Putting the Minimum Wage Debate in a Historical Context: Card and Krueger Meet George Stigler

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ABSTRACT

Half a century ago George Stigler stated that evaluation of minimum wage policy should revolve around two questions: Does such legislation diminish poverty? Are there efficient alternatives? We argue that historically these were and continue to be appropriate questions to ask with respect to this policy. We then replicate and evaluate the analysis in Chapter 9 of *Myth and Measurement: The New Economics of the Minimum Wage* with regards to these questions. Given the evolution of the Earned Income Tax Credit we conclude that, aside from nostalgia, it is hard to explain the continued support for increasing the minimum wage by those interested in helping the working poor, and that Card and Krueger provide little new evidence to rekindle such support.

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The minimum wage provisions of the Fair Labor Standards Act of 1938 have been repealed by inflation. Many voices are now taking up the cry for a higher minimum....Economists have not been very outspoken on this type of legislation. It is my fundamental thesis that they can and should be outspoken, and singularly agreed. The popular objective of minimum wage legislation—the elimination of extreme poverty—is not seriously debatable. The important questions are rather (1) Does such legislation diminish poverty? (2) Are there efficient alternatives? The answers are, if I am not mistaken, unusually definite for questions of economic policy. If this is so, these answers should be given. Some readers will probably know my answers already ("no" and "yes," respectively); it is distressing how often one can guess the answer given to an economic question merely by knowing who asks it. But my personal answers are [not as] important [as] the arguments on which they rest (Stigler 1946, 358).

Economists have a poor track record in the replication and verification of important findings in the literature. David Card and Alan B. Krueger, in their book *Myth and Measurement: The New Economics of Minimum Wage* (1995, Princeton University Press), should be applauded both for replicating past research on the minimum wage and advancing the economic literature on a policy which has been central to those concerned about social justice in the United States over the past century. Unfortunately, in their effort to introduce new methodologies into the debate over the appropriateness of minimum wage policy, they neglect the political history of the debate. As a result, they fundamentally alter the measures used to evaluate the redistributive success of minimum wage increases. More importantly, they do not consider alternative public policies which we argue make increases in the minimum wage an inferior policy for addressing the two fundamental questions posed by Stigler half a century ago.

A Historical View of Minimum Wage Policy

The above quotation is from the first paragraph of Stigler's seminal article, which was published in 1946, the first year a Republican majority was elected in both the United States House of Representatives and the Senate since 1930, and the same year a first-term Democratic president committed to the preservation of New Deal policies was considered a sure bet to be defeated in the next presidential election by a Republican challenger to those principles. At that time, and for many people even today, no program provided a stronger litmus test of loyalty to traditional New Deal principles than the minimum wage. Stigler's arguments against it were carefully chosen to criticize the minimum wage both on what are now familiar efficiency grounds and more surprising, at least in 1946, on its ability to effectively reduce poverty.

Since 1946, critics of minimum wage increases have stressed their labor market inefficiencies, and most of the empirical literature on minimum wage policy has concentrated on the perceived negative employment effects of increases in the minimum wage. Card and Krueger (1995) have done a major service to the field of labor economics by systematically reviewing the employment effects literature and by using natural experiment techniques to empirically challenge conventional wisdom that minimum wage increases reduce employment. While we find their conclusion that minimum wage increases have led to employment increases unconvincing (see Burkhauser, Couch, and Glenn 1995), we believe their work justifies a more skeptical evaluation of past research on the minimum wage and provides a new direction for empirical analyses of the labor market inefficiencies first outlined by Stigler. With respect to the second issue raised in the Stigler article—how one should evaluate "who gets what" from an increase in the minimum wage—we believe Card and Krueger (1995) offer much less useful direction.

Card and Krueger (1995) discuss the topic of "who gets what" in Chapter 9. The chapter begins with a quote from Stigler: "The manipulation of individual prices is neither an efficient nor an equitable device for changing the distribution of personal income" (Stigler 1946, 362). The authors juxtapose this quote with one from Edward M. Gramlich: "As long as minimum wages are kept low relative to other wages, they are not terribly harmful and in fact have slightly beneficial effects on low-wage workers and on the overall distribution of income" (Gramlich 1976, 450).

The implication one is likely to draw from this juxtaposition is that Stigler, and more importantly the historical debate on minimum wage legislation, was concerned with the *overall* distribution of income. Stigler, in fact, was making a much different point, as revealed by the following passage drawn from the next paragraph:

> One cannot expect a close relationship between the level of hourly wage rates and the amount of family income. Yet family income and needs are the fundamental factors in the problem of poverty (Stigler 1946, 362).

Further, Stigler argues:

> The connection between hourly wages and the standard of living of a family is remote and fuzzy. Unless the minimum wage varies with the amount of employment, number of earners, non-wage income, family size, and many other factors, it will be an inept device for combating poverty even for those who succeed in retaining employment (Stigler 1946, 363).

Stigler urges abandonment of the minimum wage as a means of alleviating poverty and replacement with programs more directly based on family size and composition. He states: "There is great attractiveness in the proposal that we extend the personal income tax to the lowest income brackets with negative rates in their brackets" (Stigler 1946, 365).[1]

It is not an accident that Stigler emphasized the concept of poverty elimination in his article rather than overall equality of income or labor earnings. He was influenced by nearly half a century of debate surrounding the creation of a living wage which was intended by its proponents to insure a minimum standard of living for workers and their families in the United States.

One of the earliest and most comprehensive proposals for a government-enforced minimum wage was made in 1906 in the book *A Living Wage* by John A. Ryan, who argued that "Whole classes of laborers, for example those employed in sweat shops, are underpaid, underfed and undersupplied with everything which contributes to civilized life" (Ryan 1906, 18). This important book, whose introduction was penned by the founder of the University of Wisconsin economics department and the first president of the American Economic Association, Richard Ely, helped popularize a living wage as a social goal. The concept of a living wage was based on the ideas of a broad spectrum of social reformers of the day, from Pope Leo XIII, who argued in *Rerum Novarum* (1891) that "There is a dictate of nature more imperious and more ancient than any bargain between man and man, that the remuneration must be enough to support the wage earner in *reasonable and frugal comfort*" [Ryan emphasizes](as quoted in Ryan 1906, 33), to Sidney and Beatrice Webb, who in *Industrial Democracy* (1897) called for state-enforced national minimum wages that would provide laborers "with the food, clothing and shelter physiologically necessary, according to national habit and custom, to prevent bodily deterioration" (as quoted in Ryan 1906, 82).

