

Levin-Waldman, Oren M.

Working Paper

The Minimum Wage and the Path Toward a High Wage Economy

Working Paper, No. 166

Provided in Cooperation with:

Levy Economics Institute of Bard College

Suggested Citation: Levin-Waldman, Oren M. (1996) : The Minimum Wage and the Path Toward a High Wage Economy, Working Paper, No. 166, Levy Economics Institute of Bard College, Annandale-on-Hudson, NY

This Version is available at:

<https://hdl.handle.net/10419/186845>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

The Minimum Wage and the Path Towards a High Wage Economy

by
Oren M. Levin-Waldman

June 1996

The minimum wage, since its passage in the Fair Labor Standards Act of 1938, has always been a contentious issue. Despite periodic adjustments, the debate over the Federal minimum wage specifically and the concept of a wage floor generally has continued unabated. The argument often given for the increase is that the minimum has not kept pace with inflation and as a result those working at the minimum wage find themselves below the poverty level. Therefore, the wage should be increased so that the working poor can be given some relief, as well as those on public assistance might be given incentive to work. Moreover, it is a matter of simple fairness that those who work full time should be able to support themselves and their families above the poverty line. Opponents of the minimum wage often counter with the argument that most minimum wage workers aren't poor and all an increase in the minimum wage will do is result in a disemployment effect among the teen labor market. Firms unable to pay higher labor costs will either have to cut back on their labor, reduce benefits or substitute technology - capital - for labor in order to achieve greater productivity.

Although both arguments have merit, they are besides the point and ultimately they miss it. The poverty arguments offered in favor of minimum wage increases are weak because their focus is too narrow. Unless the issue is framed within the context of a general labor market issue, it will not draw the type of political support necessary to result in meaningful and effective change in a political system that requires a great groundswell of support before any actions will be taken. And the counter arguments are also weak because they, too are narrow. By focusing solely on the adverse effects of one specific segment of the labor market, the potential benefits to the rest of the labor market are all but ignored. In other words, why isn't it in the greater interest of society to increase the wages of those at the low end of the scale, even if it should cause some disemployment for teenagers? Wouldn't higher wages for these individuals increase purchasing power, thereby enabling them to in the aggregate increase their demand for goods and services?

In this paper, I argue that by and large the data on the effects of the minimum wage are inconclusive. We simply do not know with any degree of certainty what the effects would be. Given that conclusion, the policymaker would be well advised to look towards the other benefits to society - and long-term benefits - to raising the minimum wage. Specifically, traditional economic arguments that increases in the minimum wage will result in a substitution of skilled labor for unskilled labor can be turned on their head. Instead of viewing that as negative consequence, a society seeking to create a high-wage economy could view that substitution as a long-term positive benefit. Raising the minimum wage may well increase the productivity of low-skilled workers - the very people who are held up as examples of why wages are so low. If the issue is education and training, raising the minimum wage could provide an incentive to employers to provide the type of on-the-job training that will effectively raise the productivity of low-skilled workers and make them higher skilled. Legislation aimed at increasing the minimum wage should offer policymakers an opportunity to approach this issue with a fresher perspective instead of rehearsing old shopworn arguments.

AMBIGUOUS DATA

The traditional economics model is a standard textbook analysis which holds the costs to society of raising wages to be far greater than any benefits. As the cost of labor is increased the demand for labor decreases. Only if the demand for good and services on the part of consumers is increased can it be expected that there will be an increased demand for labor which will effectively bid up wages. A policy which artificially raises wages to help some at the expense of others is simply inefficient. Even if there is some outward appearance of benefit derived from an increase in the wage floor, there will invariably be a cost to be borne whether in the form of job loss, lost opportunity for jobs, lost benefits or increased output per man hours - the demand for higher productivity. In models presented by Wessels, McKenzie and Tullock - WMT model - it is suggested that labor markets clear even in the presence of a minimum wage because the wage isn't the only dimension of the contract. Workers receive utility from both wages and fringe benefits, and the two together are what constitutes the firm's total wage bill. Therefore, an increase in the minimum wage will result in a decrease in the level of fringes until excess supply is eliminated. The WMT model actually suggests that workers are actually made worse off by the inefficiency created by this type of regulation. In a study of the effects of the "Wessels effect," McClure found that minimum wage workers were indeed worse off because the wage/fringe bundle wasn't an efficient path. Either firm costs rose or worker utility fell.¹

It has been suggested that minimum wage jobs also have longer queues of applicants than other jobs, which would suggest the existence of rents. Sicilian found that on the basis of EOPP (Employment Opportunities Pilot Project) data, that workers who received starting wages equal to the minimum wage had a significantly higher probability of quitting than workers either paid less than or more than the minimum wage. The findings tended to support the "Wessels effect," that since wages were the most visible aspects of compensation, low-wage workers would mistakenly queue for minimum wage jobs in the belief that they were more attractive. But they would quit once the reality set in. Although minimum wages create disemployment, those workers who remain employed in jobs covered by the minimum wage will benefit. This theory would tend to have clear implications for labor market dynamics: Those individuals covered by the law will be less likely to quit because the expected net return to search is reduced, and those not covered will queue for minimum wage jobs. The primary finding is that workers whose starting wages are equal to the minimum wage are more likely to quit. His estimates, however, do cast doubt on the conclusion that minimum wage jobs offer economic rents to all workers. But they are consistent with Wessels' argument that firms will reduce the non-pecuniary aspects of jobs in the face of legal minimum wages and that workers may overestimate the value of minimum wage jobs in the short run because they do not anticipate this reduction.²

The greatest social cost is increased lower employment. But one study suggests that there may also be the added costs of non-transferable rents. Social costs which are easily recognized have included deadweight loss from a reduced number of workers hired; reduced on-the-job training; the loss of resources devoted to rent-seeking; and increased crime resulting from a lower opportunity to engaging in illegitimate activities. But minimum wages also generate an unrecognized social cost in the form of non-transferable rents. As Lott explains, those who do acquire minimum wage jobs, effectively acquire some non-transferable property rights, given that they are bound to remain in those positions as long as they can cover their opportunity costs, even though lower-cost workers exist. "A worker at minimum wage job cannot decide who will replace him and is unable to sell the right to the position." The higher the minimum wage, the higher the non-transferable rents are, and thus the greater the social costs from non-transferability.³

