The National Minimum Wage Beyond 2024

A report by the Low Pay Commission

March 2024

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Executive summary

1 In 2024 we expect the National Living Wage (NLW) to reach the Government's target of two-thirds of median hourly earnings, for workers aged 21 and over. This is a significant achievement of an ambitious target. The NLW has risen far quicker than before the target was introduced and become one of the highest minimum wages in the world.

2 The Government has asked us to help inform its next steps for National Minimum Wage (NMW) policy, which includes the NLW and the lower rates for younger workers and apprentices. We have looked at the minimum wages' impacts, alternative models for minimum wages, and the role of lower rates for young people and apprentices.

3 The NLW has delivered substantial improvements in hourly pay for low-paid workers. It has risen substantially more in real terms than median hourly pay. On average, these hourly increases have translated into weekly pay increases too. While real average hourly pay has barely changed since 2015, it has grown by 20 per cent for workers in the bottom tenth of hourly pay. The NLW is important for low-income working households, where the highest earner is often an NLW worker. Households with NLW workers have seen their income grow faster than other working households. However, the NLW's impact on total household incomes is more difficult to discern. This is because the NLW increased during a period of profound change in the benefits system.

4 NLW increases have led to higher pay for those paid above the minimum too. These 'spillover' effects happen when employers maintain a pay differential between the lowest-paid jobs and those requiring more skill or responsibility. So, while 1.3 million jobs are paid the NLW, we estimate up to 8 million more jobs have seen higher pay increases than they otherwise would have done since the NLW was introduced. Although they benefit workers, spillover effects raise the overall cost of minimum wage increases and so are a worry for employers.

5 Despite the ambitious increases, we still have not found strong evidence that the NLW has reduced employment or hours of work. Changes in the labour market since 2019, such as lower employment rates for people without degrees, are more likely driven by the Covid-19 pandemic. However, the pandemic also means there is more uncertainty over the NLW's recent employment effects than there was in its earlier stages.

6 More positively, a lower share of jobs are paid at the minimum than before the pandemic. This is against our expectations, given the rapid rise in the minimum wage. Also, more workers are escaping the wage floor for higher-paid jobs each year. The tight labour market, particularly recently, is likely a key driver here. Employers have repeatedly told us of their struggles to recruit and retain and the resulting need to pay above the minimum.

7 Instead of reducing employment in response to the NLW, employers tell us they have accepted lower profits or passed the costs on in higher prices. However, there is no evidence that the NLW is a significant driver of inflation. Other costs – such as energy and food – have much greater impact.

8 Some employers have attempted to improve productivity. Responses here include more training, improving general business practice, or using new technology, equipment or automation. But this is difficult to do. Many productivity improvements require investment, and some employers, particularly small firms, are cutting investment to pay for the NLW. This may explain why some are simply asking staff to work harder. Low-paid workers tell us their jobs are becoming more intense. This is partly the fallout from the pandemic and shortages of staff, but also may be a result of the NLW. Some employers say that to drive productivity following the NLW they require additional tasks, higher standards, and more flexibility from their workers.

9 Predicting the impact of further increases is difficult, particularly without knowing what the future policy will be. Our best estimates of what might happen are based on the effects to date. But separating these from the effects of the pandemic is challenging. So regardless of what decision the Government takes, it will have to accept some risk. And the approach should consider other possible negative effects, not just reduced hours or jobs. However, employers of low-paid publicly-funded workers, such as childcare care and social care, are clear that further increases without commensurate increases in funding are unsustainable.

10 Responsiveness to economic conditions should remain a key principle for future policy. When the economy is booming the lowest paid should not be left behind. Likewise, when the economy is struggling we should be mindful of the risks. As we've said, the tightness of the labour market has likely contributed to the success of the NLW. If these conditions continue then the risk of further increases is lower.

11 Further rises in the NLW will likely affect a different group of jobs than those currently affected. More jobs that are publicly-funded, salaried or outside traditionally low-paying sectors could be affected by large rises in the NLW. Different jobs affected means different risks. Crucially, most jobs that would be affected by further rises are not in tradeable sectors, which international evidence suggests are the most at risk from minimum wage increases.