Proponents envisioned that the minimum wage would be "determined and secured through a commission, empowered to adjust it to different industries and different centers of population" (Ryan 1906, 315). They saw this type of governmental regulation as the best possible antidote to "that perverse individualism which prefers irrational liberty and industrial anarchy to a legal regime of order and justice" (Ryan 1906, 313). The minimum wage was only one of a set of

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social goals articulated in Ryan's book—which included the eight-hour day, the end of child labor, and social security—that social reformers sought to obtain through direct government intervention in the marketplace.[2]

The crusade for the establishment of a living wage through legislation spans the entire twentieth century. Continued support for the minimum wage today is based in part on important legal and political precedents its establishment created for further government intervention in the marketplace in the name of social justice.

Resistance to the minimum wage first centered over its constitutionality. The nineteenth century view that the right to contract was part of the liberty protected by the 14th Amendment to the Constitution and that the right to purchase or sell labor could only be abrogated by legislatures on very narrow grounds received perhaps its strongest judicial endorsement in *Lochner v. New York* (198 U.S. 45, 1905).   In that case the United States Supreme Court nullified by a five-to-four vote a New York State law establishing maximum hours of work. In his solitary minority opinion, which first urged a "reasonable man" test on restrictions of liberty, Justice Oliver Wendell Holmes stated:

> A constitution is not intended to embody a particular economic theory, whether of paternalism and the organic relation of a citizen to the state or of laissez-faire. It is made for people of fundamentally different views, and the accident of our finding certain opinions natural and familiar or novel and even shocking ought not to conclude our judgement upon the question whether statutes embodying them conflict with the Constitution of the United States....I think the word liberty in the 14th Amendment is perverted when it is held to prevent the natural outcome of a dominant opinion, unless it can be said that a rational and fair man necessarily would admit the statute proposed would infringe fundamental principles as they have been understood by the tradition of our people and our law (*Lochner v. New York*, p.76).

In 1908 a unanimous United States Supreme Court agreed in *Muller v. State of Oregon* (208 U.S. 412) that state maximum hour legislation was constitutional, but only for women.[3] In

1912, Massachusetts was the first state to establish a minimum wage law (unenforcable except by publicizing the offending employer's name) and by 1923, 14 other states, the District of Columbia, and Puerto Rico had established such laws. In 1923, the United States Supreme Court, in *Adkins v. Children's Hospital* (261 U.S. 525), ruled that the minimum wage law of the District of Columbia was unconstitutional. In time, the view espoused by the dissenting justices, including Holmes—that legislatures could regulate such contracts as long as the regulations were reasonable—prevailed.

In 1937 in *West Coast Hotel Co. v. Parrish* (300 U.S. 379), the United States Supreme Court upheld a state minimum wage law (Washington State) that applied only to women. In both the District of Columbia and the State of Washington, commissions had been established to set "standards of wages and conditions of labor for women and minors [which shall]...be reasonable and not detrimental to health and morals, and which shall be sufficient for the decent maintenance of women" (*West Coast Hotel Co. v. Parrish*, p. 387). In that five-to-four decision, the United States Supreme Court held that "The legislature was entitled to adopt measures to reduce the evils of the <sweating system,' the exploiting of workers at wages so low as to be insufficient to meet the bare cost of living..." (*West Coast Hotel Co. v. Parrish*, pp. 398-399). Thus, by 1938, popular support for the minimum wage was based not only on its potential to provide a living wage for the working poor but also on appellate court decisions which established that legislatures could actively intervene in the marketplace to correct perceived social injustice.

Franklin D. Roosevelt's impassioned speech calling on Congress to help the one-third of Americans who were "ill-housed, ill-clad, and ill-nourished" (Roosevelt 1937) heralded the Fair Labor Standard Act of 1938, and with it a national minimum wage for women and men. This marked the culmination of a long struggle by social reformers to establish the constitutional right of state legislatures to set a minimum wage, and to garner the political support to pass minimum

wage legislation at the national level. The debate then moved to who should be covered and at what rate.

Significantly, the power to establish coverage and to increase the minimum wage was not given to a commission of the type envisioned by social reformers like Ryan or like those established by earlier state laws. Rather, coverage and the level of the minimum wage were to be changed only by an act of Congress. World War II and its attendant inflation substantially reduced the effective minimum wage, and social reformers called for Congress to increase it. It is in the context of this social history that Stigler (1946) wrote.

The Minimum Wage and the Working Poor

Supporters of increases in the minimum wage over the last half century have been as concerned with maintaining a living wage for workers as reformers in the first half of the twentieth century. For example, Senator Edward Kennedy, in criticizing the meagerness of the last increase in the minimum wage, declared that:

> The minimum wage was, as it should be, a living wage, for working men and women...who are attempting to provide for their families, feed and clothe their children, heat their homes,[and] pay their mortgages. The cost-of-living inflation adjustments since 1981 would put the minimum wage at $4.79 today, instead of the $4.25 it will reach on April 1, 1991. That is a measure of how far we have failed the test of fairness to the poor (*Congressional Record*, November 6, 1989, S14707).

Similarly, President Clinton emphasized the importance of a living wage when he declared in his 1995 State of the Union Address:

> I've studied the arguments and the evidence for and against a minimum wage increase. I believe that the weight of the evidence is that a modest increase does not cost jobs, and may even lure people into the job market. But the most

important thing is, you can't make a living on $4.25 an hour (The White House, 1995).

These modern-day advocates of the minimum wage are repeating the historical justification of a minimum wage on grounds of social justice and reflect the views of the majority of its supporters. The belief of policymakers and the public that minimum wage legislation helps the working poor explains their continued support. Their support, or the lack of it, has little to do with predictions from the economics profession with respect to employment loss.[4] In evaluating the success of the minimum wage in the context of current social policy, the appropriate questions for economists to ask are still those originally framed by Stigler (1946)—how does an increase in the minimum wage affect the working poor, and are there efficient alternatives to it?

Elsewhere (Burkhauser and Finegan 1989, 1993; Burkhauser, Couch, and Glenn 1995), we have used data from the U.S. Census for the years 1940 through 1980 and various years of the *Current Population Survey* (*CPS*) to evaluate the link between the average hourly earnings of workers (aged 17 to 64) in the lower half of the earnings distribution and the economic well-being of their families as measured by an income-to-needs ratio (family income relative to the poverty level for a family of their size).

