

Rapid evidence review: Local minimum wages

Introduction

This rapid evidence review summarises the evaluation evidence on mandatory local minimum wages and voluntary local living wages. The evidence on mandatory minimums – set by city or state governments and typically higher than the national minimum wage – comes from the United States (US). The only study on voluntary local living wages is from the United Kingdom (UK). The review covers studies that examine the effects on economic outcomes including employment, wages, business entry and exits, and prices, as well as health impacts.

This rapid evidence review informed our briefing on fair employment policies.

Things to consider

Need for more evidence

- Most of the evidence currently relates to mandatory local minimum wages. We need
 evidence on the impact of voluntary local minimum wages, both on key economic outcomes
 such as employment, wages, and business exit and entry, and on wider outcomes such as
 the health and wellbeing of workers.
- We need more evidence on the local economic impacts of local minimum wages on businesses in the tradeable sector and on non-food service businesses in the non-tradeable sector.
- We need more evidence on the impact of increased local minimum wages on employment opportunities for younger workers, new entries to the labour market, and other lower-paid workers who have less experience in their current roles.

Policy lessons are covered in the briefing.

Evaluation evidence

What are local minimum wages?

National minimum wages are statutory minimum pay levels which all employers must pay. In federal systems, states may set minimum wages that differ from the national wage. And in some jurisdictions, most noticeably in the US, local government – including city mayors or councils – can introduce local minimum wages that differ from the national (or state) minimum wage. In these cases, employers in that specific geographical area must pay the (usually) higher wage to their employees. In the US over the 30 years to 2021, 42 cities introduced their own statutory minimum wages with most of these introduced in the 2010s.¹

In the UK, local government does not have the power to set a mandatory local minimum wage. However, there are voluntary living wage movements, such as the Living Wage Foundation's Real Living Wage (RLW), where employers are encouraged, but not compelled, to introduce a higher minimum wage. Local authorities in the UK may choose to pay a living wage to their employees, and many encourage employers in their local area to do likewise, for example through publicity campaigns, development of fair employment charter schemes, or measures to encourage it in public procurement contracts with suppliers.

The majority of the studies included in this rapid evidence review evaluate statutory local minimum wages in the US. This means that the evidence presented here may not be fully applicable to instances of local areas only encouraging businesses to pay living wages, or where public sector organisations alone pay higher minimum wages and the private sector remains free to pay lower ones. However, MW-13 reviews the London Living Wage, and MW-7 evaluates laws which require living wage payment by businesses contracted by or supported by local government in the US. MW-4 considers the impact of an ordinance requiring living wages for businesses with 25 or more employees in the US.

Understanding the impact of local minimum wages

Our evidence reviews use studies with a score of three or above on the Maryland Scientific Methods Scale (SMS), which classifies evaluations based on methodological robustness and implementation.² Our toolkits and rapid evidence reviews also include studies with a score of two or above when these add to the evidence base. The majority (12 out of 13) of the studies included in this rapid evidence review score SMS 3 or above.

Our search identified 13 evaluations. One was scored as SMS 2, and 12 as SMS 3. We give more weight to those with higher scores, and flag those scoring SMS 3. The annex provides a summary of each study.

The findings are organised by outcome – employment, wages and pay, business entry and exit, prices, and health. Most of the studies cover more than one outcome and are referenced more than once. Be cautious of findings based on a small number of studies.

¹ Dube, A., and Lindner, A. (2021). "City Limits: What Do Local-Area Minimum Wages Do?", Journal of Economic Perspectives, vol. 35 (1), pp. 27-50.

² For more information on how we rank the robustness of evaluations, see our introduction to the <u>Maryland Scientific Methods Scale</u>.

Evidence on impacts

Employment

Eight studies look at the impact of local minimum wages on employment. All eight scored SMS 3.

As higher minimum wages will increase costs for businesses associated with employing workers, one of the key concerns with implementing them is the risk that businesses use job cuts as a means of balancing increased costs.

Overall, the evidence is mixed.