12 Alongside the risks, it’s important to remember that there are potential benefits from further rises. More increases relative to average earnings would likely reduce hourly pay inequality further. So far, hourly NLW increases have translated into weekly pay increases and (to a lesser extent) household income increases. These benefits should be considered alongside the risks.

13 Whatever decision the Government takes with the minimum wage, it should consider what outcomes it wants to achieve and ensure related policies and the minimum wage complement one another. Over its lifetime the NMW has had a variety of aims. These have included ending exploitation, reducing inequalities of income, and boosting productivity. It also ensured ‘good’ businesses are not undercut by exploitative ones. It has had many successes in these regards, but it is not a panacea for all the problems faced by low-paid workers, or for the wider issues facing the UK economy. For example, many stakeholders have warned that the NLW’s impact is welcome, but that low-paid workers’ earnings can still vary substantially and unpredictably because of ‘one-sided flexibility’. The Low Pay Commission's (LPC) view remains that our recommendations on one-sided flexibility would provide more security here without harming the labour market. These recommendations were for all workers to have a right to switch to a contract that reflects their regular working pattern, to reasonable notice of work schedules, and to compensation if a shift is cancelled or curtailed at short notice.

14 The principle of keeping the minimum wage as simple as possible would enable workers and employers to understand their rights and responsibilities, and help the Government to enforce and communicate the policy. Similarly, the principle of maintaining the level playing field ensures employers are competing on the same basis, which is critical for employer buy in and fair competition.

15 Decisions on the rates should be based on evidence and the voice of workers and employers. Maintaining the LPC's social partnership model would play a vital role here. Its consensus building approach brings credibility to the Government's decisions and the minimum wage itself. Our recommendations on one-sided flexibility are an example of how the LPC's social partnership model lends itself well to other policy questions where a consensus between worker and employer positions is helpful.

16 Applying these principles our view is that a further target or a principle-based remit, like our pre-NLW remit, are the preferable options for recommending rates in the future. These models are suited to different policy objectives. If the Government wants further ambition and reductions in inequality then a target is likely best. If the aim is to instead protect the progress made so far and be more responsive to economic conditions then a principle-based remit may be best suited. However, both have advantages and disadvantages.

17 Targets based on future average wage levels create a roadmap against which employers can plan. Throughout the period of the NLW, employers have told us how useful this is. Targets related to median earnings also ensure the pay of the lowest earners moves at least in line with pay in the rest of the economy, preventing rising inequality. However, they are less responsive to changes in economic conditions and there are technical issues in plotting the path to a target in the future – forecasting is difficult. These issues are more acute during economic shocks, and they can mean our forward guidance on the NLW can differ to the actual rates we recommend. There is room for improvement in the methods and evidence used in plotting a forward path to a target.

18 Worker representatives point to the success of the NLW so far and advocate a further target, but there is little appetite for this among employer groups. Many employer groups view targets as "arbitrary" and recommend an approach whereby the LPC makes recommendations based on the evidence around the economy and labour market.

19 Before the NLW our remit was to *"raise the minimum wage as high as possible without damaging jobs*". Such qualitative or principle-based approaches are more flexible. They avoid the technical issues with targets and the language can be adjusted to set the policy direction without having to put this into concrete numbers. This leaves more room for Commissioners' judgement and negotiation, a key strength of the LPC. They can also respond to different policy considerations. Our pre-NLW remit focussed on employment, but a future remit could ask us to consider a wider range of factors. However, without a target to aim for, plotting a path for employers to plan against would not be possible.

20 The NLW's ambitious increases and benign impacts have changed how negotiations might work in the future. Without a target, it is possible that Commissioners would start their negotiations on minimum wages further apart. Worker representatives might push for continued significant increases. And employers would know that there is no target to hit. The negotiations may become more difficult.

That said, the LPC has a strong track record of reaching consensus, including in times of crisis like the pandemic.