Minimum wages may also have an impact on the structure of employment, vis-à-vis the ratio of part-time employees to full-time employees. In competitive markets, the wages of part-time workers will on average be lower than those of full-time workers. Reasons for this may be that part-time

workers will generally be less productive than full-time workers; part-time workers may be required to bear a larger cost of skill or firm specific human capital than will full-time workers; and employers incur transaction costs of hiring and firing which are largely independent of workers' status as full or part-time. The minimum wage, however, isn't simply a case of discouraging part-time employment and substituting for it full time employment, as the minimum wage reduces the opportunities for both. According to McKee and West, where part-time work is covered by minimum wage legislation - which is almost universally the case in Canada - the effect of minimum wage revisions is to reduce the part-time/full-time worker ratio. One result is the removal of job opportunities among groups of the population that are in, or on the verge of, poverty. Another result is the reduction of opportunities for young persons to finance their post-secondary education. As they see it, this is a clear example of the majority riding roughshod over the interests of the minority.⁴

As Finis Welch argues, for those who would have earned less than the minimum, legislated wage floors are at best a mixed blessing. There is the obvious potential to increase earnings. But there is also the burden that these workers must find an employer who perceives their labor to be at least worth the legal minimum. To a profit maximizing competitive firm, a rigorously enforced minimum wage law is quite simply a law that excludes the hiring of persons with productivity below the legislated floor. And the adverse effects fall disproportionately on the teenage labor market. It is estimated that a 1% increment in the effective minimum reduces the teenage share of employment by .3 of 1%. The effect of the minimum wage is that it has heightened the vulnerability of teenage employment to the vagaries of the business cycle.⁵ Earlier, Welch and Koster together concluded that minimum wage legislation had the effect of decreasing the share of nominal employment and increasing the vulnerability to cyclical changes in employment for the group most "marginal" to the work force: teenagers. As a result, teenagers have been able to obtain fewer jobs during periods of nominal employment growth, and their jobs have been less secure in the face of short-term employment changes. The minimum wage, as they noted, undoubtedly resulted in higher wages for some of the relatively low-productivity workers who were able to obtain employment than they would have received otherwise. But the cost in terms of lost employment opportunities and cyclical vulnerability of jobs has been borne most heavily by teenagers. And a disproportionate share of these unfavorable employment effects appeared to have accrued to nonwhite teenagers. The primary beneficiaries, however, were adults, particularly white males.⁶

Gramlich too has evaluated the minimum wage from the standpoint of its redistributive effect. His concern was to know whether the minimum wage as such was the best tool for redistributing income. Though acknowledging that the single most important issue in determining its distributional effect is its disemployment effect, he suggests that nobody has dealt with the question of whether the prevailing estimates of disemployment are high enough to make low-wage workers worse off from increases in the minimum wage. Rather a broader question is whether benefits of high wage rates compensate for the costs of a reduced probability of working. A boost in the minimum wage may give workers more leisure time. It may enhance workers' pride in their jobs. It may curtail job quitting, thereby improving employment histories. And in the end it may induce employers to create more productive, if somewhat fewer, jobs and so on. According to Gramlich, the evidence suggests that adult females are the principal beneficiaries of increases in the minimum wage. A very slight majority of low-wage teenagers have family incomes above the median, with the overall median being above that for high-wage teenagers. Although there is indeed some disemployment effect among adults, it is not enough to make low-wage adults worse off on balance. The key, however, is to keep the minimum low relative to other wages. So long as this is true, whatever harmful effects exist are slight, and perhaps the effects are slightly beneficial on both low-wage workers and the overall distribution of income. Still, there is a limit to how much the minimum can be raised, and this limit is the disemployment effect. On balance, though the disemployment effect doesn't appear to be sufficient to negate the benefits to low-wage workers of higher minimum wages.⁷

Nevertheless, a widely held view regarding minimum wages is that a binding wage floor will reduce employment for younger and less-skilled workers. Meyer and Wise in a study for the 1973-78 period estimated that if there was no minimum wage, employment among out-of-school male youth 16-19 years of age would have been about 4% higher and employment of those 20-24 would have been 2% higher. And the employment increases would have been even greater among black youth: 6% for those 16-24 and 10% for those 16-17. They found that the minimum wage had little effect on expected earnings of youth. Higher wage rates of some youths were about offset by the nonemployment of others. Had the minimum wage not been raised over this period, inflation would have greatly moderated the adverse effects of the minimum. Had the minimum remained at its 1973 level, approximately 2/3 of potential employment gains from eliminating the minimum would have been attained. Their findings tend to support the hypothesis that the effects of the minimum are concentrated on youth with subminimum wage rates. They thus find no evidence that the wage rates of youth with market rates above the minimum were bid up.⁸ In a more recent study, David Neumark and William Wascher, on the basis of national time series data from the 1960s through the 1970s, showed a 10% increase in the minimum wage apparently reduced teenage employment by 1-3% with proportionately smaller effects for 20-24 year olds. On the basis of panel data they concluded that youth subminimums, though not necessarily student subminimums, moderated the displacement effects of minimum wages on teenagers.⁹

For the longest period, the prevailing wisdom has been that the minimum wage exacts its greatest toll on the youth labor market. But this wisdom has come under considerable attack in recent years, principally from Card, Katz, and Krueger. In response to Neumark's and Wascher's findings, Card et al. challenged the methodology used to arrive at their findings. According to Card et al., Neumark's and Wascher's conclusions are contingent on whether they hold constant a variable measuring the "proportion of the aged group enrolled in school." When this variable is included, the minimum wage index has a statistically significant negative effect on employment. But when this variable is excluded, the minimum wage has a "statistically" insignificant and positive contemporaneous effect on teenage employment.¹⁰ On the contrary, in a study on the effects of increasing minimum wages in California, Card showed that increases did not result in decreases in employment. During July of 1988, California's minimum wage was raised from \$3.35 - then the prevailing federal minimum - to \$4.25 - now the current federal minimum. The unemployment rate in California fell from 5.8% to 5.1% from 1987-1989. During the same period, the national rate fell from 6.2% to 5.3%. Although this would suggest that economic growth in California was similar to, or maybe slightly slower than the rest of the nation, the pattern was quite different for California teenagers. For teenagers the unemployment rate fell 3% from 16.9 to 13.9%. But the average U.S. rate only fell by 1.9% from 16.9% to 15%. The rise in minimum wages raised the wages of low-wage workers, with no adverse effects on employment.¹¹ Similarly, Katz and Krueger found that in a study of the fast-food industry, increases in the minimum wage showed little evidence of significant adverse effects of minimum wage increases on employment.¹²

