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**Research Report**

## Automatic adjustment of the minimum wage: Linking the minimum wage to productivity

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The Jerome Levy Economics Institute of Bard College

# Public Policy Brief

## Automatic Adjustment of the Minimum Wage

Linking the Minimum Wage to Productivity

*Oren M. Levin-Waldman*

No. 42, 1998

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# Preface

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Enacting a federal minimum wage in 1938, the government sought to guarantee that people who work would earn enough to support their families. Today the same goal is often stated as the belief that people who work deserve a living wage that would place them in a better financial position than they would be in if they were on public assistance.

But experience has shown that any attempt by Congress to raise the minimum wage by even a limited amount immediately sets off a political storm. Debate centers on the extent to which there is a trade-off between higher earnings for some workers and the loss of jobs by others as businesses cut staff to offset increased wage rates. By the time wrangling over the concept of the wage itself and the size of the increase that is feasible for legislative enactment is over, the purchasing power of the promulgated increase has already been eroded by inflation so that it provides limited benefit to minimum-wage workers. Although the results of this erosion might be remedied by a more substantial increase, such an increase in labor costs, which is likely to be both large and unanticipated by businesses, may create a considerable dislocation for firms that employ a large number of minimum-wage workers. In this policy brief Resident Scholar Oren M. Levin-Waldman offers a solution to this problem. He argues that a system of automatic adjustment of the minimum wage could maintain its value for workers and provide businesses with information about the size and timing of further increases.

Automatic adjustment schemes have been proposed before, but most have linked increases to changes in the consumer price index. If the CPI overstates or even misstates inflation so that wages might increase at a rate higher than or different from actual inflation, the increases could

result in inflationary pressures. A wage hike that is commensurate with an increase in productivity, however, would not exacerbate these pressures. With this in mind, Levin-Waldman proposes a system that links the minimum wage and private sector wage rates, which reflect changes in productivity.

The rate at which we set the minimum and the method by which we adjust it are important topics in the search for a solution to the problem of the existence of a large population of the working poor, in issues of welfare reform, and in issues of the growing disparity of income. While those at the higher end of the income ladder have seen their income rise, those on the lowest rung—the minimum-wage earners—have seen smaller increases or even declines in real earnings, despite the prosperous economy. The new welfare legislation is pushing thousands of recipients into the workforce, and those who find work are likely to earn no more than the minimum wage. For families making the transition from welfare to work, surviving on the minimum wage will be difficult and will become even more so if the value of the minimum is allowed to continue to erode. It is worth considering options, such as the one proposed in this brief, to ensure that workers will earn enough to provide their families with an adequate level of well-being.

As always, we welcome your comments.

Dimitri B. Papadimitriou  
*Executive Director*  
August 1998

# Linking the Minimum Wage to Productivity

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Proposals for raising the minimum wage are frequently brought before Congress. A bill introduced in the summer of 1997 proposed raising the minimum wage to \$7.25 an hour by 2002. Another only a couple of months later called for an increase to \$6.65 by the year 2000. Two introduced in March of this year, and currently languishing in Congress, propose raising the minimum from its current \$5.75 to \$6.15 over the next two years. This flurry of legislative activity, along with President Clinton's call for an increase in his 1998 State of the Union address, clearly indicates that policymakers recognize the difficulty of supporting a family on a minimum wage. Yet despite this awareness, Congress seems incapable of acting to raise the wage to a level that can lift families out of poverty.

The difficulty in adopting an increase lies in the fact that the minimum wage is such a divisive political issue. Proposals for an increase are immediately supported by those who argue that it is impossible for families to survive at the current rate, but the proposals are just as quickly opposed by those who believe a higher wage will do more harm than good because the resulting higher labor costs will force businesses to shed workers. By the time Congress does manage to act, believing the issue to be settled for a while, it is discovered that inflation has eroded the value of the minimum wage, leaving it insufficient to live on, and it must be increased again. That each hike in the wage requires an act of Congress means that the wisdom of having a minimum wage is repeatedly returned to the political arena as the subject of debate. The ensuing battle drags on for so long that when Congress finally does act, the political compromise results in an increase that is far too small to have much impact on workers.

The best solution to this problem is to meet it head on and resolve it once and for all. This can be done by taking the bold step of raising the minimum wage to a rate that can lift families out of poverty and then providing a mechanism for automatic adjustment of the wage. If such a mechanism is put in place, Congress will no longer be forced to revisit the issue periodically and the value of the wage will be maintained. Workers' earnings would no longer be held hostage to politics.

Automatic adjustment of the minimum wage has been considered by Congress in the past (Levin-Waldman 1998). The 1997 bill that called for an increase to \$7.25 also called for indexing the minimum wage to the consumer price index (CPI). The minimum wage, once set, would rise each year along with the increase in the CPI, so that it would keep up with inflation. The principal problem with linking the minimum wage to the CPI is that the CPI overstates the rate of inflation and may not accurately reflect market-caused price increases. A better mechanism would be one that links increases in the minimum wage to increases in productivity.

An optimal adjustment mechanism would allow the wage to rise with gains in productivity of minimum-wage workers and would prevent the value of the minimum wage from eroding due to inflation. In general, wage hikes are the result of private sector decisions about wages that are based on past price hikes and productivity gains. Indexing the minimum wage to some measure of overall wage gains could, therefore, reflect a private sector view of productivity gains. Moreover, a wage floor itself can lead to higher productivity; if this is the case, then allowing the minimum wage to rise along with other wages could itself lead to productivity gains among minimum-wage workers.

## **State of the Minimum Wage Debate**

The minimum wage, since its passage in the Fair Labor Standards Act (FLSA) of 1938, has always been a contentious issue. The debate over the federal minimum wage specifically and the concept of a wage floor generally has continued unabated. The argument often given in favor of increasing the minimum wage is that it has not kept pace with the general level of wages. Moreover, many people earning the minimum wage find



themselves below the poverty level. For much of its history the minimum wage hovered around 50 percent of the average hourly wage, but during the 1980s and much of the 1990s it was often below 40 percent. The income of a full-time worker heading a family of three and earning the minimum was above the poverty line in 1979 (Table 1). Because the minimum was held constant from 1981 to 1989, that worker's income fell to \$2,300 below the poverty line by 1992, the income of a worker heading a two-person family was \$606 below the poverty line, and that of a worker heading a family of four was \$5,364 below the line. (By one estimate a family of four must have \$27,000 a year, about twice the poverty line, to maintain a minimally adequate standard of living [Uchitelle 1998].)

