



Munich Personal RePEc Archive

Changing Attitudes towards Minimum Wage Debate: How is The Neoclassical Economic Theory holding in the face of a New Era of Minimum Wage Studies?

Krasniqi, Mikra

George Mason University School of Public Policy (SPP)

15. December 2007

Online at <http://mpra.ub.uni-muenchen.de/8896/>

MPRA Paper No. 8896, posted 29. May 2008 / 05:15

NEW VOICES IN PUBLIC POLICY

Volume II
Fall 2007

Changing Attitudes towards Minimum Wage Debate: How is The Neoclassical Economic Theory holding in the face of a New Era of Minimum Wage Studies?

Mikra Krasniqi

Introduction by Professor Jim Riggle

Krasniqi's paper is a comparative study of changed attitudes about the effects of minimum wage laws. Krasniqi argues that over time neoclassical economic theory, which held that minimum wage laws would reduce employment, has been overturned based on historical experience. The paper is especially timely in that minimum wage legislation was one of the first actions taken by the current 110th Congress, initially entered as HR 2 by Rep. George Miller of California. The bill passed both houses of Congress with significantly less argument and opposition than similar efforts in the past, indicating that Krasniqi's thesis is accurate.



School of Public Policy

Abstract

This paper compares the traditional neoclassical economic perspective with the recent empirical findings regarding minimum wage effect on employment. The comparison is done by reviewing and analyzing relevant literature and data that have recorded, over time, the changing attitudes toward the issue since the Great Depression era. By taking this approach, the argument is made that in the face of recent scientific findings and empirical research studies, the neoclassical argument that minimum wage laws have a negative effect on employment is gradually losing its appeal among scholars as well as practitioners. As a result, a new public debate is taking place on the issue, which in turn, has begun to have a transformative impact in the policymaking of minimum wage at the state and federal levels.

Since the 1890s when the State of Victoria in Australia imposed minimum wage laws, economists have always been fascinated with the idea of minimum wages. Few economic concepts have generated as much debate, excitement, and, at times, controversy as mandated minimum wages in a competitive market. In the United States, public discussion on the issue dates back to the late 1800s, but the idea did not take hold until 1912 when the State of Massachusetts appointed a commission to examine the issue for the first time. While today minimum wage is primarily considered an economic problem intimately connected to employment and economic growth, in its early days during the American Progressive Era, the debate was concerned more with property rights, individuality, and liberty.¹ In fact, the familiar neoclassical economic argument that a minimum wage has a negative effect on employment did not develop fully until after Second World War. As such, the discussion over minimum wages has changed over time and for the purposes of this paper it will be classified in two periods: before and after the Great Depression era. The first period is associated with the Progressive Era. The second belongs to the debate between two competing perspectives: neoclassical economic argument, which dominated the field for decades after Second World War, and modern theory that relies on recent empirical findings on minimum wage effects on employment.

This paper, therefore, will examine both of these prevailing attitudes in great detail. In addition to answering the question of why minimum wage matters, an overview of the nature of minimum wage debate in its early days, namely, during the Progressive Era will be presented. Furthermore, the analysis will discuss how the debate changed after the introduction of the federal minimum wage laws in the aftermath of the Great

Depression. This section will also examine the reasons and underlying assumptions behind the prevailing neoclassical theory and its role in shaping policy debate for more than half a century. The following section of the paper will look at the modern approach by presenting case studies with empirical evidence and their impact on changing attitudes towards the debate on the minimum wage-employment relationship in theory as well as in application. Finally, the last part of the paper will discuss broader policy implications of this major shift at the state and federal levels.

Why Study Minimum Wage?

The significance and longevity of the minimum wage debate in the United States is so widely known that few other policy issues strike more at the heart of the debate on economic equality. Although for a long time the majority of economists have shared the idea that mandated minimum wages in a free market economy have negative effects on the employment rate, there has always been a minority of scholars and policy analysts who have raised doubts about this perspective. Being on the opposite sides of the debate, both of these groups shared only one commonality: neither one could scientifically prove its claims.²

The discussion raged over a span of more than fifty years with the neoclassical economists articulating their ideas against mandated minimum wages based on the inverse relationship between production costs and employment. The dissenters, on the other hand, argued that the wage-employment relationship was more nuanced and complex and could not be explained entirely with these simple theoretical assumptions.³ Recent scientific studies in the labor market that challenge traditional theory have further

intensified these arguments to the point where even policymakers, state and federal legislators have begun to take a more active role in the minimum wage argument.