21 The rationale for lower rates for young people is to protect their employment chances. But the gap between the youth rates and the NLW has widened in recent years, and we believe this should be addressed. The gap is large by historical and international standards, is regarded as excessive and unfair by many stakeholders, and median pay for young workers has grown faster than their minimum wages, reflecting healthy demand for young workers. There is scope to reduce the gap without negative employment consequences and, if the evidence continues to support it, move towards an adult rate that begins at 18.

22 We propose lowering the age of eligibility for the NLW one age group at a time and to reduce the gap between the youth rates and the adult rate where the evidence allows. However, the risks are greater than they were for lowering the age to 21. Both the level of increase required, and the share of jobs affected are higher. The current tight labour market conditions may not persist. This change should therefore be managed carefully, with time allowed for full evaluation of each step. The LPC should have the discretion to recommend the timing and extent of each change and to deviate from any planned goal if the evidence suggests it is necessary.

23 Our view is that there are also grounds to remove the Apprentice Rate. But doing this at the same time as reducing the gap between the youth and adult rates for non-apprentices brings considerable risk. We believe that reducing the gap between youth and adult rates should be prioritised over changes to the treatment of apprentices. Lower minimum wages on the basis of training are more justified than on the basis of age. To that end we recommend that we keep an apprentice rate but that, for those aged 18 and over, it changes to a simple discount of the age rate during the apprentice's first year. This, combined with the lowering of the NLW eligibility, will result in substantial increases in the wage floor for apprentices, but continue to recognise the additional costs relating to the substantial training they receive.

Recommendations

1. Government should decide what policy outcome it wants to achieve with the minimum wage and ensure that it aligns with other policies.

2. For the next steps of the minimum wage the Government should either adopt a further target or return to a principle-based or qualitative approach.

3. Government should consider the case for lowering the gap between the youth rates and adult rates and for further reducing the NLW age of eligibility, and ask us to take this forward in a future remit.

4. If Government agrees with recommendation 3 above on youth rates, it should consider the case for reforming the Apprentice Rate to a simple discount of the minimum wage that applies for that age group during their first year and ask us to take this forward in a future remit. For apprentices aged 16 and 17, the rate should remain aligned with the 16-17 Year Old Rate.

5. Government should implement our 2018 recommendations on one-sided flexibility. These are:

- a right to switch to a contract that reflects a worker's regular working pattern
- a right to reasonable notice of work schedules
- a right to compensation if a shift is cancelled or curtailed at short notice

6. Government should provide us with better quality and more timely data, so we can better evaluate the effects of the minimum wage. We discuss a range of improvements the Government could make in Chapter 7. The three most important steps Government should take are:

    a. The Department for Business and Trade should work with HMRC to provide us more timely access to detailed employer payroll data. This would allow us to evaluate the latest minimum wage upratings more fully.

    b. HMRC should go ahead with their current plans to collect hours of work as part of their payroll data. This will allow us to better evaluate the minimum wage and help HMRC to enforce the minimum wage.

    c. The ONS should publish a report on how and why different official data sources on employment and wages have diverged since 2019. They should also explain how reliable each data source is for different purposes.

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Introduction

1 The Low Pay Commission (LPC) is the independent body responsible for advising the Government on the levels of the National Minimum Wage (NMW) rates. These include the National Living Wage (NLW), which, from April 2024, applies to everyone aged 21 and over and the lower rates for 16-17 year olds and 18-20 year olds and apprentices. The LPC is a social partnership made up of Commissioners who are independent experts and representatives of employers and workers. Its advice is the consensus view of the whole Commission.

2 We expect our recommendations for the NLW in 2024 will reach the Government's target of two-thirds of median hourly pay (of those aged 21 and over). Reaching this target will mean the National Living Wage achieves the aim first announced as part of the Budget in 2018 to 'end low pay' (HM Treasury, 2018). Government is now thinking about what the policy should be after this target has been reached and has asked for our advice (Department for Business and Trade, 2023c). This report is our response to that request.

3 We have updated the evidence on the impact of all the rates as far as we can, spoken with a wide range of stakeholders and reviewed the international evidence. We have also considered a range of different minimum wage models, including geographically-varied rates and living wage approaches.