An increase in the minimum would give the working poor some relief and public assistance recipients greater incentive to work. Many on public assistance haven't had incentive to work because their total benefits exceeded what they could earn from work, especially in minimum-wage jobs. Increasing the minimum wage might make work more rewarding for those who previously shunned it (Bane and Ellwood 1994). It is also a simple matter of fairness that those who work full-time should be able to support themselves and their families above the poverty line. Opponents to raising the minimum wage often counter that most minimum-wage workers are not poor and that the only effect of an increase in the minimum wage is more unemployment among teenagers. Firms unable to pay the resulting higher labor costs will cut back on labor, reduce benefits, or substitute technology (capital) for labor in order to achieve greater productivity.

The results of empirical estimates of the employment effects of the minimum wage are, when taken as a group, ambiguous at best. Much of the empirical research has focused on the youth labor market. It has become the prevailing wisdom that the minimum wage takes its greatest toll on youths, that a binding wage floor reduces employment for younger and less-skilled workers (Kosters and Welch 1972; Welch 1974, 1978; Meyer and Wise 1983). This research has been buttressed by a study by a federal commission that found that a 10 percent increase in the minimum wage leads to a 1 to 3 percent reduction in employment among teenagers—a finding that has led to calls by some in both academic and policy circles for the use of subminimum wages for teenagers (Nordlund 1997). However, even among researchers who accept these

**Table 1** Minimum Wage and Average Hourly Wage

Year	Minimum Wage	Average Hourly Wage	Minimum Wage as Percentage of Average Hourly Wage	Minimum Wage Yearly Income as Percentage of Poverty Line <sup>a</sup>
1963 <sup>b</sup>	1.25	2.28	54.8	100.6
1964	1.25	2.36	53.0	105.1
1965	1.25	2.46	50.8	103.1
1966	1.25	2.56	48.8	100.5
1967 <sup>b</sup>	1.40	2.68	52.2	109.4
1968 <sup>b</sup>	1.60	2.85	56.1	120.0
1969	1.60	3.04	52.6	113.8
1970	1.60	3.23	49.6	107.4
1971	1.60	3.45	46.4	103.1
1972	1.60	3.70	43.2	99.7
1973	1.60	3.94	40.6	93.8
1974 <sup>b</sup>	2.00	4.24	47.2	105.7
1975 <sup>b</sup>	2.10	4.53	46.4	101.7
1976 <sup>b</sup>	2.30	4.86	47.3	105.4
1977	2.30	5.25	43.8	99.1
1978 <sup>a</sup>	2.65	5.69	46.6	106.0
1979 <sup>b</sup>	2.90	6.16	47.1	104.3
1980 <sup>b</sup>	3.10	6.66	46.5	98.2
1981 <sup>b</sup>	3.35	7.25	46.2	96.1
1982	3.35	7.68	43.6	90.6
1983	3.35	8.02	41.8	87.8
1984	3.35	8.32	40.3	84.2
1985	3.35	8.57	39.1	81.3
1986	3.35	8.76	38.2	79.8
1987	3.35	8.98	37.3	76.9
1988	3.35	9.28	36.1	73.9
1989	3.35	9.66	34.7	70.5
1990 <sup>b</sup>	3.80	10.01	38.0	75.9
1991 <sup>b</sup>	4.25	10.32	41.2	81.4
1992	4.25	10.70	39.7	79.0
1993	4.25	10.96	38.8	76.7
1994	4.25	11.26	37.7	74.8
1995	4.25	11.60	36.6	72.7
1996 <sup>b</sup>	4.70	11.81	39.8	78.1
1997 <sup>b</sup>	5.15	12.17 <sup>c</sup>	42.3	NA

<sup>a</sup> These percentages are author's calculations based on the poverty rate for a family of three. The percentage for a single minimum-wage earner would, of course, be higher and that for a family of four would always be lower.

<sup>b</sup>Years in which increases in the minimum wage took effect.

<sup>c</sup>Estimate based on a 3.0 percent increase.

Source: U.S. Department of Labor, Employment Standards Administration; Bureau of Labor Statistics, "History of the Federal Minimum Wage Rates Under the Fair Labor Standards Act—1938 Through 1991," *Current Employment Statistics*, Labstat Series Report, Series EEU00500006; U.S. Department of Commerce, Bureau of the Census, Historical Poverty Tables, Table 1, "Weighted Average Poverty Thresholds for Families of Specified Sizes: 1959–1996," <http://www.census.gov/hhes/poverty/histpov/hstpvov1.html>.

findings as sound, some concede that the effects are perhaps proportionately smaller among 20 to 24 year olds (Neumark and Wascher 1992) and that adults on balance appear to be better off with a wage floor. Yet, despite the admittedly smaller effects among adults, researchers have not made them the focus of much study.

The empirical research that has been done has been consistent with a model of competitive markets that appears to lead to the conclusion that the costs to society of raising nominal minimum wages are greater than any benefits. This conclusion is predicated on the assumption that market-clearing wages are achieved when the demand for labor is exactly equal to the supply of labor. All those willing and able to work at that wage (the equilibrium wage) will be employed and so, by definition, there is no unemployment. At wages higher than the equilibrium wage, more people will be willing to work than firms will want to hire and so the wage will fall, thereby inducing firms to hire more workers and some workers to drop out of the workforce, with the result that the supply of labor once again equals the demand for labor. Conversely, at wages below the equilibrium wage, fewer people will be willing to work than firms want to hire and the wage will rise, inducing more workers to enter the workforce, but reducing the number of people firms are willing to hire until supply and demand are once again equal.

