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# **Minimum Wages and Employment**

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## Minimum Wages and Employment

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### Abstract

We review the burgeoning literature on the employment effects of minimum wages – in the United States and in other countries – that was spurred by the new minimum wage research beginning in the early 1990s. Our review indicates that there is a wide range of existing estimates and, accordingly, a lack of consensus about the overall effects on low-wage employment of an increase in the minimum wage. However, the oft-stated assertion that recent research fails to support the conclusion that the minimum wage reduces employment of low-skilled workers is clearly incorrect. A sizable majority of the studies surveyed in this monograph give a relatively consistent (although not always statistically significant) indication of negative employment effects of minimum wages. In addition, among the papers we view as providing the most credible evidence, almost all point to negative employment effects, both for the United States as well as for many other countries. Two other important conclusions emerge from our review. First, we see very few – if any – studies that provide convincing evidence of positive employment effects of minimum wages, especially from those

studies that focus on the broader groups (rather than a narrow industry) for which the competitive model generally predicts disemployment effects. Second, the studies that focus on the least-skilled groups that are likely most directly affected by minimum wage increases provide relatively overwhelming evidence of stronger disemployment effects for these groups.

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# 1

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## Introduction

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For much of the past century, the minimum wage has been a controversial subject among policymakers and economists in the United States. From even before its inception as a major element of the 1938 Fair Labor Standards Act, the minimum wage was a politically contentious issue, with early attempts by the states to establish a wage floor declared unconstitutional by the Supreme Court, and President Franklin Roosevelt's first attempt to legislate a federal minimum wage in 1933 similarly struck down. Eventually, however, Roosevelt prevailed and Congress passed the FLSA, setting the minimum wage at 25 cents per hour.

For economists, the new minimum wage represented a means of testing alternative models of the labor market. Indeed, during the period immediately following passage of the FLSA, a fierce debate raged between economists who claimed that the low-wage labor market at the time was best characterized as a competitive market (the "marginalists") and those who claimed that it was not (the "institutionalists"), in which the implications of the minimum wage were a central focus (Leonard, 2000). For example, Stigler (1946), while acknowledging that a higher minimum wage could theoretically raise employment

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in a labor market characterized by monopsony, argued that the competitive nature of low-wage industries suggested that the displacement of low-wage labor was a more likely outcome. In reply, Lester (1947) dismissed Stigler's model of competitive wage determination as inconsistent with existing business practices and argued that "reasoning about labor markets as though they were commodity markets seems to be an important explanation for erroneous conclusions on such matters as the minimum wage" (p. 146). In the aftermath of this exchange, other economists began to accumulate empirical evidence on the effects of the minimum wage, with much of this research suggesting that increases in the wage floor were having adverse effects on the employment opportunities of low-skilled workers (Goldfarb, 1974).

Despite the unsettled debate within the economics profession, the Congress expanded coverage of the minimum wage significantly during the 1960s and 1970s, and by 1975, more than 90 percent of the workforce was effectively covered by the federal minimum wage, up from 63 percent in 1961 (Brown, 1999). In addition, Congress steadily increased the minimum wage over this period from \$1.00 per hour in 1960 to \$2.30 by 1979, with the 1977 FLSA amendments further raising the minimum to \$3.35 by 1981. However, these changes were enacted in an environment of considerable discord among policymakers about the appropriateness of raising the minimum wage, and the ongoing political debate about the costs and benefits of a wage floor led the Congress in 1977 to create the Minimum Wage Study Commission to "help it resolve the many controversial issues that have surrounded the federal minimum wage and overtime requirement since their origin in the Fair Labor Standards Act of 1938" (Minimum Wage Study Commission, Vol. 1, p. xiii).

The Commission published its report in May 1981, calling it "the most exhaustive inquiry ever undertaken into the issues surrounding the Act since its inception" (Minimum Wage Study Commission (1981), Vol. 1, Letter of Transmittal). Although not its only focus, the report included a lengthy chapter summarizing the existing research on the employment effects of the minimum wage. This chapter was based on a review of the literature by Charles Brown, Curtis Gilroy, and Andrew Kohen (BGK), three of the senior economists on the Commission staff.

