

Why Are There So Few Job Losses from Minimum-Wage Hikes?¹

Policy Report No. 354

by Richard B. McKenzie

April 2014

Both proponents and opponents of minimum-wage hikes do not realize that the very small employment effects consistently found across numerous studies provide the strongest evidence available that increases in the minimum wage have been largely neutralized by cost savings on fringe benefits and increased work demands and the cost savings from the more obscure cuts in nonmoney compensation.

Executive Summary

Both proponents and opponents of federal minimum-wage hikes are convinced that if Congress raises the minimum wage (whether to \$9 or \$10.10 or \$15 an hour) the welfare of tens of millions of low-income workers will rise by a comparable amount. The two sides disagree over the extent of the job losses low-wage workers will suffer, but both sides acknowledge that most econometric studies over the past half-century show that a 10 percent hike in the federal minimum wage results in job losses for unskilled workers of no more than 3 percent, and potentially less than 1 percent. Most recently, the Congressional Budget Office found that if the minimum wage is hiked to \$10.10, expected job losses by 2016 will amount to a scant 0.3 percent of the jobs affected.

Those in favor of a minimum-wage increase are willing to accept these minor employment losses for the few in exchange for income gains for the many. But this view fails to recognize that wage income is not the only form of compensation with which employers pay their workers. There are many other forms of compensation, including fringe benefits, relaxed work demands, workplace ambiance, respect, schedule flexibility, job security, hours of work and so forth. Even a limited accounting indicates that these nonmonetary benefits amount to a substantial percentage of the total compensation employees receive, nearly 30 percent over and above wages of all workers and 20 percent over and above wages for restaurant workers, on the average.

Employers compete with one another to reduce their labor costs, and that competition is expressed in a variety of ways in labor markets — certainly in money wages, but also in terms of fringe benefits, work demands and all other forms of nonmoney compensation. Workers also compete for the available unskilled jobs. The competition among employers and workers will not disappear with a wage increase but will merely be redirected into the components of compensation packages not covered by the wage mandate. Wage floors, therefore, restrain competitive pressures in only one of the many



Dallas Headquarters:
14180 Dallas Parkway, Suite 350
Dallas, TX 75254
972.386.6272

www.ncpa.org

Washington Office:
601 Pennsylvania Avenue NW,
Suite 900, South Building
Washington, DC 20004
202.220.3082

ISBN #1-56808-237-1
www.ncpa.org/pub/st354



Why Are There So Few Job Losses from Minimum-Wage Hikes?

ways in which businesses compete. With a minimum-wage increase, employers will move to cut labor costs in other areas. As such, employers are likely to reduce fringe benefits and/or increase work demands.

Indeed, past experience has confirmed the nonmonetary impact of a minimum-wage hike on workers, not only in reduced fringe benefits but in increased work demands and decreased job training. For example:

- When the minimum wage was increased in 1967, economist Masanori Hashimoto found that workers gained 32 cents in money income but lost 41 cents per hour in training — a net loss of 9 cents an hour in full-income compensation.
- Similarly, Linda Leighton and Jacob Mincer in one study, and Belton Fleisher in another, concluded that increases in the minimum wage reduce on-the-job training and, as a result, dampen long-run growth in the real incomes of covered workers.
- Additionally, North Carolina State University economist Walter Wessels determined that a wage increase caused New York retailers to increase work demands. In most stores, fewer workers were given fewer hours to do the same work as before.
- More recently, Mindy Marks found that the \$0.90 per hour increase in the federal minimum-wage rate in 1990 reduced the probability of workers receiving employer-provided health insurance from 66.2 percent to 63.1 percent, and increased the likelihood that covered workers would be reduced to part-time work by 26 percent.

Wessels also found that for every 10 percent increase in the minimum wage, workers lose 2 percent of nonmonetary compensation per hour. Extrapolating from Wessels' estimates, an increase in the federal minimum

wage from \$7.25 to only \$9.00 an hour would make covered workers worse off by 35 cents an hour.

And if the minimum wage were raised to \$10.10 an hour, for example, the estimated 16.5 million workers earning between \$7.25 and \$10.10 could lose nonmonetary compensation more valuable than the \$31 billion in additional wages they are expected to receive.

Employers are certainly capable of responding to wage hikes by making direct changes to the employment status of their workers. They can shift their workforce to noncovered workers (such as unpaid interns) or to automated machines. Or, businesses can import their products from overseas, where workers earn far less per hour than American minimum-wage workers. That the employment effects of wage floors have been so small, therefore, is explained by the reduction in workers' nonmonetary compensation. Granted, a decade ago researchers found minimum-wage hikes had little to no effect on workers' fringe benefits, but they considered only the expensive benefits that high-income workers receive (for example, health insurance), and they took no account of the easily obscured work-demand effects of mandated wage hikes (or any of the other nonmoney forms of compensation, for example, job security).

Both proponents and opponents of minimum-wage hikes do not realize that the very small employment effects consistently found across numerous studies provide the strongest evidence available that increases in the minimum wage have been largely neutralized by cost savings on fringe benefits and increased work demands and the cost savings from the more obscure cuts in nonmoney compensation.

About the Author

Richard B. McKenzie is the Gerken Professor of Economics and Management Emeritus in the Merage School of Business at the University of California, Irvine and a senior fellow with the National Center for Policy Analysis.

Introduction

Both proponents and opponents of federal minimum-wage hikes are convinced that if Congress raises the minimum wage (whether to \$9 or \$10.10 or \$15 an hour), the welfare of tens of millions of low-income workers will rise by a comparable amount. The two sides disagree over the extent of the job losses low-wage workers will suffer, although both sides acknowledge that most econometric studies over the past half-century show that a 10 percent hike in the federal minimum wage results in job losses for unskilled workers of no more than 3 percent, and potentially less than 1 percent.² Most recently, the Congressional Budget Office found that if the minimum wage is hiked to \$10.10, expected job losses by 2016 will amount to a scant 0.3 percent of the workers affected.³ [See the table.]

What both proponents and opponents miss is that the wages of unskilled and low-skilled workers are largely explained by fierce competition in labor markets. The competition among targeted workers will only intensify when they compete with new and more productive entrants into their market inspired by the mandated-wage hike. Competition among employers to reduce their labor costs will not disappear with a wage hike, but will only be redirected into forms of worker compensation not covered by the wage mandate — valuable, nonmonetary rewards such as benefits and working conditions. Even a limited accounting indicates the value of these nonmonetary rewards is nearly 30 percent over-and-above the wages received by workers, on average.