According to the competitive markets model, each worker receives the value of his or her marginal product. (The value of the marginal product of labor is the amount of increased revenues that result from an additional unit of labor.) If adding an additional worker results in a greater rise in total revenues than when the previous worker was added, then the firm's productivity rises by adding that worker. A wage floor, such as a mandated minimum wage, prevents the cost of labor from dropping below a set rate. If the minimum wage is higher than the equilibrium wage, fewer workers will be hired than are willing to work; that is, there is unemployment.<sup>1</sup> A minimum wage higher than the equilibrium wage will result either in lay offs of workers whose value is less than the minimum or an increase in productivity among low-efficiency workers to justify their retention by firms (Stigler 1946).<sup>2</sup>

According to this model, then, the minimum wage could end up hurting low-wage workers—precisely those people it was intended to help. As the

cost of labor increases due to a mandated minimum wage that is higher than the market-clearing wage, firms will hire fewer workers and employment will drop. Only if the demand for goods and services increases can it be expected that there will be an increase in the demand for labor, which will in turn bid up wages and raise the equilibrium wage. A minimum wage, then, can benefit those who receive it but at a cost to those who lose their jobs (and are unable to find other jobs) because employers do not believe the value of their work to be worth the new minimum wage. A policy that artificially raises wages to help some at the expense of others is inefficient. Even if there appears to be some benefit from an increase, the model of competitive markets predicts that there are inevitably costs, whether in the form of lost jobs, lost opportunities for jobs, lost benefits, or the demand for increased output per hour worked (the demand for higher productivity). Employers will save money by laying off current workers, not creating new jobs, cutting fringe benefits, or demanding that their workers do more for their new wages.

The problem with the competitive model is that it is a theoretical construct with characteristics that do not exist in the real world. Although according to the model a minimum wage set higher than the equilibrium wage is inefficient because it leads to an underutilization of labor in the aggregate, the model nonetheless fails to address the consequences of a world in which wages could be allowed to drop to the level at which demand will equal supply. In the real world the minimum wage is likely to affect different people differently. Moreover, the model of competitive markets assumes the minimum wage to be beside the point because the model does not posit the source of low wages to be the result of, for example, distorted market power, but failings of individuals. According to the model, low-wage earners are not worth more than the wages they have been receiving. It is up to them to improve themselves, and a minimum wage cannot solve this problem. All that a minimum can do is artificially inflate wages, thereby absolving low-wage workers of their responsibility for themselves. The model totally ignores structural variables that may affect wage-setting mechanisms or individual behavior. The problem, however, is that because much of the research on the youth labor market has used the competitive model as its framework, the potential benefits that might have accrued specifically to the working poor have been obscured (Levitan and Belous 1979).

Presenting evidence that contradicts much of the research in this area, David Card and Alan Krueger (1995) found that increases in the minimum wage do not necessarily have a disemployment effect and may actually lead to higher levels of employment. Moreover, they suggest that the minimum wage has perhaps been kept artificially low because of labor monopsony, that is, the existence of a single principal employer in a particular industry or labor market. Specifically, in studies of the fast-food industry in California and New Jersey, Card and Krueger found there to be little disemployment resulting from an increase in the minimum wage. California increased its state minimum wage from \$3.35 (then the prevailing federal minimum) to \$4.25 in July of 1988, and the overall unemployment rate fell from 5.8 percent in 1987 to 5.1 percent (a 12.1 percent drop) in 1989. During the same period the national rate fell from 6.2 to 5.3 percent (a 14.5 percent drop). Although this would suggest that economic growth in California was similar to, or maybe slightly greater than, growth in the rest of the nation, the pattern was quite different for California teenagers. For teenagers the unemployment rate fell 3.0 percentage points (17.8 percent) between 1987 and 1989 from 16.9 to 13.9 percent, but the average U.S. rate fell only 1.9 percentage points (11.2 percent) from 16.9 to 15.0 percent. The rise in the minimum wage raised the earnings of low-wage workers with no concurrent decline in employment.

Card and Krueger also studied the effects of New Jersey's minimum wage increase, again in the fast-food industry. Because neighboring Pennsylvania did not raise its minimum wage, they were able to use fast-food restaurants there as a control group. Following an increase in the New Jersey minimum wage from \$4.25 to \$5.05, the average starting wage at fast-food restaurants in New Jersey increased by 10 percent. There was no apparent "spillover" effect on high-wage restaurants. Quite the contrary: within New Jersey, employment expanded at low-wage restaurants (those that had been paying \$4.25 per hour) and contracted at high-wage restaurants (those that had been paying \$5.00 or more per hour). Employment also contracted between February and November 1992 at fast-food restaurants that were unaffected by the rise in the minimum wage—those stores in Pennsylvania and New Jersey paying \$5.00 or more per hour. Moreover, there did not appear to be any substitution effect. Although the minimum wage increase did lead to price increases for meals (suggesting that the costs of the increase were simply passed on to the consumer), there was no evidence that

prices rose faster among restaurants in New Jersey that were most affected by the rise in the minimum wage. Also, the rise in the minimum wage did not negatively affect the number of restaurant openings, and, as in California, it had no disemployment effect (Card and Krueger 1995).

The Card and Krueger studies, however, have been controversial and have raised a host of research questions about the quality of available data and issues of measurement. An important, but often neglected, subtext to the whole minimum wage debate is that we do not have sufficient data to make any definitive statements about the minimum wage or its actual effects, whether they be positive or negative. Charles Brown (1988) has suggested that the minimum wage is overrated by both critics and supporters alike. Since 1985 minimum-wage earners have accounted for less than 10 percent of total employment (Table 2) and currently account for less than 5 percent of total wage and salary income. The reduction in employment in the standard model of competitive markets isn't necessarily accomplished by the discharge of any number of workers due to higher wage, but by not hiring workers to replace those who have voluntarily quit (turnover rates in minimum-wage jobs are on the order of 12 to 15 percent per month).

Further complicating empirical estimates of the effects of the minimum wage on employment is the fact that the Fair Labor Standards Act exempted some employers from paying the minimum. Those exempted were generally smaller firms, with the standard of "smallness" gradually being tightened over time. Indeed, the original legislation exempted more firms than it included in order to obtain the support of southern politicians, who were generally opposed to a minimum because wages in the South were considerably lower than in the North (Nordlund 1997). As of 1988, the uncovered sector consisted mostly of retail trade and service employees. From Brown's perspective, because the minimum wage benefits only a small proportion of the labor market, its potential benefits do not justify incurring the possible deleterious effects (Brown 1988).