In another study of the fast-food industry in New Jersey and Pennsylvania, Card and Krueger found that a rise in the minimum wage, from \$4.25 to \$5.05 had little disemployment effect. The study focused primarily on New Jersey where the minimum wage raise took effect, with Pennsylvania serving as the control group. Several factors went into the choice of the fast-food industry as the focus of the study: 1) Fast-food restaurants are the leading employer of low-wage workers; 2) Fast-food restaurants comply with minimum wage regulations, and thus would be expected to raise wages in response to a rise in the minimum wage; 3) the job requirements and products of fast-food restaurants are relatively homogeneous, thereby making it easier to obtain reliable measures of employment wages and product prices; 4) It is relatively easy to construct a sample frame of franchised restaurants; and 5) Past experience also suggest that fast-food restaurants have high response rates to telephone surveys. The average starting wage at fast-food restaurants in New Jersey increased by 10% following the minimum wage increase. But the minimum wage increase had no apparent "spillover" on high-wage restaurants. Within New Jersey, employment expanded at low-wage stores - those paying \$4.25 per hour - and contracted at high-wage stores - those paying \$5.00 or more per hour. Employment also contracted between February and November 1992 at fast-food stores that were unaffected by the rise in minimum wage - those stores in Pennsylvania and New Jersey paying \$5.00 or more per hour.

According to a conventional model of competitive labor markets, one would expect the minimum wage to increase the incidence of employers substituting skilled workers and capital for minimum-wage workers. They would also increase the proportion of full-time workers. But 81% of restaurants were found to have paid full-time and part-time workers exactly the same starting wage, which would suggest either that full-time workers have the same skills as part-time workers, or that equity concerns lead restaurants to pay equal wages for unequally productive workers. The conventional model also posits that employers forced to raise wages will compensate by reducing fringe benefits. In the fast-food industry, the main fringe benefits are free and reduced-priced meals. In their initial survey, Card and Krueger found that 19% offered workers free meals, 72% offered reduced-priced meals, and 9% offered a combination of both free and reduced-priced meals. In their follow-up survey, they found that while the proportion of restaurants in both New Jersey and Pennsylvania offering reduced-priced meals fell after the wage hike, there was an increase in the proportion of restaurants offering free meals. And relative to Pennsylvania, New Jersey stores actually shifted towards more generous provision - though the relative shift isn't considered to be statistically significant.

Nevertheless, the minimum-wage increase did lead to price increases for meals, which suggests that the costs of the increase were simply passed onto the consumer. But no evidence was found that prices rose faster among stores in New Jersey that were most affected by the rise in the minimum wage. Despite the price increases, however, the raise in minimum wage didn't negatively affect the number of store openings, and it had no disemployment effect.¹³ And yet, the question remains: What is it about a big fast-food chain that wages can increase and prices can be passed onto consumers without negative impact on patronage? Of course, Card and Krueger didn't really look at that, but the question nonetheless remains as to whether the experience of increased wages in the fast-food industry can be generalized to smaller business establishments.

Another question which isn't easily settled is even if the fast-food industry is the largest employer of minimum wage workers, do most minimum wage workers work in fast-food industry or for smaller establishments? The fast-food industry tends to be dominated by national - even international - chains. Higher costs in New Jersey could easily be compensated through lower costs elsewhere. The focus of their study, it has to be remembered, was the raise in New Jersey's minimum wage. We simply do not know what the impact might have been had the federal minimum wage been raised. But there may also be another issue related to the price structure of the industry. Fast-food restaurants offer a viable alternative to conventional restaurants because they offer instant service at considerably lower prices. A slight increase in prices may still not change the fact that meals in the fast-food restaurant are still considerably cheaper than they would be in a conventional restaurant. Those questions not addressed from this study are just what would the impacts be for: 1) smaller establishments and 2) those establishments where prices are more competitive? By theory, would we not expect to see those restaurants that cannot afford to pass costs on to consumers to simply reduce fringes, workers, or both? That there wasn't any disemployment from the fast-food industry doesn't necessarily mean that there wasn't any disemployment in the state. The other thing to consider is whether the minimum wage is of sufficient magnitude to have any effect at all. John Kennan, for instance, suggests that Card and Krueger accept at face value results that show minimum wage increases will not have adverse consequences. Or as he suggests, their "lasting contribution may well be to show that we just don't know how many jobs would be lost if the minimum wage were increased to \$5.15, and that we are unlikely to find out by using more sophisticated methods of inference on the existing body of data. What is needed is more sophisticated data."¹⁴ But then that is precisely the point. We lack conclusive data to make any definitive statements about any effects at all, whether they be positive or negative.

According to a study by Alida Castiello Freeman and Richard Freeman, while the minimum is a classic textbook example of government setting the price of labor, it is also one of the few clear tests of economics of derived demand. The estimated reduction of employment for teenagers is often imprecisely determined or "smaller" than one would expect. There are essentially three explanations consistent with labor demand analysis for why research yields weak results on employment effects of the U.S. minimum. One is that there is considerable noncompliance with the minimum thereby making the law ineffective. Second, employers may respond to the minimum by reducing fringe benefits, training, and quality of work conditions to a greater extent than employment. And third, the minimum may have been so low, especially in the 1980s, that it disemployed too few workers to be detectable in a world where shifts in supply and demand schedules create considerable random variation in employment. Rather, in order to find a clear employment effect, one must examine a minimum wage that bites rather than nibbles at the edges of the job market. To test this out, the Freemans examined the extension of the U.S. federal minimum to Puerto Rico during the 1970s. There the average hourly pay on the island was roughly half of that on the mainland, in which case the effects of the minimum would have been roughly the equivalent of doubling the minimum in the U.S. What the case of Puerto Rico showed was that the extension of the minimum wage did have the clear-cut effects typical of a textbook diagram.¹⁵ But it also had to be clear that the increase would indeed be significant.