Because of the legislated money-wage increase, we can expect employers in competitive markets to curb worker fringe benefits and to increase work demands, as well as cut other more obscure forms of nonmoney compensation — job security, hours worked, on-the-job training and respect, work experience, and workplace amenities. This is an unheralded explanation for why minimum-wage hikes have such a small effect on the jobs available for low-wage workers. Indeed, a review of the labor-market theory of minimum-wage increases and studies shows that, on balance, when the minimum (money) wage rises, even

“Both sides assume that minimum wage hikes increase workers’ incomes.”

the welfare of low-wage workers who keep their jobs is undercut.

The Case for and against Minimum-Wage Hikes

Princeton University economist and *New York Times* columnist Paul Krugman laid out his support for a modest minimum-wage increase in stark terms in early 2013:⁴

“[T]he current level of the minimum wage is very low by any reasonable standard. For about four decades, increases in the minimum wage have

consistently fallen behind inflation, so that in real terms the minimum wage is substantially lower than it was in the 1960s. Meanwhile, worker productivity has doubled. Isn’t it time for a raise?”

He added that “lots and lots of evidence . . . [point] to little if any negative effect of minimum-wage increases on employment.” Krugman’s Princeton colleague and former Federal Reserve Vice Chairman Alan Blinder made much the same argument in a *Wall Street Journal* column.⁵ The editors at the *New York Times* argued forcefully that a hike in the minimum wage is:⁶

“good economics, and it would benefit tens of millions of people. Raising the minimum wage to \$10.10 an hour by 2016, as the current Democratic bill would do, would directly or indirectly increase the take-home pay of 27.8 million workers, according to the Economic Policy Institute, adding \$35 billion in additional wages through 2016. The resulting increase in gross domestic product would create 85,000 new jobs.”

The CBO estimates more modestly that a hike in the federal minimum wage will increase the incomes of 16.5 million Americans, but less than a million American families with incomes below the poverty thresholds will rise above the poverty thresholds. Thus, a substantial portion of the greater income from the wage hike will go to workers in families with incomes several times the poverty threshold.⁷

Proponents seem willing to accept the expected minor employment losses for the few in exchange for

Estimated Effects on Employment of an Increase in the Federal Minimum Wage, Second Half of 2016

Change in Employment	\$10.10 Option	\$9.00 Option
Central Estimate	-500,000 workers	-100,000 workers
Likely Range	Very slight decrease to -1.0 million workers	Very slight increase to -200,000 workers

Source: Douglas W. Elmendorf, “Testimony on Increasing the Minimum Wage: Effects on Employment and Family Income,” March 12, 2014. Available at <http://www.cbo.gov/publication/45138>.

income gains for the many. This may be partially for ideological reasons, but also partially because all other ways of helping low-wage workers through welfare programs (which can boost people’s low incomes) have negative employment effects for some beneficiaries.

Economists Richard Vedder and Lowell Gallaway point out that the first federal minimum wage, enacted in 1938, had the high purpose of reducing poverty. However, they found that through the negative effects on employment and the opportunity to gain on-the-job experience, the federal minimum wage has actually had the perverse effect of increasing poverty, especially among unskilled workers.⁸ Labor economist David Neumark argued in 2009 that the then scheduled 11 percent increase in the federal minimum wage would reduce teenage and young-adult employment by 300,000. That figure represents a very small percentage change in jobs, a reduction in employment of less than 0.2 percent for the worker groups covered by the study, an observation rarely mentioned.⁹

Similarly, the CBO estimates that with a much larger percentage increase in the federal minimum wage of 39 percent (from \$7.25 to \$10.10) by 2016, as many as 500,000 jobs could be lost in the low-income portion of the labor market targeted by the increase. This represents only 0.3 percent of all jobs in the targeted market.¹⁰

The editors at the *Wall Street Journal* renewed their long history of opposing all minimum-wage hikes by also stressing how past increases have artificially boosted the teenage unemployment rate. The proposed new hike to \$10.10 an hour would come at a time when employers face the mandate to provide federally approved health insurance that costs no more than 9.5 percent of an employee’s wages (ObamaCare), or pay a tax penalty. According to the *Journal* editors, this mandate:¹¹

“creates a double burden for small businesses with more than 49 employees. If these employers don’t provide health care, choosing to pay the \$2,000 per full-time employee penalty, the cost of a

minimum-wage worker would rise by the equivalent of another \$1 an hour. Workers who used to cost \$7.25 an hour would cost closer to \$11.10 in 2015. If employers start to provide Obamacare-approved health benefits, the cost of hiring an additional minimum-wage worker would rise further.”

Indeed, health economist John Goodman estimates the employer cost of health insurance for a full-time, low wage employee with a family would be \$5.89 per hour in 2014. For a \$7.25 minimum-wage worker, that equates to 81 percent of his wages!¹²

However, both sides in the emerging, contentious debate are convinced that a federal government wage edict will have its intended effect: The suppression of labor cost competition by an enforced wage floor will show up in lost jobs (although the count of lost jobs will be a small fraction of the targeted workers). They do not seem to realize that such competition is expressed in a variety of ways in labor markets — surely in money wages, but also

in terms of various fringe benefits and the intensity and types of work demands, as well as a number of other important forms of nonmoney compensation (already noted).

As will be shown, the minimal job losses associated with minimum-wage hikes can be largely chalked up to employers offsetting money-wage hikes with cuts in fringe benefits and increases in work demands, as well as to the relatively few workers who earn the federal minimum wage and to spreading the increase over two years. Furthermore, contrary to conventional wisdom accepted by both sides of the wage debate, low-income workers who retain their jobs will be made worse off by forced money-wage hikes. How can this be — and be predicted?

The Economics of “Compensation Packages”

Profit-maximizing employers don’t pay just money wages to unskilled workers, or any other worker group. Employers compensate their workers in many other ways — including fringe benefits, relaxed work demands, training, workplace ambiance, respect, schedule flexibility and so forth — that minimize their labor costs and maximize their profits. And the fringes can come in a variety of forms, some much touted (for example, health insurance) but others overlooked — for example, workplace amenities, extended breaks, store-provided uniforms and merchandise discounts, job security, and even hours of work. Indeed, many fringe benefits are adapted for local labor markets and can vary markedly across differing industries

and labor groupings. (In this paper, we focus on the impact of mandated wage hikes on fringe benefits and work demands.)

Employers should provide their workers with, say, fringe benefits (in different combinations) when workers value those more than they value the wages they must forgo to obtain the benefits. Similarly, employers will relax work demands when workers are willing to give up more in wages than the employers lose in the market value of lost production. Indeed, fringe benefits and work demands can

“Job losses from minimum-wage increases are small.”

be a source of competitive advantage for firms in their local labor markets, making both the firms and workers better off. Consider, for example, the fringe benefit of a week of vacation:

- If workers value a day of vacation at \$1.30 an hour over a work-year, and the vacation day costs the employer \$1.10 an hour, then the employer and workers can strike a mutually beneficial deal.
- The employer can lower workers’ money hourly wages by, say, \$1.15.
- The employer’s labor costs will be lowered by 5 cents an hour (\$1.15 in lower wages minus \$1.10 in the cost of the fringe).
- At the same time, the workers’ full “compensation package”

increases by 15 cents an hour (\$1.30 in the value of the fringe minus \$1.15 in lost wages).