Or, as John Kennan (1995) has suggested (specifically in response to Card and Krueger), we simply do not know that there would not be

**Table 2 Minimum-Wage Earners as a Percentage of All Workers Paid an Hourly Wage**

Year	Both Sexes	Men	Women
1979	13.3	7.7	20.2
1980	15.1	9.6	21.6
1981	15.1	9.6	21.2
1982	12.8	8.6	17.3
1983	12.2	8.4	16.4
1984	11.0	7.5	14.8
1985	9.9	6.9	13.2
1986	8.8	6.9	11.9
1987	7.9	5.4	10.5
1988	6.5	4.4	8.6
1989	5.1	3.5	6.7
1990	5.1	3.3	7.0
1991	9.3	6.7	11.8
1992	7.6	5.7	9.5
1993	6.6	5.0	8.2
1994	6.2	4.7	7.8

Source: Data from U.S. Department of Labor, Bureau of Labor Statistics, unpublished tabulations from the Current Population Survey, Table 9.

adverse consequences were the minimum wage to increase beyond a certain threshold. Moreover, it is unlikely that we could find out even if we were to employ a more sophisticated methodology on the existing body of data; what is needed is more sophisticated data. Some researchers suggest that past increases in the minimum wage may not have had the consequences predicted by the competitive model because the current minimum wage is still far below the equilibrium wage (Freeman and Freeman 1991; Gordon 1995).

Another issue is whether the minimum wage as such represents an adequate measure of well-being. Even if raising the minimum does not result in a real disemployment effect, the increase would be largely beside the point if the wage still does not lift people out of poverty (Burkhauser, Couch, and Wittenburg 1996). This type of criticism supports the contention that there are policy considerations to take into account other than the possibility of a disemployment effect.

## **Arguments for Increasing the Minimum Wage**

David Gordon (1996) has argued that the notion that the minimum wage benefits only a small segment of the labor market is true only if the minimum wage is viewed solely in terms of those who earn it. Most conventional estimates look only at those earning the real minimum wage (that is, the actual minimum wage adjusted for inflation) at one point in time. A decline in the real value of the minimum wage, however, affects not only those workers who earn at or below the wage, but those earning in between the point where the minimum used to be and where it is at the end of the dip—its decline in value. When viewed in these terms, a decline in the real minimum wage may be seen as a contributing factor to what Gordon regards as a wage squeeze in recent years and the growth in income inequality (Gordon 1996, 214–215).

Turned around, then, an increase in the minimum wage, along with other labor market policies, could have a beneficial effect on the economy insofar as it would begin to reverse the decline in real wages and the growth in income inequality, for an increase in the minimum wage would exert an upward pressure on the wages of those earning above the new minimum wage in addition to those who were earning above the old level. As Gordon explains, employers might “be pressured to pay more to their employees, even if they’re not directly affected by the statutory increase, simply to ensure that they’re able to continue hiring and employing the quality of workers they prefer” (1996, 215). Consequently, productivity may rise because employers will attract higher quality (more diligent) workers.

That there is such ambiguity in the data is good reason in and of itself to look to the other potential benefits of a minimum wage. As we have seen, the competitive model posits that an increase in the minimum wage can result in either layoffs or increases in productivity. In other words, increases in the minimum wage can also lead to greater efficiency through greater productivity. An efficiency argument is not inconsistent with the competitive markets model; it differs in that it places greater emphasis on the potential for greater productivity than on the possibility of more unemployment. Employers might also realize greater efficiencies because they will pay less in monitoring costs. This is especially so for employers concerned about shirking; a higher wage is likely to result in



less shirking (Shapiro and Stiglitz 1984). Moreover, employers who are forced to pay higher wages might be forced to find ways to improve productivity (Gordon 1995) because there is a limit to how much they can pass the costs on to consumers through price increases for fear that they may lose customers.

More importantly, an efficiency argument calls attention to the fact that a wage policy expresses a societal preference. A policy aimed at maintaining the value of earnings for those at the bottom of the wage scale represents, on one level, a preference simply for a minimum wage that remains above some poverty threshold. On another level, it might represent a preference for a higher-wage economy on the assumption that a higher wage floor might offer managers incentive to provide the type of on-the-job training that would make their workers more productive. Michael Piore and Charles Sabel (1984) have expressed the choice between a lower- or higher-wage economy as a choice between a low road or a high road in labor market and production strategy. The low road essentially assumes a mass production industrial economy in which most functions can be performed by cheap and low-skilled workers. If labor is not cheap at home, work can easily be outsourced to locations where labor costs are substantially less. The high road, by contrast, entails developing an innovative information-based economy with a flexible and high-skilled labor force able to command higher wages. The skills, and ultimately the productivity, of the labor force are developed through education and training programs. Although a higher minimum wage alone could not be the sole path toward a high-wage economy, it might prod employers to invest in the education and training for their workers necessary to make them “worth” the higher wage. Such arguments were quite persuasive during the early part of the century, when many in industrial mass production were earning anything but a “living wage.”

Productivity is difficult to measure, but as difficult as it is to measure, there are reasons to believe that the efficiency argument is correct. The best indicator is the impact higher wages have had on unionized firms. Richard Freeman and James Medoff (1984) have argued that although many unionized firms may have lower levels of profitability, they nonetheless have greater efficiency because the wage gains achieved through collective bargaining have resulted in greater productivity

largely because they have attracted more skilled and diligent workers. Therefore, despite the reduced profitability for some firms, there are still some social efficiency gains to be derived from wage and other securities achieved through collective bargaining agreements.

Higher wages would also lead to greater efficiency because they might lead to lower levels of turnover. When job turnover is high, employers are generally reluctant to offer on-the-job training—the type of investment that might automatically lead to higher levels of productivity (Freeman 1994; Lynch 1994). Although the efficiency argument has received little attention in recent years, it was quite prominent during the early part of the twentieth century as reformers were struggling to get states to adopt minimum wage legislation (Prasch 1998, forthcoming).

## **Historical Background of the Minimum Wage Debate**

There is ample historical precedent for arguments of efficiency and productivity as foundations for a new policy that would establish an independent mechanism for automatically adjusting the minimum wage. During the early part of the century many economists, mindful of the standard theoretical assumptions that a minimum wage might lead to lower employment, often advocated a minimum wage on the grounds that it would lead to greater productivity. They essentially argued the value of an efficiency wage on the premise that those who were paid more would be able to maintain themselves better and thus produce more.