4 However, given that we reviewed the accommodation offset recently (Low Pay Commission 2022c) we have not covered this again here.

5 Chapter 1 of this report looks back at the original purpose of the minimum wage and asks stakeholders, including employers and employee representatives, for their views. Chapter 2 considers a host of different models for minimum wages and judges them against five criteria, which in our view are desirable for any model for setting minimum wages. Chapter 3 reviews the evidence and options for the youth rates of the NMW, and Chapter 4 does likewise for the Apprentice Rate. Chapter 5 looks at which jobs might be affected by further increases in the NLW. Chapter 6 considers the risks, benefits and trade-offs of further increases and Chapter 7 looks at what circumstances might support further rises. Chapter 8 draws conclusions.

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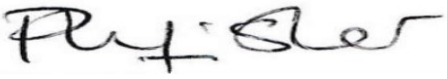

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The Commission is made up of nine Commissioners, drawn from a range of employee, employer and academic backgrounds. We have been short one employee Commissioner since 9 December 2022.

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Chapter 1

What is the aim of the National Minimum Wage?

Key findings

- To decide what it wants to do next with the National Minimum Wage (including the National Living Wage), the Government should decide what it is trying to achieve – This decision should shape what the Government decides to do with the minimum wage as different frameworks lend themselves to different policy outcomes.
- The original policy rationale behind the minimum wage was broad – It aimed to end exploitation, reduce inequalities of income, promote equal opportunities, encourage competition on quality not price, promote employee commitment and reduce staff turnover, encourage investment in training, boost productivity, and aid company competitiveness by ensuring 'good' employers were not undercut by exploitative employers.
- Minimum wages don't exist in a vacuum – If Government has clear policy aims in mind it should think how the NMW, along with other policies, can contribute. For example, by aligning the aims of minimum wages and in-work financial support. Similarly, if the Government is concerned about the possible negative effects of minimum wages, it can consider other policy changes to mitigate these.
- Stakeholders' perspectives on the purpose of the minimum wage differ - but they all recognise the significance of LPC's social partnership model, saying it brings fairness and balance to recommendations on the minimum wage. Some argue that the scope of LPC should be expanded to look at other labour market issues.
- Regardless of what decision Government takes, the Low Pay Commission believes the following principles should apply:

- Responsiveness to economic conditions – recommendations should be based on evidence and the voices of workers and employers.
- Social partnership and independence – recommendations made by independent experts and representatives of employees and employers assures credibility for the Government's decisions and the minimum wage itself.
- Maintain the level playing field – employers should face the same rules with as few exceptions as possible.
- Easily operated and enforced – to enable both workers and employers to understand their rights and responsibilities, and for Government to enforce and communicate.
- Consistency – so that workers and employers alike know what to expect and can plan accordingly.

1.1 In deciding what to do next with the minimum wage, the Government should first decide what it wants to achieve with it and how it relates to other policies. This chapter summarises the various rationales employed for the National Minimum Wage (NMW) when it was introduced in 1999 and the two phases of the National Living Wage (NLW) since 2016.

1.2 From the beginning, the minimum wage had a range of aims. Primarily, it aimed to prevent exploitation. In its First Report (Low Pay Commission, 1998), the Commission heard many examples of extreme low pay. For example: "*We met a woman employed in a bar in Birmingham, who routinely worked a 'four hour' evening shift for £12 gross. But the four hours reflected only the time that she was serving. She was also required to stay for up to two hours after closing in order to clear the bar; this time was not paid at all*". By removing the worst cases of exploitation and low pay the NMW would not only ensure greater decency and fairness in the workplace, but also help reduce inequalities of income.

1.3 Thanks to the minimum wage, this kind of exploitation is now illegal. Since 2009/10 HMRC, who enforce compliance with the minimum wage, have identified pay arrears of £214 million for over 1.2 million workers.[1] Ending the legality of such exploitation has benefitted employers too. Many said they could be undercut by unscrupulous competitors who would charge less by exploiting more. The minimum wage introduced a "level playing field" so all employers were competing on the grounds of fairness. This was critical for employer buy-in to the concept of the minimum wage.

