Evolution of Minimum Wage Literature

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After a failed attempt in 1933, the first federal minimum wage law was enacted in 1938 by the Fair Labor Standards Act. While there is an entire history of changes and improvements to the understanding of the economic implications of minimum wages in the decades that followed, literature and subsequent policy surrounding the minimum wage starting in the 70s and 80s coincides with a slew of changes to the life of the average American that work as a great starting point for analysis in this literature review. Starting in this time, many metrics such as cost of living, worker productivity, as well as income & wealth gaps have risen steadily while the minimum wage remained relatively flat. It is a matter of discussion whether this stagnation in minimum wages has factored into the increasing income inequality in America or is only a natural shift towards other assistance policies such as SNAP or EITC. Given the minimum wage's central position in discussions of equality and equity, it is one of the most hotly studied and debated subjects in the field of economics. It follows that the literature on the subject is equally divided and debated.

In this brief review of the literature, I intend to look at the path of evolution that studies of the minimum wage have taken from the 70s and 80s to the present day. I hope to identify some commonalities that exist across a field that presents such mixed results in an attempt to find what factors of the markets and workers make a minimum wage increase or implementation "successful" or not.

Published in 1982, "The Effect of the Minimum Wage on Employment and Unemployment: A Survey" by Charles Brown and his co-authors acts as a nice starting point to gain a broad understanding of the view of minimum wage laws at the time. The results summarized here are the same that would be used to inform the policy that led to the stagnation

in minimum wage growth. A few caveats must be mentioned about some of the literature during this time. A fair amount of the earlier papers (60s &70s data) direct a large amount of their analysis toward young workers, mainly teens. This could be an artifact of times when minimum wage jobs were more generally viewed as jobs for younger people. Similarly, most of the papers only focus on employment/unemployment and use this as their preferred performance metric when grading minimum wage policy. Returning now to Brown's survey, as expected, there is a large range of estimates of the effect of increasing min wage on employment ranging from decently sized positive effects to large negative effects. Generally, Brown finds they are centered around a 1-3 percent decrease in teen employment for a 10% increase in the minimum wage; a national 3% decrease in employment sounds like a large loss, but there is more to examine. Firstly, this effect is largely driven by older data, including the 70s pulls the estimates towards 0 (Brown). Secondly, the effects are generally harsher for low-skilled workers, as they are the first to lose their jobs; Intuitively, teens are much more likely to be considered low-skilled as they have less experience or might only be part-time. For this reason, the 1-3% range should be thought of as an upper bound on the negative effects on employment, as adults should make up a smaller share of low-skilled workers and so not face as extreme a reaction to min wage increases.

Given that in Brown's review, older data was driving the negative employment effects it would be plausible that moving into the next decade there are gentler employment outcomes, but in reality, the results are mixed. In their paper, "Employment Effects of Minimum Wage and Subminimum Wages: Panel Data on State Minimum Wage Laws" Neumark & Wascher corroborate the negative employment effects found by Brown using panel data from 73-89. They similarly find that low-skilled workers are absorbing the majority of the costs of increasing the min wage. Already a common factor of these poor-performing markets is emerging, markets that rely on high concentrations of low-skilled workers, perhaps because of high turnover or lack of

role ascension find it hard to accommodate increases in the wages of their workers, or rather find it more profitable to not invest as much in labor. Neumark also finds that the competitiveness of the market plays an important role; firms in markets with high levels of competition have less market power to accommodate an increase in wages while maintaining current employment; the restaurant/fast food industry is often used as.

That being said, not all the literature supports this hypothesis. Two very influential papers by Card & Kreuger show that there can be positive employment effects, even in the restaurant industry. The first paper, “The Effect of Minimum Wage Increases on the Distribution of Family Incomes: An Analysis of the 1987-89 California Minimum Wage Increases” showed that there were no significant changes to low-wage employment following the increases to the California minimum wage. The research focused on the service industry, which encompasses food, which in theory should have the hardest time maintaining employment considering the large share of “low-skill” workers and fierce competition within the market. Even so, the positive results were two-fold, the increase in wage combined with no change in employment led to increased earnings which helped to alleviate poverty in inequality across the income distribution. The key difference between this study and the previously mentioned lies in the research design. Card & Kreuger made use of an RDD while Neumark & Wescher used a linear fixed-effects model. The latter pair acknowledge in their paper that some of their results show no significant employment results when using a model similar to Card & Krueger’s.

The second and one of the most famous papers by Card & Krueger, “Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania**”** needs no introduction. The difference in difference design employed showed that compared to a similar pre-treatment trend in Pennsylvania, employment in NJ’s fast-food industry increased in the wake of their increase to the minimum wage. Again, these results stand against almost the entirety of theory and empirical evidence on min wage increases previously published, at least

at first glance. Upon more thorough examination, it is revealed that there is heterogeneity in the employment effects across types of fast-food restaurants in the study. The majority of the employment gains are being driven by smaller “Mom and Pop”-type stores rather than large corporate chains. This caveat falls more in line with the previous theory. These smaller shops should intuitively be less substitutable and therefore less competitive than large chains such as MacDonalds or Burger King. In the face of large corporations, the only way these smaller stores can survive is by brand loyalty from the local population; this increased local market power in tandem with lower labor costs from being smaller scale could explain their ability to adjust to higher wage costs better than chains. This is also a downside of these results as there is less of an aggregate effect as the biggest gains are concentrated among a smaller portion of the low-wage workers. In addition to this, there is the drawback of this being a relatively small study. The results are specific to the NJ/Penn area, and it is not hard to imagine that there are area and state-specific effects serially correlated with the estimates.