The English economist Sidney Webb argued that a wage floor would be beneficial to employees and employers alike (Webb 1912). Employers would most appreciate the security it would provide them against being undercut by competitors who sought to pay less than an honest wage. There was in fact a distinction to be drawn between the fixing and enforcing of a minimum wage and the fixing and enforcing of a wage. From the standpoint of economic theory, Webb reasoned, there was nothing in a legal minimum wage that could be calculated to diminish productivity. On the contrary, it would actually increase productivity. Universal enforcement of a minimum wage would in no way eliminate competition for employment; rather it would transfer pressure from one

element in the bargain to the other. Unregulated employment leads employers to select the cheapest labor, but not necessarily the best labor; preference might be given to the incompetent, the weak, and those with “bad character.” As a result, productivity will tend to be low and ultimately so, too, will efficiency. Hiring the best available candidates would promote the aggregate efficiency of the nation’s industry. A legal minimum wage would increase the productivity of the nation’s industry by making it more likely that the workers who were left unemployed were the least productive members of the workforce. Not only would employers be forced to look for the best workers so as to increase their overall productivity, employees would be forced to develop their skills so that they could be counted among the better class of workers (Webb 1912).

This position was not restricted to the other side of the Atlantic. On this side John Bates Clark (1913) was arguing that in the absence of a minimum wage, employers would be likely to choose from the ranks of the most impoverished men and women because they would be willing to work for almost any wage. Trade unions would go a long way toward removing this evil, but in the absence of unions, legislation, specifically a mandated minimum wage, might remove it. As Clark observed, “Mere need and helplessness give citizens a certain valid claim on the state, even though it has done nothing to cause their troubles. Privation that is traceable to social defects makes a more cogent claim. This, in fact, is the basis of the demand for minimum wage laws, since the ill-paid workers are regarded as victims of social arrangements” (1913, 294).

Although many in the American business community were opposed to the imposition of a legal minimum wage on the grounds that it would represent an abridgment of their property rights (McSweeney 1913; Brown 1917), some did support it on the grounds that it would lead to greater overall productivity. One of the most notable supporters in the business community was Edward Filene. Filene (1923) wrote that one way of increasing efficiency was for employers to pay wages that would command higher-quality employees. This would be more efficient because employers would not have to spend as much time providing direction and correcting workers’ errors. As to the argument that minimum wages would drive some businesses out of the state, Filene thought that it was just as well to let them go. He argued that any business that could not pay

a living wage—a wage sufficient to sustain profitable consumers—was not good for the state and therefore had no right to be in it. Low wages simply result in employers' having cheap standards, and cheap standards produce inefficient employees. Employers would not get efficient operation out of workers who were unintelligent, and workers could not be intelligent if they did not have enough to live on properly.

According to Filene, a minimum wage law helps employers as well as employees. It enables employers to be sure that they will not be undersold by other employers who cut costs. It keeps employers from having a body of employees who, because they are poorly paid, are unable to be consumers of the employers' products. It forces employers to take an interest in their employees—to educate them to a level that will make them worth the higher wage the employers must pay. And a minimum wage law forces employers to contribute to the community in the sense that their increased investment in human capital affects the community's overall well-being. Even if the wage results in the loss of jobs for a certain number of people, it is still to the good of the larger community because it forces the state to do its job of providing education and training workers. The state would feel compelled to provide workers, through education and training, the skills necessary to make them more productive. To this extent, the minimum wage would serve to enhance public efficiency.

Minimum wage advocates further argued that employers who paid less than what was necessary to support their labor were essentially parasites on the community, as the difference would ultimately have to come from someplace (Lehrer 1987, 77). Or, as H. LaRue Brown (1913) noted, nothing makes for greater inefficiency than hunger, worry, discontent; employees able to maintain themselves are sure to be better workers, and, therefore, a minimum wage has to be seen as part of a great social advance. Only a few years after the initial minimum wage laws took effect, Arthur Holcombe (1917) observed that the minimum wage neither led to the replacement of women by men (the initial legislation applied only to women) nor did it result in any decrease in efficiency. On the contrary, experience suggested that the benefits originally anticipated by early advocates were indeed being secured.

The first minimum wage legislation was enacted by states during the early part of the century and applied only to women. It was believed that men

did not need such protection because they could join labor unions; women were not allowed to join. Unions originally favored minimum wage legislation for women, but opposed it for men because they wanted to encourage voluntary association (Lehrer 1987). Some progressives who supported the minimum wage for women viewed themselves as supporters of what they called a “family wage,” the notion that men should be paid a wage sufficient to support a family and that a woman’s place was in the home taking care of her family. They believed that since a minimum wage for women would lead to a greater preference for men in hiring, it would shore up the integrity of the family (Kessler-Harris 1988).

By the time the Fair Labor Standards Act, which applied to both sexes, took effect in 1938, there were larger economic issues to consider. As much as the various states may have paved the way for the federal law with their own minimum wage laws during the Progressive era, the 1938 law was very much a product of the Great Depression. The depression generated two key problems: high unemployment and depressed wages and prices. The goal of policy, then, was to generate jobs and inflate wages and prices (Nordlund 1997). Jobs could be generated, in the name of putting purchasing power into the hands of potential consumers, through public works. As consumers demanded goods and services, prices would eventually begin to rise. Wages could be inflated by legally sanctioning collective bargaining and by creating a mandatory wage floor. Although scholars have debated whether or not the New Deal as a whole was radical, the thinking at the time was actually quite conservative—the goal was to get business back on its feet (Bernstein 1973). The New Deal may well have been radical as measured against *laissez-faire* standards, but it was conservative in the larger Burkean tradition of striving to conserve the venerated tradition of capitalism. And as much as the minimum wage may have been viewed as part of this larger effort to get business back on track, there were still plenty who opposed it, and for many of the same reasons it was always opposed.

The FLSA was intended to establish a minimum set of standards that would ensure that producers in one region of the country would not have unfair competitive advantage over producers in another because they were either paying substandard wages or working their employees excessively long hours. There were, however, a number of exemptions from the law. For the most part, it covered only workers engaged in

goods production and interstate commerce; excluded were workers engaged in local retail sales, intrastate commerce, transportation, and agriculture. Of course, executive, administrative, and professional workers were excluded, as it was assumed that their wages were considerably more than the minimum and that the nature of their work was such that a time clock could not be imposed. What is important to note is that many of the workers we associate with the lower, if not the lowest, end of the wage scale were not covered by the FLSA. And those to whom it did apply were likely to be members of a trade union, in which case their wages would be higher than the statutory minimum anyway.

