate into a 6.4 percent increase in the real minimum wage. Overall, the story from Figure 1 is that the real minimum wage in Missouri has not varied substantially over time and today is at one of its highest levels over the past two decades.[6]

Who earns the minimum wage? The U.S. Bureau of Labor Statistics (BLS, 2013a) provides a breakdown of whom the federal minimum wage covers.[7] Minimum wage workers are predominantly young. While 20 percent of all hourly paid workers are 25 years old or younger, this age group comprises about 50 percent of those paid the federal minimum wage or less. The statistics also reveal that women are more likely than men to work at jobs paying minimum wage. One demographic that stands out is that in 2012, education was a key determinant of whether someone worked at minimum wage or not. Ten percent of all hourly paid workers without a high school diploma were paid at or below the minimum wage. This is a significantly larger proportion than individuals with a high school diploma (4 percent) or a college degree (2 percent).

The BLS (2013b) also provides information pertaining to how many workers are employed at or under the minimum wage. In 2012, 97,000 workers in Missouri worked at or below the minimum wage, or about 6.3 percent of all hourly paid workers in the state. This number is greater than the nationwide figure of 4.7 percent. Of this group, just about one-half (49,000) earned the minimum wage.

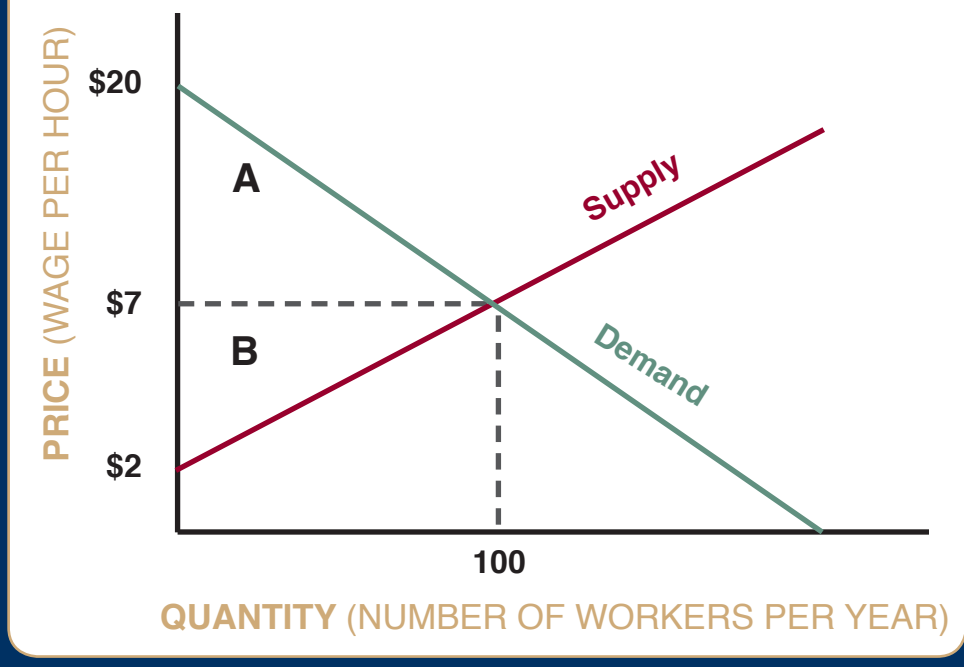
How might increases in the minimum wage affect these low-skilled workers? To answer that question, we examine the theoretical predictions from a basic supply-and-demand model of the market for low-skilled workers in the next section. With that prediction in hand, we then will explore the empirical evidence to see the accuracy of the model's predictions.

Setting a minimum wage is simply a form of price control, which economists of all stripes recognize as a recipe for resource misallocation.

Establishing a minimum wage higher than the going wage rate for the low-skilled segment of the working population will harm many of the very workers for whom the minimum wage is supposed to help.