As expected, there is much disagreement in the old literature on the employment effects of min wage increases. Studies from the 70s through to the 90s fail to reach a conclusion on if there are positive or negative effects, or if there are effects at all, this just speaks to the complexity of the issue and the importance of identifying key market factors. All is not lost though, there is some agreement about who bares the cost of the increases; in almost all papers it is the lowest skilled workers who are the first to get the boot when labor costs increase. This makes intuitive sense and follows the theory. As costs increase, there should be a shift towards inputs with higher marginal productivities, whether that be higher-skilled labor or capital.

At this point, I will be turning to modern literature. In the past decade, there has been strong social pressure to reinstate meaningful minimum wage increases as more and more Americans find themselves in the working poor class, struggling to cover simple costs of living

such as housing and food. First, compared to the previously discussed literature, there seems to be less contention in the field. Regardless of their stance on the imposition of minimum wage increases, most authors have come to accept that there are negative employment effects that arise from minimum wage increases. Instead, proponents of the policies have shifted perspectives towards examining both earnings/income effects and the economic significance of the employment effects.

One of the results of the social movement for higher min wages is the push for a universal $15 min wage. In 2015, Seattle began the implementation of a multi-phase shift toward this goal. Despite a stronger focus on earnings, studies of this almost change are just as ambiguous as older literature. Jardim et al. in their paper “Minimum-Wage Increases and Low-Wage Employment: Evidence from Seattle" attempt to create causal estimates of both employment and earnings estimates using two models with varying success. Their first model used a synthetic control made of other parts of Washington state to create a control Seattle for comparison, despite the more complex quasi-experimental design the model boasts mediocre results with almost no significant results. As has come to be expected, there are negative employment effects concentrated among low-skill workers across industries. No significant earnings estimates are found in this model.

Moving on, the authors also did a micro-level analysis with some improved success. Over a year after the first phase was enacted, there are significant changes in all areas besides employment which tended to be negative. Workers saw reductions in hours worked but not total earnings, implying that wage growth outpaced declines in total employment (hrs & employment). This also led the researchers to believe that the firms compensated by reducing work rather than their workforce. This does also complicate the process to find who is truly losing from these wage increases as low-skilled workers are not being dropped, or at least not in the same proportions. In this case, it seems as though the low workers are still losing proportionally more,

“For less experienced workers, the gain in hourly wages was offset by the decline in hours, yielding small and insignificant net impacts on earnings. By contrast, for more experienced workers, all six DDD estimates for effects on earnings are positive and significant” (Jardim et al., 304).

That being said, this is not always the case, it is possible that low-skill workers can gain depending on the market structure. In “The Effect of Minimum Wages on Low-Wage Jobs: Evidence from the United States Using a Bunching Estimator” by Cengiz et al. it is found that despite the conventional negative employment outcomes, there is little evidence that skill is determining who is being fired, rather market structure is driving the strength of the employment effects. Similar to previous literature, highly competitive markets struggle to increase wage costs without reducing employment. In markets with less competition, there are smaller employment effects, allowing workers of all skill levels to benefit from increased earnings.

An additional benefit of focusing on changes to earnings is it allows for a better analysis of the minimum wage as a tool to eliminate income inequality and poverty. In "Minimum Wages and the Distribution of Family Incomes" by Arindrajit Dube, minimum wage increases are shown to be a positive force in the reduction of income inequality. Specifically, there are positive effects on family income for families below the 20th percentile of the income distribution. That is not to say that minimum wage is the best tool for decreasing inequality, only that is an effective one.

> While minimum wages tend to raise family incomes at the bottom, they also tend to substitute earnings for public assistance. Were we to assess public policies strictly based on their efficacy in reducing post-tax and transfer poverty, the offsets through reduced tax credits and noncash transfers further suggests a lower effectiveness of minimum wages in raising post-tax-and-transfer incomes. transfers, SNAP, and tax credits [EITC] are better targeted to raise incomes for those at the very bottom of the

income distribution (Dube, 301).

With more focus within the field on earnings and inequality, I find it useful to also return to employment as a metric and its importance. While it is undeniable that there are negative employment outcomes in the short run following a min wage increase, it is worthwhile to examine whether these effects carry over to the long run or dissipate over time. If the latter holds, I believe that the negative employment effects hold less weight as a setback of minimum wage. If in the long run employment rebounds, then only positive effects will be left such as increased productivity, wages, and hh income. There is some evidence to support this claim, although sparser. In his paper “Are There Long-Run Effects of the Minimum Wage?” Isaac Sorkin finds that negative employment effects tend to trend back toward zero in the long run. The study is focused primarily on the restaurant industry, meaning these estimates are for an industry that sustains the largest drops in employment; these results should then carry over to industries that see less-extreme reactions.

In conclusion, while not settled, the economic debate around minimum wage has made progress in the last 50 years. Early papers focused mainly on employment outcomes, specifically for younger workers. The majority of early literature seems to agree that low-skilled workers and competitive markets see the strongest negative employment effects. Current literature has moved away from only examining employment effects, though the results of earnings effects are almost just as mixed. Moving forward, it will be interesting to see if there truly are long-run employment effects to minimum wage increases. If not, I believe that minimum wage increases can be a powerful tool to reduce both poverty and income inequality.

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