Within six months of the passage of the FLSA, Elmer Andrews, the wage and hours administrator, was proclaiming it a success insofar as it had become a permanent part of the law of the land. At the same time he was careful to note that its popularity perhaps derived from the modesty of the statute, which enabled business to adjust to it. Because of the law's limited scope, compliance was the rule, not the exception (Andrews 1939). The law did create a major precedent for federal involvement in wage regulation, but the more important accomplishments were yet to come in the subsequent amendments.

Regions where wage rates were already higher than the established statutory minimum, such as northern parts of the United States, would not be affected that much; those regions where rates were considerably lower, particularly in the South, would be. States with lower wage rates would effectively lose some of their comparative competitive advantage by having to pay a higher wage rate. That some states enjoyed this competitive advantage was viewed to be unfair. The minimum wage law was intended to achieve some measure of fairness by eliminating regional disparities (Nordlund 1997). At the same time many of the exemptions appeared to apply to workers who were more likely to be congregated in the South and the West. In the end, then, consensus was built on the basis of a law that would be extremely limited in impact and scope. Most members of the opposition were muted by limiting the scope to areas and people that would not immediately affect them politically.

Ambivalence about the minimum wage has continued ever since, affecting any actions on the rate or modifications of how rate increases

are handled. Congress has not been able to introduce a scheme of indexation—especially one tied to the same cost of living index that other federal entitlements are tied to—for fear that it would lead to inflation. Indexation was first introduced during discussions of the 1977 amendments to the FLSA. Organized labor was arguing for an immediate increase in the minimum wage to 60 percent of the average hourly wage and for indexation to ensure that it would always remain at 60 percent. It was believed that not only would indexation assist the working poor, but it would benefit business by providing stability and a regular pattern of cost increases (Levitan and Belous 1979). However, whenever indexation has been suggested, it has had to be abandoned just to obtain the support for an increase itself. And, as recent history has shown, this critical failure in policy has resulted in a minimum wage that has failed to keep up with the rate of inflation.

### **Effects of the Minimum Wage on All Wages**

William Spriggs and Bruce Klein (1994) found that when the minimum wage rises, the starting wages of nearly three-fifths of those in entry-level positions also rise, regardless of whether their jobs actually pay minimum wages or not. When the minimum wage remains constant, its real value falls when prices rise. According to Spriggs and Klein's study, the minimum wage may be important in affecting employment levels, and it plays a significant role in determining the wages of America's workforce, especially those with only a high school education and those living in rural areas. This is because firms view the minimum wage as a reference point for what starting wages ought to be.

Although some evidence suggests that high labor turnover relates significantly to increases in unemployment after minimum wage changes, changes generally do not have a significant effect overall on employment. Rather, the cost of maintaining a low nominal rate for the minimum wage during the 1980s was the diminished opportunities for young adult workers (Spriggs and Klein 1994). Because the value of the minimum wage fell in real terms, there were fewer opportunities, especially for those who could qualify only for jobs at the low end, to find jobs that would enable them to live above the poverty line. If the minimum wage, as Spriggs and Klein suggest, is taken to be a culturally

defined reference point rather than a market-determined rate, the implication might be enormous. Presumably that reference point could be altered. In other words, is the reference point really a function of where the market clears or is it set according to some broad consensus of what it is? The more important implication, however, is the notion that wages are determined more by structural factors than by competitive markets.

**Table 3 Declining Value of the Minimum Wage for Selected Years**

Year	Minimum Wage (current dollars)	Minimum Wage (constant 1992 dollars)
1956	1.00	4.74
1963	1.25	5.74
1967	1.40	5.41
1973	1.60	4.76
1979	2.90	5.50
1981	3.35	5.22
1989	3.35	3.78
1990	3.80	4.08
1991	4.25	4.38
1992	4.25	4.25

Source: William E. Spriggs and Bruce W. Klein, *Raising the Floor: The Effects of the Minimum Wage on Low Wage Workers* (Washington, D.C.: Economic Policy Institute, 1994), Table 1.1.

Those who claim that the low percentage of those earning the minimum wage is evidence that the minimum wage as an aid to the poor is poorly targeted often fail to note that in 1979 the percentage of the labor force earning the minimum wage was more than double what it was in 1994 (refer again to Table 2).<sup>3</sup> What seems to have gotten little notice is that the declining percentage of hourly workers earning the minimum wage also appears to coincide with a period when the minimum wage declined in value, as shown in Table 3.

If there is a relationship between the declining percentage of minimum-wage earners and the declining value of the minimum wage, it would have some critical implications. The fact that fewer people are earning the minimum wage might be taken as a sign of progress if it is assumed that fewer minimum-wage earners means that workers have been



successful in moving out of minimum-wage jobs. However, when we note that the decline coincides with the declining value of the minimum wage, we are left to wonder if perhaps workers earning the minimum wage dropped out of the labor force because the minimum wage was inadequate to maintain some minimum standard of living. Many people, especially women with children, have been able to receive greater income through public assistance programs. If this is true, it would lend support to the notion that a higher wage, or at least one that more closely approximates 50 percent of the average hourly wage, might attract those at the low end of the wage scale into the labor market.

A critical question, given recent changes in the national welfare law, is how many people would be attracted to the labor market were the wage set at a level high enough to make work rewarding for many who previously found public assistance to be more attractive. As a function of the new law, states have to reduce their welfare rolls by 50 percent by 2002. Some of this will be done through the creation of work programs intended to assist recipients in job search and in the development of skills and good work habits. But much of it will be accomplished by directing as many as possible into the private labor market. Therefore, in order for “work” to be a successful option, it does indeed need to pay (Bane and Ellwood 1994; Levin-Waldman 1997).