Even if it isn't clear from the Card and Krueger study that increases in the minimum wage will not absolutely have a disemployment effect it should be patently clear that the evidence is at least ambiguous, which in a political context riven with interest groups renders it susceptible to manipulation. Even Neumark's and Wascher's study - very much representative of those in opposition to minimum wage increases because of adverse effects for youth - concede that the effects would be considerably less for older individuals. One has to wonder, then, whether there isn't a need to just clarify the priorities of the community. There would appear to be evidence to suggest that we may simply know very little about the minimum wage or its effects. Charles Brown has suggested that the minimum wage is essentially overrated by both critics and supporters alike. Since its passage in 1938, it has averaged a bit less than half of hourly earnings. Those who earn the minimum wage account for 6-12 percent of those employed and less than 5 percent of wage and salary income. The reduction in employment in the standard model isn't necessarily accomplished by any number of workers being discharged because the turnover rates in minimum wage jobs are on the order of 12-15 percent per month. Nevertheless, there are complications to empirical estimates of the effects of the minimum which stem largely from the fact that the FLSA has exempted some employers. Those exempted were generally smaller ones, with the standard of "smallness" gradually being tightened over time. As of 1988, the uncovered sector consisted mostly of retail trade and service employees. Therefore, the basic message for empirical work is that one must account for the extent of coverage and elasticity of total unskilled employment with respect to the minimum that will be smaller than elasticity of demand. The second complication is that minimum wage workers bear no unique identifying marks besides wage rates. The effects of the minimum wage on employment are smaller than one would have supposed, and part of this small effect is due to the fallacy of inflated denomination. But it is also hard to see any evidence that minimum wage increases have benefits which would overcome an economist's aversion to interfering with reasonably competitive markets.¹⁶ Levitan and Belous also note that what is often neglected from studies on the adverse effects of the minimum wage on the labor market is that they are often confined to teenage labor markets. The result, then, is that it could be misleading, if not altogether incorrect, to extend these findings to the adult labor market. As they poignantly remark:

The methodology used in many wage floor studies appear to be flawed, and their conclusions are highly suspect. However, with recent developments in data collection, methodology, and computer technology, a growing number of researchers have attempted to conduct more sophisticated statistical minimum wage tests. Yet, even with these advances, hard-and-fast quantitative results have remained elusive. Respectable studies have come down on all sides of the issues. Inquiries that have agreed on the basic direction of minimum wage impacts have differed about the magnitude of these results. That the minimum wage creates some unemployment does not help policymakers in drafting a wage floor program. More important is *how much* unemployment is created by the wage floor.¹⁷

On the contrary, they suggest that the dire predictions offered by neo-classical economists speak more to their ideological biases and have little support in empirical research. As they see it, the best evidence suggests that the minimum wage has not been a major cause of unemployment. Although some job loss has been detected, it has been considerably smaller than that alleged by orthodox economists. Statistical evidence actually suggests that a wage floor has the power to increase significantly the wages of the working poor. And while minimum wages may result in some unemployment and other

negative effects for adult workers, the income gains due to that minimum are far greater than any injury. Adult workers on balance appear to be made better off under a wage floor, although the tradeoff for teenagers may be even more pronounced.¹⁸ The question, of course, is why the focus of most minimum wage studies had been on the teen labor market.

Card and Krueger too, through a meta analysis of minimum wage studies, have concluded the existence of a publication bias that often results in the types of studies we are accustomed to seeing. Because journals will not publish results that aren't statistically significant and that significance is generally defined as a *t* ratio in excess of 2, there is a tendency for editors and reviewers to look more favorably on those studies with statistically significant results. In the case of the minimum wage this problem is compounded by the strong theoretical presumption of the economics profession that increases in the minimum wage will lead to decreases in employment. This in turn may lead to further biases in that 1) reviewers and editors may be predisposed to accepting those papers that can show a "significant negative effect" of the minimum wage; and 2) this criterion of a "significant negative effect" will become a guide to choosing empirical specifications. The choices made in this regard are then intended to ensure that the results are statistically significant.¹⁹ This in part may account for the principal focus of many studies being on the youth unemployment effect.

MINIMUM WAGE TO ALLEVIATE POVERTY?

Arguments in favor of the minimum wage in recent years have tended to be framed in terms of what best fights poverty. Or that the minimum wage can be viewed as another tool in the arsenal of welfare policy and that it can specifically be viewed as one aspect in the larger category of welfare issues. Poverty arguments for increasing the minimum wage would suggest that an increase in the minimum would make low-wage/low-skill jobs attractive to those who are currently on welfare.²⁰ Since much of the research on poverty shows that many on welfare don't work because it is simply too costly to do so, raising the minimum wage might have the effect of offering a positive inducement to work. In addition, it would offer some measure of integrity to those jobs considered "menial" that any number of individuals who previously shunned them will now be proud to have them. Moreover, it is conceivable that by paying so-called low-skilled workers higher wages they will effectively increase their productivity. The principal reason for raising the minimum wage is so that those working at the bottom end of the income distribution can earn a wage that places them above the poverty level. Table I shows how the minimum wage has fallen as a percentage of average annual hourly wages:

Year	Minimum	Annual Average	Percentage
1938*	\$.25	NA	NA
1939*	.30	NA	NA
1945	.40	NA	NA
1947	.40	\$1.13	35.4
1950*	.75	1.33	56.4
1956*	1.00	1.80	55.6
1961*	1.15	2.14	53.7
1963*	1.25	2.28	54.8
1967*	1.40	2.68	52.2
1968*	1.60	2.85	56.1
1974*	2.00	4.24	47.2
1975*	2.10	4.53	46.4
1976*	2.30	4.86	47.3
1978*	2.65	5.69	46.6
1979*	2.90	6.16	47.1
1980*	3.10	6.66	46.5
1981*	3.35	7.25	46.2
1990*	3.80	10.01	38.0
1991*	4.25	10.32	41.2
1995	4.25	11.46	37.1

*These are the years that increases in the minimum wage took effect.
 Source: "History of the Federal Minimum Wage Rates Under the Fair Labor Standards Act - 1938 Through 1991," U.S. Department of Labor, Employment Standards Administration; Bureau of Labor Statistics, Labstat Series Report, Current Employment Statistics, Series EEU00500006.

