

Minimum Wages, Employment, and the Income Distribution

David Neumark

November 16, 2007

Minimum Wage Study Commission and the “Consensus View” (I)

- Despite discord among economists, Congress significantly expanded coverage of the minimum wage and its level during the 1960s and 1970s
- Ongoing political debate 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”
- Report published in 1981: “the most exhaustive inquiry ever undertaken into the issues surrounding the (Fair Labor Standards) Act since its inception”

Minimum Wage Study Commission and the “Consensus View” (II)

- Lengthy summary of evidence later published as review in *Journal of Economic Literature*
 - “Time-series studies typically find that a 10 percent increase in the minimum wage reduces teenage employment by one to three percent”
 - “Elasticity” of -0.1 to -0.3
 - This range of estimates frequently described as the “consensus view” of economists

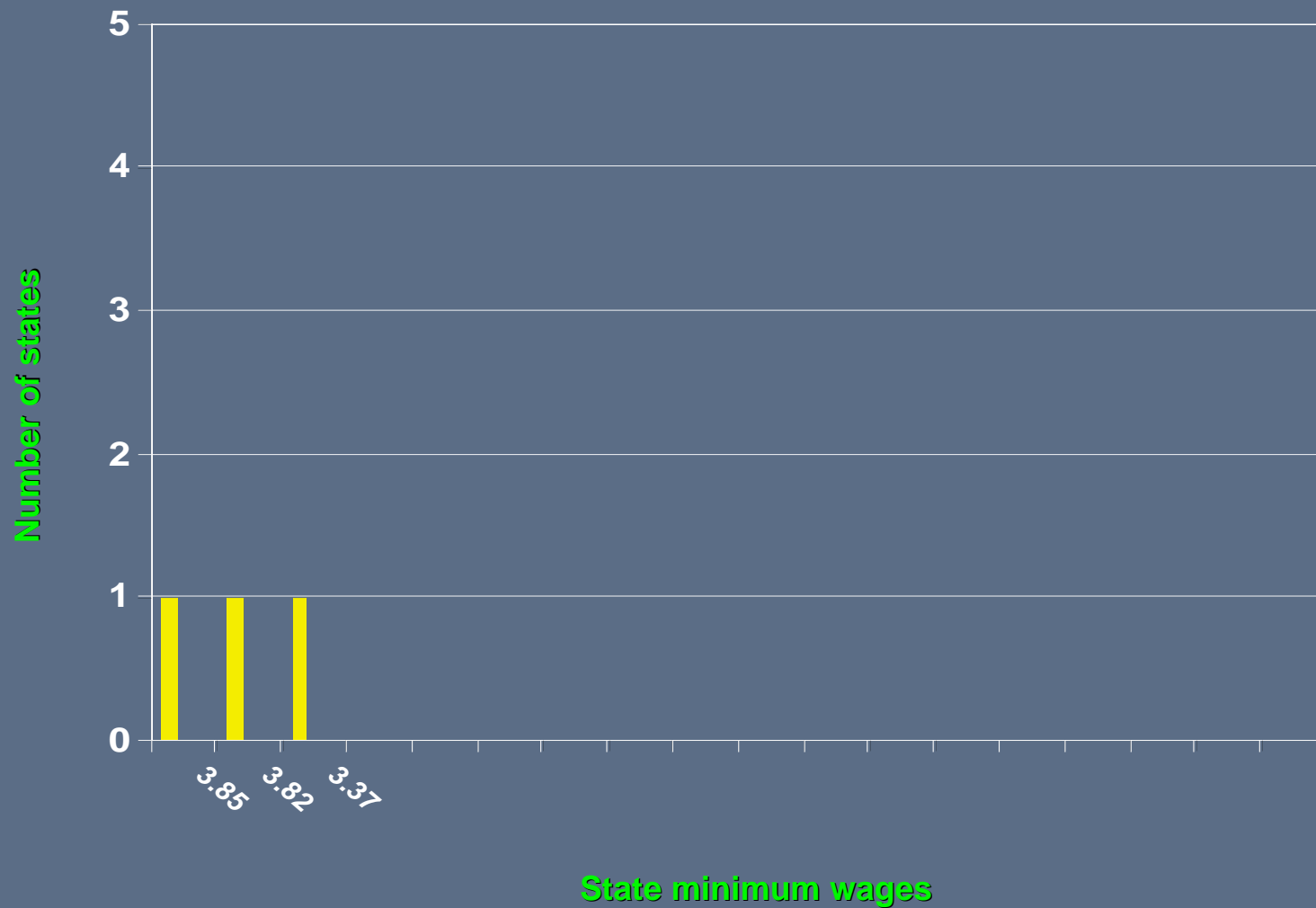
Two Limitations of Earlier Research (I)

- Difficult to tease out reliable effects from time-series data
 - Goal in policy research is always to construct a “counterfactual”
 - We observe what happened when the minimum wage increased; we need to compare this to estimate of what would have happened had the minimum wage not increased
 - With time-series data, only way to construct counterfactual is with statistical model that predicts how outcomes would have evolved absent the change in the minimum
 - Difficult challenge in time-series data
 - Policy variation is federal only (level and coverage), changes are relatively infrequent and difficult to distinguish from other aggregate changes