In 1939, the first year of the minimum wage, the correlation between wages of workers and their family's income-to-needs ratio was 0.207. By 1989 it had dropped to about one-fourth of that level—0.053. Family income, as Stigler (1946) pointed out, is dependent not only on the wage rate, but also on the number of hours worked, work earnings of other family members, non-wage income, and family size. The growth of multi-worker families and the introduction of government programs designed to provide lower income families with resources have dramatically weakened the relationship between the wage rates of workers and family well-being. This weaker

relationship has reduced the ability of new minimum wage increases to target additional income to the working poor as evidenced by the most recent increase.

It is in this context that we replicate the table in Card and Krueger that is most relevant to this question. Then we suggest an alternative method to help the working poor which we believe better achieves the stated goal of minimum wage supporters for the last century—ensuring a living wage for working Americans.

Replicating Card and Krueger's Results in Chapter 9

Between 1989 and 1992, the minimum wage in the United States was increased from $3.35 per hour to $4.25 per hour. In the first part of Chapter 9, Card and Krueger draw a sample of wage and salary earners from the January-March 1990 CPS to illustrate how the workers likely to be affected by this increase were distributed in the population. (Additional details of their empirical estimations are contained in the Appendix.)

Rather than using the distribution of the population relative to the poverty line as their yardstick of distributional impacts, Card and Krueger array their tables by income deciles. They divide all individuals aged 16 and older, including workers and non-workers, into ten equally sized groups on the basis of total family income. Why they choose to array individuals by total family income as a measure of economic well-being is unclear, since their measure does not account for family structure. Family size and composition are widely acknowledged to have a major impact on the resources available to any individual member.[5] They also exclude children from their sample but include men and women past normal retirement age, again for unspecified reasons. Furthermore, Card and Krueger do not recognize in their analysis that most people live in multi-persons families. In measuring economic well-being, one must either use the family as the unit of

analysis, adjusted for size, or treat all people as individuals but assign some component of total family income to the individual.

To illustrate our concerns about the use of income deciles as a means of gauging the distributional efficiency of the minimum wage, consider a man captured in the second decile of Card and Krueger's income distribution.[6] His unadjusted family income would be between $8,000 and $13,560 in 1988. If he lived by himself or with another adult he would not be considered in poverty even with an income of $8,000, and his income-to-needs ratio could be as high as 2.35. Alternatively, if he lived in a family with three children, he would be in poverty across the whole income bracket. Individual income cannot be accurately measured without accounting for family size. These issues and others are discussed by Stigler (1946) and are well recognized points in the literature on poverty measurement.[7]

Despite our reservations about their income measure, we replicate their findings using their population definitions (Table 1). We find, as they did, that most poor people over the age of 16 live in the first three deciles of this population (column 1); the near-poor (persons living in families with incomes between 100 and 150 percent of the poverty line) are found in the bottom half of the deciles (column 2); and those in the top part of the decile are more likely to work (column 3).

Card and Krueger begin their discussion of this table by showing how increases in the minimum wage are likely to affect people across the income distribution. But in column four of their table, the base is shifted from *all* persons in the decile to only those people in the decile who are working. We replicate their column 4 in column 4b, and, like them, we show that 28.8 percent of the 28.3 percent of workers in the first decile earned between $3.35 and $4.25 per hour in 1990. While this is certainly accurate, it dramatically shifts the "who gets what" question from

how those who benefit from the minimum wage hike are distributed across people in the income

distribution to the share of workers in the income decile who benefit.

Our column 4a offers a bridge to Card and Krueger's columns 4 and 5. Column 4a shows

that when you continue to keep all people aged 16 and over as your base, the beneficiaries of an

increase in the minimum wage are more broadly spread out across that distribution. While the

largest percentage is in the first decile, the relative difference in eligibility for an increase in wages

across deciles is much less than implied by a casual look at column 4b. Hence in column 4a, 6.7

percent of all persons are eligible in the first decile while on average only 3.8 percent are eligible

in the overall population. In contrast, in column 4b, 28.8 percent of all workers in the first decile

are eligible relative to 7.1 percent of all workers. Column 5 replicates column 5 in Card and

Krueger. This column is roughly ten times the ratio of the value in any cell of column 4a divided

by 3.8, the percentage of all people aged 16 and over who are eligible to receive the minimum

wage increase.

While the original Card and Krueger table is not incorrect, their results in Column 4b

and 5 are at odds with the work of other scholars like Horrigan and Mincy (1993). This

difference is understandable, but it may be due to factors other than those discussed in their text

(p. 288). Horrigan and Mincy (1993, p.268, Table 8.6) are simply presenting the income

distribution of affected families relative to all families with at least one minimum wage worker.

Conceptually, this is a different measure than that used by Card and Krueger and no a priori

reason exists to believe the results should be consistent. Again, Card and Krueger consider the

distribution of income of the family of each worker as opposed to the distribution of incomes of

families that contain a worker. Interestingly, had Card and Krueger retained the entire population

of family incomes for those aged 16 and over as their basis of comparison, as we did in Table 1

column 4a, they would have arrived at much the same conclusion as Horrigan and Mincy, that

family incomes of the affected are distributed nearly uniformly within the overall distribution of family incomes of individuals over age 16.[8]

It is at this point that Card and Krueger deviate even further from the historically important question of distributional impacts as posed by Stigler (1946) to a set of questions related to the impact of the minimum wage on the distribution of labor earnings. While these questions are interesting in themselves, they are quite different from asking about the consequences of the minimum wage on family income or poverty. More importantly, in their discussion of the distribution of labor earnings, Card and Krueger fall prey to the very pitfall Stigler warned of, that little can be inferred from wage rates or labor earnings about poverty. Hence, the next section of Chapter 9, which measures the effect of the minimum wage on family earnings (by comparing changes in the labor earnings distribution in different states rather than simulating the effect of a minimum wage on family income, as is done in other studies), confuses changes in the labor earnings distribution with changes in the income distribution, which were at the heart of simulations by Gramlich (1976), Johnson and Browning (1983), Burkhauser and Finegan (1989), Horrigan and Mincy (1993), and Burkhauser, Couch, and Glenn (1995).

An Alternative Measure of "Who Gets What"

Rather than continue with what we believe is a fundamentally flawed yardstick—individually assigned total family income unadjusted by family size—we now propose a yardstick more in keeping with the historical goal of minimum wage legislation, i.e., the wage distribution of workers by the poverty status of their families. To make these measurements, we use Card and Krueger's sample of all workers aged 16 and over, but we array these workers by the income-to-needs ratio of their families   The income-to-needs ratio is the ratio of total family income divided by the official poverty line for a given family. In 1994 the poverty line for a family

of four was $14,800. Therefore, a worker living in a family with four members and a total income of $44,400 would have an income-to-needs ratio of 3.0.