In a study by Spriggs and Klein, when the minimum wage rises, the starting wages of nearly 3/5 of those in starting positions also rises, regardless of whether their jobs actually pay minimum wages or not. When the minimum wage remains constant - thus falling in real terms - their wages are held down. Because the minimum was held constant from 1981-1989, a full-time worker heading a family of three and earning the minimum fell \$2,300 below the poverty line in 1992. But this worker would have been above the poverty line in 1979. This same worker in a family of two would have fallen \$606 below the poverty line. And if this worker was heading a family of four, s/he would have fallen \$5,364 below the poverty line. According to this study, although minimum wages may be important in affecting employment levels, it plays a significant role in determining the wages of America's overall workforce - especially those with only a high school education and those living in rural areas. But despite changes in minimum wages, firms merely maintain their internal wage structures. That is, they view the minimum wage as a reference point for what starting wages ought to be. Although some evidence might suggest higher labor turnover relates significantly to increases in employment after minimum wage changes, increases generally do not have a significant effect overall on employment. Rather the cost of maintaining low value for the minimum wage is the diminished opportunities for

young adult workers during the 1980s.²¹ If minimum wages, as they suggest, are a cultural artifact, the implication might be enormous. Presumably that reference point could be altered. The implication would seem to be that the minimum wage should be raised so that its value is such that those who are earning it will effectively be above the poverty line. Moreover, a strong poverty argument would suggest the need to make a trade-off between teenagers and adults with children.

Card and Krueger refer to the minimum wage as a blunt instrument for reducing poverty.²² And this may be no different from Gramlich's earlier contention that the minimum isn't necessarily the best means of redistributing wealth and income. Ronald Mincy found that the disemployment effect of minimum wage hikes would be minimal for adults, who make the largest contributions to the incomes of poor families. In other words, even if there is a disemployment effect for teenagers it is largely irrelevant because the cost would be outweighed by the benefits to society derived from reductions in poverty. The point is this: Adults contribute more to family income than teenagers, in part, because they work more hours and more weeks during the year. There are also more adults than teenagers among the low-wage working poor. Mincy estimated that in 1990, with full coverage and full compliance and a \$4.25 minimum wage, the poverty gap among families with at least one low-wage worker would fall by \$881 million - 11.1% - and the number of such families would have fallen by 193,000 - 8.7%. Moreover, the poverty gap would have been 3-4% lower had coverage and compliance been at the 1987 level.²³

Similarly, Martin and Ginannaros estimated that had the real minimum wage remained constant at its maximum 1968 value (\$4.90 in 1987 dollars), poverty would have been reduced by 7.8 % from its 1987 level of 34.3%. Alternately, had the 1987 real minimum wage maintained the 1959-87 average value, the poverty rate would have declined by 3.9% in 1987. They thus suggest that the real minimum wage set by the Federal government is a determinant of the poverty rate in these households. From their study the most important empirical conclusions were: 1) In relative terms, the real minimum wage plays a major role in explaining the feminization of poverty; 2) Changes in the real median income of women and real per capita income are statistically significant in determining changes in the poverty rate of households headed by women. That is, fluctuations in economic activity affect the overall income and labor market conditions, which impact poverty rates; 3) The rate of unemployment doesn't seem to directly affect variation in the poverty rate of households maintained by women; and 4) Government transfer payments don't seem to play an important role in explaining poverty rate variations for this cohort.²⁴

On the other hand, it is useful to consider that minimum wages may also have some positive implications for the mobility of minimum wage workers. Fundamental to the policy debate on raising the minimum wage are two questions: 1) Do many minimum wage workers remain at that low rate for long periods of time? And 2) what characteristics differentiate minimum wage workers who remain at that rate from those who rise above it? Opponents of minimum wage increases have claimed that such jobs were primarily temporary, entry-level jobs in which new workers would be able to gain valuable experience in the world of work. Smith and Vavrichek found that most people in a SIPP sample who reported initially being paid the minimum wage were still in the labor force in follow-up months, and that most of these labor-force participants were employed. Their most important finding was that the majority of minimum wage workers who remained employed on an hourly basis moved up in wages rather quickly. One year after their initial report, 63% had increased their wage rate. Still, by the end of the 12-month period about 1/4 of the hourly wage workers were still earning the minimum wage. The individual likelihood of moving up in income was positively related to educational attainment. Also, having initially worked a relatively large number of hours per week, and having previously worked in a high-paying job, also significantly increased the change of receiving a wage gain. On the negative side, older minimum wage workers were less likely to advance than younger ones, and blacks were less likely to advance than whites. Women and men, however, were equally likely to receive wage increases.²⁵

Arguments against poverty arguments for raising the minimum wage often center on the fact that many of those who earn the minimum wage simply aren't poor. Most of those in minimum wage jobs are for the most part teenagers or contribution members of a household budget. Those who are poor in terms of say being on public assistance generally are not in minimum wage jobs. On these grounds, it is often concluded that raising the minimum wage would not greatly help the poor. Shapiro, for instance, has posed the question in terms of whether increasing the minimum wage would help the homeless. And he generally concluded that it would not because minimum wage workers generally aren't primary wage earners in their families. He notes that in 1986 just under 2 percent of husbands and 70 percent of wives earned the prevailing minimum wage. It was more likely that other family members - sons and daughters - would earn the minimum wage. In 1985, only 18.5 percent came from families with incomes below the poverty line; 11.6 percent had incomes between 100 and 150 percent of the poverty line and 69.8 percent had incomes considerably above the poverty line. Since most homeless don't have jobs, it is doubtful that they would be helped by an increase in the minimum wage.²⁶

At the same time, there really isn't any data to prove that an increased minimum wage wouldn't assist these people. It simply doesn't follow that because many of these individuals don't currently hold minimum wage jobs they wouldn't be attracted to them were the minimum wage to be increased to a level which would enable them to afford housing. Truthfully there isn't sufficient data to make this determination. Rather determinations are based on generalizations on the basis of what minimum wage positions have attracted. On the contrary, if it can be shown that slight increase in the minimum wage will not affect those who might receive greater benefit from the welfare system, the poverty argument is effectively disqualified. And all we are left with is the ill effect on the teen labor market? Since teenagers have little political clout, the effect is to have greater support for keeping the minimum where it is - and even to have sub-minimums - then to raise them. And yet, it still has not been proven that the poor will not be helped. Rather, all it tells us is that we simply do not have data. What needs to be done is some estimate of how many more might be attracted to the labor market at various levels of the minimum wage.