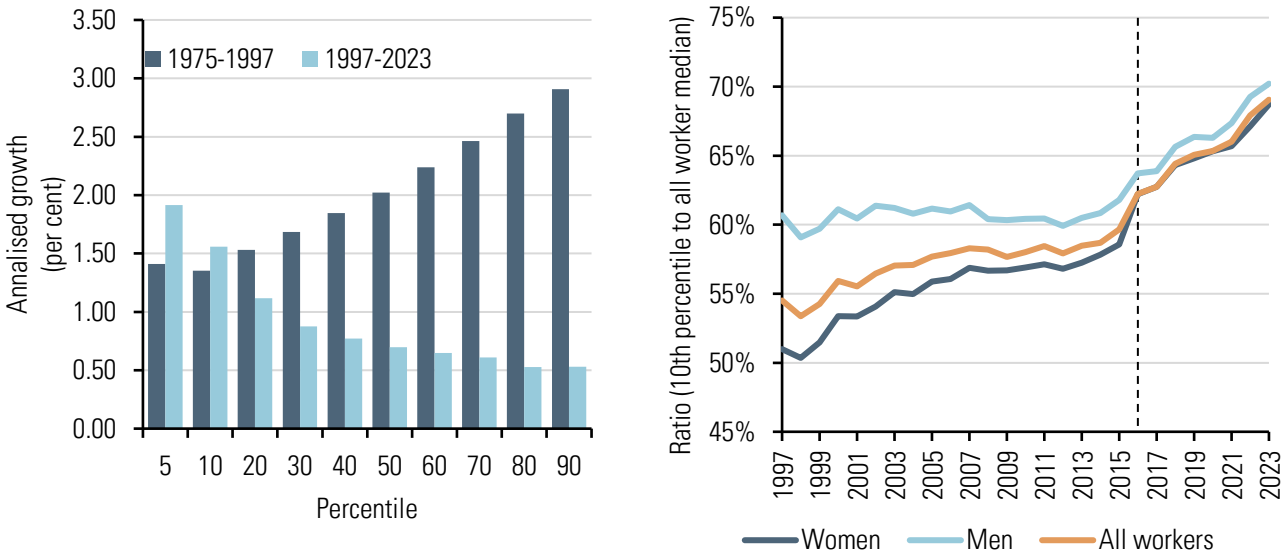
1.4 Pay inequality had been on the rise for many years before the minimum wage was introduced. The LPC's first report said: "Average earnings have increased much more rapidly than the earnings of lower-paid workers, and the earnings of the skilled have increased relative to those of the unskilled." It was the case then, as now, that certain groups of workers – women, ethnic minorities, people with disabilities – were more likely to be low-paid and exploited. The minimum wage would go some way to addressing these inequalities.

1.5 The left-hand side of Figure 1.1 compares hourly pay growth across the pay distribution over the years before and after the NMW was introduced. The pre-NMW period slopes upward from left to right, showing higher pay rises at the top than the bottom, as pay inequality rose. The NMW reversed this pattern; since the introduction of the NLW, pay has grown fastest for those at the bottom.

1.6 The right-hand panel of Figure 1.1 shows another common measure of inequality, the 50:10 ratio. This chart shows the ratio of pay at the tenth percentile for men and women compared to the median for all workers. In 1998 hourly pay for men at the tenth percentile was much higher than for women. But over the following years this gap narrowed substantially, particularly after the NLW was introduced in 2016 with an explicit target to raise pay at the bottom relative to the median.

[1] Figures taken from most recent Government evidence on compliance (Department for Business and Trade, 2023a) and the National Audit Office (2016) report into compliance.

Figure 1.1: Real annualised hourly pay growth by pay percentile (LHS) and ratio of 10th percentile of hourly pay for men/women/all workers to all worker median (RHS)



Source: (LHS) LPC analysis of NES, unweighted, 1975-1997 and ASHE, standard weights, 1997-2023, UK, workers aged 22 and over in both periods and CPI indices. (RHS) LPC analysis of ASHE, standard weights, UK, 1997-2023, all ages.