FIGURE 2

The Market For Low-Skilled Labor



III. LABOR MARKET EFFECTS OF THE MINIMUM WAGE

To understand how the minimum wage affects employment of low-skilled workers, we use a standard device found in every economist's toolbox: the supply-and-demand model. While some might argue that this model is too simplistic to use in analyzing such an important topic, it is, by its very simplicity, a powerful tool that provides a baseline prediction against which real-world evidence then can be compared. We will use this model to focus our discussion on one segment of the labor market, low-skilled workers. Why this focus? Because changes in the minimum wage are unlikely to affect the market for skilled workers or managerial workers. Who is included in this group labeled low-skilled workers? We will define this group as those individuals with the following characteristics: low educational attainment, part-time workers who move in and out of the market for transitional income needs, teenagers without work experience, those entering the job market for the first time or some combination of these traits.[8]

A Supply-And-Demand Approach

Figure 2 shows a hypothetical market for low-skilled workers.[9] On the vertical axis, we measure the "price" of labor by the hourly wage. Because workers are concerned about what their wage will buy (purchasing power), the wage rate is expressed in real (inflation adjusted) terms. On the horizontal axis, we measure the

quantity of labor as the number of workers hired during a specific period of time. For example, we consider the quantity of labor as "number of workers per unit of time" and the "unit of time" as a year.[10]

The line labeled "Demand" in Figure 2 illustrates the firms' demand for workers. The demand for labor is based on what firms in the market can receive for the product or service being produced and the productivity of the worker. The fact that it slopes downward indicates that as the hourly wage decreases, the representative employer is likely to increase the number of workers demanded (hired). In this example, all else the same, if the wage falls from $20 to $7, employers are willing and able — that is, they will find it profitable — to expand the work force from zero to 100. The exact opposite effect occurs when the hourly wage rate rises: increasing the wage from $7 to $20 leads firms to reduce the number of workers they can profitably employ.

On the "other" side of the market, the supply side, individuals are making personal decisions about whether to work or not. Would you be willing to work at a fast-food restaurant for $7? Would you be willing to take the same job for $20 an hour? If you answered no and yes, respectively, you have demonstrated the underlying idea of why the supply curve in Figure 2 is upward sloping: a higher wage tends to draw more individuals into the labor market. This is because at the higher wage, the opportunity cost of not working is rising with the wage rate. That is, while you may not think that working for $7 at the fast-food store is "worth it," you might change your mind if the wage is $20. It may not be "worth it" to stay home at $20. While almost all of us "have" to work, the idea here is that individuals do in fact exercise choice when they decide to "work or not work."

Based on the foregoing, the labor supply curve, labeled "Supply" in Figure 2, slopes upward to reflect workers' personal choices between working and not working. As the wage rate increases, more individuals are willing to substitute non-work time and activities for work.[11] A higher wage induces more individuals to offer their labor to potential employers. In Figure 2, if the wage is $7, 100 people are willing and able to be employed.[12] In our hypothetical world, no one in the unskilled labor market is willing to work for a wage rate of $2 per hour or less, however. This suggests that $2 an hour simply "isn't worth their time."

Putting the demand and supply sides of the market together allows us to find the "going," or market-clearing, wage rate. For the purpose of this example, the wage is $7. Why is a wage of $7 so unique? At that wage rate *and only at that wage rate* is the number of individuals willing and able to work (the quantity supplied) equal to the number of workers that firms are willing and able to employ (the quantity demanded). In Figure 2, only at $7 is this condition true. If the wage were higher, the number of individuals willing to work would be greater than the number that firms would like to hire. At any wage less than $7, just the opposite is true. Only at $7 are the quantity supplied and demanded both equal to 100 workers. At a wage of $7, individuals deciding to work maximize

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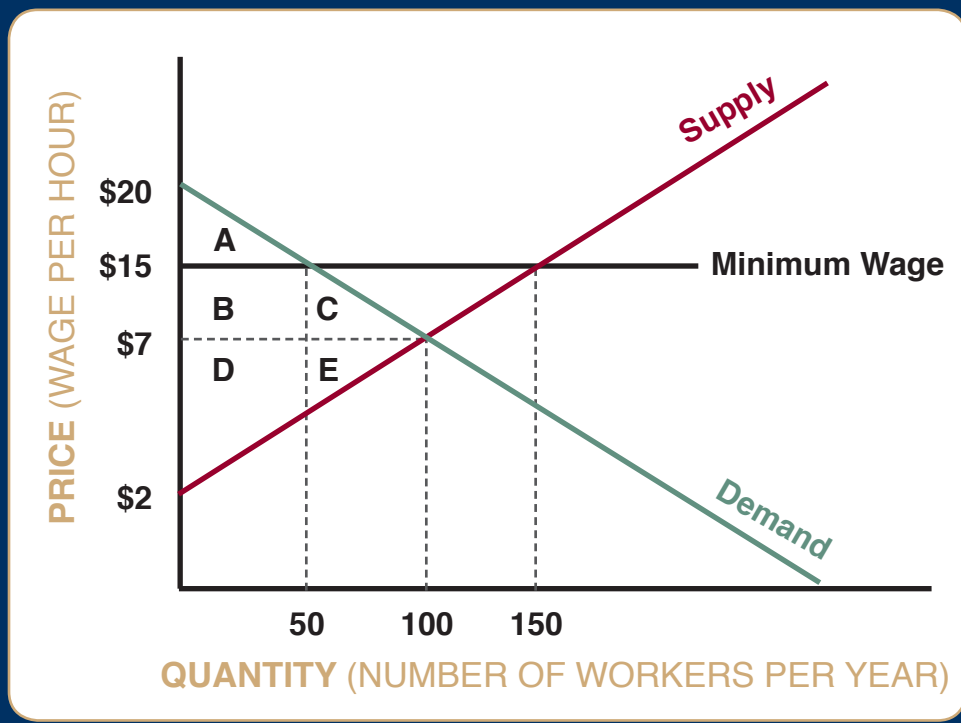
their economic well-being, all else the same. At a wage of $7, firms hire workers who maximize their profits, all else the same.[13] This is what economists mean when they state that the "market-clearing" wage rate leads to the most efficient allocation of labor resources given the supply and demand for labor.