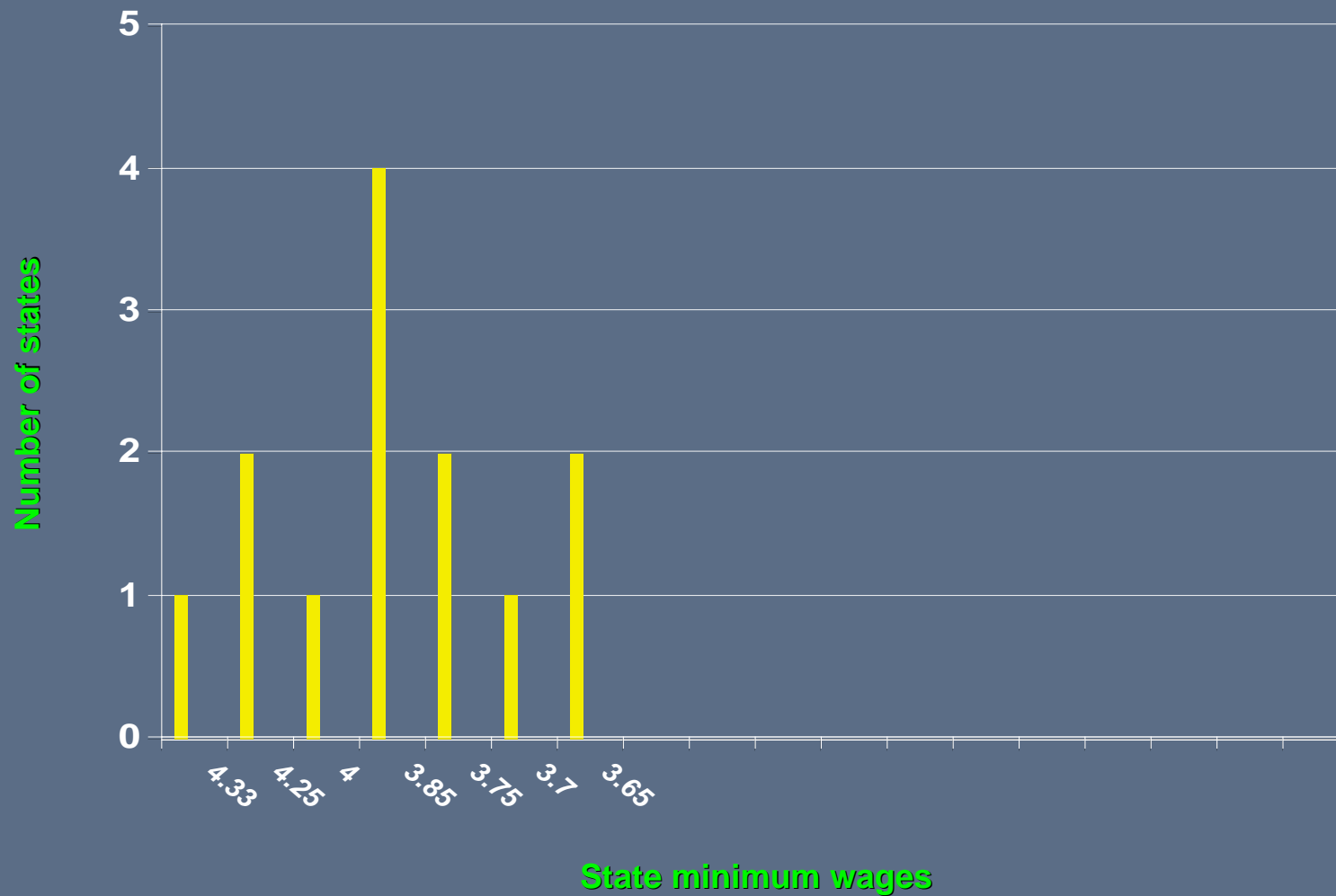
Two Limitations of Earlier Research (II)

- Aggregate series available to economists were limited mainly to age (and other demographic) groups
 - Led to natural focus on teens and young adults (16-19, 16-24), among whom minimum wage workers constitute a disproportionately large share
 - Employment effects for teens and young adults can be quite unrelated to policy goals, which concern income distribution
 - Even teens and young adults are by no means exclusively at or near the minimum wage, so elasticities estimated for them likely understate effects on minimum wage workers