Early Debate on Minimum Wage Laws

During the American Progressive Era, which started in the late 1800s and continued through the early 1920s, arguments on minimum wage centered around individual liberty and property rights on one hand, and efficiency on the other. While the U.S. courts consistently ruled on the issue based on the first two fundamentals, another important minimum wage idea, called the efficiency argument, emerged among economists and state legislators. Developed by Sidney Web, who based his theory on observations of the impact of minimum wage laws in Australia during the 1890s, the theory argued that mandated minimum wage laws would have a double positive effect: the higher wages would increase the efficiency and productivity of both workers and their employers. According to this perspective, if people are paid better wages they will work harder and be more motivated due in large part to their increased income which allows them to better sustain themselves. Productivity and competition increase as employers compete to hire the best motivated and trained labor as opposed to the cheapest. The aggregate result, Web argued, of having a minimum wage law is that it would generate an environment where employment would be steady, the labor productive, and companies more efficient.⁴

The idea spread like a wildfire and many U.S. states adopted it in their arguments for raising minimum wage. When the battle was brought to the U.S. courts, however, states and minimum wage proponents faced a different opposition. The courts began to

strike down any such laws arguing that they were unconstitutional and they violated property rights, individual liberty, and freedom between workers and employers to engage in voluntary contracts. In a detailed overview of the constitutional literature of the minimum wage argument during this era, Oren M. Levin Waldman, a noted scholar in income inequality, summarizes:

During [Progressive Era] there were essentially two questions... one was whether minimum wage violated property rights. Could government interfere with a business in the name of improving working conditions? The other question was whether it violated the liberty of individuals to freely negotiate contracts... Prior to 1930s, views concerning regulatory activity [on minimum wage] were intimately connected to a particular conception of private property rights. This conception was... grounded in a classical conception of property—that one who owned property was free to do with it as one pleased...⁵

Despite strong opposition to minimum wage laws from the U.S. courts during the Progressive Era, several states imposed them, but it was not until 1938 through the Fair Labor Standard Act⁶—after a decade of economic meltdown caused by the Great Depression—that the federal government adopted the idea of having a mandated minimum wage law at the national level.

Great Depression, World War II, and the Dawn of Neoclassical Era

Institution of the Fair Labor Standard Act was the first policy of its kind at the federal level. It gave the country a nationwide minimum wage law and, together with that, another half a century of debate on its vices and virtues. The opposition against wage laws started immediately after the 1938 Act, and was led by a number of neoclassical economists in academia whose basic argument was that economic theory predicted that floor wages destroy jobs. In a classic paper published in the journal of

American Economic Review in June of 1946, the renowned economist and Nobel Prize laureate, George J. Stigler wrote:

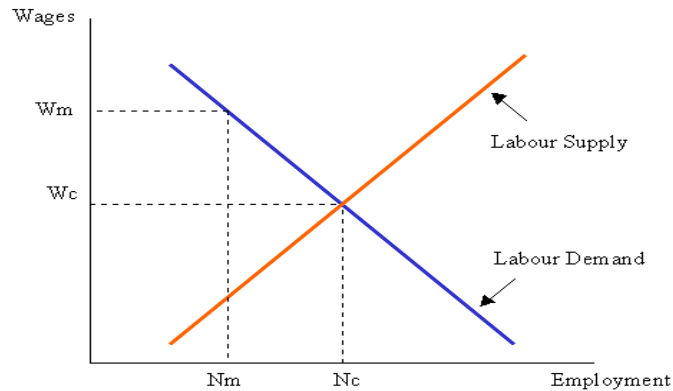
The higher the minimum wage, the greater will be the number of covered workers who are discharged.... And it fairly establishes the presumption that the net effects of the minimum wage on aggregate employment are adverse.⁷

Decades later while Michael Dukakis, a democratic presidential candidate in 1988, called for increases in minimum wages, Stigler called his idea “despicable.”⁸ Finis Welch, a noted professor of economics, went one step further to call minimum wage increases, “one of the cruelest constructs of an often cruel society.”⁹

It was Stigler, therefore, and a few other influential economists of the time who opened the debate in the post Great Depression era basing their opposition in the branch of neoclassical economics. Ideas based on this theory spread quickly and became so popular in academia that almost every major economics textbook published during the next fifty years treated the negative minimum wage-employment relationship as a foregone conclusion. That this overwhelming consensus among scholars was built and preserved almost exclusively on raw theory—however strong its appeal—without any significant scientific evidence reflects the era of a generation of economic thinkers welded to the logic of deductive reasoning in the science of economics.¹⁰ But why is this theory so captivating, and what does a minimum wage really do according to this reasoning? The answer is straightforward: economists who share this logic believe that by raising minimum wages in a competitive labor market, employers will stop hiring new people and may even cut back on existing employment. The basic argument is compelling as it is based on pure rational economic thinking that when a product

becomes more expensive demand for it will fall. Figure 1 is a simple graphical representation of this idea.