The employer who provides the fringe then has a labor cost advantage over other producers, pressing other employers to follow suit just to protect their worker base and to remain price competitive.

The adjustment in the compensation package can, thus, be a win-win for both employers and workers, as well as consumers who gain from lower prices due to lower labor costs.

Many proponents of minimum-wage hikes believe that competition among employers to reduce labor costs is a major cause of low wages paid to unskilled workers. They assume that federal wage controls will cause competition to simply go away. That misguided presumption equates to the presumption that a pinch to an inflated balloon surface will cause the pressure inside to subside and will not be felt (regardless of the laws of physics).

In fact, if labor-market competition is “pinched” by hikes in government-imposed wage floors, market competition will shift to uncontrolled components of workers’ compensation packages, most notably fringe benefits (both those that are measurable and those that are not). Fringes can be expected to erode with time, and/or work demands can be expected to increase. If some employers are willing to exploit their workers in terms of money wages paid, won’t they take opportunities to lower their labor costs in other ways? If market competition is a major source of workers’ low wages, won’t competition among producers force employers — even those who

Why Are There So Few Job Losses from Minimum-Wage Hikes?

want to treat their workers well — to take opportunities to cut their labor costs? If more highly experienced and trained workers (say, college students) are attracted to unskilled labor markets by the minimum-wage hike, won't the competitive bind of truly unskilled workers intensify, worsening their position?

Employers offered fringes and relaxed work demands in the first place because workers valued them over money wages. The reduction in this nonwage compensation in favor of higher money wages can be expected to leave workers worse off, on balance. Indeed, workers get more (taxable) money wages in lieu of (untaxable) fringes and relaxed work demands; but employers offer fringe benefits to attract and retain workers. If workers didn't value the benefits they lose more than the wages they gain, employers wouldn't have provided them in the first place. Moreover, a reduction in fringes and increases in work demands could offset — or more than offset (as will be shown) — the increase in labor costs due to the minimum-wage hike, muting its negative employment effects.

Using the numbers in the example above, a minimum-wage hike of \$1.15 could cause the employer to take away fringe benefits worth \$1.30 to workers, with the employer's total labor costs rising 5 cents an hour, not \$1.15 cents an hour (\$1.15 increase in the money wage minus the \$1.10 reduction in the cost of the fringe). This tradeoff explains why minimum-wage hikes have such "small" employment effects. Workers are also made worse off by 15 cents an hour (\$1.15 in gained money wages minus the loss of \$1.30 in fringe benefits).

(These points are clarified in the Appendix with reference to simple supply-and-demand curves, in which the "conventional" and widely known view of minimum-wage hikes is compared with the "unconventional" and rarely acknowledged view of minimum-wage hikes that underlies this discussion.)

Empirical Effects of Minimum-Wage Hikes on Fringe Benefits and Work Demands

While combatants in minimum-wage policy struggles have focused

“Employers compensate for increased labor costs by changing other job characteristics.”

on the impact of increases in money wages on employment and unemployment, a number of economists have found evidence that the labor-market theory posited here (and refined in the Appendix) has played out in the real world. For example:

- Economist Masanori Hashimoto found that after the 1967 minimum-wage hike workers gained 32 cents in money income but lost 41 cents per hour in training — a net loss of 9 cents an hour in full-income compensation.¹³
- Similarly, Linda Leighton and Jacob Mincer, in one study, and Belton Fleisher, in another, concluded that increases in the

minimum wage reduce on-the-job training and, as a result, dampen long-run growth in the real incomes of covered workers.¹⁴

- North Carolina State University economist Walter Wessels found that a minimum-wage increase caused retail establishments in New York to increase work demands, with only 714 of surveyed stores cutting back store hours, but with 4,827 stores reducing the number of workers and/or their employees' hours worked. Thus, in most stores, fewer workers were given fewer hours to do the same work as before.¹⁵
- Separate studies by Belton Fleisher, L. F. Dunn and William Alpert show that minimum-wage increases lead to large reductions in fringe benefits and to worsening working conditions.¹⁶
- More recently, Mindy Marks found that, relative to average state wage rates, workers covered by state minimum-wage laws in states with high minimum-wage rates were slightly (but to a statistically significant degree) less likely to receive employer-provided health insurance. Marks found that the \$0.90 per hour increase in the federal minimum-wage rate in 1990 reduced the probability of workers receiving employer-provided health insurance from 66.2 percent to 63.1 percent, and increased the likelihood that covered workers would be reduced to part-time work by 26 percent.¹⁷ Workers covered by the federal minimum-wage law were also more likely to work part time,

given that part-time workers can be excluded from employer-provided health insurance plans.

If the minimum wage does *not* cause employers to substantially reduce nonmoney benefits and increase work demands, then minimum-wage hikes should cause: (1) an increase in the labor-force participation rates of covered workers (because workers would be moving up their labor supply curves), (2) a reduction in the rate at which covered workers quit their jobs (because their jobs would then be more attractive); and, (3) a significant increase in prices for production processes that heavily depend on minimum-wage workers. However, Wessels generally found that minimum-wage increases had exactly the opposite effect: (1) participation rates went down; (2) quit rates went up; and, (3) prices did not rise appreciably — findings consistent only with the view that minimum-wage increases make workers worse off.

With regard to quit rates, Wessels writes, “I could find no industry which had a significant decrease in their quit rates. Two industries had a significant increase in their quit rates. . . . These results are only consistent with a lower full compensation.”¹⁸

From his own research and other studies of the impact of minimum-wage hikes on nonmoney compensation, Wessels deduced that for every 10 percent increase in the minimum wage, workers lose 2 percent in total compensation, covering money and nonmoney forms, per hour. Extrapolating from Wessels’ estimates of the net damage to workers’ *total* compensation, a federal minimum-wage increase from

\$7.25 to \$9.00 an hour will make the covered workers worse off by 35 cents an hour.¹⁹

Thus, if the minimum wage were raised to \$10.10 an hour, for example, the estimated 16.5 million workers earning between \$7.25 and \$10.10 could lose nonmonetary compensation more valuable than the \$31 billion in additional wages they are expected to receive. Granted, a decade ago researchers for the National Bureau for Economic Research found minimum-wage hikes had little to no effect on their measures of fringe benefits, but they considered only the fringes that high-

“Workers may lose benefits they value more than increased wages.”

income workers receive (for example, health insurance), and they took no account of less visible work-demand effects.²⁰

Moreover, as already noted, “fringes” for very low-wage workers can vary greatly and are often not easily measured, even if they are recognized as ways of marginally boosting the value of low-wage jobs. For example, all employees, including minimum-wage workers, value being well treated by their employers. Work schedule flexibility, with allowance for tardiness, is another benefit. Moreover, the loss of jobs by some unskilled workers, albeit small, can reduce the job security of the remaining employed workers. And many minimum-wage

workers on college campuses take low paying jobs just to build work experience and to obtain letters of recommendation — with unpaid internships being the ultimate form of “low-wage jobs” for job experience and sometimes college credit.