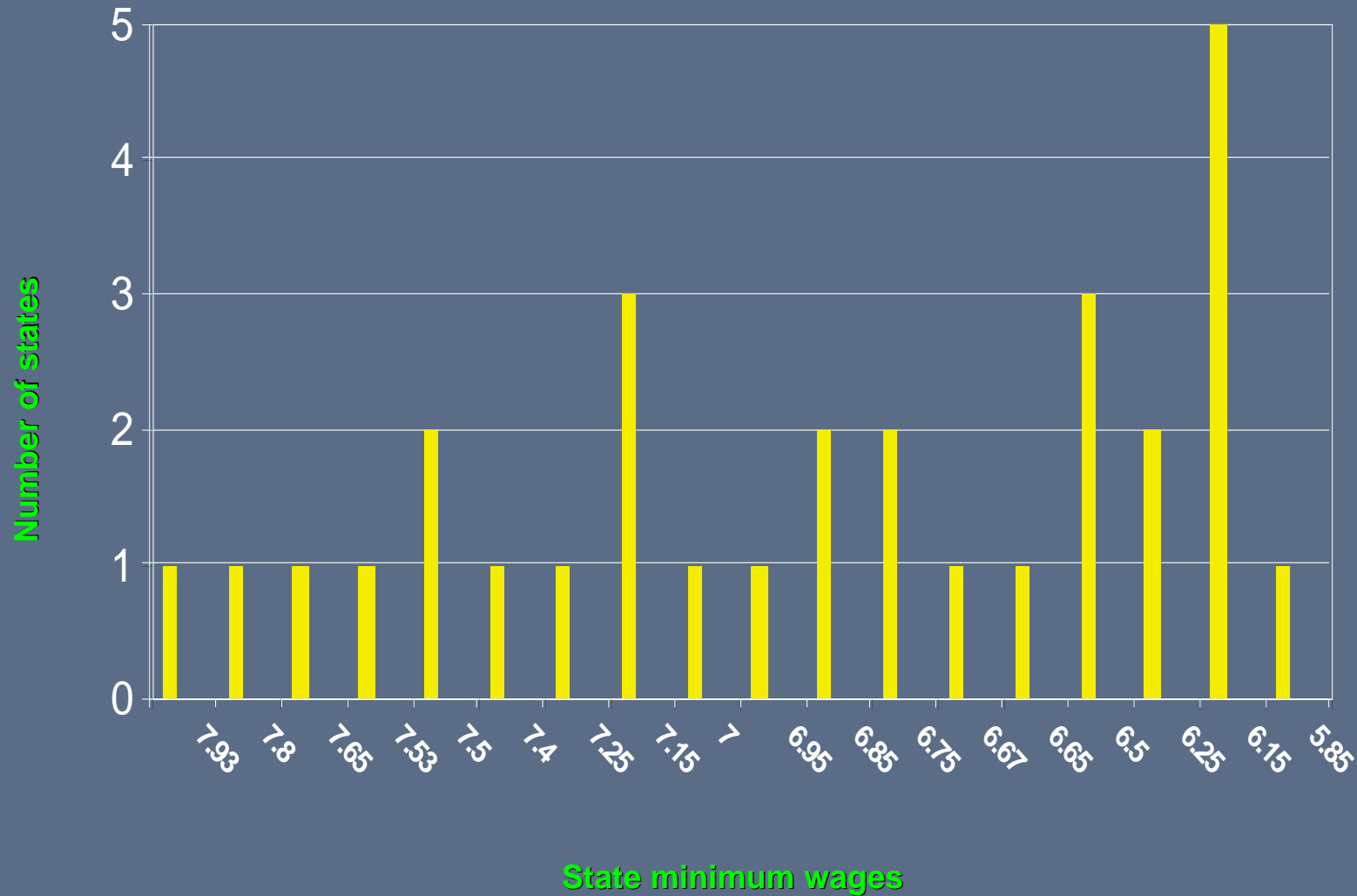
In 1984, Only 3 States (including DC) Exceeded Federal Minimum



By 1989, Number Had Risen to 13



As of January 2007, 30 States Exceeded Federal Minimum



The “New Minimum Wage Research”

- First wave stemmed from proliferation of state minimum wages in late 1980s as federal minimum wage stagnated
 - Largely a response to first limitation of earlier research
 - With different states raising their minimum at different times, possible to construct better counterfactuals
 - Compare changes in outcomes, in same period, for states raising and not raising minimum wage
 - Many studies stuck to analysis of teens and young adults (e.g., our 1992 paper, Burkhauser et al. [numerous])
 - Others used similar strategy, but focused on low-wage industries rather than low-wage demographic groups (Card/Krueger most famously)
 - Both sets of studies use same “experimental” design

Minimum Wage Effects on those Most Directly Affected

- Some of the later research turned attention to second limitation of earlier research, trying to focus on employment effects for the lowest-wage workers or least-skilled individuals
 - Critically important for addressing frequent claim that there are disemployment effects of minimum wages, but they are small (so low-wage workers likely gain)

Goal of Recent Review is to Take Stock of What We Have Learned

- NMWR represents large “expansion” in types of data used, statistical experiments, industries, countries, etc.
 - Not surprising, then, that estimates reported in research literature became more disparate
 - Probably accurate to say that “consensus” broke down, in two senses
 - More estimates, some from seemingly solid studies, pointed to no employment effects or *positive* effects
 - More disparity in economists’ (and policymakers’) summary views of the evidence
 - Outside of the policy debate, led to re-examination of thinking about low-wage labor markets through framework of the competitive model
- Review reflects our efforts to try to come to grips with what this large (and still growing literature) actually says

Examples of Views at Odds with Earlier Consensus

- Bazen (2000): “(t)he latest studies of the experience of the USA and the UK in general find no evidence of negative effects on youth employment”
- Flinn (2006): “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”
- Lemos (2004): “there is no consensus on the direction and size of the effect on employment”
- Groups supporting minimum wage increases have made stronger claims
 - Chapman, in Economic Policy Institute report, asserts that “there is no valid, research-based rationale for believing that state minimum wages cause measurable job losses”
- Literature presented differently by advocacy groups on the other side (such as Employment Policies Institute)

Outline of Review

- First wave of NMWR (ILRR symposium in 1992) and subsequent exchanges on issues raised
- Subsequent research for U.S.
 - State-level panel data analyses of teens, young adults, etc.
 - Industry-specific “case studies”
 - Time-series studies
 - Studies focused on lowest-wage/least-skilled
- International evidence for developed and developing countries

Summary of Results

- Few of the studies in BGK's survey were outside of the consensus range of -0.1 to -0.3 (for elasticity of teenage employment with respect to the minimum wage)
- But even limiting the sample of studies reviewed to those focused on the effects of the minimum wage of teenagers in the United States, the range of estimates extends from below -1 to above zero
 - And with other studies included, range is larger
- So do we simply not know the answer? Is there little reason to believe that minimum wages reduce employment of teens or other low-skilled individuals?