In Table 2 we provide an alternative way of looking at who was helped by an increase in the minimum wage from $3.35 to $4.25 per hour relative to others. The hourly wages of all workers in the population aged 16 and over are shown across several income-to-needs categories. We find that 7.1 percent of all workers earned wages between $3.35 and $4.25 per hour in 1990. This number corresponds to the percentage of affected workers reported in our Table 1 and by Card and Krueger in their Table 9.2. While a small percentage earned less than $3.35 (2.1 percent), the vast majority of workers earned more than the proposed minimum wage of $4.25 per hour (90.8 percent).

Tables 1 and 2 tell similar stories, but there are important differences between them. The $3.35 to $4.25 column in Table 2 is approximately the same as Table 1, column 4b. It shows the percentage of workers in each income-to-needs category who are affected by the increase in the minimum wage. Workers who live in poor families are 3.6 times more likely to be helped by the minimum wage hike than the average worker (25.8 divided by 7.1). But Table 2 also shows that, as is the case with workers not living in poverty, the great majority of the working poor will **not** be helped by a minimum wage hike to $4.25 since they already earn more than $4.25 per hour.

The reason workers earning more than $4.25 per hour lived in poor families was not because they had a low wage rate. Rather, they either worked less than full-time or, even working full-time, had a family that was too large to be lifted above poverty despite their higher wage rate. (See Burkhauser, Couch, and Glenn 1995 for a more detailed discussion.)

While it is certainly true that poor workers are more likely to earn a minimum wage, Table 2 also shows that the vast majority of minimum wage workers do not live in poor or even in near-poor families. The reason is obvious—only 6.1 percent of **all** workers live in poor families

and only about 12.2 percent of **all** workers live in near-poor (income-to-needs ratio between 1.0 and 1.5) or poor families. About the same number of minimum-wage workers (32.8 percent) live in families with incomes three times the poverty line as live in near-poor and poor families combined (35.0 percent). For this reason, minimum wage increases are extremely ineffective as a mechanism for reducing poverty.

Simply showing the distribution of affected workers overstates the share of benefits going to the families of the working poor if, on average, the marginal gain going to a worker in a poor family is lower than that going to a non-poor worker. This occurs either because the average wage of poor workers is relatively closer to the new $4.25 per hour minimum than non-poor workers or because the affected poor workers are working fewer hours. Further, the affected working poor may be more likely to suffer reduced hours or the loss of a job if there are negative employment consequences of a minimum wage hike.

These findings are consistent with Stigler's view that there is only a fuzzy relationship between a person's wage rate and the economic well-being of the family in which the person lives. Advocates of the minimum wage must recognize that such increases are not target-efficient and are even less so than they were half a century ago. Moreover, the role of government and the number of policy options available to reduce poverty have changed considerably since the late nineteenth and early twentieth centuries. Today, the appropriate question to ask is what alternatives to minimum wage hikes are available to help insure a living wage for the working poor.

The EITC Versus the Minimum Wage

Although it might be argued that the focus of Card and Krueger's book is single-minded, the book is nonetheless silent on the Earned Income Tax Credit (EITC). There is not a single

reference to the EITC, a program which offers a clear alternative to raising the minimum wage as a mechanism for tailoring a living wage for working Americans. In Table 3, we use the same CPS data to compare the distributional effects of a simulated increase in the minimum wage to a simulation of benefits resulting from legislative changes in the EITC program between 1989 and 1992. The counterfactual question we ask is what effect these programs would have if they had been immediately adopted.

In 1989 the minimum wage was $3.35 per hour. The 1989 Amendments to the Fair Labor Standards Act (FLSA) increased it to $4.25 by 1992. In the first two columns of Table 3, we simulate the effect of increasing the minimum wage from $3.35 to $4.25, using the population of workers identified by Card and Krueger as likely to be affected. In our simulation, we assume there are no employment effects. Our results indicate that less than 20 percent of the total benefits accrue to poor families and 34 percent to poor and non-poor families combined. In comparison, 32 percent of the benefits go to families with income-to-needs ratios greater than 3.0 and 66 percent to families with an income more than 150 percent of the relevant poverty line.

In contrast, the EITC targets a minimum wage boost to low-wage workers who live in low-income families with children. In 1989, an eligible minimum wage worker who lived in a family with income below $7,520 actually received $3.82 for an hour's work—$3.35 plus a 14 percent tax credit. Between 1989 and 1992, Congress increased the EITC marginal credit rates from 14 to 17.6 (18.4) percent for eligible workers with one (two or more) child. Hence, even if the 1989 FLSA amendments had not been adopted, EITC-eligible minimum wage workers would still have seen their hourly wages grow to $3.94 for a family with one child and $3.97 for a family where two or more children were present.

The maximum EITC in 1992 was $1,324 (17.6 percent of $7,520) for taxpayers with one child and $1,384 (18.4 percent of $7,520) for taxpayers with more than one child. In 1992, the

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EITC began to be phased out at an earned or adjusted gross income of $11,840 at the rate of 12.57 cents per dollar for those with one child and 13.14 cents per dollar for those with two or more children. All benefits were phased out at $22,370. (See Table 1A in the Appendix for a more detailed description of EITC program parameters over this period.)

Columns 3-6 in Table 3 show how the gains from changes in the EITC between 1989 and 1992 would have been allocated across families with different income-to-need ratios in the absence of the 1989 amendments to the FLSA. Consistent with our minimum wage simulations, we assume that the EITC has no effect on employment. We also assume that all eligible families receive the credit.

Column 5 shows that increases in EITC benefits would have cost taxpayers $4.04 billion. Column 6 shows how those benefits were distributed across different income-to-needs categories. Workers living at or near the poverty line received 59 percent of all dollars from the EITC, while those living in families with an income-to-needs ratio greater than 3.0 received only 4.3 percent. This contrasts sharply with the distribution of benefits from the 1989 minimum wage hike, in which upper-income families with income-to-needs greater than 3.0 received 60 percent more than poor families. EITC increases provided five times more benefits to workers in poor families than to workers in higher income families.