Other students take low paying, boring jobs because they are allowed to study while they work. Thus, researchers may not find these kinds of fringe benefits in government-provided databanks that are founded on narrow definitions, limited in part by the cost of data collection.

Conclusion

Proponents of minimum-wage hikes tout how few jobs are lost, which a mountain of empirical research over the past half century will validate. What the proponents, and even many opponents, don’t realize is that increases in the minimum wage have been largely, if not totally, neutralized by cost savings on fringe benefits and increases in work demands and other forms of unrecognized beneficial job attributes. Market competition won’t be fooled over the long haul and will eventually work to the detriment of workers, contrary to the hope of minimum-wage backers.

Appendix

The Labor Market Effects of Increasing the Minimum Wage: A Graphical Treatment

The following discussion contrasts the conventional theory of how employers and employees adjust to increases in money wages, with an expanded, unconventional theory that employers also adjust nonmonetary compensation — which is part of workers' total compensation package. This theory explains why workers who receive a minimum-wage hike may be worse off, though relatively few lose their jobs.

The Conventional View. Economists traditionally argued that increases in the minimum wage reduce employment in competitive markets, thereby increasing the welfare of low-skilled workers who remain employed but decreasing the welfare of others who lose their jobs. The latter may remain unemployed or accept less gainful employment in areas of the economy where minimum-wage regulations do not apply.

Figure I presents the conventional view of the effects of minimum-wage hikes, by depicting a demand and supply curve for low-skilled workers. The downward sloping demand curve implies that employers will hire more workers (everything else remaining constant) at lower rather than higher wages (on the reasonable presumption that additional workers will produce more than it costs to employ them at lower wage rates). The upward sloping curve represents the labor supply, implying that wages must be raised to attract additional workers. Any given wage will attract workers into the market whose alternative opportunities are lower than the wage rate. The wage offered in a low-skilled (or any other) labor market must be progressively raised to attract more and more workers who have progressively higher-valued alternatives, whether employment or increased leisure.

If the market is competitive and free of government intervention, the wage rate will settle, as shown in Appendix Figure I, where the market clears, at the intersection of the supply and demand curves, or at W_0 . Suppose, however, that a market wage, W_0 , is judged by Congress too low to provide workers with a decent living. Thus, they pass a law requiring employers to pay no less than W_m . In this view of minimum wages, the law reduces employment because employers cannot justify employing as many people as before. The quantity of labor demanded falls from Q_2 to Q_1 . This analysis assumes that employers cannot respond in any way to the wage mandate. They obediently grin and bear the higher wage costs.

Economists typically argue that those who keep their jobs at the minimum wage will be better off (their take-home pay will increase from W_0 to W_m per hour). Other workers ($Q_2 - Q_1$), however, will no longer have jobs. These workers will either become permanently unemployed or settle for work in different, lower-paying, and/or less desirable labor markets. With this theoretical backdrop, almost all of the empirical studies since the 1970s support the model's gloomy predictions, although, as noted, the employment effects are far smaller than Appendix Figure I suggests.²¹

Economists commonly presume that the workers who have the Q_1 jobs, after the minimum wage is imposed, represent a subgroup of the workers who had the Q_2 jobs when the wage was determined strictly by the forces of supply and demand. But this circumstance is unlikely, because the minimum wage will attract additional workers, $Q_3 - Q_2$, into the market. Compared to the workers who were in the market when the wage was W_0 , some of these additional workers will be more productive, because they have higher-valued opportunities that put them further up the supply curve than the Q_2 workers.

In short, many, if not all, of the workers who have jobs at W_0 can be expected either to withdraw from the market or to be supplanted by new arrivals who have been induced by the higher wage to enter the market. Many, if not all, of the workers with higher opportunity costs can be expected to be more productive than the original workers, which means that the demand for labor can be expected to rise somewhat (not shown), muting the employment losses, $Q_2 - Q_1$, from the mandated wage.

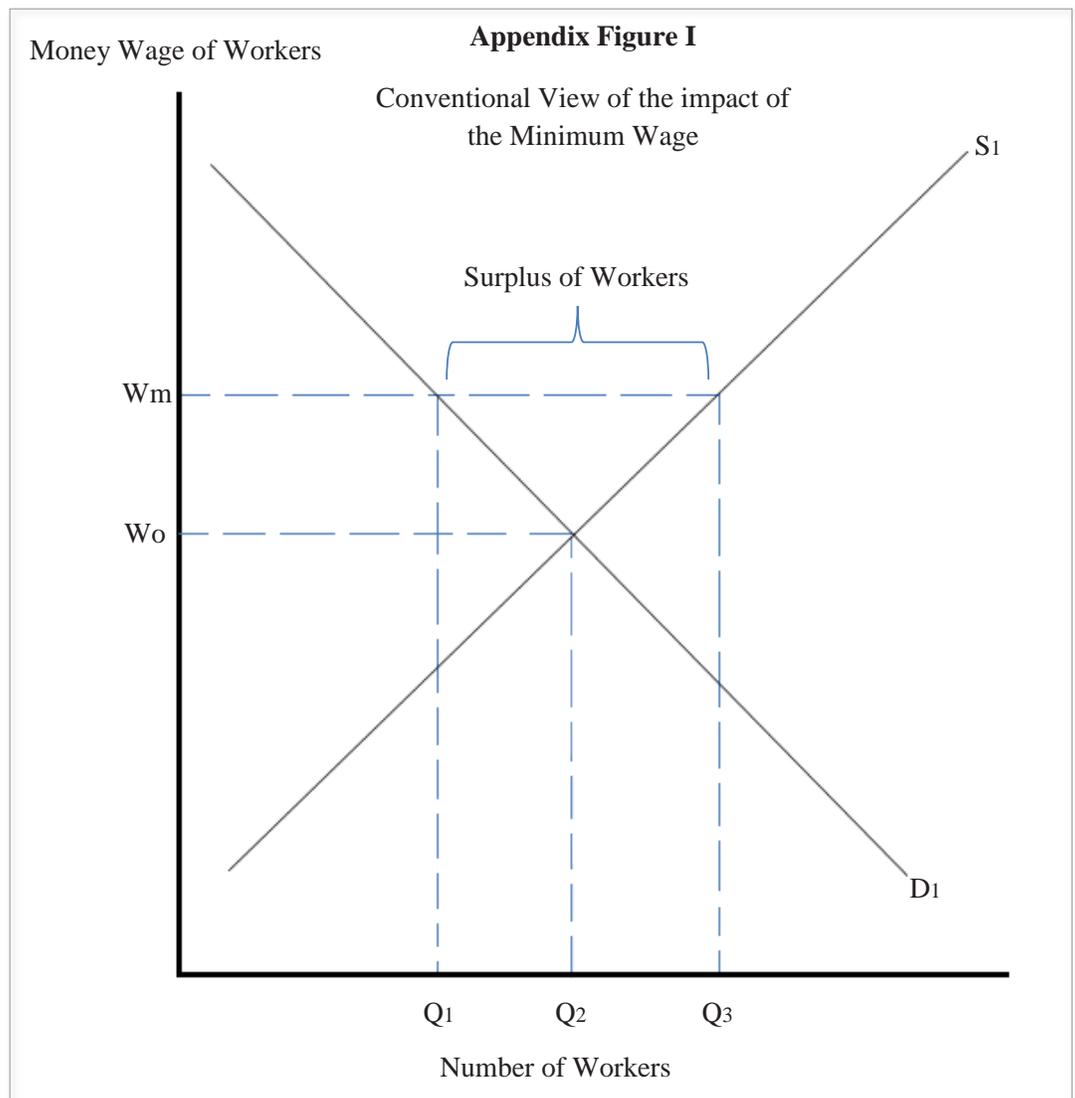
The conventional analysis of minimum-wage hikes has been subjected to numerous empirical tests over the past seven decades, but the measured negative employment effects have been modest at best. For example:

- One early survey of the empirical tests concluded that a 10 percent increase in the minimum wage can be expected to reduce employment among teenagers (the group most likely to be affected) by as little as 0.5 percent to 3 percent.
- More recently, economists David Card and Alan Krueger found, in their study of the impact of a minimum-wage hike in the fast-food restaurant industry, that employment actually increases slightly with the hike.

Though Card and Krueger do not appear to believe in the positive relationship between the wage increase and employment, they do deduce that the wage increase probably had a close to zero, if not zero, employment effect.²² The small employment losses from minimum-wage hikes are often explained by the fact that the hikes are generally modest and are passed on to consumers in the form of price increases.

Moreover, employers, supposedly, have “inelastic demands” for unskilled labor, which suggests they have no place to turn and must pay what the government tells them to pay. This latter explanation seems strange, given the unskilled nature of the work done by minimum-wage employees. Employers can shift employment from noncovered worker groups (unpaid interns and illegal immigrants), to more experienced and trained workers who enter unskilled labor markets simply because the new federal minimum is higher than what they were making elsewhere, and to automated and robotic machines. Finally, they may choose to import their products, which foreign workers produce at far lower pay per hour than American minimum-wage workers. These market considerations suggest that the demand for unskilled workers is likely to be relatively “elastic,” meaning employment is likely to respond to mandated wage hikes, at least for the workers who see their hourly wage rate rise from \$7.25 to \$10.10.²³

Fortunately, a new line of analysis of minimum-wage hikes helps explain why the employment effects have been so small. Again, minimum-wage laws establish a legal floor for *money wages*; they do not, however, suppress competitive pressures. These restrictions cap competitive pressures in only one of the many areas in



Why Are There So Few Job Losses from Minimum-Wage Hikes?

which businesses compete to reduce their costs. More to the point, mandated money-wage rates do not set a legal minimum for the *total compensation package* (which include both the monetary and fringe benefits of employment) that workers are paid.

The Unconventional View of Minimum-Wage Hikes. The standard line of analysis does not consider the possibility that profit-maximizing competitive employers are quite capable of adjusting other conditions of work in response to the labor market surplus that follows the minimum-wage law. Indeed, to remain cost competitive, employers may have to cut their labor costs in nonwage ways — for example, eliminating workplace outings, reducing fringe benefits, timing work hours, or increasing production demands.⁴ Employers can be expected to reduce their labor costs in these ways until the worker surplus in Figure I, $Q_3 - Q_1$, diminishes, or is largely eliminated — that is, until their labor markets clear once again. That being said, employers' nonmoney adjustments in response to a wage minimum also have effects on the labor market equilibrium and the net welfare change for both employers and employees.

Employers can be expected to respond to a minimum-wage law by cutting or eliminating those fringe benefits and conditions of work — such as on-the-job training (by substituting more experienced workers), work breaks, employee discounts, college credits, sick days, acceptance of tardiness, flexible schedules, weeks of vacation, and so forth — that increase the supply of labor but also minimize loss of labor productivity. By shrinking such nonmoney benefits of employment, labor costs are reduced from what they would otherwise have been and nothing is lost to reduced labor productivity.

In effect, the money-wage minimum makes continuation of nonmoney benefits uneconomical; the benefits no longer pay for themselves in terms of lower wage rates. Furthermore, employers in highly competitive final product markets must adjust such work conditions to remain competitive and to survive. Otherwise, other firms will lower their labor costs — by contracting or eliminating fringe benefits and increasing work demands — and force the market contraction of the employers who retain their fringe benefits and work demands and continue to pay the higher minimum-wage rate. Moreover, with the emergence of any labor-market surplus, unskilled workers' ability to object to benefits cuts and increased work demands will be diminished, because employers can more easily replace them. (And it needs to be noted that the very fact that some workers are released can, in itself, undermine the value of the jobs covered by the minimum-wage hike. This is the case simply because many workers who retain their jobs will lose their sense of job security, which, ironically, can be curbed by employers finding ways to offset the cost effects of the money wage hike.)

Because of the changes in work conditions, the supply curve of labor (the position of which is partially determined by working conditions and fringe benefits) can be expected to shift upward and to the right (to reflect workers' search for higher money wages to compensate for their lost benefits). The effects of such a supply shift are shown in Appendix Figure II, which incorporates the initial supply and demand curves of Figure I (S_1 and D_1). The vertical shift in the supply curve will equal labor's dollar valuation, on the margin, of what was lost because of the decline in employment conditions. The demand curve for labor will shift upward and to the right, reflecting the reduced expenditure per unit of labor on fringe benefits. Employers will be willing to pay a higher wage for any quantity of labor if they do not incur the costs of fringes.