- Two studies (MW-1, SMS 3; MW-3, SMS 3) examine the introduction of city minimum wages in the US, which are higher than either the state or federal minimum wage. Both find no significant reduction in employment.
- MW-2 (SMS 3) also examines city minimum wages in the US, across three cities, and finds mixed results, clustered around zero, and more likely to suggest positive effects on employment than negative.
- MW-4 (SMS 3) examines the impact of a living wage ordinance introduced at city level in the US, requiring increased wages for businesses with over 25 employees. It finds slightly increased employment compared to a similar city without the policy.
- MW-5 (SMS 3) looks at 138 state-level minimum wage increases in the US to levels above the federal minimum wage. It finds no effect on overall employment but some evidence of negative employment effects for the tradeable sector.
- One study (MW-6 SMS 3) looks at a two-phase introduction of a higher city minimum wage in Seattle, finding some evidence that this led to a marginal reduction in labour demand from existing businesses, and that new businesses entering the market after the minimum wage was introduced tended to be slightly less labour intensive. Taken together, these two effects lead to a 1.9 percent decrease in low-wage jobs.

Two studies examine whether impacts vary across different groups.

- MW-7 (SMS 3) studies the effect of the introduction of city living wage laws using data on 13,000 households across all medium and large US cities between the years 1996 to 2000. These differ from local minimum wages in that they typically apply only to businesses contracted by or receiving businesses assistance from the local authority. It finds evidence of some job losses for lower paid workers.
- One study (MW-8, SMS 3) on the introduction of a city minimum wage in Seattle higher than
 existing state minimums finds mixed effects. More experienced low-wage workers did not
 see a negative employment effect, while less experienced workers saw their hours reduced.
 For those already employed, an 8 percent decrease in worker turnover means both less- and
 more-experienced workers were more likely to remain employed after the wage increase.
 This also meant fewer employment opportunities for new entrants to the labour market.

These studies paint a nuanced picture. Many show either no or only modest employment effects. However, several studies find more negative employment impacts, concentrated in the tradeable sector, and among less experienced low-wage workers. There is also some limited evidence that introduction of higher minimum wages may reduce new employment opportunities, either through reduced worker turnover or because of new businesses being less labour intensive.

Wages and pay

Seven studies look at the impact of higher local minimum wages on wages and pay. All seven studies scored SMS 3 and also looked at employment effects.

Increased minimum hourly wage may not lead to higher pay if employers respond to higher wage rates by reducing employment or hours worked. Similarly, employees may choose to work less hours in response to increasing wage rates.

All studies find some positive effects on either wages or pay. Many studies analyse the effects on different groups.

- MW-7 (SMS 3) finds large positive wage effects for low paid workers in businesses affected by the introduction of living wage laws for businesses contracted by or receiving support from local authorities.
- MW-3 (SMS 3) finds an increase in wages, a reduction in wage inequality, and an increase
 in the proportion of workers receiving tips in response to the introduction and subsequent
 increase of a local higher minimum wage. They also find an increase in the number of hours
 worked. There was no indication of cuts to health benefits.
- MW-2 (SMS 3) finds positive and sometimes substantial pay gains for low-wage workers across the whole low-wage sector in response to the introduction of city specific minimum wages.
- MW-1 (SMS 3), which looks at city minimum wages in six major US cities, finds a 10 percent increase in the minimum wage led to a 1.3 to 2.5 percent rise in pay for workers in the food services sector.
- MW-6 (SMS 3) also finds positive wage effects after an increase in minimum wage, with additional ripple effects for wages already above the new minimum wage, indicating employers increased wages for some slightly higher paid workers too to reduce pay compression.
- MW-5 (SMS-3) finds that introduction of higher minimum wages is associated with a reallocation of jobs a shift from jobs paying below the new minimum wage matched by an increase in the number paying above it, inferring from this a positive overall impact on wages for workers.
- MW-8 (SMS-3) finds that worker experience can significantly affect the pay increase resulting from a minimum wage increase. More experienced low-wage workers benefited from significant pay growth, while less experienced workers saw their wage gains offset by reduced hours, resulting in no significant change in pay.

Introduction of higher local minimum wages does appear to have real positive effects on the hourly wage and pay of low-wage workers, though some limited evidence suggests these benefits may accrue more to those with more experience.

Business entry and exit

Three studies look at effects on business entry and exit to the market – i.e. new businesses opening and existing ones closing. All scored SMS 3.