A LIVEABLE WAGE?

Although there are benefits from a minimum wage increase that will accrue to the poor, the poverty argument relative to others is still a weak argument. In view of the benefits to be derived from being on welfare, it is highly unlikely that a modest increase in the minimum wage will attract too many welfare-dependent individuals to the labor market. The recently passed House version of President Clinton's proposal merely seeks to raise the minimum wage by 90 cents in two installments over two years. A minimum wage at \$5.15 would give a full-time worker at 52 weeks a year an annual income of \$10,712. Though this would place the individual at the poverty line it would not help a family of four. It wouldn't even help a single mother with two children, who could actually receive more benefits in public assistance. Or so this is at least the case in high-benefit states. Consider the following comparison between New York and Texas:

<i>Earnings (@5.15 per hour)</i>	<i>Nonworking New York</i>	<i>Nonworking Texas</i>	<i>Working</i>
Working	\$0	\$0	\$10,712
AFDC	6,924	2,208	0
Food Stamps	1,934	3,349	2,039
Taxes	0	0	-678
Child Care	0	0	-2,000
Other Expenses	0	0	-700
EITC	0	0	3,370
Medicaid	4,790	2,992	0
Total	\$13,648	\$8,549	\$12,743

Source: U.S. House of Representatives, Committee on Ways and Means, *Overview of Entitlement Programs: The Green Book 1994* (Washington, Government Printing Office, 1994), 761-769; "The Earned Income Tax Credit - Integrating Tax and welfare Provisions," *Tax Notes*, no. 7, July 1994; and Bane and Elkwood, *Welfare Realities* .

This modest raise in the minimum wage would appear to provide more income to the mother with children in Texas, but not to the women in New York. Moreover, the mother in New York would be less well off from working simply because she would lose public health benefits. Even though the Texas mother would clearly have greater disposable income, she would also lose her Medicaid benefits. Therefore, it isn't entirely clear that this woman would be better off from working. This, then, raises the question as to just what the minimum wage would have to be set at in order to make minimum wage jobs attractive.

As clear as it may be that the minimum wage, even after a modest increase, cannot compete with public assistance programs, there are nonetheless obstacles to raising it to a level that would make it liveable. On one level, the political focus on the teen labor market may be a function of the fact that given that the package of public assistance benefits in many cases surpasses the benefits of working a minimum wage job, most of those who might be employed in such jobs are primarily teenagers. But in order for there to be a viable political argument for making adults with children the focus of the minimum wage, it does have to be set at a level that will offer positive inducement to take such jobs. The political paradox, however, is that the higher the wage, the less support it is likely to get. This isn't to say that others haven't proposed even higher wages.

At the beginning of the 104th Congress, Representative Martin Olav Sabo of Minnesota proposed an increase in the minimum wage to \$6.50. Sabo noted that the current \$4.25/hour wage fall almost \$2.25 short of the real value of the minimum wage in 1968. Such a wage would better enable close to five million Americans to better provide for themselves and their families.²⁷ Such a wage, as it would effectively yield an income of \$13,520 per year, might begin to make work more attractive even relative the high benefits offered in New York. Moreover, the Sabo proposal would appear to be in line with the idea that the minimum wage should be set at slightly over 50 percent of the average annual hourly wage. Given that the average annual hourly wage was \$11.46 in 1995, his proposal would actually place the minimum wage at 56.7 percent.

A truly liveable wage, however, would require a radical increase, which though it might have long-term gains would also have considerable short-term costs. An example of this is one proposed by Thomas Vietorisz over 20 years ago. Vietorisz proposed a minimum wage of \$3.50 at a time when the minimum was roughly \$2.25, which would have meant raising the minimum wage by as much as 55 percent. This was quite a radical proposal considering that the average annual hourly wage was \$3.93. The result would have been a minimum wage at 89 percent of the average annual hourly wage. To raise the current minimum wage by the same percentage would produce a minimum wage of at least \$6.50. But to raise the minimum wage so that it would be equal to 89 percent of the average annual hourly wage in 1995 would produce a minimum wage of \$10.20. Such a wage would certainly allow for a family of four to be above the poverty line with only one person working. Perhaps this is the point where we might be able to see just what the effects of a minimum wage that truly bites would be. But the rationale at the time, as might also serve us at the present time, was that it would still be cheaper to pay a so-called visionary wage than to endure the costs of poverty. First and foremost, it would represent a serious answer to the question of what to do about welfare. It would be a better policy aimed at taking care of the nation's children, as those "children raised on pauper wages or welfare bear lifelong scars." As Vietorisz put it:

The total failure of welfare to keep the social problems of our major cities under control might be understood in this context. As the welfare rolls explode, the social pathology gets worse. But no wonder! If welfare were to raise the living levels of the secondary labor force to minimal social standards of decency, it would end by destroying this labor force. Welfare cannot help but keep family living levels low enough to ensure that an adequate supply of workers will have no choice but to enter the secondary labor pool. In sum, welfare is not a part of the solution; it is part of the problem.²⁸

Vietorisz had reasoned that the direct costs to society of not providing such a wage were simply too great. First of all, there were the costs of policemen, firemen, judges, drug programs, social workers, hospitals, jails, welfare, crime and deterioration of housing. And then there was the cost of lost national output because the per capita income in poverty areas is so considerably below the national average. "In Harlem the per capita income in 1967 was barely \$1,000 - a deficit of some \$3,000 in national production for each Harlem resident, owing to the underutilization of the potential productivity of the poor. Consequently, if we succeeded in absorbing the poor into the primary labor market and bringing their earnings up to family living levels, resulting increase in productivity would finance most of the extra wages. And this bonus would then be doubled by the elimination of the bulk of social expenditures needed for holding down the lid on our boiling society." Among the greatest benefits is that it would lead to a greater quality of life, as well as it would solve the problem of underemployment. For the crisis of underemployment is essentially about the failure of the labor market to supply decently paying jobs in adequate numbers.²⁹

And yet, it is for this reason that arguments for raising the minimum revolving around alleviating poverty, assisting welfare reform and the like are perhaps the wrong tact. They have effectively become a response to the neo-classical economics focus on the teen labor market. But there is a larger labor market argument which could serve as perhaps a better justification for raising wage. That is, raising the minimum age might increase the demand for skilled labor, employers might consequently be induced to provide the type of on-the-job training necessary to make so-called low-skilled workers more productive workers. Would this be a step in the direction of creating a higher-wage economy based on higher skills? Or as Leon Keyserling argued