A major advantage of an EITC approach to insuring a living wage to the working poor is that it achieves, by means of a family size-adjusted credit and an income test, far greater target effectiveness than simple across-the-board increases in the minimum wage. Table 3 shows how critical this family income-based help is to the working poor. When we focus only on the population of workers who are helped by a boost in the minimum wage, we see in column 4 that 41.3 percent of EITC benefits go to the working poor compared to 19.3 percent of the minimum wage hike, a relative increase of more than 100 percent. This subpopulation of the working poor

whose hourly wage rate was between $3.35 and $4.25, however, receives only one-quarter of the total benefits going to the working poor (.25 billion of 1.02 billion). The rest go to poor families with workers who have wage rates above $4.25 but who, because of low hours or a large family, still live in poverty. Additional benefits go to those not covered by the minimum wage who earn less than $3.35 per hour.

The EITC, by supplementing the market wage of workers whose income falls below a prescribed level, can be thought of as a *targeted minimum wage*. In 1993, a bipartisan majority of Congress passed a proposal of the Clinton Administration to increase the EITC. By 1996, these changes will raise the effective minimum wage for those eligible for a two-child EITC credit from $4.25 to $5.95 per hour.[9] (For a fuller discussion of how increases in the 1993 EITC will be distributed, see Burkhauser, Couch, and Glenn 1995).

The Future of Minimum Wage Legislation

Enactment of the minimum wage established a milestone in the institutional relationship within which binding market contracts are made in the United States. We doubt if the majority of those now opposed to further increases in the minimum wage are anxious to end the federal government's power to limit freedom of contract as it has been accepted over the last half century, although some may. Likewise, we doubt if the majority of those in favor of increasing the minimum wage would argue that Ryan's turn of the century picture of the American labor market as dominated by a "perverse individualism which prefers irrational liberty and industrial anarchy to a legal regime of order and justice" is still accurate and would seek additional industrial policy set by government commission, although some might.

Rather, America over the last century, in contrast to many European countries, has rejected the use of government-mandated "industrial partners" to establish wage-setting patterns

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in the economy. This vision of the labor market, which was much in the spirit of the turn-of-the-century socialists who were among those advocating minimum wage laws as a mechanism to that end, failed to take root in the United States. In fact, the minimum wage has increasingly become an anachronism with respect to either redistributing income or protecting workers against poverty in the United States. The federal income tax has, for the most part, been the principal tool of redistribution in the United States. The negative income tax and more recently the EITC have each been seen as alternative methods of targeting wage subsidies to the working poor. Aside from nostalgia, it is hard to explain continued support for increasing the minimum wage by those interested in helping the working poor. Card and Krueger, in fact, provide little new evidence to rekindle such support.

Card and Krueger have produced an impressive body of work that challenges conventional wisdom about the negative employment consequences of minimum wage increases. They have demonstrated that natural experiments offer an important and useful method of evaluating the consequences of minimum wage hikes. Further, they have provided results that call into question the view that minimum wage hikes are associated with employment declines.

Nonetheless, their research is not clearly tied to historical perspectives concerning the primary goal of minimum wage legislation, that is, the reduction of poverty.[10] Since their research lacks this historical perspective, changes in the income distribution are inappropriately equated with changes in the labor earnings distribution. Furthermore, their use of income deciles unadjusted for family size, as opposed to poverty-based measures of need, clouds rather than clarifies the fundamental issue of interest. Finally, in considering the efficiency of a minimum wage for transferring income, other alternatives such as the Earned Income Tax Credit are never considered.

Given our problems with the measures used by Card and Krueger to gauge the impact of the minimum wage on the working poor, there is a statement in their book with which we certainly agree but which might surprise traditional advocates of minimum wage increases.

As noted in the introduction of this chapter, the connection between the poverty rate and the minimum wage rate is necessarily limited, because two-thirds of adults who live in poverty do not work.[11] Nonetheless, the minimum wage is sometimes defined as an "antipoverty program," and much of the related rhetoric from supporters of the minimum wage focuses on its supposed antipoverty effects (Card and Krueger 1995, 305).

One wonders what John Ryan, Sidney and Beatrice Webb, Senator Kennedy, President Clinton and the vast majority of political supporters of the minimum wage might think of that statement.   It is clear what George Stigler would think: he would mark down a "no" and a "yes" for Card and Krueger.

TABLE 1

**DISTRIBUTION OF WORKERS AND NON-WORKERS AFFECTED BY
THE APRIL 1990 MINIMUM WAGE INCREASE BY
FAMILY INCOME DECILE[a]
(in percents)**

Decile	Poor (1)	Near-Poor (2)	Work (3)	Affected (4a)	Affected Who Work (4b)	Distribution of Those Affected Who Work (5)
All	10.6	8.6	62.4	3.8	7.1	100.0
1	81.1	16.5	28.3	6.7	28.8	17.4
2	21.1	39.8	43.0	4.8	13.3	12.6
3	3.8	18.3	53.4	4.8	10.3	12.7
4	0.7	9.5	59.8	3.7	7.2	9.9
5	0.0	1.5	66.0	3.7	6.2	9.7
6	0.0	0.2	68.6	2.9	4.6	7.6
7	0.0	0.0	73.9	3.4	5.3	9.0
8	0.0	0.0	75.2	3.1	4.9	8.3
9	0.0	0.0	78.2	3.2	4.4	8.4
10	0.0	0.0	77.6	1.7	2.5	4.5

[a] Columns 1, 2, 3, 4b, and 5 replicate Table 9.2 of Card and Krueger (1995). Family income deciles are constructed so that 10 percent of all civilians aged 16 and older are in each decile. Poor individuals are those who live in families with total family income below the appropriate 1989 poverty line. Near-poor individuals are those who live in families with family incomes between 100 and 150 percent of the poverty line. Affected workers are those whose hourly wage is between $3.35 and $4.25 per hour. Column 4a shows the distribution of affected workers relative to the universe in columns 1-3. Column 4b shows the distribution of affected workers conditioned on work status but employing the same income deciles.

Source: Outgoing rotation group of the March 1990 *Current Population Survey.*

TABLE 2

WAGE DISTRIBUTION OF WORKERS BY THE INCOME-TO-NEEDS RATIO OF THEIR FAMILIES[a]

Income-to-Needs Ratio[b]	$0.01 to $2.99	$3.00 to $3.34	$3.35 to $4.24	$4.25 to $5.50	$5.51 to $9.99	$10.00 and Over	Total	Percent of All Workers	Percent of Affected Workers
Less than 1.00	4.8	1.3	25.8	29.1	28.8	10.1	100.0	6.1	22.0
1.00 to 1.25	3.9	0.8	15.6	25.5	45.7	8.6	100.0	2.8	6.1
1.25 to 1.50	3.7	2.2	14.9	24.7	43.7	10.8	100.0	3.3	6.9
1.50 to 2.00	1.7	1.1	10.4	22.7	49.4	14.7	100.0	8.2	11.9
2.00 to 2.99	1.8	0.9	8.1	15.7	47.6	25.9	100.0	17.9	20.3
3.00 and Above	0.7	0.5	3.8	6.7	27.6	60.7	100.0	61.7	32.8
Percentage	1.4	0.7	7.1	12.1	34.1	44.5	100.0		

[a] Affected worker population is defined in exactly the same way as in Table 9.2 of Card and Krueger (1995) as individuals working at the time of the survey whose wage rate ranged from $3.35 per hour to $4.25 per hour. More detail is provided in the Appendix.