How Do We Summarize a Large Literature?

- One option is formal meta-analysis that to a large extent presents averages across existing studies or estimates
 - Sometimes coupled with attempt to assess influence of study characteristics, or to assess bias in published/reported results
- We opted instead for more traditional “narrative” review
 - 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
 - Many different types of employment effects estimated in the literature, and considerable variation in approaches and (in our view) in quality, which makes “lumping together” unattractive
 - Narrative review introduces more subjectivity, so we present our arguments and assessments of the evidence, and invite readers to form their own opinions based on them (also elicited views of nearly all of the researchers whose work we cite)

But Let's Count Anyways ...

- We survey about 100 studies, and provide lengthy tables summarizing results, main criticisms (if any), and highlighting what we view as the most credible studies
- By our reckoning, nearly two-thirds give a relatively consistent (although by no means always statistically significant) indication of negative employment effects of minimum wages
 - In doing this calculation, we sometimes focus on results for the least-skilled
 - Fewer than 10 give a relatively consistent indication of positive employment effects
 - We highlight 33 studies that we view as providing more credible evidence, and 28 (85 percent) of these point to negative employment effects
 - Correspondingly, our narrative review suggests that many of the studies that find zero or positive effects suffer from various shortcomings (although there are exceptions)
- Moreover, the evidence tends to point to disemployment effects of minimum wages for many other countries

Main Conclusions from General Literature Extending Earlier Research (U.S. Results)

- Longer panel studies that incorporate both state and time variation in minimum wages tend, on the whole, to find negative and statistically significant employment effects from minimum wage increases (Neumark and Wascher, 1994; Abowd, 2000b)
- Newer time-series literature tends to find negative effects of minimum wages on employment (Bazen and Marimoutou, 2002; Williams and Mills, 2001), although we regard this literature as increasingly irrelevant for two reasons
 - As state minimum wages proliferate, federal minimum wage becomes a worse measure of binding wage floor
 - Much of the policy action, and policy debate, is about state minimum wage increases, which could have different effects because of different responses to more localized minimum wages

Why Discount the Contrary Evidence?

- Most studies reporting zero or positive effects are either (1) short panel data studies (Card, 1992a and 1992b) or (2) case studies of a specific change in the minimum wage in a particular state or industry (Card and Krueger, 1994)
 - Short-run effects likely fail to capture full employment effects of minimum wage
 - Baker et al. (1999) show that disemployment effects arise more slowly (at “lower frequencies”), and that studies focusing on short-term effects miss these longer-run impacts
 - Why? Adjustment of labor input smaller in short-run when other inputs fixed; takes time to change technology or organization to economize on low-skill labor
 - Aside from concerns about data used in CK’s fast-food study, a generic problem with studies of narrow industries is that they are uninformative
 - Competitive model does *not* predict disemployment effect of minimum wage in narrow industry
 - So sign of effect is not informative about either theory or policy impact

Stronger Evidence of Adverse Effects on the Least-Skilled

- When researchers focus on the least-skilled groups most likely to be adversely affected by minimum wages, relatively overwhelming evidence of disemployment effects for these groups (Currie and Fallick, 1996; Neumark et al., 2004 [hours])
 - Estimates sometimes much larger (Abowd, 1999 [France] and 2000a; Yuen, 2003 [Canada])
 - Points to labor-labor substitution within low-skill groups, so minimum wages may harm least-skilled workers more than is suggested by the net disemployment effects estimated in many studies

Implications of Our Findings (I)

- Clearly incorrect to assert either:
 - There is no research basis for concluding that there are disemployment effects of minimum wages for those with low skills
 - The research literature fails to provide a relatively clear indication of such disemployment effects
- Instead, the rather vast preponderance of evidence points to disemployment effects

Implications of Our Findings (II)

- We view the literature—when read broadly and critically—as largely solidifying the conventional view that minimum wages reduce employment of the least-skilled workers, and as giving little indication that the competitive model provides an inaccurate approximation to the workings of low-wage labor markets
 - There *are* studies to the contrary, and not all are flawed; but we don't see these as overturning the much larger and generally more compelling evidence of disemployment effects

Implications of Our Findings (III)

- Unless one wants to maintain, in the face of the evidence, that the literature suggests no disemployment effects or even positive effects, then the debate has to be about other potential benefits of minimum wages that offset the adverse employment effects
- If this review helps to move the debate in this direction—even if we don't convince everyone about the overall conclusion—we would be quite satisfied
 - Have we helped to shift the policy debate to focus on this question? Maybe.
 - “The minimum wage increase will invariably hurt some of its intended beneficiaries ... [But] the benefits will often outweigh the costs, even for narrowly-affected workers”
 - Jared Bernstein, EPI