Notice that we have highlighted two triangles in Figure 2. The triangle labeled "A" is what economists call "consumer surplus." Consumer surplus is the difference between what you are willing to pay for something and the price you actually pay. An example will help illustrate the concept. Suppose you are willing to pay $100 for a pair of shoes but only have to spend $75. At $75, you are better off; you get the shoes *and* have an extra $25 in your pocket to spend on other items. In our labor market, there are firms willing to pay $9 or $10 an hour to hire an additional worker. If the market wage is $7, however, those firms will gladly hire additional workers at the lower wage. In Figure 1, the employers' consumer surplus — firms are, after all, the buyers of labor in this market — is calculated as the area above the market wage of $7 and below the demand curve. In this case, consumer surplus, the A triangle, is equal to $650.

The triangle labeled "B" in Figure 2 is called "producer surplus." On the supply side of the market, the fact that some individuals are willing to work at less than the market-clearing wage — shown by the fact that the supply curve extends below the $7 wage — means that at $7

FIGURE 3

Market for Low-Skilled Labor with Minimum Wage



they are better off than if the wage was, say, $2. In the labor market, producer surplus — the benefit that goes to workers — is measured by the area under the market-clearing price and above the supply curve. In Figure 2, the producer surplus accruing to workers when the wage rate is $7 is equal to $250.[14]

Consumer surplus and producer surplus are not necessarily equal in a market-based outcome. What is important is that any deviation from the market wage, $7 here, affects the size of consumer and producer surplus. That is, once we deviate from the market-clearing wage for any reason that is not associated with a change in supply or demand, businesses or workers are made worse off.

The Effects of a Minimum Wage

As noted previously, raising minimum wages oftentimes is promoted as a means to raise the income of unskilled workers, as an anti-poverty program. However, what happens when the minimum wage is set at some level above the market-clearing wage? Figure 3 replicates Figure 2 and adds a minimum wage of $15, which is higher than the market wage of $7.[15] The supply-and-demand model predicts that imposing this higher-than-market wage will have predictable economic effects. Assuming no change in the demand for or supply of workers, imposing this binding minimum wage creates disequilibrium in the market for low-skilled workers.

This disequilibrium has two effects. One is that the higher wage induces more individuals to enter the labor market and seek employment. Figure 3 shows that if the wage is set at $15, there now are 150 people seeking jobs, 50 more than at the market-clearing wage of $7. These additional individuals now are willing to work as they substitute more work for less leisure at the higher wage rate. Even though there are now 150 workers willing to become employed at a wage of $15, not everyone will find employment. As shown in the figure, at a wage rate of $15, employers are hiring only 50 workers. The difference between the number of workers actually employed (50) and the number willing to work (100) is a surplus of low-income workers that the higher-than-market wage rate created. More distressing is the fact that imposing the minimum wage presses 50 previously employed workers into involuntary unemployment. These individuals would have worked at the original wage of $7 but no longer are able to, and not by their own choosing.