[b] The Income-To-Needs Ratio is calculated by comparing total family income to the relevant family size-adjusted poverty line.

Source: Outgoing rotation group of the March 1990 *Current Population Survey*.

TABLE 3

SIMULATED DISTRIBUTION OF BENEFITS FROM AN INCREASE IN THE MINIMUM WAGE AND THE EARNED INCOME TAX CREDIT

	Affected Workers' Households[a]				Total Population[b]	
	Wage Increase from $3.35 to $4.25		Change in EITC Rules from 1989 to 1992			
Income-to-Needs Ratio[c]	Total Benefit (billions of dollars)	Percent of Affected Households	Marginal Benefit (billions of dollars)	Percent of Affected Households	Marginal Benefit (billions of dollars)	Percent of Total Population
Less than 1.00	0.658	19.3	0.253	41.3	1.022	25.3
1.00 to 1.25	0.289	8.4	0.088	14.4	0.669	16.6
1.25 to 1.50	0.220	6.4	0.076	12.4	0.637	15.8
1.50 to 2.00	0.419	12.2	0.124	20.2	0.887	22.0
2.00 to 3.00	0.726	21.2	0.062	10.1	0.620	15.3
Greater than 3.00	1.110	32.5	0.010	1.6	0.205	5.0
All Households	$3.422	100.0	$0.613	100.0	$4.040	100.0

[a]Affected worker population is defined in exactly the same way as in Table 9.2 of Card and Krueger (1995) as individuals working at the time of the survey whose wage rate ranged from $3.35 per hour to $4.25 per hour. More detail is provided in the Appendix.
[b]Total Population includes all households except those in the military.
[c]The Income-to-Needs Ratio is calculated by comparing total family income to the relevant household size-adjusted poverty line
. Source: Outgoing rotation groups of the March 1990 *Current Population Survey.*

APPENDIX

For both the minimum wage and Earned Income Tax Credit simulations, we used data from the 1990 March *Current Population Survey* (CPS). These data are the same as those used by Card and Krueger (1995). When we replicate their Table 9.2 in our Table 1, we also employ their sample selection and weighting procedure. In particular, they draw two primary samples for their analysis which we employ here.

First, in Table 1, the civilian population of all individuals aged 16 and over from the outgoing rotation group of the March 1990 *Current Population Survey* is considered in columns 1, 2, 3, and 4a. As family income data and direct information on wage rates are only available for individuals contained in the outgoing action group of the March supplement, we employ those data, as do Card and Krueger. Family incomes used to construct the income deciles for these individuals are retrospective for the prior year. Wages are calculated as the reported wage for hourly workers last week and usual earnings divided by usual hours last week for all others. The weight we use when considering individuals is the earnings weight.

Column 4b of Table 1 is the first appearance of the second primary sample used by Card and Krueger. From the population of all civilians aged 16 or over, additional selection criteria are used. Wages are calculated as the reported wage for hourly workers and usual earnings divided by usual hours for others. Those with wages less than $1 or greater than $75 are deleted. Additionally, individuals are required to be currently employed. Also, people who live in families that report self-employment income are deleted. Individuals with assigned wages or earnings are also excluded. *Affected workers* are then defined as the group of remaining workers who earn at least $3.35 per hour but less than $4.25. Again, the weights used for this population are the

earnings weights. We believe that we have essentially replicated the samples and results of Card

and Krueger (1995, Table 9.2) as can be confirmed by a direct comparison.

For Table 2, where we indicate the distribution of workers by wage category and poverty

rate, we employ the same sample selection used by Card and Krueger to define the population of

workers from which affected workers are drawn. This is the second sample described above.

Thus, the portion of workers in the affected group relative to all workers in column 4b of Table 1,

7.1 percent, is equivalent to the portion of workers in the wage interval from $3.35 to $4.25 in

Table 2.

Finally, for Table 3, the focus of the paper shifts to the distribution of family benefits. For

this reason, we employ the family weights in this analysis. The results in the first four columns of

Table 3 depict the projected impact of an instantaneous increase in the minimum wage from $3.35

to $4.25 for those workers affected. In these first four columns, in which it is also important to

track wage rates, we continue to use the outgoing rotation group of the March 1990 *Current*

Population Survey. In the final two columns we run a similar simulation, described more fully

below, for the EITC, first for affected workers only, then for the United States population. Since

the EITC is based on labor earnings, it is not necessary to know a person's wage rate. Hence, we

are able to use the full March 1990 *Current Population Survey*. Where totals for programmatic

expenditures are calculated, the weights are adjusted upward to account for deletion from the

relevant segment of the sample due to the selection rules employed.

EITC Simulations

Since the Earned Income Tax Credit is an income tax-based program, we use the

retrospective income data from the entire March 1990 CPS for our simulations. These data are

ideal for studies that focus on families since they contain extensive family data in addition to

personal data on every individual in the families. In these simulations, we use the EITC structures that were in place during 1989 and 1992.

In Table 3, we take the population in 1990, using 1989 income information, and simulate how a change in parameters from the 1989 to 1992 EITC would affect the distribution of benefits in both the population of all workers and the sample defined by Card and Krueger as those affected by the minimum wage. In this simulation, we set up a structure for the EITC programs, as specified by the Internal Revenue Service, that existed in 1989 and 1992. These guidelines specified two criteria to determine eligibility for the EITC. The first examines family characteristics to determine eligibility for the program. The second uses income measures to establish the size of the credit for the eligible families (which will be zero in many cases). While the unit of analysis for eligibility is the family, the federal income tax filing unit is the measure for income. In some cases, these will not be the same, since families can file more than one tax return.

Eligibility

Eligibility depends on the presence of what the IRS defines as a "qualifying child." Whether or not an individual in the family is a qualifying child depends on relationship, age, and residency.