Distributional Effects of Minimum Wages

- Why do we have a minimum wage?
 - Raise incomes of poor or near-poor families
 - “The minimum wage was one of the first—and is still one of the best—anti-poverty programs we have.”
 - Senator Edward Kennedy
 - Minimum wages will “raise the living standards of 12 million Americans.”
 - President Clinton

Key Policy Question

- **Employment effects vs. distributional effects**
 - If there are no adverse employment effects, difficult to believe that minimum wages don't have beneficial distributional effects
 - If there are disemployment effects, then the question becomes whether there is a tradeoff between jobs and equity, and is the tradeoff acceptable?
- **Two components to distributional question**
 - Effects of minimum wages on low-wage workers
 - Effects on low-income families

Do “Small” Minimum Wage Employment Effects Imply Low-Wage Workers Must Be Helped?

- “Back-of-the-envelope” calculation invoked to argue that minimum wages must help low-income workers
 - With elasticity of -0.2 and 10% increase in minimum
 - 2% lose their job
 - 98% get 10% raise
 - Average income of low-wage workers up by $(.98 \times 10) - (.02 \times 100) = 7.8\%$

If Employment Effects Larger for Affected Workers, Low-Wage Workers Could Fare Worse

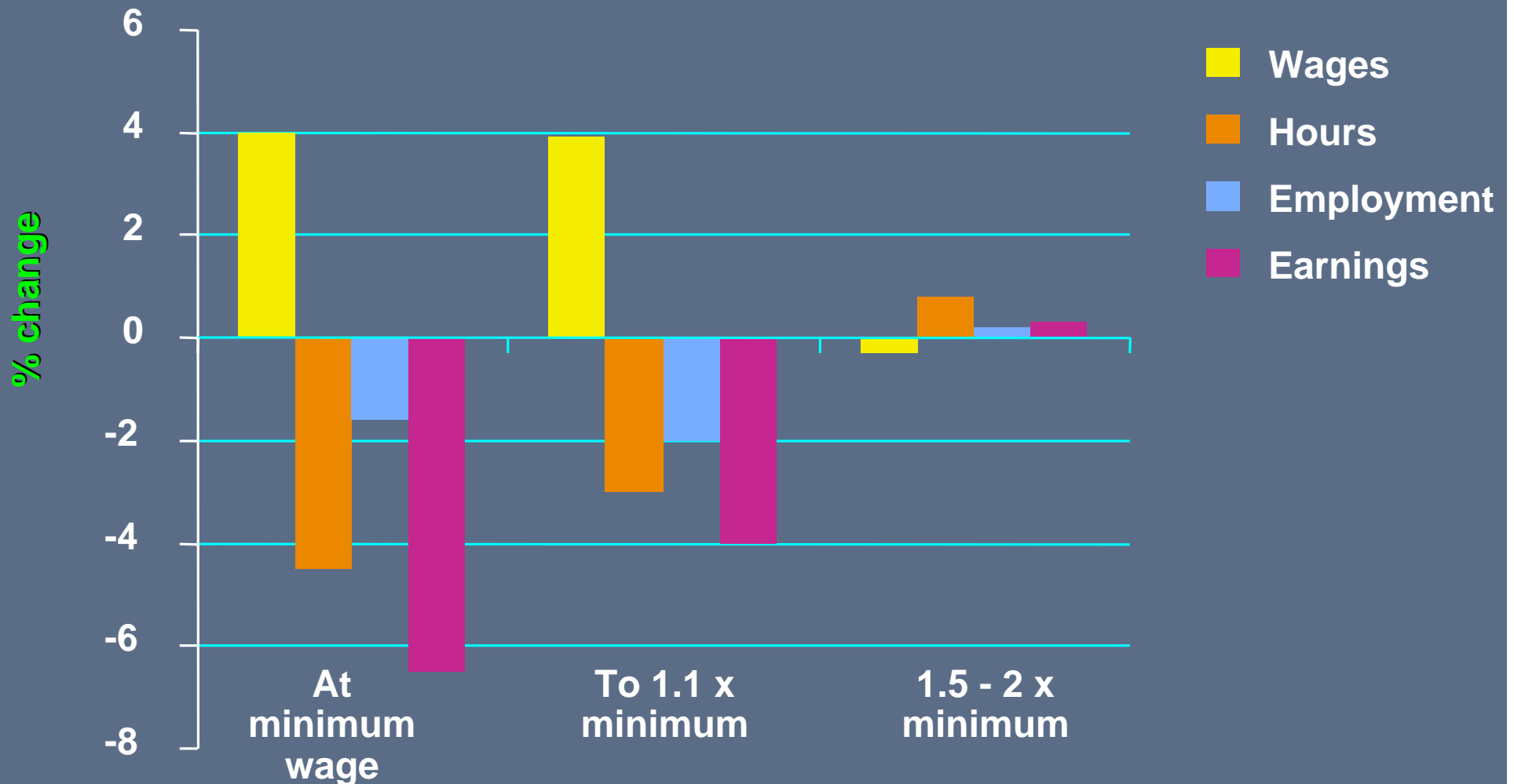
	80% above minimum	20% at minimum	Average
Wages	No change	Up 10%	Up 2%
Employment	No change	Down 10%	Down 2%
Earnings	No change	No change	No change

Incorrect calculation $\frac{2\% \text{ employment decline}}{10\% \text{ wage increase}} = -0.2$

Correct calculation $\frac{10\% \text{ employment decline}}{10\% \text{ wage increase}} = -1$

How Do Minimum Wages Affect Workers At or Near the Minimum?