The fringe benefits can be expected to be provided as long as their cost to the firm per unit of labor is less than the reduced wage rate — and as long as labor's evaluation of the fringe benefits lost because of the minimum wage is greater than the firms' costs. Therefore, when the fringe benefits are taken away, the vertical, upward shift in the supply curve will be greater than the vertical, upward shift in the demand curve.

In Figure II, the vertical shift in the supply curve is ac , and the vertical shift in the demand curve is less, ab . It is important to note that the market clears, however, at the minimum wage because of secondary market adjustments in fringe benefits. But it is equally important to see that the market clears at an employment level, Q_c , which is

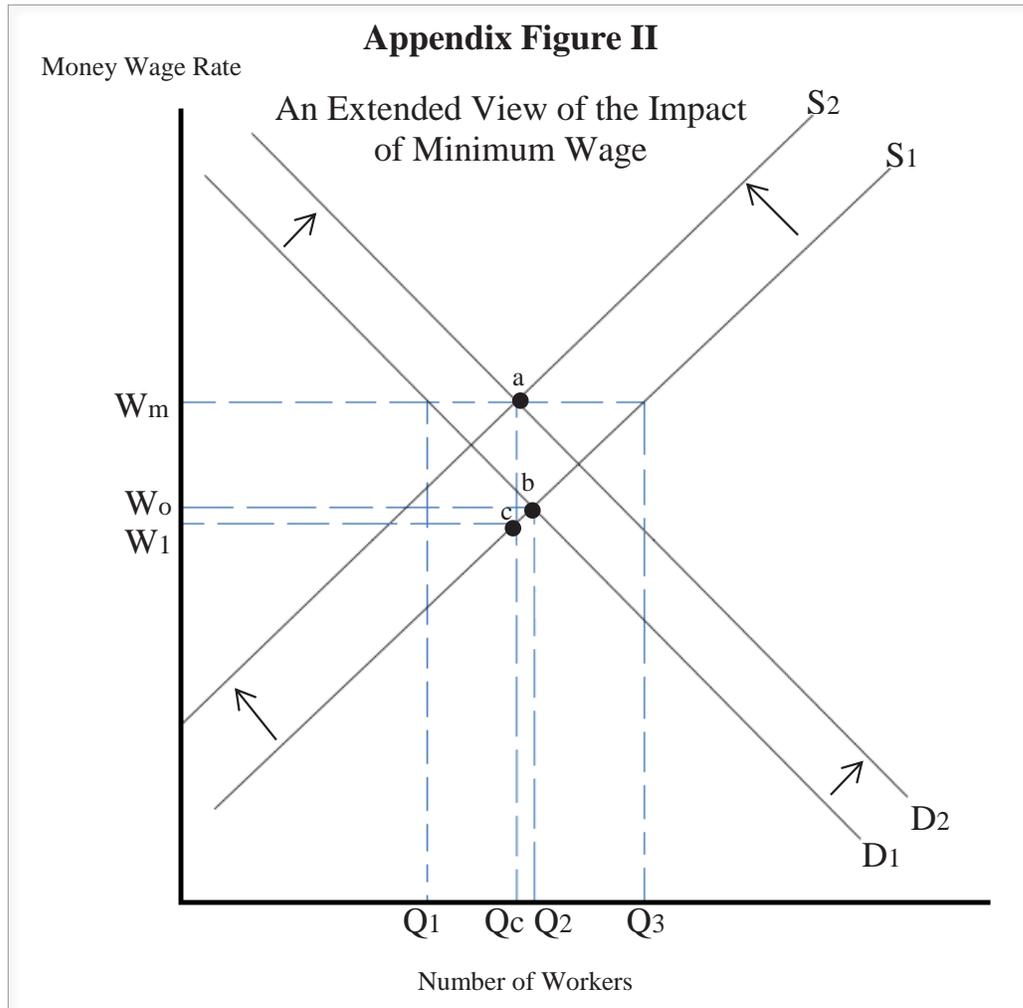
(slightly) lower than the employment level before the minimum wage is imposed, Q_2 . In other words, the surplus of labor in face of a minimum-wage law implied by the standard analysis is eliminated by the shifts in the curves.²⁵

However, note that after the market adjusts, labor is worse off because of the wage floor and reductions in fringe benefits. After the vertical distance between the two supply curves, ac (which, again, is labor's dollar valuation of the fringe benefits lost because of the minimum wage) is subtracted from the minimum wage W_m , the effective wage paid to labor is reduced to W_1 , or by $W_0 - W_1$. In short, when labor is paid in many forms, a minimum wage *reduces*, not increases, the effective payment going to affected workers, even those who keep their jobs.

The standard line of analysis suggests that a minimum wage of W_m will cause employment opportunities for labor to fall to Q_1 in Figure I. The adjustments that employers make to nonmoney work conditions cause employment opportunities to fall by much less, to only Q_c in Figure 2 (which is a graphical way of showing why the CBO found that the proposed minimum-wage hike will be a scant 0.3 percent of all workers covered in its study).

If employers increase work demands without (or even with) fringe benefit reductions, the analysis is much the same. The demand for labor will rise, given that workers' productivity per hour worked goes up, making employers willing to pay workers more per hour. Nevertheless, the vertical shift in the supply curve, caused by workers' higher wage demands attributable to employers' higher work demands, will be greater than the vertical shift in the demand curve. Again, this is because employers would initially have relaxed work demands in the absence of the minimum wage only if workers would then have been willing to give up more in pay than employers lost in productivity.

The CBO dismisses with only scant mention of the issue how cuts in fringe benefits impact job losses, all on the grounds that low-wage workers get few fringe benefits (for example, health insurance and pensions). The CBO provides none of its own evidence for its claims, and it still does not account for the potential impact of cuts in those few fringe benefits on its estimates of employment losses.²⁶ The CBO researchers also seem to have a restricted view of "fringes." Workbreaks, job security, hours of work, purchase discounts, free uniforms and similar amenities could be very important fringes to low-wage workers. CBO researchers also seem to have missed the point that low-wage workers might get fewer fringes than they would absent the existing minimum wage (and could have experienced increases in their fringes as the



Why Are There So Few Job Losses from Minimum-Wage Hikes?

real minimum wage has declined since its peak in 1968).

Finally, the CBO never considers how minimum-wage hikes could increase work demands. With the work-demand hikes having the exact same effects in Appendix Figure II as the cut in fringes, those hikes can conceivably have no limits in many unskilled job markets. Put another way, any given hike in the minimum wage can be expected to have its greatest job losses in unskilled labor markets with no fringes and with maximum work demands.