30 years ago in response to the claim that the minimum wage is inflationary:

But this is not our *only* great national priority, and we would be in a sad state as a nation and a people if it were. The whole war against poverty, minimum-wage improvement, the reversal of the trend toward the decay of our cities, the overcoming of the huge deficiencies in our educational and health services, are also high national priorities. A "tight" economy would no more justify the sacrifice of our international commitments. The widespread mood to the contrary is almost tantamount to the position that aside from fighting wars, these other priorities are of a lesser importance than the wide range of economic activities and enjoyments in the U.S. which are really very much less important.³⁰

CONCLUSION

The principal argument for raising the minimum wage, aside from the traditional one of fairness, is that it may serve as a path towards a high-productivity/high-wage economy. Piore and Sabel have earlier presented the problems in terms of two competing visions: the low road v. the high road. To pursue the low road would entail finding cheap and low-skilled labor to work in a mass production industrial economy. If labor isn't cheap enough at home, work can easily be outsourced to those locations where labor costs are substantially lower. The high road, by contrast, would entail developing an innovative information-based economy with flexible and high skills labor force able to command higher wages. The skills, and ultimately productivity, of the labor force would be developed through education and training programs.³¹ And it isn't uncommon for the debate over minimum wages to revolve around the question of whether the wages of the unskilled should be artificially inflated through wage floors or naturally boosted through education and training programs that will also increase their productivity. Or to state it differently, the choice confronting us is to have an economy in which market forces dictate that considerable segments of the labor force deemed to be unproductive receive low wages or to have training programs aimed at offering these individual the skills needed to command higher wages.

More recently, Sabel has taken issue with this particular choice we find ourselves confronted with when it comes to economic adjustment. To move from the low road to the high road would, of course, require broad training programs in both the public and private sectors. But despite a variety of changes over the years, firms appear to be no more enthusiastic than in the past about broad retraining programs for current employees or apprenticeship programs for their successors. In part, the reason for this is that the highroad would require firms to break down the hierarchies that are much easier to maintain under a low-road strategy. Essentially "the construction and operation of the flexible economy uproot hierarchies within firms and reshape their relations to each other, to public authorities, and to trade unions in ways the high-road model does not anticipate and managers cannot predict, let alone control."³² For advocates of the high-road strategy, training is a necessary and perhaps even a sufficient condition for economic reorganization. An abundant supply of skilled labor may theoretically give firms sufficient incentive to adapt high-road organization to take advantage of this extremely productive but low-priced input. But why should training programs generally presuppose that the skills necessary may be fundamentally managerial - learning how to manage markets, costs, projects and all the human relations such activities assume. To acquire such skills does require a hierarchy that flexible firms are attempting to discard.³³

It would appear that in the absence of the ability to resolve this dilemma, firms find it easier to rely on a low-road strategy. But one does have to ask whether training programs is enough. Perhaps firms need to be pushed, and the best way to push them may be to legislate a higher minimum wage as a means of inducing firms to more rapidly adopt the high-wage strategy. In other words, neo-classical economics arguments can be turned on their head. One example of this from within the neo-classical school is a study by Robert Gordon on the relationship between unemployment and productivity. Whereas in Europe there is a positive correlation between unemployment and productivity that same correlation in the U.S. is negative. Higher wage rates - and in France they are because there are relatively higher minimum wages - ought to lead to increases in productivity. That they haven't in the U.S. may well be a function of the fact that the minimum wage has been that much below a market clearing wage.³⁴ The implication would seem to be that were the minimum closer to the market clearing wage and it was then to be raised, we might then see higher levels of productivity. At the very least, there would an increase in output per man hours. The point, however, is that a new focus on say productivity, and the minimum wage was one possible means of achieving it, should be seen as a positive step in the direction of creating a broader labor policy. After all, what if employers were to view a higher minimum wage as an incentive to invest some of their own resources into training so they might be even more productivity?

A broader labor policy would see a positive virtue to some of the negative effects predicted by the neo-classicals. Neo-classicals claim that high wage floors will result in reduced teenage employment and a substitution of high-skilled workers for low-skilled workers. But if our goal as a society is to create a high-wage economy, why should this be viewed as a negative effect? If employers respond to a higher wage floor by finding it cheaper to train their workers to be higher-skilled workers which will make them more productive, the minimum wage will have had the positive effect of inducing firms to invest in human capital. This, of course, is a value judgment - the choices we as a society are willing to make. In a democratic society, those choices effectively come about through the interaction between policymakers and interest groups. That one path has been chosen over another is less of a statement about the intrinsic merits of the path relative to other the other, and more about the interests that are best served by it.

A low-wage strategy has certainly been served by focusing the debate on a narrow segment of the labor market. By focusing the issue on the teenage labor market and denying any positive potential benefits to poor people - as though it is an either/or proposition - the issue of the minimum wage has effectively been removed from the labor market - which may be viewed as a positive area of policy debate - and lodged with those elements who have attached to them social stigma. By transforming the minimum wage into a poverty issue, the political imperative for action has effectively been diminished. The debate, then, needs to be refocused, back from poverty to a traditional labor market issue. Rather the minimum wage, if couched as labor market policy once again can serve as a positive tool for developing the labor market.

Still, the minimum wage alone cannot stand as the sole path towards a high-wage economy, but it has to be considered in conjunction with other policies, which ultimately will result in a whole new way of thinking about the welfare state. Much of that thinking requires us to move beyond the limited parameters of a welfare state predicated on a social safety net of public assistance. Rather the welfare state, if it is to be truly viable, would consist of a set of policies aimed at shoring up the value of work and backing up that value with measures that enable individuals to not only find jobs paying liveable wages, but to transition from one type of occupation to another, even if the skills requirements are vastly different. A more radical proposal might even consist of paying a truly liveable minimum wage in exchange for the elimination of the Earned Income Tax Credit (EITC) and other income transfer programs that currently support a sizeable population of dependent poor who are otherwise able-bodied individuals. If a society prizes work as a core value, it ought to find positive inducements for these individuals to work and for them to do so with dignity. We as a society derive benefit from the work that all our members perform, even if it should be considered "low-skilled." We as a society ought to be willing to pay the true costs of performing those tasks. The social safety net shouldn't necessarily entail government picking up the slack for the failure of firms to pay liveable wages. Rather, government in the interest of ensuring that work and workers have dignity, should ensure that jobs do pay liveable wages so that the resort to traditional public assistance programs will become even less, if not ultimately non-existent.