Estimated response to 10% increase in minimum wage

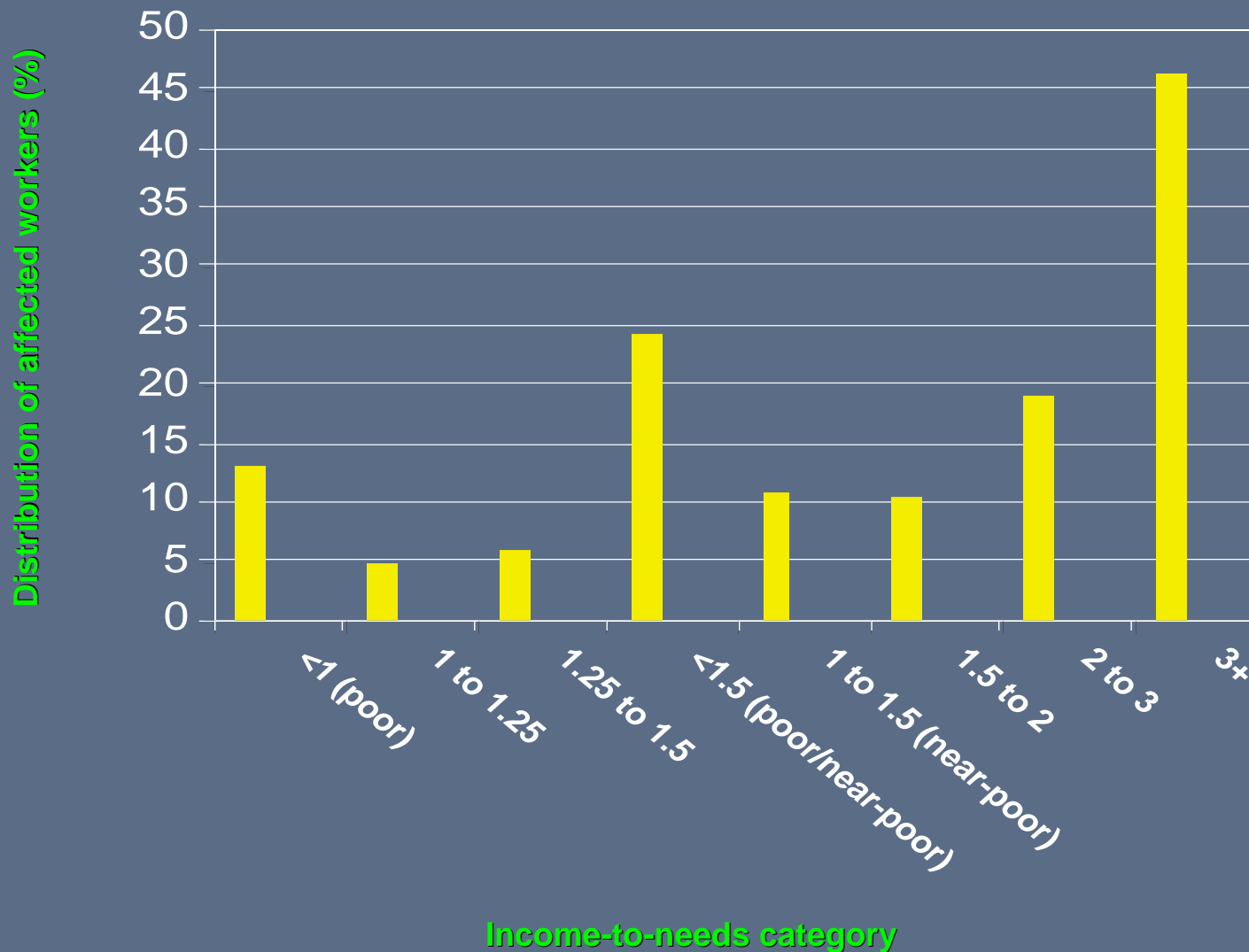


What About Low-Income Families?

- **Low-wage workers and low-income families not synonymous**
- **Low-wage workers over-represented in poor and low-income families, but many are in higher-income families**

Many Low-Wage Workers Are in Non-Poor Families

Workers Affected by Proposed Minimum Wage Increase to \$7.25, 2003 Data



Implications for Distributional Effects of Minimum Wages

- Clearly minimum wages do not target poor families very well
- More important point, though, is that minimum wages create both winners and losers, and the central question is where these groups tend to be located in the income distribution