Figure 1. The competitive labour market



Source: International Labor Organization¹¹

This supply and demand graph with wages represented on the vertical axis and employment on the horizontal depicts a perfect competitive labor market in accordance with the theory. At the point of the market wages, W_c , and employment N_c , the demand and supply of labor is at a perfect equilibrium. If, however, minimum wage is increased to W_m , employers will not seek to hire new people and as a consequence the demand for labor will fall and so will the employment rate. The leftward move along the horizontal curve from N_c and N_m is the number of unemployed people due to wage increases.

The strong conviction that minimum wage will destroy jobs originates from this simple theory, which makes two crucial assumptions. The first assumption is that the market for labor is perfectly competitive, and the second assumption is that both employers and workers have perfect information needed to enter the contract. Ironically, as these two assumptions lie at the core of the argument, its critics, on the other hand, have used the same fundamentals to attack the theory's applicability in real world

markets. In a complex world such as ours, markets are dynamic, critics argue, and plagued with all kinds of problems: lack of information, rigidities, and barriers of entry, monopolistic settings, and inflexible labor arrangements.

Indeed, these nuances have become more visible with the increasing use of computer technology, statistics, and rigorous scientific and empirical studies. In turn, the pressure on the neoclassical model with regard to minimum wages has been building up as more scientific facts contradict this long-held theory.

The Age of Empirical and Scientific Studies in Labor Markets

The tide from neoclassical economic theory to more modern means of evaluating minimum wage impact on employment began to shift in the last two decades of the past century when more accurate data became available through increasing use of statistics and computer technology which facilitated empirical research. Around 44 percent of the articles published in economics journals in 1992 contained empirical data compared to 27 percent in 1960.¹² A landmark study of the fast food industry— considered widely as a principal minimum wage industry— *Myth and Measurement: the New Economics of Minimum Wage*, conducted by two economists, Alan B. Krueger and David Card in 1994 comparing minimum wage increases in New Jersey, Pennsylvania, Texas, and California found no negative relationship between wage increases and employment.¹³

This was the most detailed scientific inquiry ever undertaken in labor markets and effects of the minimum wage on employment. Using the natural-experiment methodology¹⁴, the research of Krueger and Card not only found no negative relationship between minimum

wages and employment, but in some cases the opposite appeared to have happened—wage increases had a positive effect on the employment rate, as the authors point out:

If a single study found anomalous evidence on the employment effect of the minimum wage, it could be easily dismissed. But the broad array of evidence presented in this book is more difficult to dismiss.¹⁵

Among market anomalies the authors find in their study is a phenomenon called monopsony— long suspected to have been part of the subtle complexities in labor market, but dismissed by the proponents of neoclassical establishment. Coined by Joan Robinson, a British Keynesian economist, monopsony refers to the market conditions where one single buyer has the power to affect all sellers in the market. Similar to other monopolistic situations, monopsonistic firms in labor markets have some wage-setting power that can limit competition by creating asymmetries among workers as well as employers.¹⁶

But, how does making labor more expensive increase employment? Can this be true even though conventional economic wisdom says that higher costs result in a reduced labor input? Krueger and Card's answer is based on their findings, which suggest that this intriguing pattern was increasingly present among low-wage firms. In other words, low-wage firms have open vacancies for long periods of time, and the authors conclude that “in a monopsony situation, a small increase in the minimum wage will lead employers to increase their employment, because higher minimum wage enables formerly low-wage firms to fill their vacancies more quickly.”¹⁷

The second anomaly was also monopsonistic, but with a more complex structure based on two underlying conditions. The first condition suggests that those firms that have wage-setting power may choose to offer higher wages to their workers and

consequently have lower vacancies and lower turnover; other firms may go with the opposite: offer lower wages and operate with higher vacancies for long periods of time and higher turnover.¹⁸ The end result of these maneuvering actions is a perpetuated cycle of indeterminate wages, asymmetries, and monopsonism in the labor market.