The evidence is mixed, with two studies finding that higher local minimum wages may increase rates of business exit, but that this depends on business characteristics, while one study finds no effect.

• MW-3 (SMS 3) discussed already, examines rates of business failure, finding no impact from the introduction of the higher minimum wage in San Francisco.

- MW-6 (SMS 3) discussed already, finds a higher rate of firm exit, and a shift towards new business entries being less labour-intensive, after the introduction of the higher minimum wage in Seattle.
- MW-9 (SMS 3) looks at the impact of a city minimum wage in San Francisco on restaurants, differentiating by restaurant quality using customer online ratings. They find that the introduction of the higher minimum wage increases business exit, but effects reduce with higher restaurant ratings. A one dollar increase in the minimum wage leads to a 10 percent increase in the likelihood of exit for a 3.5-star rated restaurant (out of five), but has no impact for a 5-star restaurant. They also find evidence of lower rates of business entry after the new minimum wage was introduced.

These studies suggest that there may be impacts on existing businesses in the form of higher exit rates. The limited evidence available suggests that this might disproportionately affect less successful businesses, at least in the restaurant industry. Limited evidence also suggests higher minimum wage may lead new businesses to be less labour intensive.

Prices

Four studies examine whether increased costs to businesses are passed on to consumers through price rises. All score SMS 3. Some of these studies have been featured in the sections above.

While mixed, the evidence generally shows at least some price increases because of higher minimum wages. All studies except one look at the restaurant sector, so findings may not apply more widely.

- MW-6 (SMS 3) finds little to no evidence of price rises after the minimum wage increase in Seattle.
- MW-3 (SMS 3) finds increases in San Francisco's minimum wage increase prices, especially for businesses in the fast-food sector.
- MW-10 (SMS 3) finds the introduction of a local city minimum wage in San Jose, California which is 25 percent higher than the state minimum increases restaurant menu prices by an average of 1.45 percent.
- MW-9 (SMS 3) finds a difference in price impact between higher and lower-quality restaurants (based on customer ratings). Prices increase in both types of restaurant but lower-rated restaurants are more likely to increase prices, and by more.

Most of the studies focus on the restaurant sector and find increases in the minimum wage lead to moderately higher prices, with some limited evidence that price rises are higher at the lower end of the market. Only one study looks across the local economy and finds no effect.

Health

Three studies examine the impact of higher minimum wages on physical and psychological health. Two of these score SMS 3, and one SMS 2. One of these studies (MW13) is the only study we found in our search that relates to a voluntary local minimum wage scheme in the UK. The other two studies are from the US. Care should be taken as these findings may not be transferable to the UK given differences in health systems and inequality.

All find positive results.

• MW-11 (SMS 3) examines the relationship between minimum wage levels and suicide in the US. Based on data from all 50 states between 1990 and 2015, the study finds that a \$1 increase in the minimum wage above federal minimum levels leads to a 3.4 to 5.9 percent decrease in suicide rates among those aged 18 to 64. Unemployment levels are an

important factor, with the biggest effects in suicide reduction from higher minimum wages seen during periods of high unemployment in a state.

- MW-12 (SMS 3) evaluates the relationship between state minimum wage laws and infant mortality and low birth weight in the US. It finds that between 1980 and 2011 a \$1 minimum wage increase is associated with a 1 to 2 percent decrease in low birth weight, and a 4 percent decrease in post-neonatal mortality.
- MW-13 assesses the impact of the London Living Wage (LLW) on psychological wellbeing.
 Of 300 service workers, the 173 working for LLW employers had wellbeing scores 3.9 units higher on average than those not working at a LLW employer.

The relatively limited evidence available suggests that higher minimum wages can have positive impacts on health. However, more evidence is needed.

Are local minimum wage policies cost effective?

None of the studies reviewed considers the cost effectiveness of minimum wage or living wage policies.

Annex: Evidence on local minimum wages

For this rapid evidence review, we looked for evaluation evidence on the impact of local minimum wages and living wages on economic outcomes, and on wider outcomes like health and wellbeing. We searched for studies that included the terms 'living wage', and we also drew on studies summarised in a review of US city minimum wage policies by Dube and Lindner (2021).³ We focused on evidence from OECD countries, published in English. We considered any study providing before-and-after comparisons or cross-sectional studies controlling for differences between areas with different procurement approaches or that compare changes in outcomes in treated areas with changes in outcomes in similar non-treated areas.