## **Policy**

To make the minimum a living wage would require a serious measure by Congress. To bring the wage into line with 50 percent of the average hourly wage would require an immediate increase of more than 20 percent; a higher percentage increase would be required for each year that Congress does nothing about the minimum wage.<sup>4</sup> Herein lies the political problem that has been driving many of the economic consequences of a declining minimum wage. The larger the increase in the minimum wage, the more of a shock it is bound to be to the sector of the economy that hires the most minimum-wage workers. Because of the immediate shock that would attend a large increase, Congress resists voting an increase, and the value of the wage erodes even further. By the time Congress feels that it can act, because it in fact must act, the increase it enacts is too little and too late because the value has eroded

still further. Increasing the minimum wage in small increments annually would offer greater stability.

A minimum wage that maintains its ability to enable individuals to support a family above the poverty line would require some mechanism for automatic annual adjustment. An obvious mechanism would be indexing the minimum to the consumer price index (CPI), raising wages by whatever percentage increase there is in the CPI. But for a variety of reasons, this is not necessarily the path that Congress ought to take. First of all, studies have shown that the CPI overstates the rate of inflation (Boskin 1996) and that it does not accurately reflect market-caused price increases (Papadimitriou and Wray 1996). An index that increases wages at a rate greater than (or even different from) the actual inflation rate will exacerbate inflationary pressures. To not exacerbate inflationary pressures, increases would have to be accompanied by productivity gains. (An increase in the wage without a commensurate increase in productivity would indeed be inflationary.) Therefore, a minimum wage indexation mechanism tied to productivity increases would probably be the wisest policy from the standpoint of both economic theory and political feasibility. The problem with a productivity index is that productivity is very hard to define, let alone measure. Nevertheless, there are a couple of policy approaches that could be employed that would not require getting lost in the labyrinth of a productivity definition.

The first is to tie the minimum wage to a certain percentage of the mean or median hourly wage; whatever percentage the index wage increases, the minimum wage increases by the same percentage. For much of its history the minimum wage hovered around 50 percent of the average hourly wage. The problem with means as a measure of actual wages is that they can be skewed by extremes at either end of the spectrum and reflect the earnings of a few workers who fall close to the top or to the bottom of the earnings scale. Medians might be a better measure because they reflect the earnings of the worker at the exact middle of the earnings spectrum. Table 4 shows the actual minimum and what the minimum wage indexed to the median would have been between 1983 (the first year for which median wage data are available) and 1997. On the basis of this index, the minimum wage for 1997 would have been

\$6.36, \$1.21 or 23 percent higher than the current statutory minimum wage of \$5.15.

**Table 4 Minimum Wage Indexed to the Median Hourly Wage**

Year	Median Hourly Wage	Percent Increase in Median	Indexed Minimum Wage <sup>a</sup>	Actual Minimum Wage	Difference	Percent Difference
1983	7.73	–	3.87	3.35	0.52	1.6
1984	8.10	5.4	4.08	3.35	0.70	2.2
1985	8.58	5.3	4.30	3.35	0.95	28.4
1986	8.95	4.3	4.48	3.35	1.13	33.7
1987	9.33	5.0	4.70	3.35	1.35	40.3
1988	9.63	3.2	4.85	3.35	1.50	44.8
1989	9.98	3.6	5.02	3.35	1.67	49.9
1990 <sup>b</sup>	10.38	4.0	5.22	3.80	1.42	37.4
1991 <sup>b</sup>	10.75	3.6	5.41	4.25	1.16	27.3
1992	11.13	3.5	5.60	4.25	1.35	31.8
1993	11.58	4.0	5.82	4.25	1.57	36.9
1994	11.68	0.9	5.89	4.25	1.63	38.4
1995	11.98	2.6	6.03	4.25	1.78	41.9
1996 <sup>b</sup>	12.25	2.3	6.17	4.70	1.47	31.3
1997 <sup>b</sup>	12.62 <sup>c</sup>	3.0	6.36	5.15	1.21	23.5

<sup>a</sup>The 1983 indexed minimum wage is calculated as 50 percent of the median hourly wage. The indexed minimum wage for the following years increases by the same percentage as the median.

<sup>b</sup>Years in which increases in the statutory minimum wage took effect.

<sup>c</sup>The figure for 1997 is an estimate based on a 3.0 percent increase.

Source: Author’s calculations based on data in unpublished tables from the U.S. Department of Labor, Bureau of Labor Statistics for the years 1983 to 1996.

It would be preferable to index the minimum wage to the median wage rather than to the CPI because increases in the median will be a function either of increasing prices or increasing productivity, but whatever increases occur will be the result of employers’ decisions to give raises. The main drawback to this approach is the apparently arbitrary nature of establishing the wage rate. Why, after all, assume that a minimum-wage worker is worth only 50 percent of median-wage workers? The policymaker may not want to get involved in making judgments about the intrinsic worth of individuals, but there is historical precedent using this percentage. In the

past when Congress raised the wage, it would often restore it to somewhere between 50 and 55 percent (refer again to Table 1).

A second approach to the adjustment problem would be to look at the median of the lowest-wage workers in the United States. These are primarily the people in the low-skill jobs, such as jobs in the food service and retail sales sector of the economy. The median wage of low-skilled workers could serve as a reference point for a minimum and, for all practical purposes, could be taken as the putative minimum wage. This, would, of course, have implications for the statutory minimum wage. Again, whatever percentage increase there was in the putative minimum wage would simply be applied to the statutory minimum wage. Again, it would be assumed that increases in the putative minimum wage are based on productivity increases, which ultimately means that instead of the government's deciding on the rate of increase, the private sector would be doing so. This, in turn, is based on the assumption that the private sector is in a better position to make determinations of productivity increases.