Case Studies

The first case study that Krueger and Card undertook involved wages' effects in thousands of fast food restaurants in New Jersey and Pennsylvania. Studying New Jersey's minimum wage increase in the spring of 1991, the authors used natural-experiment methodology to compare the effects within the same industry in eastern Pennsylvania, which had not increased its wages. What they found was unconventional and intriguing, as reflected by this statement:

Contrary to the stark prediction of competitive-demand theory, we find that the rise in the New Jersey minimum wage seems to have *increased* employment at restaurants that were forced to raise pay to comply with the law.¹⁹

A second case study of the same industry, using the same research methodologies in the State of Texas one year later yielded similar results. In addition to their individual state cases, the authors embarked on a more comprehensive study of cross-state comparisons of minimum wage, and communicating their findings, conclude the following:

Our findings lend further support to the conclusion that modest increases in the minimum wage have no adverse effect on the employment outcomes of low-wage workers. Although the 1990 and 1991 minimum-wage increases led to significant earnings gains for teenagers and retail-trade workers in many states, these wage increases were not associated with any measurable employment losses.²⁰

The Fading Force of the Neoclassical Model

More than a decade has passed since Krueger and Card published their findings, which have had profound impact on the debate of minimum wage. *Myth and Measurement* has come to be considered as one of the most comprehensive studies to have challenged the economic wisdom of the neoclassical theory of the minimum wage and labor market, which dominated the field for half a century. The findings of Krueger and Card have been used throughout public and private organizations, governments, universities, media reports, and legislative agendas.

Reporting on Oregon's legislature decision to raise minimum wage several times in late 1990s and early 2000s, Deborah Solomon of *The Wall Street Journal*, in November of 2006, wrote:

Academic economists traditionally have argued that raising the minimum wage inevitably leads employers to hire fewer workers. The Experience of the late 1990s and a landmark study of employment in the fast-food industry by economists David Card and Alan Krueger...has undermined that view.²¹

The reason that minimum wage increases in the State of Oregon attracted media attention was because the outcome of these increases consistently supported the claim of Krueger and Card. On the other hand, using mainly their traditional theoretical arguments that minimum wage will destroy jobs, the opposition in Oregon was strong and organized, but the eventual results proved them wrong as the following passage from the same *Wall Street Journal* article describes:

During the 2002 debate in Oregon, foes of a minimum wage increase argued that it would chase away business and cripple the economy... four years later... Oregon's experience suggests the most strident doomsayers were wrong. Private, non-farm payrolls are up 8% over the past four years, nearly the national increase.

Wages are up, too. Job growth is strong in industries employing many minimum-wage workers, such as restaurants and hotels. Oregon's estimated 5.4% unemployment rate... is down from 7.6% in 2002.²²

Joining states such as California, New Jersey, Pennsylvania, Texas, and Washington, Oregon was another strong piece of evidence in support of studies conducted by Krueger and Card, which prompted a national debate from university classrooms and think tanks to government legislatures.

But *Myth and Measurement* was not the only major study to collide with the traditional neoclassical model. On October 1, 1996, the U.S. federal government raised minimum wages from \$4.25 to \$4.75, and to \$5.15 on September 1, 1997. The raise affected almost 10 million workers nationwide. One year later, inspired by Krueger and Card, another major study conducted by *The Economic Policy Institute*, assessed the impact of these increases on employment. Similar to the findings in *Myth and Measurement*, the Institute did not find any negative impact on employment. Jared Bernstein and John Schmidt, authors of the study, conclude that, "The principal findings are that.... [our studies] fail to find any... significant job loss associated with the 1996-97 increases."²³

Public Policy of the Minimum Wage

Since those days, the economic reasoning of minimum wage—supported by the experience of several states mentioned in this paper—has begun to gradually shift in favor of these recent findings. Today more than 700 hundred leading economists in the U.S. support minimum wage increases and agree that the traditional theory is no longer accurate in a world full of complexities.²⁴ Also, the support for the wage increases has not

been confined only within academia. On October 25, 2005, Lee Scott, the Chief Executive Officer (CEO) of Wal-Mart—the largest retailer in the world—made a shocking statement in support of the minimum wage increases. “The U.S. minimum wage of \$5.15 an hour has not been raised in nearly a decade and we believe it is out of date with the times,” he said in an interview for *CNN News*.²⁵ This was particularly remarkable as it was coming from a CEO of a company that has traditionally been one of the largest employers of low-wage earners in the U.S., and has consistently been at the forefront of the debate in minimum wage among critics.