Let us state what probably is an obvious result of raising the minimum wage: Assuming that their skills make it impossible to secure other jobs in similar employment, raising the minimum wage reduces income for those workers involuntarily unemployed. How do advocates of the minimum wage respond to such a dire prediction? Commenting on the fast-food workers' nationwide walk-out in protest of the $7.25 minimum wage, Dean Baker, co-director of the liberal Center for Economics and Policy Research, said, "I'm sure you would see a lot of jobs lost. It's hard to believe you'd have that happen [the wage more than double] overnight and not have some serious disruption in the labor market." When a hypothetical job loss of 20 to 30 percent was suggested

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At [the market-clearing] wage rate* and only at that wage rate *is the number of individuals willing and able to work (the quantity supplied) equal to the number of workers that firms are willing and able to employ (the quantity demanded).

as an outcome from doubling of the minimum wage, Baker suggested that the still-employed workers would "take home twice as much pay. They're still way better off."[16]

Our hypothetical example bears out this position. Assuming a 30-hour work week, the annual income at the original $7 wage for a low-skilled worker is a little less than $11,000. If the wage is raised to $15, that worker's annual income increases a little more than $23,000. However, this increase in income occurs *only for those workers who remain employed.* What about those workers pushed to unemployment because of the increase in the minimum wage? In our example, the 50 workers who lost their jobs due to the increase in the minimum wage see their income fall by approximately $11,000 — to zero — if no other employment can be found. Punishing one portion of the labor force to make another better off is dubious public policy. Certainly, this is not a passionate anti-poverty program.[17]

The disequilibrium created in the market for low-skilled workers means that employers will use something other than price (wage) to make hiring decisions. Faced with the higher wage, they will employ only the most productive workers.[18] Other non-wage factors also could become more prevalent in hiring decisions — gender, skin color, height, weight, number of tattoos, marital status, or any other characteristic on which the employer wishes to base his or her decision — now will take a more prominent role in deciding whom to retain or hire. Imposing the minimum wage can, as this example suggests, have wider and unforeseen (or ignored) consequences for job and income loss for individuals that this decision negatively affects.

Society Loses With An Increase In the Minimum Wage

There is a less obvious but no less economically damaging effect from setting a wage that exceeds the market-clearing wage.[19] We know that setting a wage rate above its market-clearing level reduces employers' consumer surplus. In Figure 3, the consumer surplus at the market wage of $7 is equal to the area ABC. The higher minimum wage shrinks the size of consumer surplus to the triangle labeled "A." A higher minimum wage thus reduces the economic well-being of employers.

A common belief is that the employers' loss (recall that they are the consumer in this market) becomes the workers' (the suppliers') gain. This is erroneous. At a market wage of $7, the producer surplus — the gains to workers — is the area of the triangles labeled "D" and "E" in Figure 3. After the minimum wage is established, producer surplus becomes the area BD. If the area BD is smaller than that of DE, producer surplus — that which accrues to workers — is reduced. It is important to recognize that even if the producer surplus BD is larger than before the minimum wage is enacted, as we already noted, it now goes *only to those workers still employed*. For those workers unemployed because of the minimum wage, they clearly fare worse.

An overlooked fact in the minimum wage debate is that it creates a loss for society as a whole. As shown in Figure 3, after the minimum wage is legislated and firms comply, consumer surplus shrinks to the triangle A and producer surplus contracts to the triangle BD. So what does the triangle CE represent? It is economic benefit that once accrued

to workers and employers but now nobody gains. Economists refer to this as the deadweight loss to society from imposing a minimum wage that is higher than the market-clearing wage. In other words, *both workers and employers* lose the gains that existed before the minimum wage was imposed.

IV. WHO DOES THE MINIMUM WAGE HURT?

Based on the preceding discussion, the most obvious answer to this question is those employed individuals who, because of the minimum wage, are made unemployed. Does this prediction from the supply-and-demand model square with reality? Neumark and Wascher's (2008) extensive review indicates that, even though it is not undisputed, the preponderance of research indicates that binding minimum wages reduce job opportunities for low-skilled workers seeking entry into the job market, or those employed individuals who lose their jobs when the minimum wage is increased.[20] Indeed, the fact that the employment rate for low-skilled workers worsened relative to others following the Great Recession is one sign that a binding minimum wage has a disproportionate effect on the employment opportunities for these workers.[21]

One aspect about the supply-and-demand analysis is that it is static in nature: it is a snapshot of the labor market at a point in time. Impose the minimum wage as a floor and the resulting disequilibrium remains until outside forces affect either the demand for or supply of labor. While most research focuses on how a minimum wage affects the *level* of jobs or income of workers following minimum wage increases, perhaps the more important question is whether a minimum wage affects the longer-run *growth* of jobs.

Texas A&M economists Jonathan Meer and Jeremy West (2103) addressed that very question. Using a statistical analysis of private sector employment data across all states for the period 1977 to 2011, Meer and West concluded that an increase in "the minimum wage reduces net job growth, primarily through its effect on job creation by expanding establishments" (p. 21).[22] The net effect of raising the minimum wage is negative: over time, the number of jobs created does not increase as rapidly as if there were no binding minimum wage.