First, a qualifying child must be a direct descendent, either natural, adopted, or through marriage (e.g., son, grandchild, stepdaughter, etc.) of someone in the family. A foster child may qualify if he or she lived with the family for the entire year.

Second, the child must be under age 19 at the end of the tax year. This age restriction is increased to 24 if the child is a full-time student, and it is eliminated altogether if the child is totally or permanently disabled.

Third, the child must live in the main home of the family for more than six months of the year. Any child who is born into the family or who dies during the tax year is exempt from this test.

In our simulations only the relationship and age tests are applied to determine if a qualifying child resided in the family. We ignore the residency test because in cases where the residency test is not met in the data, it follows that the parent or person who does match with the qualifying child is out of the data set. In order not to lose the observation completely, we use the current family data available in the CPS for that child as a proxy for the missing data.

With the data available in the CPS, both the relationship and age tests can be applied in a straightforward manner. The only exception is the disabled child, who has no age restriction. The CPS survey only asks respondents whether or not they were unable to work at any time during the previous year because of health problems, and does not ask about disabilities directly. Therefore, we do not attempt to identify permanently disabled children.

Once the age and relationship tests are met by a child in the family, the family is considered to be eligible for the program in the simulation. The next step is to apply the income test to the appropriate tax-filing unit.

Only one tax-filing unit within a family may claim the earned income tax credit. That is, only one credit is available per family. However, as will be discussed below, the age and number of qualifying children can affect the size of the credit under the 1992 rules. Under the 1989 rules, however, the credit was the same size for families with one child and families with more than one child.

All domestic tax filers who meet the income and child criteria are eligible for the credit, except married couples who file separately. In our simulations, we assume that all eligible married couples filed jointly.

Multiple-generation families who co-reside will generally have more than one tax-filing unit who can claim the qualifying child. In these situations the IRS has two rules to determine who gets the credit. The first is that tax filers who are qualifying children cannot themselves be eligible for the earned income credit. For example, an 18-year-old mother with a qualifying child of her own, who lives with her parents, is ineligible to receive the earned income credit since she is a qualifying child herself. In this case, the parents will receive the earned income credit based on the 18 year old mother being the qualifying child in the family.

The second rule applies when more than one tax-filing unit can claim the qualifying child. In this case the tax-filing unit with the higher adjusted gross income will be the one to claim the earned income credit. In the above example, if the mother were age 20 instead of age 18, she would no longer be a qualifying child herself as she fails to pass the age test. Her child now becomes the qualifying child, and both she and her parents are eligible to claim the earned income credit. The tax-filing unit with the higher adjusted gross income will receive the credit. If either tax-filing unit's adjusted gross income falls outside the range of the earned income credit, then no credit will be paid out.

The second rule was used for all cases of multi-generational families in the 1992 simulations (1989 rules differ and will be discussed below). The first rule is much more rarely invoked than the second in the data and, given that multi-generational families only comprise around 5 percent of those in the CPS, we feel little would be gained by attempting to incorporate the first rule.

As noted, the above discussion on the two tie-breaking rules for multi-generational families applies only to 1992. Prior to 1991, the IRS placed more restrictions on the filing status of single persons with a qualifying child. Specifically, the person had to file as head of household or as a qualifying widow or widower. Therefore, in the 1989 simulations, if more than two tax-

filing units could claim the qualifying child we always use the head of the family (and spouse, if present) as the appropriate tax-filing unit and do not use the higher adjusted gross income tie-breaker rule. In the examples described above, the young mother would not be able to file as the single head of household regardless of her age, as long as she resides with her parents.

Income Criteria

Once the appropriate tax filling unit is determined, the income criteria are applied. In general, even though the CPS has quite detailed income data, any attempt to simulate the effect of actual IRS rules on income would be much less precise than what can be attempted with respect to the family characteristic rules. Any attempt to simulate the completion of a tax return would be crude, since in actual practice it requires much more information. However, low-income families generally have few (and uncomplicated) income sources.

The two income measures used to calculate the actual EITC credit are (1) earned income and (2) adjusted gross income. Earned income as defined by the IRS includes the following: wages, salaries, tips, net earnings from self-employment, union strike benefits, certain long-term disability benefits, voluntary salary deferrals, combat pay, basic quarters and subsistence allowances from the United States military, meals or lodging provided by an employer, housing allowance for the clergy, excludable employer-provided dependent care benefits, and anything else of value (money, goods, or services) provided for services rendered. In our simulations we included only wages, salaries, tips, net earnings from self-employment, and union strike benefits. All of the other forms of earned income are unavailable in the CPS. As a result, our simulated measure of adjusted gross income at times underestimates the true value (how this affects our results is discussed below). However, we feel that our estimates of wage income are reasonable. Most of the missing information applies disproportionately to high-income individuals who would

not be eligible for the program. Thus, the absence of this information should have only a small effect on our earned income estimate. Also, as a result of a lack of detailed information on military housing benefits, we use only the civilian population. Adjusted gross income starts with earned income as the base, then adds other sources of income and subtracts various credits. We add the following sources of income into our simulated measure of adjusted gross income: interest income, dividends, alimony, rental income, royalties, and unemployment compensation. We do not include taxable refunds of state and local income taxes, capital gains or losses, or IRA distributions because this information is unavailable in the CPS. Additionally, adjusted gross income includes certain pension benefits and, in some instances, Social Security benefits. We do not include either of these two sources as the CPS does not have the information to determine what percentage, if any, of these benefits are taxable. Pension benefits depend upon the recipient's contribution history. The taxpayer receives a Form W-2P in these instances to help calculate the taxable amount.   Social Security benefits also require a form (SSA-1099) to find the taxable amount.

We only include one credit adjustment in our measure of adjusted gross income, the one-half of the self-employment tax that can be subtracted. Other credits not available are IRA contributions, Keough retirement plan contributions, and alimony paid. Given that adjusted gross income includes both additions and subtractions, we may at times either underestimate or overestimate its true value. However, in most cases of missing information, it is likely that underestimation is the result, because individuals will have additions from other income sources greater than any credits that they could subtract.

For married couples, the earned income and adjusted gross incomes of the head and spouse are added together to get the earned income and the adjusted gross income measures that

apply to the appropriate tax-filing unit. In the case of a single parent who receives the EITC, the individual's earned income and adjusted gross income are the appropriate measures.