We found 13 studies. Of these, one was assessed as SMS 2, and 12 as SMS 3. One study looks at voluntary living wages in the UK. The remaining 12 all look at mandatory wages introduced in cities, counties or states in the US.

Evidence on employment, wages and pay

MW-1 (SMS 3, US) analyses the impact of citywide minimum wage increases in six major U.S. cities – Chicago, the District of Columbia, Oakland, San Francisco, San Jose and Seattle – on earnings and employment in the food services industry. There were thirteen minimum wage increases across the six cities during the study period, so that by the end of 2016, the cities had implemented minimum wages ranging from just above \$10 to \$13 – at the time, the highest in the country. The study uses US Bureau of Labor Statistics Quarterly Census of Employment and Wages data and event study and synthetic control methods to isolate causal effects of these wage policies by contrasting the minimum wage cities with comparable populous counties in various US metropolitan areas. On average, across the six cities, a 10 percent increase in the minimum wage leads to a 1.3 to 2.5 percent rise in earnings in the food services sector, with no significant negative employment effects, either individually for any city or collectively for the six – the estimated employment effects range from a 0.3 percent decrease to a 1.1 percent increase. This suggests net gains for the low-wage community from these policies, even if some minor negative employment impacts occur.

MW-2 (SMS 3, US) investigates the employment and wage impacts of city-specific minimum wage laws in Washington, DC (introduced in 1993), San Francisco, and Santa Fe (both 2004). The study assesses impact over a three-year period following the introduction of the law in each city, looking at wages and employment in small businesses, low-wage establishments, and various low-wage industries – including fast food, the wider food services sector, and retail – compared to nearby areas unaffected by the citywide minimum wage. They use a difference-in-differences approach, with treatment and control groups defined based on geographic proximity, industry, and initial establishment size. Data is sourced from the Bureau of Labor Statistics Quarterly Census of Employment and Wages dataset, which provides comprehensive data on employment, wages, and establishment details, enabling detailed local-level analysis of minimum wage effects. The results for San Francisco and Santa Fe find positive, sometimes substantial effects on wages. They find somewhat mixed employment effects which cluster around zero, and are more likely to be positive than negative, suggesting little to no overall impact on employment. In Washington, DC, there are no statistically significant wage or employment effects, probably due to the lack of binding minimum-wage increases and weak compliance.

MW-3 (SMS 3, US) looks at the impact of the introduction of San Francisco's city-wide minimum wage in 2004 and increase in 2007 on earnings and employment for workers in the food service sector. The study uses surveys of fast food and table service restaurants in the San Francisco Bay

³ Dube, A., and Lindner, A. (2021). "City Limits: What Do Local-Area Minimum Wages Do?", Journal of Economic Perspectives, vol. 35 (1), pp. 27-50.

area, together with administrative payroll data. A difference-in-differences approach is used with the treatment group comprised of employers paying below the new city minimum within the city of San Francisco, compared with equivalent restaurants in the wider Bay area where the new wage was not in effect. The study finds that the minimum wage increases worker pay and reduces wage inequality, without any significant employment loss in the restaurants affected. It also finds a positive impact on the number of hours worked, no indication of employers recouping costs by cutting health benefits, and an increase in the proportion of workers receiving tips. Fast food and full-service restaurants respond differently, with small price increases and significant increases in levels of full-time work and longer job tenure in fast food restaurants, but not in full-service ones. The results do not suggest any increase in the rate of business closure.