Earlier, we noted that raising the minimum wage often is touted as a prescription to increase the standard-of-living for low-income families. Unfortunately, the evidence that Neumark and Wascher (2008) surveyed, along with Meer and West's (2013) results, among others, suggest just the opposite. Using data from Sabia and Burkhauser (2010), Neumark (2012) reported that many minimum wage workers do not come from low-income families. Using 2008 data, only 4.4 percent of all such workers were in poor families, and only 12.7 percent of workers earning less than $7.25 an hour were in poor families. These data reveal that those earning less than $7.25 usually lived in families where the family income was three times the poverty line. Thus, raising the minimum wage goes proportionally more to individuals not living in poverty.[23]

As research in the field of economic development demonstrates, loss of income often leads to deterioration in

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health and well-being. From her analysis of the relation between changes in income and health, Susan Ettner (1996) concluded that "cost-benefit analyses of government policies that may reduce disposable income should take into account potential effects on morbidity." In a study examining the link between income and well-being, Sacks, et al. (2010) found that "measured subjective well-being grows hand in hand with material living standards." As both of these studies (and many more) suggest, policies that reduce income are likely to have detrimental effects on health and economic standards of living.

Some low-skilled workers are individuals with inadequate education. The employment statistics during the aftermath of the Great Recession show that individuals with less education suffer more prolonged spells of unemployment. This suggests that instead of raising the minimum age, a viable approach to reducing poverty is to increase the educational attainment of historically low-wage individuals. And because instituting a binding minimum wage can have deleterious effects on the job prospects and income potential for those without adequate education, it can, therefore, also have disproportionate effects on ethnic groups in society. A recent study of educational attainment across racial groups in Saint Louis found that almost 50 percent of African Americans ages 25 and older living in Saint Louis have a high school diploma or less. In contrast, among the white population, nearly 70 percent have at least attended college.[24] A minimum wage that negatively affects the less-educated may well negatively impact minority groups disproportionately as well.

Once we deviate from the market-clearing wage for any reason not associated with a change in supply or demand, businesses or workers are made worse off.

V. WHO REALLY PAYS FOR THE MINIMUM WAGE?

It is often suggested that firms can simply reduce executive salaries and payments to shareholders to pay for a higher minimum wage.[25] Consider an employer in a competitive market, one where the individual business has little or no control over the price of the good they sell. How does this business owner react when he or she faces an increase in the cost of producing the good? What must be done to remain in business? The answer is, given an existing stream of revenue, to reallocate resources. If the price of fuel rises, a well-managed firm would be expected to actively seek substitutes or find more efficient ways of using the more costly input. Should an employer's response to an increase in the price of labor be any different?[26]

Whether it is a shoe store, the local hamburger joint, or a large box store, employers must make decisions about how to allocate their scarce revenues when the price of labor, its wage rate, rises. If the cost of labor increases (assuming no change in worker productivity) and the firm is earning zero economic profits, it is just as likely to reduce the use of labor as it is to reduce the use of oil when its price increases. In both cases, firms will try to find less expensive substitutes. In the case of oil, firms may use natural gas or install more fuel-efficient machinery as a substitute for oil. In the case of labor, businesses often substitute capital for the now-relatively more expensive labor. Such reactions are evident in the increased use of technical innovations in many labor-

intensive businesses: self-checkout lines in grocery stores, self-serve soda machines in fast-food restaurants, and self-serve gasoline stations. In these instances (and others), capital replaces increasingly expensive, low-skilled labor.

Suppose your favorite local deli, which competes with four other shops and a nearby McDonald's, is unable to make this capital-for-labor substitution. The increased cost of labor raises the deli's cost of producing that extra sandwich. In economist jargon, the higher minimum wage increases the marginal cost of producing the additional sandwich. If the deli is unable to adjust the price of its sandwich — competition among other sandwich providers on the same street constrains the deli's ability to set its price — the higher minimum wage may cause it to reduce the number of deli workers, the result in our supply-and-demand analysis. If the deli was operating on the margin of profitability, it may close its doors. In this case, the increased cost of labor leads to a reduction in the supply of deli sandwiches to consumers. If the demand for sandwiches is unchanging, the reduced supply will put upward pressure on its market price at the remaining delis on the street. Your lunch becomes more expensive. That is, if the minimum wage is raised to $15 from $7.25, it is not at all unlikely that companies — even those in very competitive industries — that traditionally hire low-skilled workers would raise the prices of their goods to customers. In the end, the customers and not the firms still in business pay for the higher minimum wage.[27]