Differences in Perspective. This analysis conflicts with the standard textbook treatment of minimum wages in several important respects. The standard analysis holds that the effective wage rate increases for some workers and declines for others. This is because of the implicit assumption that an increase in the minimum-wage rate is equivalent to an increase in the *total*, effective wage rate. The new line of market analysis, however, leads to the conclusion that the *total*, effective wage rate of *all* workers — including those who retain their jobs in spite of minimum-wage hikes — decreases. The employed workers are worse off to the extent that employers may adjust working conditions and reduce fringe benefits. For that reason, minimum wages appear patently unfair to those who are covered by them, even by the standards of many of those who promote legislated minimum wages. Though still not a mainstream view, a growing body of research on the adverse effects of minimum-wage hikes supports this unconventional perspective.

Endnotes

1. Portions of this article have been adapted, revised and expanded from the treatment of the topic in Richard B. McKenzie and Dwight R. Lee, “Applications of the economic way of thinking: domestic government and management policies,” *Microeconomics for MBAs* (Cambridge, U.K.: Cambridge University Press, 2010).
2. For review of the economic literature on the economic effects of the minimum wage, see Charles Brown, Curtis Gilroy and Andrew Kohen, “The Effect of the Minimum Wage on Employment and Unemployment,” *Journal of Economic Literature*, Volume 20, No. 2, June 1982, pages 487–528; John M. Peterson and Charles T. Stewart, *Employment Effects of Minimum-Wage Rates* (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1969); Marvin Kosters and Finis Welch, “The Effects of Minimum Wages on the Distribution of Changes in Aggregate Employment,” *American Economic Review*, Volume 62, No. 3, June 1972, pages 323–31; James F. Ragan, “Minimum Wages and the Youth Labor Market,” *Review of Economics and Statistics*, Volume 59, No. 2, May 1977, pages 129–36; and David Neumark and William L. Wascher, *Minimum Wages* (Cambridge, Mass.: MIT Press, 2008).
3. Nabeel Alsalam et al., “The Effects of a Minimum-Wage Increase on Employment and Family Income,” Congressional Budget Office, February 18, 2014, pages 2 and 23. Available at <http://www.cbo.gov/sites/default/files/cbofiles/attachments/44995-MinimumWage.pdf>.
4. Paul Krugman, “Raise That Wage,” *New York Times*, February 17, 2013. Available at http://www.nytimes.com/2013/02/18/opinion/krugman-raise-that-wage.html?_r=0.
5. Alan Blinder wrote, “The two parties are now girding for battle over raising the federal minimum wage. . . Even though the evidence suggests that modest increases in the minimum wage raise the incomes of poor and near-poor workers without causing much job loss, the opposition is substantial.” Alan Blinder, “How the Government Wages War on the Poor,” *Wall Street Journal*, January 13, 2014. Available at http://online.wsj.com/news/article_email/SB10001424052702304049704579316510443605886-1MyQjAxMTA0MDEwNDEwNDQyWj.
6. “The Campaign for a Bigger Paycheck,” *New York Times*, January 1, 2014. Available at <http://www.nytimes.com/2014/01/02/opinion/the-campaign-for-a-bigger-paycheck.html>.
7. Nabeel Alsalam et al., “The Effects of a Minimum-Wage Increase on Employment and Family Income,” page 2.
8. Richard K. Vedder and Lowell E. Gallaway, *Does the Minimum Wage Reduce Poverty?* Economic Policies Institute, June 2001. Available at <http://www.epionline.org/study/r31/>.
9. David Neumark, “Delay the Minimum-Wage Hike,” *Wall Street Journal*, June 5, 2009. Available at <http://online.wsj.com/news/articles/SB124476823767508619>.
10. The CBO statistically estimates that there is a two-thirds chance that the effect of the wage hike can vary from a “slight” increase in employment to job losses as high 0.6 percent. See Nabeel Alsalam et al., “The Effects of a Minimum-Wage Increase on Employment and Family Income.”
11. “The War of the Wages,” *Wall Street Journal*, December 5, 2013. Available at <http://online.wsj.com/news/articles/SB10001424052702303985504579208112676742956>.
12. John C. Goodman, “Obama’s New Minimum Wage, Insurance Mandates Will Create Labor Market Tsunami,” Heartland Institute, May 21, 2013. Available at <http://news.heartland.org/newspaper-article/2013/05/21/obamas-new-minimum-wage-insurance-mandates-will-create-labor-market-tsu>.
13. Masanori Hashimoto, “Minimum Wage Effects on Training on the Job,” *American Economic Review*, Volume 72, No. 5, December 1982, pages 1070–87.
14. Linda Leighton and Jacob Mincer, “Effect of Minimum Wages on Human Capital Formation,” in Simon Rottenberg, ed., *The Economics of Legal Minimum Wages* (Washington, D.C.: American Enterprise Institute, 1981); and Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001).
15. Walter J. Wessels, “Minimum Wages: Are Workers Really Better Off?” Paper prepared for presentation at a conference on minimum wages, Washington, D.C., National Chamber Foundation, July 29, 1987.
16. Belton M. Fleisher, *Minimum-Wage Regulation in Retail Trade* (Washington, D.C.: American Enterprise Institute, 1981).
17. Mindy S. Marks, “Minimum Wages and Fringe Benefits,” Economics Department, Washington University, St. Louis, Working Paper, 2004.
18. Walter J. Wessels, “Minimum Wages: Are Workers Really Better Off?” page 13.
19. *Ibid.*, page 15.
20. Kosali Llayperuma Simon and Robert Kaestner, “Do Minimum Wages Affect Non-wage Job Attributes: Evidence on Fringe Benefits and Working Conditions,” National Bureau Economic Research, Working Paper No. 9688, May 2003. Available at <http://www.nber.org/papers/w9688>.
21. Again, for a review of the literature on the labor-market effects of the minimum wage, see note 2 above.
22. David Card and Alan B. Krueger, *Myth and Measurement: The New Economics of the Minimum Wage* (Princeton, N.J.: Princeton University Press, 1995).
23. To estimate job losses, the CBO uses a elasticity coefficient of -0.10, which is inelastic and means that the employment of covered workers will fall by 1 percent for every 10 percent hike in the minimum wage. However, it uses this elasticity estimate on the grounds

Why Are There So Few Job Losses from Minimum-Wage Hikes?

that many workers will earn more than \$7.25 an hour (even close to \$10.10 an hour) before the enactment of the new minimum. Hence, aggregate job losses among targeted workers will be muted by the fact that the new minimum will raise the wages of many workers by far less than 39 percent. See Nabeel Alsalam et al., “The Effects of a Minimum-Wage Increase on Employment and Family Income,” page 23.

24. Clearly, many minimum-wage jobs do not carry standard fringe benefits, such as life and medical insurance and retirement plans.