For families whose earned income and adjusted gross income both fall within the range of the EITC, the next step is to determine which of the two measures should be used to calculate the size of the credit. Table 1A lists the EITC parameters for calender years 1989 and 1992. The maximum cutoffs are $19,430 in 1989 and $22,370 in 1992 for all families. Therefore, all families with earned and adjusted gross incomes below these amounts and above $0 of earned income are eligible to receive the credit. As long as adjusted gross income does not exceed the beginning income of the phase-out range, the earned income measure is appropriate. For adjusted gross income above this level, the appropriate measure of income is the higher of adjusted gross income or earned income.

The phase-in and phase-out rates vary depending upon family composition for 1992, but not for 1989. In 1989, a family with one qualifying child of any age would be subject to the same phase-in and phase-out rates as a family with several qualifying children. In 1992, however, these rates vary by the number of children present. In addition, in 1992 there is a special child credit given to any eligible family with a child under one year of age.

In 1992, one additional credit, the supplemental health credit, was available for individuals who paid, out of their own pocket, for any health premiums that included coverage for the qualifying child(ren). The CPS did not contain the information necessary to do this calculation. Since this program is a small and tangential part of the overall earned income tax credit program, we feel that our estimates are not be severely affected by this omission.

APPENDIX TABLE 1A

EARNED INCOME TAX CREDIT PARAMETERS IN 1989 AND 1992

Calendar Year	Credit Rate (Percent)	Minimum Income for Maximum Credit (dollars)	Maximum Credit (dollars)	Phase-Out Rate (percent)	Phase-Out Range	
					Beginning Income	Ending Income
1989	14	$6,500	$ 910	10.00	$10,240	$19,430
1992						
One Child	17.6	7,520	1,324	12.57	11,840	22,370
Two Children	18.4	7,520	1,384	13.14	11,840	22,370
Additional Infant Child Credit	5.0	7.520	376	3.57	11,840	22,370

Source: United States House of Representatives, Committee on Ways and Means *The 1994 Green Book* (1994).

ENDNOTES

1. The target efficiency of a negative income tax has long been recognized by economists. Christopher Green (1967) believes the two main proponents of this form of distribution to the poor in the 1960s were Milton Friedman (1962) and Robert J. Lampman (1965) but that its origins go back to the 1940s. According to Green, "correspondence with Friedman, Walter Heller, William Vickrey, and Louis Shere turned up the fact that there had been some discussion of [a negative income tax] during the 1940s, and that the subject had been informally discussed by some researchers, including Heller and Vickrey, then at the Division of Tax Research, Treasury Department. There is no evidence, however, that a paper on the subject was prepared in the Division of Tax Research" (Green 1967, 57, n. 21). He then cites the Stigler (1946) article as evidence that the idea was in the air in the 1940s. Stigler, in personal correspondence with Burkhauser, reported that "for some reason that I cannot recall but have long regretted, I omitted from my passing endorsements of the negative income tax the appropriate footnote, <I'm indebted to Milton Friedman for this suggestion.'"

2. For an excellent source on the role of Ely, Commons, and other members of the "Wisconsin School" on social issues of the day, see Lampman (1993).

3. This case is significant for two reasons. First, it expanded the power of legislatures to intervene in labor markets, although only for women, based on the view that "even though all restrictions on political, personal, and contractual rights were taken away, and she [women] stood, so far as statutes are concerned, upon an absolutely equal plane with him [men], it would still be true that she is so constituted that she will rest upon and look to him for protection; that her physical structure and a proper discharge of her maternal functions—having in view not merely her own health, but the well-being of the race—justify legislation to protect her from the greed as well as the passion of man" (*Muller v. State of Oregon*, p. 327).

    Second, for the first time social science evidence was permitted to be introduced before the United States Supreme Court. The social science evidence is summarized in a footnote as "over ninety reports of committees, bureaus of statistics, commissioners of hygiene, inspectors of factories, both in this country and in Europe, to the effect that long hours of labor are dangerous for women, primarily because of their special physical organization" (*Muller v. State of Oregon*, p. 324). This evidence was introduced by Louis Brandeis, then attorney for the State of Oregon, who was appointed to the Supreme Court in 1916.

4. As evidence that the public at large considered the last increase in the minimum wage to be a socially just exercise of government regulatory power, the Catholic bishops' pastoral letter (National Conference of Catholic Bishops 1986) strongly endorsed an increase in the minimum wage in 1986. Even a poll of corporate executives, at that time, whose taste for spiritual rewards may be a bit more limited, voiced some support for increasing the minimum wage. "More than a third...felt it was a corporate responsibility to meet the minimum poverty requirements as determined by the government" (Magnus 1987). In his testimony before the Joint Economic Committee in 1995, Gary Burtless cites opinion polls

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that register overwhelming popular support for increasing the minimum wage (Burtless 1995).

5.   More formally their measure assumes that there are perfect economics of scale in houshold production, that is, that no additional income is necessary to maintain the same level of individual economic well-being when family size increases by one. See Burkhauser, Smeeding, and Merz (1994) for a recent discussion of the importance of choice of equivalence scale on measure of inequality.

6.   The income brackets for the decile are: less than $8,000; $8,000 to $13,560; $13,560 to $19,132; $19,132 to $25,000; $25,000 to $31,175; $31,175 to $38,240; $38,240 to $46,900; $46,900 to $57,292; $57,292 to $76,800; $76,800 and greater.

7.   See Citro and Michael (1995) for a fuller discussion of this issue.

8.   We would also note that a major theme of the work of Horrigan and Mincy (1993) was the target efficiency of the minimum wage relative to the Earned Income Tax Credit. This again shows other scholars view Stigler's second question concerning alternative policies as important in this context.

9.   These numerical examples are, of course, only for workers still in the credit range of the EITC. Past that range, effective hourly wages would fall. The example is meant only to translate the concept of an EITC into minimum wage terms. The point is that the EITC effectively answers Stigler's criticism of the minimum wage in that it more closely links wages to need.

10.   Card and Krueger come closest to the historical debate in the final section of Chapter 9 when they use natural experiment techniques to show that the effect of minimum wage hikes on the overall poverty rates of adults is statistically undetectable.

11.   The fact that two-thirds of adults live in poverty is not the critical point, since most of these adults live in families in which at least one adult does work. The more relevant number is that 25.7 percent of poor families have no working adults. (See Burkhauser, Couch, and Glenn 1995, Table 3.) This is indeed a problem for both minimum wage and EITC policy, although the dollar for dollar impact of moving non-working adults into the workplace is likely to be larger for the EITC. (For a fuller discussion of the relative behavior effects of minimum wage and EITC policy, see Burkhauser, Couch, and Glenn 1995.).

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