Notes:

a. Administrative data sources show stronger pay growth in recent years at the top of the pay distribution, so these results may understate pay growth for top deciles.
b. Figures are chain-linked to adjust for methodological changes to ASHE since 1997. For more information see Appendix 1.

1.7 The NLW's introduction in 2016 saw a change in both aim and ambition for the Government. The NLW heralded higher increases with an explicit target tied to median hourly pay. The minimum wage as a percentage of the median is called the 'bite' and the first target aimed for a 60 per cent bite for those aged 25 and above by 2020. The second target to 2024 aimed for a bite of two thirds of median earnings. This latter figure is used by the OECD as an international benchmark of "low pay", hence the Government's aim to "end low pay" (HM Treasury, 2018) with this target. In the pre-NLW period (1999 to 2015) the adult minimum wage rate increased from a 45.6 per cent bite to 52.5 percent. In a shorter period (2015 to 2024) the NLW has increased the minimum wage more.

1.8 This commitment to raising the minimum relative to median pay meant that hourly wage inequality would fall further. The right-hand panel of Figure 1 shows how the closing of the gap between the lowest paid female held jobs and the average accelerated after the NLW. It also shows that the NLW changed the trend for jobs held by men, for whom the gap had been widening slightly.

1.9 One objective of the NLW was to shift away the burden of supporting low-paid worker households from Government spending to wages: "We want Britain to move from a low wage, high tax, high welfare economy, to a higher wage, lower tax, lower welfare society … It can't be right that we go on asking taxpayers to subsidise, through the tax credit system, the businesses who pay the lowest wages. That subsidised low pay contributes to our productivity problem." (HM Treasury, 2015). This policy combination meant that earnings for households with a low paid worker increased faster than for other households, but the effect on total household income was partly offset as these households saw a reduction in benefit income (on average).

1.10 All of this demonstrates that the minimum wage, including the National Living Wage, has had a range of aims and delivered some important outcomes for workers. The rest of this report looks at these in more detail. But the key point is that the minimum wage does not exist in a vacuum. If Government has clear policy aims in mind it should think how the NMW, along with other policies, can contribute. For example, ensuring the aims of minimum wages and in-work financial support are complementary. Similarly, if the Government is concerned about the possible negative effects of minimum wages it can consider other policy changes to mitigate these.

1.11 Whatever it decides to do next with the minimum wage, the Government should take a broad view of how it complements and interacts with other policies. This includes high level economic policy such as tax thresholds, but also interactions with in-work benefits and other support including childcare, education and skills policies.

Stakeholder views on the purpose of the minimum wage vary

1.12 To help inform Government's decision we asked representatives of employers and employees for their views on the purpose of the minimum wage. For the Confederation of British Industry (CBI), the NMW's role was to reduce inequality, but this had reached its limits: "*The main tools to address inequality sit outside of the purview of the LPC and whilst reducing inequality remains a legitimate objective, seeking to achieve it via compression of low-median wages alone has reached the limits of its effectiveness. Only focusing on income inequality in this segment of the distribution ignores that a considerable proportion of the recent divergence in living standards and social mobility between groups has been driven by other factors, such as household wealth, whilst access to work opportunities has generally increased equality, particularly for women.*" The Association of Convenience Stores (ACS) framed the NLW as about fairness: "*Striking the balance between fair wage rates for workers and maintaining businesses competitiveness and employment generation is crucial*" .

1.13 Unions were more likely to relate the minimum wage to the cost of living, alongside other aims. Unite thought the NLW should be set to "*tackle inequality and in work poverty.*" For Usdaw, the NMW should provide a reasonable level of pay for workers who are working full-time to cover their costs of living. "*We believe that the rate of the NMW should be enough to cover the basic cost of living.*" Usdaw members in Edinburgh agreed the role of the NMW should be to ensure everyone who works full time can cover their basic costs. The Trades Union Congress (TUC) saw the importance of the LPC as "*setting ambitious economy-wide minimum standards*," with collective bargaining the best way to achieve higher standards beyond this.