These authors subsequently published a revised version of their review in the June 1982 issue of the *Journal of Economic Literature*, in which they summarized the existing research as suggesting that “time-series studies typically find that a 10 percent increase in the minimum wage reduces teenage employment by one to three percent” (p. 524). This range subsequently came to be thought of as the consensus view of economists on the employment effects of the minimum wage.

Given this apparent consensus, economic research on the effects of the minimum wage came virtually to a halt following the report of the Minimum Wage Study Commission and the publication of BGK’s survey. However, by the end of the 1980s interest in this topic began to return. Two related circumstances, in particular, seem to have stimulated renewed attention to the effects of the minimum wage. First, the absence of any increase in the federal minimum wage from January 1981 until April 1990 resulted in more than a 30 percent decline in its value in real terms and led to a growing political debate toward the end of the 1980s about the merits of raising the nominal minimum. Second, an increasing number of state governments began to raise state-specific minimum wages above the federal level in response to the lack of action by the Congress. These state-specific increases added to the political debates about the merits of a mandated wage floor. Moreover, these developments also increased the statistical variation in the policy variables traditionally used in minimum wage research, offering a means of reexamining the evidence on which the existing consensus had been based.

As a result of both the renewed prominence of the minimum wage in public policy debates and the additional evidence that could potentially be used to study the economic effects of wage floors, researchers in the early 1990s began to reexamine the effects of the minimum wage on employment. One line of this research simply extended the earlier studies by adding more recent time-series data to the sample period, employing, in some cases, new techniques developed by time-series econometricians to take account of criticisms leveled at the specifications used in the earlier literature. However, a second, and arguably more important, line of research attempted to use state-level variation in minimum wages and economic conditions to estimate the

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employment effects of the minimum wage. Indeed, despite improvements to the specifications of time-series models, the dearth of variation in the federal minimum wage and the use of aggregate U.S. data to look for its effects continued to be viewed as shortcomings of the existing body of research on the economics of the minimum wage (for example, Kennan (1995)), while other economists raised concerns about the lack of a well-defined counterfactual in the aggregate time-series studies, the potential endogeneity of changes in the federal minimum wage with respect to aggregate labor market conditions, and the difficulty in choosing an appropriate set of control variables in such studies (Card and Krueger, 1995a). Moreover, even aside from the problems with the aggregate time-series studies discussed in the existing literature, the proliferation of state minimum wages set above the federal minimum wage was rendering the aggregate time-series approach increasingly obsolete, both from the perspective of correctly measuring the effective minimum wage and from the perspective of the relevant question facing policymakers, which had shifted toward the advisability of raising minimum wages at the state (or even local) level. This is even more true currently, when a record number of states have minimum wages above the federal level.

We focus our attention on this more recent literature, which has become known as the “new minimum wage research.” Because the earlier literature on the employment effects of the minimum wage was carefully and extensively summarized by BGK, it seems unnecessary to repeat that review in this monograph. In contrast, there is no comprehensive review of the extensive literature that has emerged over the past 15 years.<sup>1</sup> We thus begin our review with the set of four papers that comprised the initial round of the new minimum wage research on the employment effects of the minimum wage. We follow that review with a discussion of the major conceptual and empirical issues that arose out of that initial research, and extend our summary of the U.S. literature with a review of the research that examines more recent increases in minimum wages or otherwise extends the literature. We then complete

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<sup>1</sup>There are, however, papers offering critical summaries of some of the first wave of this literature. See, for example, Card and Krueger (1995a,b), Kennan (1995), and Brown (1999).

our review with a discussion of the empirical research on the employment effects of the minimum wage in other countries, an area of inquiry that has also grown markedly over the past decade.

Our intent in reviewing this literature is threefold. First, most of the political debate surrounding proposed changes in the minimum wage concerns the potential effects on employment. Although we do not view that focus as entirely appropriate, the fact that the employment question takes on such importance means that the answers should be based on a comprehensive survey of the literature, recognizing that minimum wage effects may differ across different segments of the population and in different economic circumstances and contexts. We therefore attempt to draw general conclusions about the effects of the minimum wage on employment that are relevant to policymakers, pointing out, in particular, in what context and for which workers the minimum wage will have consequences.