IV. POLICY RESPONSE?

When an increase in the minimum wage dis-employs especially vulnerable low-skilled workers, it places increased pressure on social and familial safety nets. Because many low-skilled workers already face constrained opportunities, being involuntarily unemployed because of an increase in the minimum wage will push them to rely on government programs, increasing the need for taxpayer-assisted programs such as food stamps, unemployment compensation, or welfare. Or, these newly unemployed will be forced to rely more heavily on family members to maintain their economic well-being, straining family resources and relationships. In either case, there are significant personal and social costs to the unemployment that occurs because of the increase in the minimum wage.[28]

Is it good social policy to increase individuals' dependency on social programs? In response to an increase in the minimum wage, the government could enact policies to manipulate the demand and/or supply of labor. On the demand side, for example, it could hire the surplus of unskilled workers at the higher minimum wage.[29] This would shift the demand curve for these workers to the right, which, given the existing supply curve in Figure 3, would raise the market-clearing wage to $15 and result in employment of 150 workers. How the government would use these workers, of course, is an open question. Moreover, such a program basically is redistributing money from taxpayers to those workers originally made unemployed because of the minimum wage policy.

On the supply side of the market, the government could act to reduce the

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number of unskilled workers. This policy would attempt to shift the supply curve in Figure 3 to the left until its intersection with the demand curve occurs at $15. Although there always must be entry-level workers, a policy aimed at improving the educational attainment of low-skilled workers is one example of how to elevate these individuals into the ranks of the skilled workers. Such educational policies, or re-training, may be especially important for adult workers. Policies that promote completion of high school, or acquiring some education or training beyond high school, raise the workers' human capital and make them more employable. Properly administered, such programs would reduce the social costs associated with imposing the minimum wage.

V. CONCLUSIONS

In his 1962 book *Capitalism and Freedom,* Milton Friedman wrote that "minimum wage laws are about as clear a case as one can find of a measure the effects of which are precisely the opposite of those intended by the men of good will who support it" (p. 180). It is not the argument of this essay that those who support minimum wages have misplaced ideals, just that they often fail to understand (or choose to ignore) the consequences, some direct and others unforeseen, of their actions. Our analysis of the minimum wage illustrates those consequences.

Our examination of the minimum wage question combined with the relevant empirical analysis indicates that imposing a binding minimum wage will have undesirable consequences that fall disproportionately on low-skilled workers, just the individual for whom the long-term economic benefits of employment are the greatest. For these individuals, the likelihood of becoming unemployed increases when the minimum wage is raised. And the negative economic consequences of such unemployment ripple out from the individual worker to family and society.

Employers, even those in the most competitive of industries, face choices when minimum wages are increased. They can cut back on the number of workers employed (or reduce their hours), seek alternatives to the use of labor in production, or pass the higher costs on to consumers in the form of higher prices. Governmental programs to counter the effects of such wage-setting policies can be accomplished only by redirecting monies from existing programs or by increasing government expenditures. In either case, there is increased reliance placed on social safety net programs. Unemployment or loss of income due to job reductions also strain familial safety nets and reduce personal well-being.

No matter the response, "someone" pays for a higher minimum wage, and that reduces economic efficiency compared to a wage that the market determines. If a rising minimum wage creates unemployment, lowers incomes for some, redistributes income from others, or requires increased governmental assistance, how can political leaders and advocates for the poor promote such misguided social policy?

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REFERENCES

Allegretto, Sylvia, Marc Doussard, Dave Graham-Squire, Ken Jacobs, Dan Thompson, and Jeremy Thompson. 2013. "Fast Food, Poverty Wages: The Public Cost of Low-Wage Jobs in the Fast-Food Industry." Sponsored by the University of California, Berkeley, Center for Labor Research and Education and the University of Illinois at Urbana-Champaign Department of Urban & Regional Planning.

Clark, Krissy. 2013. Marketplace, National Public Radio (aired Aug. 29).

Clymer, Andrew. 1999. *Edward M. Kennedy: A Biography.* New York: William Morrow& Co.

Feigenbaum, Susan K., and R.W. Hafer. 2012. *Principles of Macroeconomics: The Way We Live.* New York: Worth Publishers.

Friedman, Milton. 1973. Interview, *Playboy Magazine,* Vol. 20, Issue 2: 51-68+74.

Friedman, Milton. 1962. *Capitalism and Freedom.* Chicago: University of Chicago Press.