1.14 The Women's Budget Group addressed the question of in-work poverty: "*An increased NLW and NMW will not end in-work poverty completely*" because of the question of working hours, where women in particular may be limited: "*Women often work fewer hours in order to juggle unpaid caring responsibilities like childcare so even if their hourly wage is adequate, their take-home earnings may not be.*" "*Policies aimed at reducing poverty must look beyond paid employment.*" They advocated changes "*to improve the availability of affordable childcare and elder care*", as well as a benefits system "*that supports those who are combining part-time work with unpaid care.*"

Stakeholders agree on the value of LPC's social partnership model

1.15 While they may have differing views on the purpose and direction of minimum wage stakeholders agree on the value of a social partnership model, which ensures both worker and employer voices are heard. The Recruitment and Employment Confederation (REC) said "*The Low Pay Commission plays an important role in the UK labour market. It's composition as a genuine social partnership, with independent economic expertise added as a third part of the group is important to the widespread effectiveness, and acceptance of minimum wage policy. It creates a fair and balanced approach to setting the NMW and NLW rates. It is important that the LPC continues to function in this manner, collating and gathering evidence from a range of stakeholders to make an informed decision.*"

1.16 The British Retail Consortium (BRC) noted that "*The role of the Low Pay Commission in setting the National Living Wage targets is fundamental to ensure the NLW is sustainable for many industries across the UK. The diverse expertise and background of the LPC's Commissioners enable a full analysis of the impact of increases. The BRC is supportive of this approach and would like to see the current model continued.*"

1.17 Usdaw said "*We believe that the role of the Low Pay Commission in recommending the rate of the National Minimum Wage and National Living Wage is critical. The tripartite structure of the Commission gives workers a voice, alongside businesses and independent commissioners and allows different perspectives to be aired and issues to be explored. This is important in ensuring that the National Minimum Wage and National Living Wage have broad support.*"

Box 1 - A broader role for the LPC?

A number of stakeholders have suggested that the LPC should have a broader role than minimum wage rates alone. For example, the British Retail Consortium said *"a broader remit for the LPC could be considered with a focus on skills and training, ensuring career progression and social mobility play a key part in enabling people to have access to better-paid jobs while increasing productivity".*

Unite said we should investigate *"the causes and consequences of low pay"* and put forward *"recommendations to reduce wage inequality and insecure working conditions in the bottom half of the wage distribution".*

The Resolution Foundation recommend the LPC takes its approach to minimum wages to other parts of the employment standard including holiday pay, sick pay and parental leave and pay. They said: "The Government and LPC could treat the raising of minimum standards beyond pay in the same way they do the minimum wage: the Government should set the direction of travel, while the LPC should be tasked with evaluating impacts and with advising the Government on the timings and specifics of policy changes".

Government has asked the LPC to undertake broader tasks in the past. For example, after Matthew Taylor's review into 'Good Work' the Government asked us to provide advice on one-sided flexibility. We recommended three new employment rights including a right to switch to a contract that reflects a worker's regular pattern of work, to reasonable notice of work schedules and to compensation if a shift is cancelled or curtailed at short notice.

This example shows that the LPC's social partnership model lends itself well to other policy questions where a consensus between worker and employer positions is helpful. However, there would be considerations before the LPC was asked to take on additional tasks. Firstly, the policy question should

focus on the low-paid labour market. This is where our expertise, relationships and credibility are at their strongest. Secondly, the LPC's independence and social partnership model should be protected. Anything that jeopardises our independence or credibility when recommending rates of the minimum wage should be avoided. Thirdly, the policy question should have clear limits. The LPC is a small and focussed organisation, and this has helped it succeed. Too many tasks or those that are nebulous or unwieldy may jeopardise the LPC's successful model.

Principles to inform the minimum wage's next stage

1.18 Regardless of what decision the Government takes on the minimum wage's next step, the LPC's view is that the following principles should apply. These are the main principles we apply in our consideration of policy options in Chapter 2.

- Responsiveness to economic conditions – when the economy is booming the lowest-paid should not be left behind. Likewise, when the economy is struggling we should be mindful of the risks. Recommendations on what to do in these circumstances should be based on evidence and the voice of workers and employers.