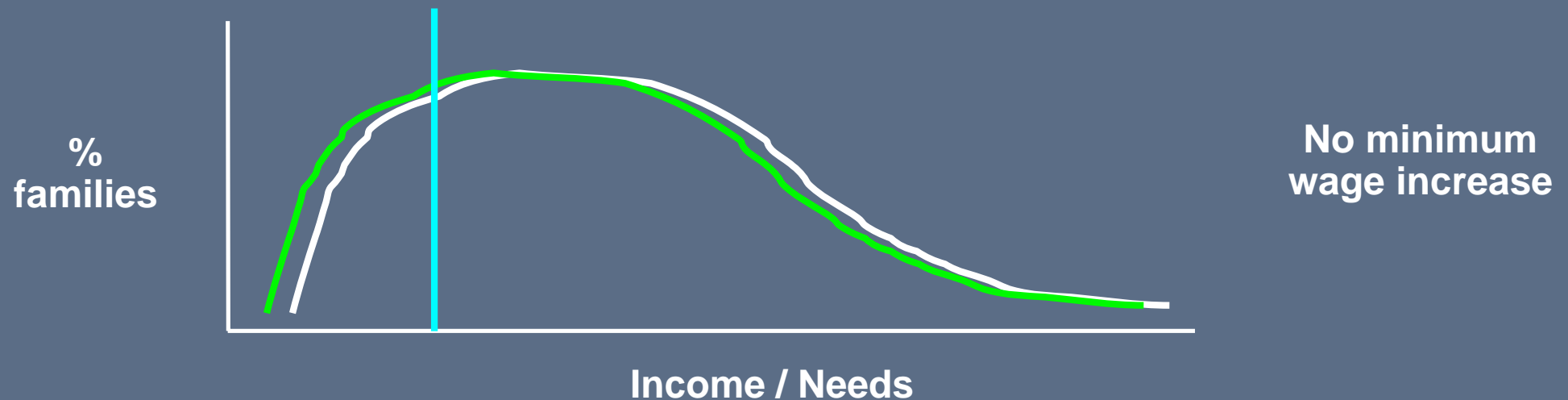
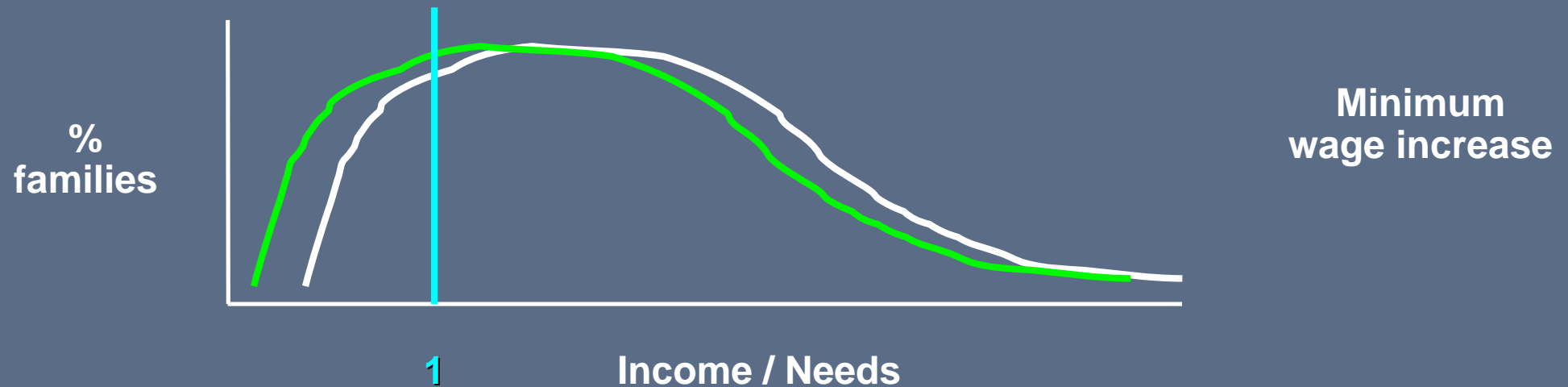
How Do We Estimate Minimum Wage Effects on Income Distribution?

- Parallels other analyses, but with family as unit of observation
- Strategy
 - Trace out entire income (to needs) distribution by state and year
 - Compare changes in income distribution in states raising minimum wage to changes in other states