Goolsbee, Austan, Steven Levitt, and Chad Syverson. 2013. *Microeconomics.* New York: Worth Publishers.

Jacobs, Ken, Dave Graham-Squire, and Stephanie Luce. 2011. "Living Wage Policies and Big-Box Retail: How a Higher Wage Standard Would Impact Walmart Workers and Shoppers." Research Brief, Center for Labor Research and Education, University of California-Berkeley.

Liem, Ramsay, and Paula Rayman. 1982. "Health and Social Costs of Unemployment: Research and Policy Considerations." *American Psychologist.* (October): 1116-1123.

Meer, Jonathan, and Jeremy West. 2013. "Effects of the Minimum Wage on Employment Dynamics." National Bureau of Economic Research Working Paper 19262 (August).

Neumark, David, and William Wascher. 2008. *Minimum Wages,* Cambridge, Mass.: MIT Press.

Neumark, David. 2012. "Should Missouri Raise Its Minimum Wage?" Show-Me Institute Policy Study, No. 33 (September).

New York Times. 2013. "Labor, Then and Now" (Sept. 1).

Purnell, J. 2013. "Invest in Economic and Educational Opportunity," A Report on the Health and Well-being of African Americans in St. Louis (August).

Sabia, Joseph J., and Richard V. Burkhauser. 2010. "Minimum Wages and Poverty: Will a $9.50 Federal Minimum Wage Really Help the Working Poor?" *Southern Economic Journal,* Vol. 76, No.3 (January): 592-623.

United States Bureau of Labor Statistics. 2013 (a). *Characteristics of Minimum Wage Workers:* 2012 (Feb. 26, 2013).

United States Bureau of Labor Statistics. 2013 (b). Minimum wage workers in Missouri—2012. BLS Monthly News Release. March 12, 2013.

United States Bureau of Labor Statistics. 2013 (c). The employment situation: May 2013. BLS Monthly News Release.

United States Department of Labor (n.d.) "History of Changes to the Minimum Wage."

West, Edwin G., and R.W. Hafer. 1978. "J. S. Mill, Unions and the Wages Fund Recantation: A Reinterpretation," *Quarterly Journal of Economics* (November 1978): 603-19.

Winkelmann, Rainer. 2009. "Unemployment, Social Capital, and Subjective Well-Being." *Journal of Happiness Stuies.* Vol. 10 (August): 421-430.

Because instituting a binding minimum wage can have deleterious effects on the job prospects and income potential for those without adequate education, it can, therefore, also have disproportionate effects on ethnic groups in society.

NOTES

[1] *New York Times* (Sept. 1, 2013).

[2] U.S. Sen. Ted Kennedy, a long-time champion of the federal minimum wage, was quoted as saying that "the minimum wage was one of the first — and still one of the best — antipoverty programs we have." From Clymer (1999), quoted in Neumark (2012).

[3] Friedman (1973) suggested that some may have more parochial reasons for supporting such legislation. He points out that in the late 1950s, then-U.S. Sen. John Kennedy's support for raising the minimum wage was openly stated as a means to protect Northeastern textile workers from competition from Southern firms, where equally productive labor could be hired at a lower wage.

[4] A history of the federal minimum wage is available from the U.S. Department of Labor. The numbers used here — the nominal minimum wage — are not adjusted for inflation.

[5] The inflation-adjusted or real minimum wage is found by dividing the minimum wage by the Consumer Price Index (CPI). Setting the value for the CPI equal to 100 in 2013 and performing this operation expresses the real minimum wages in terms of 2013 purchasing power.

[6] The minimum wage in Missouri will be increased or decreased annually in response to changes in the Consumer Price Index. (Missouri Revised Statutes, Chapter 290, Wages, Hours and Dismissal Rights, Section 290.502)

[7] Of course, these characteristics are often interrelated and should not, therefore, be taken as independent factors.

[8] See the details found in BLS (2013a).

[9] For this discussion, we assume that those factors affecting the demand for labor and the supply of labor are fixed. That is, there are no external forces that shift the demand and supply curves. For more on the underlying assumptions of this approach, see any introductory economics text. Our favorite is Feigenbaum and Hafer (2012).

[10] We could just as easily have conducted this analysis in terms of hours worked. The predictions of the model are equivalent if we assume that hours worked per person is a constant, say, 30 hours per person.

[11] Recall that this model provides a snapshot of the market at a point in time. Therefore, prices paid for goods are assumed fixed. This means that an increase in the (real) wage rate indicates an increase in workers' purchasing power.