ENDNOTES

1. J. Harold McClure Jr., "Minimum Wages and the Wessels Effect in a Monopsony Model," *Journal of Labor Research* 15, 3 (Summer 1994): 271-282.
2. Paul Sicilian, "Do Legal Minimum Wages Create Rents? A Reexamination of the Evidence," *Southern Economic Journal* 60 (July 1993): 201-209.
3. John R. Lott, Jr., "Nontransferable Rents and an Unrecognized Social Cost of Minimum Wage Laws," *Journal of Labor Research* 11, 4 (Fall 1990), p. 453, 458.
4. Michael McKee and Edwin G. West, "Minimum Wage Effects on Part-Time Employment," *Economic Inquiry* 22 (July 1984): 421-428.
5. Finis Welch, "Minimum Wage Legislation in the United States," *Economic Inquiry* 12,3 (September 1974): 285-318.
6. Marvin Kosters and Finis Welch, "The Effects of Minimum Wages on the Distribution of Changes in Aggregate Employment," *The American Economic Review* 62,3 (June 1972): 323-332.
7. Edward M. Gramlich, "Impact of Minimum Wages on Other Wages, Employment, and Family Incomes," *Brookings Papers on Economic Activity* 2(1976): 409-451.
8. Robert H. Meyer and David A. Wise, "The Effect of the Minimum Wage on the Employment and Earnings of Youth," *Journal of Labor Economics* 1,1 (1983): 66-100.
9. David Newmark and William Wascher, "Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws," *Industrial and Labor Relations Review* 46, 1 (October 1992): 55-81.
10. David Card, Lawrence F. Katz and Alan B. Krueger, "Comments on David Neumark and William Wascher, 'Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws,'" *Industrial and Labor Relations Review* 47,3 (April 1994), p. 488.
11. David Card, "Do Minimum Wages Reduce Employment? A Case Study of California, 1987-89," *Industrial and Labor Relations Review* 46, 1 (October 1992): 38-54.
12. Lawrence F. Katz and Alan B. Krueger, "The Effect of the Minimum Wage on the Fast-Food Industry," *Industrial and Labor Relations Review* 46,1 (October 1992): 6-21.
13. David Card and Alan B. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *The American Economic Review* 84,4 (September 1994): 772-793.
14. John Kennan, "The Elusive Effects of Minimum Wage," *Journal of Economic Literature* 33 (December 1995): 1950-1965.
15. Alida Castell Freeman and Richard B. Freeman, "Minimum Wages in Puerto Rico: Textbook Case of a Wage Floor?" NBER Working Paper No. 3749 (June 1991).
16. Charles Brown, "Minimum Wage Laws: Are They Overrated?" *Journal of Economic Perspectives* 2, 3 (Summer 1988): 133-145.
17. Sar A. Levitan and Richard S. Belous, *More Than Subsistence: Minimum Wages for the Working Poor* (Baltimore, The Johns Hopkins University Press, 1979), p. 150.
18. Levitan & Belous, *More Than Subsistence*, pp. 151-153.
19. David Card and Alan Krueger, "Time-Series Minimum-Wage Studies: A Meta-analysis," *AEA Papers and Proceedings* 85, 2 (May 1995), pp. 238-239.
20. See, for example, David T. Ellwood, *Poor Support: Poverty in the American Family* (New York, Basic Books, 1988); and Mary Jo Bane and David T. Ellwood, *Welfare Realities: From Rhetoric to Reform* (Cambridge, MA, Harvard University Press, 1994)
21. William E. Spriggs and Bruce W. Klein, *Raising the Floor: The Effects of the Minimum Wage on Low-Wage Workers* (Washington, Economic Policy Institute, 1994).
22. David Card and Alan B. Krueger, *Myth and Measurement: The New Economics of the Minimum Wage* (Princeton, Princeton University Press, 1995).
23. Ronald B. Mincy, "Raising the Minimum Wage: Effects on Family Poverty," *Monthly Labor Review* (July 1990); 18-25.
24. Linda R. Martin and Demetrios Giannaros, "Would a Higher Minimum Wage Help Poor Families Headed by Women?" *Monthly Labor Review* (August 1990): 33-37.
25. Ralph E. Smith and Bruce Vavrichek, "The Wage Mobility of Minimum Wage Workers," *Industrial and Labor Relations Review* 46, 1 (October 1992): 82-88.
26. Daryl Marc Shapiro, "Will an Increased Minimum Wage Help the Homeless?" *University of Miami Law Review* 45 (1990-1991): 651-699; also see Richard V. Burkhauser and T. Aldrich Finegan, "The Minimum Wage and the Poor: the End of a Relationship," *Journal of Policy Analysis and Management* 9,1 (1989): 53-71.
27. *Income Equity Act of 1995 and the Minimum Wage Enhancement Act of 1995*, Hon. Martin Olav Sabo of Minnesota in the House of Representative (Friday, January 20, 1995), p. E143 - downloaded from Internet.
28. Thomas Vietorisz, "We Need a \$3.50 Minimum Wage," *Challenge* (May-June 1973), p. 52.
29. Vietorisz, "We Need a \$3.50 Minimum Wage," pp. 54, 56.

30. Leon H. Keyserling, *The Role of Wages in a Great Society: Stressing Minimum-Wage Gains to Help the Working Poor* (Washington, Conference on Economic Progress, 1966), p. 110.
31. Michael J. Piore and Charles F. Sabel, *The Second Industrial Divide: Possibilities for Prosperity* (New York, Basic Books, 1984).
32. Charles F. Sabel, "Bootstrapping Reform: Rebuilding Firms, the Welfare State and Unions." *Politics & Society* 23, 1 (March 1995), p. 6.
33. Sabel, "Bootstrapping Reform".
34. Robert J. Gordon, "Is There a Tradeoff Between Unemployment and Productivity Growth?" NBER Working Paper No. 5081 (April 1995).