At the policy level, too, the changing attitudes have been reflected nationwide. Over thirty states have minimum wage laws above that of federal government and more than fifteen of these states have already increased wages or are considering some upward adjustments in the near future.²⁶ As many of these increases have happened in the past 10 years, some states have gone even further with wage increases. The states of Maryland and California, for example, were the first states to recently introduce “living wage” bills, which are above the level of minimum wages. Although its governor vetoed the bill in California, Maryland has become the first state to enact a living wage law, which is above its current minimum wage.²⁷ To add to all these policy actions at the state level, the U.S. Congress House of Representatives and the Senate have become the latest among government legislatures to take action and pass a bill that increases federal minimum wage from \$5.15 to \$7.25 to be implemented within sixty days of enactment.²⁸

Therefore, the result of what was once considered an endless debate within academia has clearly trickled down to the policy level, prompting state and federal

legislatures alike into taking actions and changing their perspective towards one of the most controversial economic concepts.

Conclusion

Minimum wage debate in the U.S. dates back to the Progressive Era when the State of Massachusetts became the first State to impose minimum wage laws. The debate during this era was concerned more with liberty and property rights and efficiency than with employment and production. The U.S. courts consistently ruled against state laws that imposed minimum wage laws, arguing that they were unconstitutional. The tone of the debate began to change in the aftermath of the Great Depression when the federal government enacted the Fair Labor Standard Act. From here on, the debate was dominated by proponents of the neoclassical economic theory, who argued against wage laws and based their reasoning on the idea that wage increases destroyed jobs. This theory began to lose its appeal in the last two decades of the past century as technology became available along with scientific studies and empirical research which challenged the neoclassical model of labor markets. A landmark study by two economists in the early 1990s challenged the theory by presenting empirical findings, which prompted more studies that eventually had an impact at the policy level.

By comparing the two prevailing perspectives: the neoclassical theory versus the modern theory, which relies on empirical research, this paper has argued that the debate on minimum wage has recently turned in favor of wage laws and wage increases, which, in turn, has caused wide policy changes at the state and federal levels.

- ¹ Oren M. Levin-Waldman, “The Rhetorical Evolution of Minimum Wage”, *The Jerome Levy Economics Institute*, Working Paper No. 280, September, 1999.
- ² John M. Peterson, “Research Needs in Minimum Wage Theory”, *Southern Economic Journal*, Vol.29, No.1 (July,1962).
- ³ Charles Brown, Curtis Gilroy, and Andrew Cohen, “The Effect of the Minimum Wage on Employment and Unemployment”, *Journal of Economic Literature*, Vol. 20. (June 1982): 487.
- ⁴ Sidney Web, “The Economic Theory of a Legal Minimum Wage”, *The Journal of Political Economy*, 20. (December 1912): 973.
- ⁵ Oren M. Levin-Waldman, “The Minimum Wage in Historical Perspective: Progressive Reformers and Constitutional Jurisprudence of “Liberty of Contract”, *The Jerome Levy Economics Institute*. Working Paper No. 256 (November, 1998).
- ⁶ The Fair Labor Standards Act: <http://www.dol.gov/esa/regs/statutes/whd/FairLaborStandAct.pdf>
- ⁷ George J. Stigler, “The Economics of Minimum Wage Legislation”, *American Economic Review*, Vol.36, No.3, (June, 1946):361.
- ⁸ As quoted by David Card and Alan B. Krueger in “Myth and Measurement: The New Economics of the Minimum Wage”, 6.
- ⁹ Finis Welch, “The Minimum Wage”, *Jobs and Capital*, vol. 2, Santa Monica, California: The Milken Institute.
- ¹⁰ Alan B. Krueger, “Teaching the Minimum Wage in Econ 101 in Light of the New Economics of the Minimum Wage”, *The Journal of Economic Education*, Vol.32, No.3 (Summer, 2001).
- ¹¹ <http://www.ilo.org/public/english/employment/strat/publ/etp26.htm>
- ¹² David Figlio, “Trends in the publication of Empirical Economics”, *The Journal of Economic Perspectives*, Vol. 8, No.3 (Summer, 1994): 179.
- ¹³ David Card and Alan B. Krueger, “Myth and Measurement: The new economics of the minimum wage”, (Princeton: Princeton University Press, 1995).
- ¹⁴ *Ibid.*, 22.
- ¹⁵ *Ibid.*, 4.
- ¹⁶ Joan Robinson, “*The Economics of Imperfect Competition*”, 1933. London, St. Martin’s Press. Credits to Alan Krueger and David Card for reference.
- ¹⁷ David Card and Alan B. Krueger, “Myth and Measurement: The new economics of the minimum wage”, (Princeton: Princeton University Press, 1995), 12.
- ¹⁸ *Ibid.*, 12.
- ¹⁹ *Ibid.*, 21.
- ²⁰ *Ibid.*, 114.
- ²¹ Deborah Solomon, “Weighing Minimum Wage Hikes”, *The Wall Street Journal*, November 3, 2006.
- ²² *Ibid.*,
- ²³ Jared Bernstein and John Schmitt, “The Impact of the 1996-97 Minimum Wage Increases”, *Economic Policy Institute*, 1998.
- ²⁴ “Hundreds of economists say: raise the minimum wage”, *Economic Policy Institute*, http://www.epi.org/minwage/epi_minimum_wage_2006.pdf
- ²⁵ CNN, http://money.cnn.com/2005/10/25/news/fortune500/walmart_wage/, October 25, 2005.
- ²⁶ U.S. Department of Labor, *Minimum Wage Laws in the States*, January 1, 2007. <http://www.dol.gov/esa/minwage/america.htm>
- ²⁷ Laura Smitherman, “Md. will be the first State to provide living wage”, *Baltimore Sun*, April 10, 2007. For an electronic copy of the bill, visit: <http://mlis.state.md.us/2007RS/bills/hb/hb0430e.pdf>
- ²⁸ Lori Montgomery, “Senate add Tax Breaks to Minimum Wage Bill”, *The Washington Post*, February 2, 2007:D01