[12] Personal experience may help make the point: A higher wage rate, such as is paid in the form of overtime, induces most people to work more hours. The increase in the wage raises the opportunity cost of not working.

[13] Profit maximization does not mean exploiting customers or employees. A profit-maximizing firm is one that is paying all inputs to the production of its good, their opportunity cost. It does not mean that a profit-maximizing firm simply "can afford" to pay higher wages, a canard that proponents of minimum wages often use. See *New York Times* (Sept. 1, 2013) for one such example.

[14] In the more conventional discussion, producer surplus equals the difference between the supplier's marginal cost of producing each additional unit of a good and the price they receive for it. In effect, producer surplus rises with the price of the good: If the price is greater than the marginal cost of producing the next unit of output, a profit-maximizing firm is induced to produce that additional unit. In our example, the "marginal cost" of an additional worker entering the labor market is compared to the wage.

[15] In this example and throughout this essay, it is assumed that the minimum wage is greater than the market wage. In that sense, the minimum wage is "binding."

[16] Baker's comments were reported in Clark (2013).

[17] This justification is curiously similar to the argument that English economist John Stuart Mill made almost 150 years ago. Mill considered union workers as best representatives of the "upright and public spirited working man." He promoted unions because they excluded the "ignorant and untrained" members of the working class. He believed that "We do them [the unskilled masses] no wrong by intrenching [sic] ourselves behind a barrier, to exclude those who competition would bring down our wages, without more than momentarily raising theirs." Unionization, in Mill's view, would reduce the number of unskilled workers, put upward pressure on wages, and improve the economic standard of living of the remaining workers. See West and Hafer (1978).

[18] The demand for labor is directly related to the ability of workers to produce, the marginal product of labor. As the price of labor rises, firms must seek those workers with higher levels of productivity.

[19] The following analysis is similar to that used when examining the economic effects of any price floor, such as price controls in agricultural markets. An example of this can be found in Goolsbee, et al. (2013), pages 81-83.

[20] An example of research finding that increasing the minimum wage is beneficial to low-income workers is Jacobs, et al. (2011). They studied the potential effects of instituting a "living wage" at Walmart stores. They chose to use $12 per hour as the hypothetical wage. Their basic finding is that raising the minimum wage raises incomes for the average Walmart worker currently employed at the minimum wage. Unfortunately, their analysis does not account for any job loss or slower rate of job growth that may accompany the increased wage rate, an outcome that the supply and demand model suggests. Also, because they assume that the wage increase will be passed on to consumers in the form of higher prices, they state that "a wage increase for Walmart workers represents a transfer of income to poor and low-income families" (p. 3).

[21] See BLS (2013c).

[22] They also note that indexing the minimum wage to inflation could have even greater negative effects on long-run job growth.

[23] Allegretto, et al. (2013) provide an analysis of the fast-food industry. The objective of this study is to estimate the burden that low-wage workers in the fast-food industry place on social programs, such as food stamps, Medicaid, and temporary assistance for needy families. Like similar studies, it provides a snapshot of the market; that is, it does not account for fast-food workers who move out of entry-level jobs into other employment at a higher wage rate. This is especially problematic when one recognizes that the majority of fast-food workers are young. Some workers in this group are individuals working as they acquire more education, i.e., teenagers working as they attend school, and who will likely advance to higher-paying jobs upon graduation.

[24] Purnell (2013)

[25] See, for example, *New York Times* editorial of Sept. 1, 2013. Jacobs, et al. (2011) suggest that "as portions of the raise [in the minimum raise] could be absorbed through other mechanisms, including increased productivity or lower profit margins" (p. 3). Each view clearly indicates that raising the minimum wage is merely policy of income redistribution from firms (stockholders) and customers to workers.

[26] There is a long-standing and unsettled debate about the question of what is the social responsibility of business. Is it the responsibility of a business to pay its employees a wage that meets some standard established outside of the market for the workers' services? This is the reasoning behind the "living" wage movement. Using this logic, why shouldn't businesses that use corn as an input be required to pay three (four? six?) times the going market price for a bushel of corn in order to raise farmers' incomes?

[27] Of course, the other cost is that the owner of the deli is now out of business and those formerly employed are now out of work, the demand for deli supplies (bread, meat, cheese, etc.) is now lower and affects those suppliers, and so on.

[28] See, among others, Liem and Rayman (1982) and Winkelmann (2009).

[29] This is analogous to the government buying excess agricultural products when they set price supports for the commodity, such as cheese, above its market level.

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