MW-4 (SMS 3, US) evaluates the employment impacts of the Santa Fe Living Wage Ordinance (LWO) implemented in June 2004, which increased the minimum wage for businesses with 25 or more employees by 65 percent (\$5.15 to \$8.50). The study looks at employment levels between 2002 and 2005 and uses a difference-in-differences analysis to compare them with Albuquerque, New Mexico, where there was no equivalent ordinance. The study uses the ES-202 employer data set, which includes information on all firms paying unemployment insurance and is maintained by the New Mexico Department of Labor. The results show that Santa Fe businesses with 25 or more employees increase employment by an average of 0.35 employees following the LWO, whilst there were job losses on average in Albuquerque over the period. The changes in employment in specific industries is relatively uniform across the two cities, except for construction, where Santa Fe had higher levels of job losses. In the accommodation and food services sector – the sector most affected by the wage increase – there were on average 5.5 fewer jobs lost per firm in Santa Fe compared to in Albuquerque over the same period. Overall, these results suggest that the LWO had no major impact on firm employment, with Santa Fe outperforming Albuquerque in terms of employment changes.

MW-5 (SMS 3, US) evaluates the employment impact of 138 US state-level minimum wage increases between 1979 and 2016. The study uses individual-level data from the NBER Merged Outgoing Rotation Group of the Current Population Survey for 1979 to 2016 to calculate quarterly, state-level distributions of hourly wages and employment counts and employ a difference-in-differences approach which estimates changes in the number of jobs paying at or slightly above the new minimum wage and those paying below it, to infer employment impacts. The study finds a reallocation of jobs with a decrease in the number paying below the new minimum wage, and an increase in those paying just above it, in the five years after the change, suggesting little effect on overall employment, and increased earnings. However, when breaking down by sector, the study finds some evidence of employment losses in the tradeable sector especially in manufacturing. It also finds wage spillover effects amplifying the impact of the new minimum wage with these extending to \$3 above the new minimum and accounting for about 40 percent of the total workforce average wage increase after a new minimum wage is introduced. Those spillovers are not equally shared, accruing only to people already in employment before the wage increase.

MW-6 (SMS 3, US) examines the impact of Seattle's minimum wage increase in two phases between 2015 and 2016 on wage bills, labour demand, firm revenue, and business exit. The study employs a difference-in-differences approach, using firm-level data and cohort comparisons. The study uses data for 2005 to 2016 from Unemployment Insurance (UI) records from the Washington Employment Security Department, containing wage, hours, and employment data and Business and Occupation tax records from the Washington Department of Revenue, providing data on financial performance, including sales, income, and opening and closing dates. The study finds that the minimum wage has a strong positive effect on wages after its implementation, particularly during the second phase-in period. Findings suggest that firms respond to the minimum wage increase by marginally decreasing

their labour demand, rather than through an increase in prices – the study estimates that a 1 percent increase in wages induced by the minimum wage leads to a 0.3 to 0.8 percent reduction in hours for low-wage jobs. It also finds that the minimum wage leads to a 13 percent increase in business exit, and a shift towards new business entries being less labour intensive. Taken together these lead to a 1.9 percent decrease in low-wage jobs.

MW-7 (SMS 3, US) measures the effect of living wage laws on wages of low-wage workers across cities in the US. These laws typically require payment of a higher wage from businesses contracted by, or receiving business assistance from, the local authority. As such they are not universally applied legal minimum wages, as they only apply to a smaller subset of businesses. Data is from the Current Population Survey Outgoing Rotation Group from 1996 to 2000, which covers around 13,000 households each month across all large and medium-sized cities in the US. The study employs a difference-in-differences approach exploiting variations in the timing of the adoption of laws, and including individual, city, month, and year fixed effects. It finds large positive wage effects for low-wage workers, but also evidence of a trade-off between living wages and employment for the low paid, with some indications of job losses.

MW-8 (SMS 3, US) examines the impact of Seattle's 2015 and 2016 minimum wage increases, to levels above the state minimum wage, on the wages, employment, hours worked, and job turnover of low-wage workers. These increases were from \$9.42, to \$11 in 2015, and then to \$12 to \$13 in 2016. The study uses a difference-in-differences approach and administrative employment data from Washington State from 2005 to 2016, focusing on specific cohorts of low-wage workers, and using nearest-neighbour matching for counterfactual comparison, as well as a placebo cohort drawn from the dataset. The results show an increase in net pre-tax weekly earnings of \$10 on average. However, the results show that virtually all these gains accrue to those with above average experience before the minimum wage rise. One quarter of the gains for the more experienced cohort come from those workers making up for lost hours in Seattle with work outside the city. The less experienced half of the low-wage workforce see no increase in earnings due to a reduction in hours worked. This suggests that the increased minimum wage led to employers reduce hours for low-wage employees, particular those with less experience. For those already employed at the introduction of the higher minimum wage, both less and more experienced workers were more likely to remain employed after the wage increase, suggesting an 8 percent decrease in worker turnover - this coincides with a sharp reduction in opportunities for new labour market entrants, compared with the wider state.