Second, we hope that our review will help readers assess alternative models of the labor market. The recent literature has reopened the debate about the appropriate theoretical description of the low-wage labor market, with some of the empirical research characterized as rejecting the competitive model in favor of other formulations. As we note throughout the monograph, economic theory often fails to make an unambiguous prediction about the employment effects of minimum wages. Even in the neoclassical model, the effect of the minimum wage on any given set of workers will depend on, among other things, the elasticities of substitution across different types of workers and cross-elasticities of demand across different types of goods. However, some empirical tendencies tend to match up better with one model or the other, and we try to provide a sense of what these tendencies are.

Third, many economists or policymakers perusing the literature may find it quite difficult to draw conclusions from the existing evidence. More than 100 studies have been published on the effects of minimum wages on employment since the 1990s, and the findings from this newer research are summarized differently in different places. In some cases, the new minimum wage research is described as failing to find evidence of disemployment effects. For example, Bazen (2000) states that “(t)he latest studies of the experience of the USA and the

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UK in general find no evidence of negative effects on youth employment” (p. 64). Somewhat more cautiously, Flinn (2006) writes that “these recent studies have been particularly useful in indicating that the “textbook” competitive model of the labor market . . . may have serious deficiencies in accounting for minimum wage effects on labor market outcomes . . .” (pp. 1013–4). In contrast, others summarize the findings as more ambiguous, suggesting that *no* conclusions can be drawn, and that positive effects may be as likely as negative effects. Lemos (2004), for example, asserts that “there is no consensus on the direction and size of the effect on employment” (p. 219), while Stewart (2002) notes that some studies find employment effects to be “absent or positive” and that others find “significant negative effects” (p. 585).<sup>2</sup> In contrast, much of our own work tends to find negative employment effects for the lowest-skilled groups. Given the differences in the conclusions one might draw depending on what one reads, and the difficulties of wading through the mass of recent studies, we thought it would be useful to present a comprehensive review of the more recent minimum wage literature that provides an accurate accounting of the range of estimates in existing studies, and attempts to understand some of the sources of differences in results across studies, in addition to determining what conclusions can be drawn.

In putting together this review, we have intentionally eschewed a formal meta-analysis in favor of a traditional narrative review that attempts to provide a sense of the quality of the research and tries to highlight and synthesize the findings that we regard as more credible. Given the many different types of employment effects estimated

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<sup>2</sup>Groups advocating for minimum wage increases often make stronger statements. For example, Chapman (2004), in an Economic Policy Institute report, asserts that “[T]here is no valid, research-based rationale for believing that state minimum wages cause measurable job losses” (p. 2). This claim appears to be based on a highly selective reading of the minimum wage literature based mainly on the New Jersey–Pennsylvania fast-food study (Card and Krueger, 1994). However, the literature on minimum wage effects in the United States is far broader than this one study, and clearly much of it does point to disemployment effects. Moreover, as discussed later, evidence on employment effects from a single sector is not necessarily informative about the employment effects of minimum wages more generally. Of course, advocacy groups opposing minimum wage increases also cite the research literature selectively, although we have not come across the same kind of misleading summary statements about the literature as a whole.

in the literature, and the considerable variation in approaches and in the quality of the research, lumping the studies into one meta-analysis does not seem the best way to make sense of the literature. Moreover, meta-analysis is even less useful when the underlying theory does not provide uniform predictions about the effects of the minimum wage in every study. Thus, while we recognize that a narrative review introduces an element of subjectivity into the discussion, we felt that it would be more useful to present our arguments and assessments of the evidence, and invite readers to form their own opinions based on them. To assist in digesting what is a very lengthy review of the evidence, we have collected nearly all of the studies we summarize into a set of four tables arranged by the different types of studies. For each study, we include a brief summary of the minimum wage variation and the group studied, the data used, the results, and what we regard as the most important criticisms. In these tables, we also highlight the studies that we regard as providing the most convincing evidence on the employment effects of minimum wages.



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