Table 5 shows the results of this approach had we instituted this indexation scheme in 1983 taking the statutory minimum wage then as a starting point and increasing it by percentage increases in the median lowest-sector wage. Although the 1997 indexed wage would not have been much higher than the minimum in that year and would not have offered much assistance to low-wage workers, it would have had the advantage of changing gradually and regularly, which would have removed the shock attendant to most increases set by current procedures. A virtue of using the median low-skilled wage rather than the median wage is that since most people taking minimum-wage jobs are going to be working in the lowest-wage sector of the economy, it seems reasonable to allow that sector to have the greatest say (through its wage increases based on productivity levels) on increases to be applied to the statutory minimum wage. Even though minimum-wage workers would not have been much better off than they are under the current statutory minimum wage, they would have seen increases in their earnings in past years (where differences are somewhat larger) and experienced a slowdown in the decline in the value of their wages that occurs when Congress waits to take action and then does too little. An indexed minimum wage can work hand-in-hand with the new

**Table 5** Minimum Wage Indexed to the Median Hourly Wage of the Lowest-Wage Sector

Year	Median Hourly Wage of Lowest-Wage Sector	Percent Increase in Median	Indexed Minimum Wage	Actual Minimum Wage	Percent Difference	Difference
1983	4.70	—	—	3.35	—	—
1984	5.00	6.4	3.56	3.35	0.21	6.3
1985	5.00	—	3.56	3.35	0.21	6.3
1986	5.13	2.6	3.65	3.35	0.30	9.0
1987	5.33	3.9	3.79	3.35	0.44	13.1
1988	5.53	3.8	3.93	3.35	0.58	17.3
1989	5.75	4.0	4.09	3.35	0.70	20.9
1990 <sup>a</sup>	6.13	6.6	4.36	3.80	0.56	14.7
1991 <sup>a</sup>	6.40	4.4	4.55	4.25	0.30	7.1
1992	6.48	1.3	4.61	4.25	0.36	8.5
1993	6.68	3.1	4.78	4.25	0.53	12.5
1994	6.68	—	4.78	4.25	0.53	12.5
1995	6.85	2.5	4.90	4.25	0.65	15.3
1996 <sup>a</sup>	7.08	3.4	5.06	4.70	0.36	7.7
1997 <sup>a</sup>	7.29 <sup>b</sup>	3.0	5.21	5.15	0.06	1.2

<sup>a</sup>Years in which increases in the statutory minimum wage took effect.

<sup>b</sup>The figure for 1997 is an estimate based on a 3.0 percent increase.

Source: Author's calculations based on data in unpublished tables from the U.S. Department of Labor, Bureau of Labor Statistics, for the years 1983 to 1996.

welfare-to-work programs, for if these programs are to succeed in moving welfare recipients into the labor market and keeping them there, these people need to see tangible evidence that their earnings will grow and that “work” can ultimately pay.

Although it would be quite a jump to raise the minimum wage from its current \$5.15 to the lowest-wage sector median of \$7.29, policymakers should consider establishing an indexed wage initially set at that level. Were the severity of the initial increase to pose a hardship for employers, perhaps short-term subsidies could be offered to help defray the initial costs. These subsidies could be paid for by savings from the EITC, because at a wage of \$7.29 an hour, many would earn incomes that would exceed the current maximum value of the EITC. The EITC costs about \$25 billion a year, and the savings from its elimination could perhaps be returned to employers in the form of tax cuts or other

subsidies as a way of compensating for the increased wages they would have to pay (Levin-Waldman 1995). Although a higher income could be given to workers at the low end simply by raising the level at which the EITC phases out, workers may still be more loyal to their employers, and hence more productive, when they receive all their income from their employers. When workers in effect receive a percent of their income through government subsidy, they may not have the same incentive to work as hard as when all their income comes from their employers. Policymakers and employers should also keep in mind that the greater loyalty that higher wages engender among employees could be a great benefit, as it would lead to higher productivity.

## **Conclusion**

Regardless of which approach to establishing an automatic adjustment mechanism is taken, the effect would be to create a public-private partnership in which government implements a new wage rate based on what is happening in the private sector. The decision of how much to raise the minimum wage would be made on the basis of a consensus arrived at through the collectivity of private decisions, instead of its being made by government.

Critics of indexation schemes often claim that such measures are inflationary. But, because in our lowest-wage sector scheme the statutory minimum wage is so far below the putative minimum wage of the lowest-wage sector and because such a small percentage of the workforce (6.2 percent in 1994) actually is paid the minimum, it is hard to see how increasing the minimum wage at the same rate that the median lowest wage is increasing could exert much inflationary pressure. Annual increases in the minimum wage would actually reduce much of the shock that many employers of minimum-wage workers are said to experience each time Congress actually does implement a new minimum wage. Congress has at times had to increase the wage by as much as 25 percent just to bring it to about 50 percent of the average hourly wage, which in most cases left it below that percentage of the median hourly wage. And even when the minimum wage was raised to a level that was below 50

percent, increases were still over 11 percent. Such increases are considerably larger than any increase mandated through an indexation mechanism. Wouldn't gradual increases have less impact on a firm's cost structure? And even if the minimum-wage worker were so fortunate as to obtain as much as an 11 percent increase, under an adjustment scheme tied to a median wage that increase could be in part a function of higher productivity levels, not a form of largess that rewards inefficiency. Gradual increases would reduce the shock because their impact on firms' cost structures would be relatively minimal.

Ultimately, the whole question of indexation requires us to revisit the economic theory that holds that increases in the minimum wage lead to lower employment. Is lower employment a function of the increase per se or is it a function of the size of the increase? Automatic indexation would remove the issue from politics and ensure that those at the low end of the wage scale can continue to earn a wage that keeps up. A better wage might also reduce turnover in minimum-wage jobs and give employers more incentive to invest in on-the-job training, which will lead to greater productivity.

## Notes

1. The competitive model assumes that firms typically use the marginal product of labor as a criterion for determining how many workers to hire. Specifically, the firm will hire workers until the cost of hiring one more worker (the wage) equals the revenue derived from selling the last worker's output (marginal product of labor  $\times$  price of output).
2. Employers increase productivity by increasing hours, reducing benefits, adopting new technologies, hiring more skilled workers, and training workers. Workers attempt to increase their productivity (to remain marketable) by working more hours, acquiring skills, and working at a faster pace in order to achieve more output in less time.
3. Although the percentage of women earning the minimum wage was higher than the percentage of men earning the minimum in all years from 1979 to 1994, the size of the gap between men and women narrows from 12.5 percentage points (20.2 for women and 7.7 for men) in 1979 to 3.1 percentage points (7.8 for women and 4.7 for men) in 1994.
4. The estimate of more than 20 percent is based on the assumption that the average hourly wage of \$11.81 for 1996 would have increased by 3.0 percent for both 1997 and 1998, yielding an average annual wage of \$12.54 by 1998. The minimum wage of \$5.15 (in 1998) is about 40 percent of the average hourly wage. Were Congress to take another year or two to act, the minimum wage would fall that much further behind.

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## About the Author

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