Evidence on businesses and prices

MW-9 (SMS 3, US) investigates whether increases in the minimum wage in the San Francisco Bay area, relative to state minimum wages, impacts restaurant market exit (closure). The study uses Yelp and Eat24 data from the San Francisco Bay Area between 2008 and 2016 and a difference-in-differences approach. The study distinguishes between lower and higher rated restaurants based on customer ratings up to 5 stars as a proxy for how close they are already to failing, assuming lower rated restaurants are on average closer to exit. Overall, the increased minimum wage does not increase exit. However, there is a clear relationship between the ratings of restaurants and whether the minimum wage increases exit rates. A \$1 increase in the minimum wage leads to a 10 percent increase in the likelihood of exit for a 3.5-star restaurant but no impact for five-star restaurants. There is some evidence of price increases, and that lower-rated restaurants increase prices by more. The findings also suggest higher minimum wages modestly discourage new restaurant entry.

MW-10 (SMS 3, US) investigates the impact of a local minimum wage increase of 25 percent above the state minimum wage in 2013 in San Jose, California, on whether and how extensively restaurants adjust menu prices, as well as on wages and employment. The study uses internet-based data on

884 menus from both limited-service (fast food) and full-service restaurants, both inside and outside of the San Jose city boundary, combined with Quarterly Census of Employment and Wages data on payroll, employment and earnings from 2010 to 2014. The study uses a difference-in-differences strategy to estimate the price pass-through on mean menu prices, comparing the restaurants inside the San Jose boundary with those just outside, before and after the wage increase. The findings indicate a price elasticity of 0.58, meaning a 10 percent minimum wage increase is associated with a 0.58 percent increase in menu prices, and pointing to an overall average increase of 1.45 percent after the introduction of the higher minimum wage. Price effects diminish with increased restaurant density due to potential heightened competition. The study finds a statistically significant increase in wages for the combined full and partial-service restaurant sector, and no difference in employment in the sector compared to the rest of the county outside the city.

Evidence on health

MW-11 (SMS 3, US) measures the impact of minimum wages on suicide rates by unemployment group in the US. The study uses monthly data on suicides for those aged 18 to 64 from all 50 states between 1990 and 2015, monthly unemployment data for each state, and analysis of how much each state's minimum wage level differed from the federal minimum wage between 1990 and 2015. The study employs a difference-in-differences approach with state and year fixed effects and using educational attainment to define treatment and control groups, with those holding a high-school education or less being the treatment group as they are more likely to be in minimum wage work. The results indicate that a \$1 increase in minimum wage decreases suicide rates by 3.4 percent to 5.9 percent. Unemployment levels are a major mediating factor, with the biggest reductions seen in periods of high state-level unemployment.

MW-12 (SMS 3, US) assesses the effect of state minimum wage laws above the federal level on low birth weight and infant mortality in the US. The study uses data on birth weight and postnatal mortality by state and month from 1980 to 2011. The analysis uses a difference-in-differences model to estimate the effect of state-level minimum wage laws on low birth weight (less than 2.5 kilograms) and post-neonatal mortality (28 to 364 days), including state and year fixed effects. The study finds that a \$1 increase on minimum wage above the federal level is associated with a 1 percent to 2 percent decrease in low birth weight, and a 4 percent decrease in post-neonatal mortality.

MW-13 (SMS 2, UK) estimates the effect of the London Living Wage (LLW) on the psychological wellbeing of low-wage service sector employees. The study uses interviews from 300 service sector employees in London of which 173 work in a London living wage workplace. Psychological well-being is measured as units on the Warwick-Edinburgh wellbeing scale. The study employs a multivariate OLS controlling for confounding and mediating factors, to estimate whether working for a LLW employer is associated with greater psychological wellbeing. The results suggest that employees working for LLW employers have wellbeing scores 3.9 units higher on average than those who did not.

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