FAST FOOD... SLOW RESULTS

In the last 20 years, research on the minimum wage has called into question economists' traditional views that such policies adversely affect employment. In this article, leading labour economists suggest this is because this more recent research hasn't taken sufficient account of long-run effects…and they look to the restaurant industry to underline their findings

When people who work full-time still live in poverty, there is often a strong urge for legislators to ameliorate their situation by requiring employers to pay a higher "minimum wage" or "living wage."

Indeed, such legislation dates back over a century in some countries.[1] Recently, there have been several initiatives in countries such as Germany, the UK and the US to expand the scope or increase the level of minimum wages.

The current federal minimum wage in the United States is $7.25 per hour, with some states and cities mandating higher rates. In the UK, the national minimum wage is £6.70 per hour for those aged 21 and older and ranges between £3.30 and £5.30 for those under 21.

However, for a family of four supported by a single full-time worker, those hourly rates are not sufficient to escape poverty.

Governments have various schemes to help such families out of poverty but, in the last year or so, politicians have been making proposals to relieve poverty by higher statutory minimum wages rather than through government income top-ups.

This has been the case in the UK, Germany and also in high cost-of-living cities such as Los Angeles, New York, San Francisco and Seattle (see table1).

Economists and the minimum wage debate

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ECONOMISTS RECOGNISE THAT THE ALLEVIATION OF POVERTY IS A PRIMARY GOAL OF POLICY. HOWEVER, PRIOR TO THE 1990S, ECONOMISTS ALMOST UNIFORMLY OPPOSED MINIMUM WAGE LEGISLATION

However, prior to the 1990s, economists almost uniformly opposed minimum wage legislation.

The rationale was that raising wages led to lower employment, potentially causing significant earnings losses to those who lost work opportunities.

This argument seemed to be supported by the best research, which consistently found a small but statistically and economically significant loss in employment after a minimum wage hike.

However, beginning in the early 1990s, a heated debate ensued about the size and even direction of the employment response. Some prominent researchers found that fewer people lost their jobs when the minimum wage went up than standard economic theory predicted.

Advocates of a higher minimum wage often use this more recent research to justify their position that the minimum wage can be increased with few negative side effects.

Research on minimum wages can be easier to conduct in the US than in the UK because individual states often raise the minimum wage above the federal minimum.

Table1: Some recent minimum wage proposals and policy announcements

Country/city	Proposal/policy
UK	Increase minimum wage for people aged 25+ from £6.50 per hour at the time of announcement to £9 per hour by 2020
Germany	Introduced first ever minimum wage of £6.80 per hour from 2015
US – New York City	Increase minimum wage to £9.60 for fast food restaurants by 2018

That sets up a "natural experiment" – a simple comparison of employment in states that raised the minimum wage with comparable states that did not, both before and after the hike.

Some studies even compare the employment growth of neighbouring US counties that are separated by a state border, and therefore face nearly identical economic conditions other than the required minimum wage.[2]

This approach to research tended to deliver a smaller, and often statistically indistinguishable from zero,

WHEN THE MINIMUM WAGE INCREASES, LABOUR-INTENSIVE RESTAURANTS – THOSE WHERE PEOPLE DO MORE WORK – ARE MORE LIKELY TO SHUT DOWN

employment response to an increase in the minimum wage.

Distinguishing the short run from the long run

One limitation of the great majority of these studies is that they focus on employment in the first few months, or at most a few years, after a minimum wage hike – we label this time frame as the "short run".

The supply of and demand for both products and factors of production such as labour and capital might well be more elastic in the long run than in the short run.

This means that the effect of changes in wages on the number employed might be greater in the long run. Indeed the process by which firms change the way they produce their goods in reaction to higher labour costs might be slow.[3]

In some cases, for example, this process might require firms which operate a large low-skill labour force to shut down in the face of higher costs and these firms may be replaced by firms that operate with fewer workers and more capital.

This is a process that takes time. The long-run loss of jobs in response to the minimum wage hike might be bigger than the short-run effect often estimated in the literature.

Our recent research[4] presents new evidence on how the restaurant industry, the largest US employer of low-wage labour, responds to minimum wage hikes. We document three new findings, as follows:

- Fast food restaurants are more likely to shut-down (exit) and open up (enter) after a minimum wage hike.
- The rise in entry is higher among chains, which use less labour.
- There is no change in employment among existing fast food restaurants that continue to operate – the fall in employment arises as a result of more labour-intensive restaurants being replaced with less labour-intensive restaurants.

Together, these results imply a small decline in employment two years after a minimum wage hike.

To interpret these findings, we develop a model where new restaurants can choose how mechanised their production will be. However, once they open, they cannot change the way they make their products.

Economists call such a technology "putty-clay": the initial choice of how to operate is flexible like "putty", but once the firm is open, the production process hardens into "clay" and cannot change.

For instance, some restaurants might choose to have customers order their meal from a worker, while others might set-up a computerised ordering system. But, once the systems are established, they do not tend to change.

This does reflect the reality of how businesses operate - of course old establishments can change how they use technology but, in this industry, it is new entrants that tend to bring about changes.

This model predicts that when the minimum wage increases, labour-intensive restaurants – those where people do more work – are more likely to shut-down, whereas capital-intensive restaurants – those where machines do more work – are less impacted by the minimum wage and may even open new restaurants to replace labour-intensive competitors that exit.

In this model, the employment loss due to the minimum wage grows over time because labour intensive restaurants are slowly replaced with more capital intensive restaurants. This process is slow, since it is costly to shut down a restaurant and open a new one in its place.

RAISING THE MINIMUM WAGE REDUCES THE NUMBER OF JOBS IN THE LONG-RUN

The results of this research suggest that a typical minimum wage hike causes an older fast food restaurant to shut down one year earlier than it otherwise would have done.

Our model has additional predictions that are consistent with previous research. Most prominently, as minimum wages rise, so do product prices. The reason is that restaurants still have to pay their workers the higher minimum wage, regardless of whether they are new or continuing establishments and they pass this additional cost onto their customers by making meals more expensive.[5]

Previous work has shown that all the higher labour costs of the minimum wage are pushed on to consumers in the form of higher prices.

But, what about the level of job losses? How big are the potential effects? These are difficult to measure precisely, although our estimates suggest that a 10 per cent increase in the minimum wage reduces restaurant employment by less than 1 per cent one year after the hike.

Our model, which matches this very small short-run effect, as well as the facts on restaurant entry and exit rates, predicts a 4 per cent reduction in restaurant employment in the long run.

Conclusion

Raising the minimum wage reduces the number of jobs in the long-run. It is difficult to measure this long-run effect in terms of the numbers of jobs that might be lost.

However, the key mechanism behind the model – that more labour-intensive establishments are replaced by more capital-intensive ones – is supported by evidence.

As such, recent research suggesting that minimum wages barely reduce the number of jobs in the short-run, should be taken with caution.

Several years down the line, a higher real minimum wage can lead to much larger employment losses•

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[1] See Kennan (1998) for a succinct discussion.
[2] See Dube, Lester, and Reich (2010).
[3] Aaronson and Phelan (2015) provide evidence that this process might be task-dependent as well. They find that low-skill/low-wage jobs that are cognitively-routine are particularly susceptible to being replaced soon after a minimum wage hike. That is not the case for jobs that are heavily manually-routine or non-routine.
[4] See Aaronson et al. (2015) and Sorkin (2015).
[5] See Aaronson (2001), Aaronson et al (2008).