However, most do offer fringe benefits in the form of conditions in the work environment, attitudes of the bosses, breaks, frequency and promptness of pay, variety of work, free uniforms, use of company tools and supplies, meals and drinks, flexible hours, and precautions against accidents. These fringe benefits are subject to withdrawal when minimum wages are mandated.

25. If a smaller market surplus remains after a fringe is cut, then employers can be expected to cut more, causing further increases in the supply and demand, a process that will continue until the market clears (or comes as close to clearing as possible). Moreover, in a world with many fringes that could be cut, the net employment loss from the money-wage hike could be zero.

26. Nabeel Alsalam et al., “The Effects of a Minimum-Wage Increase on Employment and Family Income,” page 7.

The NCPA is a nonprofit, nonpartisan organization established in 1983. Its aim is to examine public policies in areas that have a significant impact on the lives of all Americans — retirement, health care, education, taxes, the economy, the environment — and to propose innovative, market-driven solutions. The NCPA seeks to unleash the power of ideas for positive change by identifying, encouraging and aggressively marketing the best scholarly research.

Health Care Policy.

The NCPA is probably best known for developing the concept of Health Savings Accounts (HSAs), previously known as Medical Savings Accounts (MSAs). NCPA President John C. Goodman is widely acknowledged (*Wall Street Journal*, WebMD and the *National Journal*) as the “Father of HSAs.” NCPA research, public education and briefings for members of Congress and the White House staff helped lead Congress to approve a pilot MSA program for small businesses and the self-employed in 1996 and to vote in 1997 to allow Medicare beneficiaries to have MSAs. In 2003, as part of Medicare reform, Congress and the President made HSAs available to all nonseniors, potentially revolutionizing the entire health care industry. HSAs now are potentially available to 250 million nonelderly Americans.

The NCPA outlined the concept of using federal tax credits to encourage private health insurance and helped formulate bipartisan proposals in both the Senate and the House. The NCPA and BlueCross BlueShield of Texas developed a plan to use money that federal, state and local governments now spend on indigent health care to help the poor purchase health insurance. The SPN Medicaid Exchange, an initiative of the NCPA for the State Policy Network, is identifying and sharing the best ideas for health care reform with researchers and policymakers in every state.

**NCPA President
John C. Goodman is called
the “Father of HSAs” by
The Wall Street Journal, WebMD
and the *National Journal*.**

Taxes & Economic Growth.

The NCPA helped shape the pro-growth approach to tax policy during the 1990s. A package of tax cuts designed by the NCPA and the U.S. Chamber of Commerce in 1991 became the core of the Contract with America in 1994. Three of the five proposals (capital gains tax cut, Roth IRA and eliminating the Social Security earnings penalty) became law. A fourth proposal — rolling back the tax on Social Security benefits — passed the House of Representatives in summer 2002. The NCPA’s proposal for an across-the-board tax cut became the centerpiece of President Bush’s tax cut proposals.

NCPA research demonstrates the benefits of shifting the tax burden on work and productive investment to consumption. An NCPA study by Boston University economist Laurence Kotlikoff analyzed three versions of a consumption tax: a flat tax, a value-added tax and a national sales tax. Based on this work, Dr. Goodman wrote a full-page editorial for *Forbes* (“A Kinder, Gentler Flat Tax”) advocating a version of the flat tax that is both progressive and fair.

A major NCPA study, “Wealth, Inheritance and the Estate Tax,” completely undermines the claim by proponents of the estate tax that it prevents the concentration of wealth in the hands of financial dynasties. Senate Majority Leader Bill Frist (R-TN) and Senator Jon Kyl (R-AZ) distributed a letter to their colleagues about the study. The NCPA recently won the Templeton Freedom Award for its study and report on Free Market Solutions. The report outlines an approach called Enterprise Programs that creates job opportunities for those who face the greatest challenges to employment.

Retirement Reform.

With a grant from the NCPA, economists at Texas A&M University developed a model to evaluate the future of Social Security and Medicare, working under the direction of Thomas R. Saving, who for years was one of two private-sector trustees of Social Security and Medicare.

The NCPA study, “Ten Steps to Baby Boomer Retirement,” shows that as 77 million baby boomers begin to retire, the nation’s institutions are totally unprepared. Promises made under Social Security, Medicare and Medicaid are inadequately funded. State and local institutions are not doing better — millions of government workers are discovering that their pensions are under-funded and local governments are retrenching on post-retirement health care promises.

Pension Reform.

Pension reforms signed into law include ideas to improve 401(k)s developed and proposed by the NCPA and the Brookings Institution. Among the NCPA/Brookings 401(k) reforms are automatic enrollment of employees into companies’ 401(k) plans, automatic contribution rate increases so that workers’ contributions grow with their wages, and better default investment options for workers who do not make an investment choice.

Environment & Energy.

The NCPA's E-Team is one of the largest collections of energy and environmental policy experts and scientists who believe that sound science, economic prosperity and protecting the environment are compatible. The team seeks to correct misinformation and promote sensible solutions to energy and environment problems. A pathbreaking 2001 NCPA study showed that the costs of the Kyoto agreement to reduce carbon emissions in developed countries would far exceed any benefits.

Educating the Next Generation.

The NCPA's Debate Central is the most comprehensive online site for free information for 400,000 U.S. high school debaters. In 2006, the site drew more than one million hits per month. Debate Central received the prestigious Templeton Freedom Prize for Student Outreach.

Promoting Ideas.

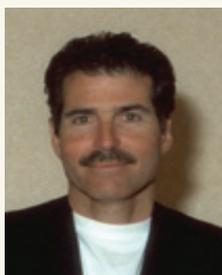
NCPA studies, ideas and experts are quoted frequently in news stories nationwide. Columns written by NCPA scholars appear regularly in national publications such as the *Wall Street Journal*, the *Washington Times*, *USA Today* and many other major-market daily newspapers, as well as on radio talk shows, on television public affairs programs, and in public policy newsletters. According to media figures from *BurrellesLuce*, more than 900,000 people daily read or hear about NCPA ideas and activities somewhere in the United States.

What Others Say About the NCPA



"The NCPA generates more analysis per dollar than any think tank in the country. It does an amazingly good job of going out and finding the right things and talking about them in intelligent ways."

Newt Gingrich, former Speaker of the U.S. House of Representatives



"We know what works. It's what the NCPA talks about: limited government, economic freedom; things like Health Savings Accounts. These things work, allowing people choices. We've seen how this created America."

John Stossel, host of "Stossel," Fox Business Network



"I don't know of any organization in America that produces better ideas with less money than the NCPA."

Phil Gramm, former U.S. Senator



"Thank you . . . for advocating such radical causes as balanced budgets, limited government and tax reform, and to be able to try and bring power back to the people."

Tommy Thompson, former Secretary of Health and Human Services