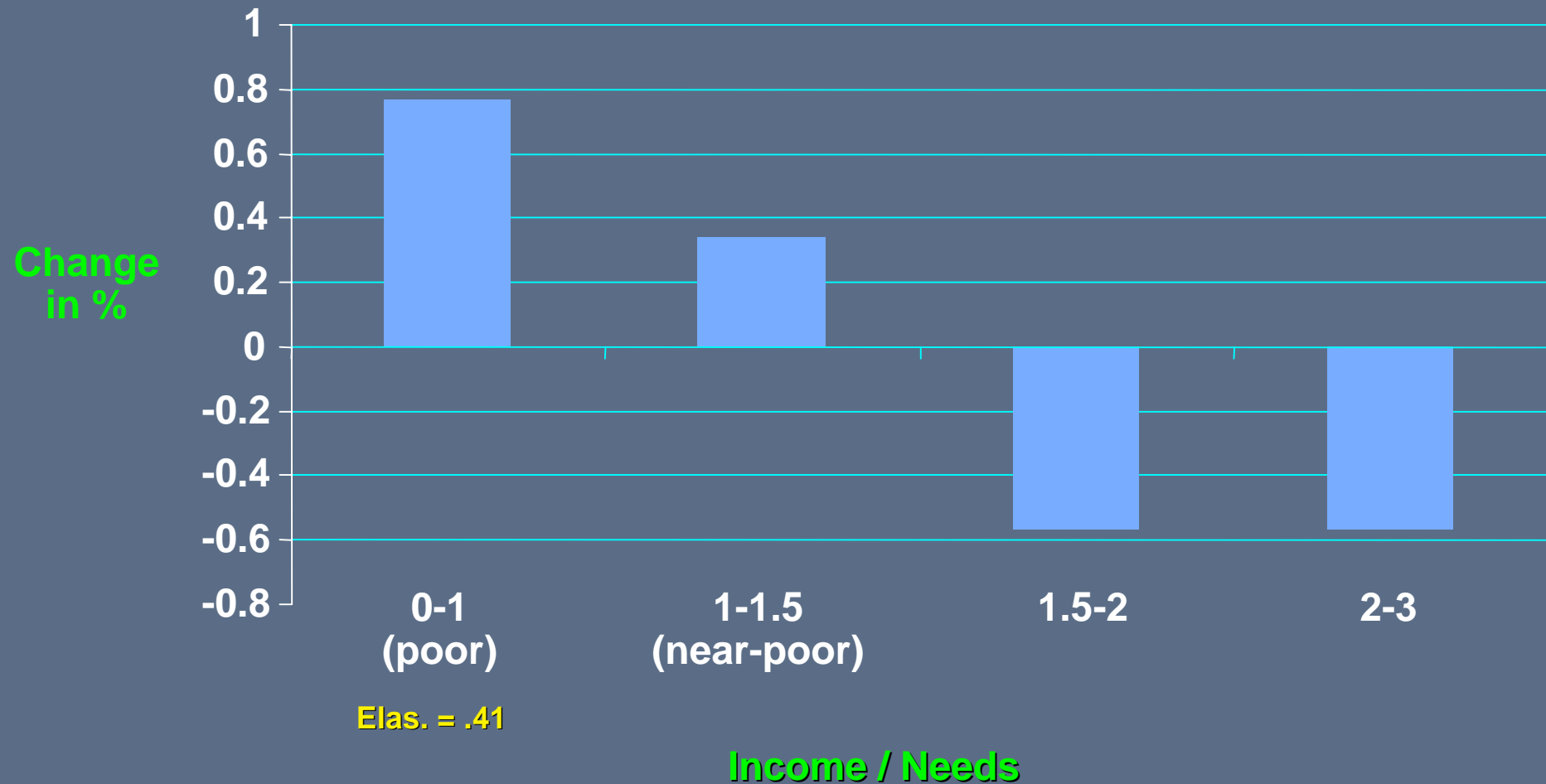
Higher Minimum Wage Increases Number of Low-Income / Poor Families (illustration)

Year 1 income distribution (white)

Year 2 income distribution (green)



Higher Minimum Wage Increases Number of Low-Income / Poor Families (estimates)



Why Might Minimum Wages Increase Poverty?

- Likely explanation
 - Winners: teens from affluent families
 - Losers: adult heads of poor and low-income households
 - More evidence needed on this question, but may be reasonable to expect that minimum wage adult heads are the most marginal workers
- Related results
 - Low-wage workers in low-income households hurt the most (preliminary results)
 - Long-term minimum wage workers hurt the most
 - Teens are *not* long-term minimum wage workers

Other Research Fails to Find Beneficial Distributional Effects, or Worse

- Card and Krueger's book
 - Insignificant effect of minimum wage on poverty rate in 1989-1991 period, although estimates in direction of poverty reduction
 - Stronger evidence for effects on poverty among workers, but that excludes disemployment effects
 - Burkhauser and Sabia (2007) update evidence, with similar insignificant effects, in their case *even* for workers
- Sabia (2006) finds no evidence of effect on poverty among employed single mothers
- Gunderson and Ziliak (2004) report mixed evidence, but generally insignificant evidence of an effect, especially after tax
- Wu et al. (2006) – probably the best study – finds adverse distributional effects of minimum wages, and beneficial distributional effects of most other policies *thought* to redistribute income toward low-income families
- **The *news* is that there aren't beneficial distributional effects**

Summary of Empirical Findings

- Minimum wages reduce employment of less-skilled workers, as theory predicts
- Aggregate disemployment effects moderate for low-skill groups, but minimum wage workers, on net, hurt by minimum wages
- Minimum wages increase poverty or at a minimum don't reduce it
 - Losses to some low-wage workers
 - “Unfortunate” distribution of effects across families
 - Minimum wages are much more like redistribution among low-income families than redistribution towards them
- Qualifications
 - Evidence needs to be revisited in post-welfare reform era
 - Are certain types of families helped? Apparently not households headed by single females
 - **Distributional effects may well differ internationally**

Policy Implications

- Minimum wages likely always entail disemployment effects that have to be weighed against other possible benefits
- In the United States, minimum wage increases do not help the poor or reduce poverty, and may make things worse
- Other wage floors (such as living wages) affect different workers, and have more beneficial different distributional effects
- Better to use policies like EITC
 - Raises income by encouraging work
 - Contrasts with minimum wage, which taxes hiring of less-skilled workers
 - Effectively targets poor and low-income families
 - Beneficial employment and distributional effects supported by both theory, and evidence for the United States
 - Even if minimum wages have better distributional effects in other countries, likely that EITC is more effective