Bibliography

- CNN. "Wall-Mart Calls for Minimum Wage Hike," http://money.cnn.com/2005/10/25/news/fortune500/walmart_wage/, accessed on April 30, 2007.
- Bernstein, Jared and John Schmitt, "The Impact of the 1996-97 Minimum Wage Increases", *Economic Policy Institute*, 1998.
- Brown, Charles. "Minimum Wage Laws: Are They Overrated?" *The Journal of Economic Perspectives* 2, no. 3 (1988): 133-145.
- Card David, and Krueger, Alan B. *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton: Princeton University Press, 1995.
- Economic Policy Institute, "Hundreds of economists say: raise the minimum wage", http://www.epi.org/minwage/epi_minimum_wage_2006.pdf
- Figlio, David. "Trends in the publication of Empirical Economics," *The Journal of Economic Perspectives*, 8, No.3 (1994): 179.
- Montgomery, Lori. "Senate adds Tax Breaks to Minimum Wage Bill," *The Washington Post*, February 2, 2007: D01.
- International Labor Organization, <http://www.ilo.org/public/english/employment/strat/publ/etp26.htm>, accessed on April 28, 2007.
- Krueger, Alan, B. "Teaching the Minimum Wage in Econ 101 in Light of the New Economics of the Minimum Wage," *The Journal of Economic Education* 32, No.3 (2001): 243-258.
- Levin-Waldman, Oren M. "The Rhetorical Evolution of Minimum Wage", *The Jerome Levy Economics Institute Working Paper No. 280*, September, 1999.
- Peterson, John, M. "Research Needs in Minimum Wage Theory," *Southern Economic Journal*, Vol.29, No.1 (1962):1-9.
- Robinson, Joan. "The Economics of Imperfect Competition", London, St. Martin's Press, 1933.
- Smitherman, Laura. "Md. will be the first State to provide living wage", *Baltimore Sun*, April 10, 2007.
- Solomon, Deborah. "Weighing Minimum Wage Hikes," *The Wall Street Journal*, November 3, 2006.
- Stigler, George J. "The Economics of Minimum Wage Legislation," *American Economic Review*, 36, No.3, (1946): 358-365.
- U.S. Department of Labor, "The Fair Labor Standard Act",

<http://www.dol.gov/esa/regs/statutes/whd/FairLaborStandAct.pdf>

U.S. Department of Labor, "Minimum Wage Laws in the States—January 1, 2007,"

<http://www.dol.gov/esa/minwage/america.htm>

Web, Sidney. "The Economic Theory of a Legal Minimum Wage," *The Journal of Political Economy*, 20. (December 1912): 973.

Welch, Finis. "The Minimum Wage", *Jobs and Capital*, vol. 2, Santa Monica, California: The Milken Institute.