- Social partnership and independence - an agreed view between employer and worker representatives assures credibility for the Government's decisions and the minimum wage itself.

- Maintain the level playing field – Employers should face the same rules with as few exceptions as possible. This maintains the 'level playing field', a key principle for employer buy-in.

- Easily operated and enforced – Just having an NMW doesn't prevent exploitation or hardship, it needs to be enforced. Any minimum wage model needs to be simple enough for both workers and employers to understand their rights and responsibilities, and for Government to enforce and communicate.

- Consistency – so that workers and employers alike know what to expect and can plan accordingly. Government should set out the LPC's remit approach and only make changes with sufficient notice.

Chapter 2

What are the policy options for the National Living Wage?

Key findings

- **There are multiple models for minimum wage policy, but some are stronger than others** – In this chapter we look at the pros and cons of target-based models, qualitative / principle-based remits (like the pre-NLW remit), living wage approaches, weekly minimum wages, geographically varied rates and sectoral rates.
- **Earnings linked targets, such as that for the NLW, create a helpful roadmap for employers and ensure the pay of the lowest moves at least in line with pay in the rest of the economy, protecting against rising inequality** – However, there are technical issues in mapping out the future, which are more acute during economic shocks. Also, while an "emergency brake" can be applied, the flexibility to respond to economic circumstances diminishes the closer we get to the target.
- **Qualitative or principle-based approaches can be flexible** – Approaches like the LPC had before the NLW leave more room for judgement and negotiation, a key strength of the LPC. They also avoid the issues with targets being difficult to operationalise and inflexible to circumstances. The language can be adjusted to meet policy aims without having to put this into concrete numbers. However, without a target to aim for, calculating a path to plan against would not be possible, reducing predictability for employers.
- **Formulaic living wage approaches present difficulties** – Living wage approaches calculate a single hourly rate of pay based on the costs of goods and services a household needs to meet a certain standard of living. Doing this in a fair and representative way across a huge range of household circumstances is challenging. Indeed, the breadth of variation in household circumstances is why welfare systems tend to be complex. Strict adherence to a living wage approach would not be compatible with an independent LPC, as the calculation would be so dependent on policy, particularly benefits policy. Similarly, a formula would override the views of workers and employers, making it incompatible with the social partnership model.
- **Stakeholders agree that inflation and living standards should be accounted for** – Both worker and employer representatives believe that minimum wage decisions should take account of living costs, but not through indexation or formulas. Alternatively, adding the principle that the minimum wage should either protect or take into account the living standards of low paid workers to our remit would allow us to reflect the cost of living and avoid some of the challenges with a formula-based living wage.

- **Employer representatives advocate a remit that takes account of economic conditions** – There is little appetite for a further target among employer groups, many of whom view them as "arbitrary". Instead, they recommend the LPC recommends rates based on the evidence on the economy and labour market.
- **Worker representatives advocate a further target** – Many worker groups note the success of the NLW so far and advocate for a further ambitious target. In some cases this a further bite target, for example 75 per cent of median hourly pay, or a cash target, for example £15.
- **Applying the principles from Chapter 1, the LPC's view is that geographical, sectoral, weekly and living wage approaches are unsuitable for national policy making** – This means that further targets or a principle-based remit are the preferable options. Clearly there is scope for a lot of variation within these two models. Targets can be ambitious or not and principle-based remits can guide the LPC on other goals of the policy e.g. on living standards.
- **Deciding the policy outcome helps decide what model to adopt** - A targeted approach is best suited if the aim is to continue reducing hourly wage inequality. If the aim is to instead be more responsive to economic conditions then a principle-based remit is more appropriate.

Introduction

2.1 This chapter assesses the pros and cons of six different models of minimum wages. The first four consider the ways in which the rate is set. These are:

- Target-based models (e.g. the NLW model)
- Qualitative or principle-based approaches (e.g. LPC's pre-NLW remit)
- Indexation or 'lock' mechanisms
- Living wage approaches

2.2 The next three consider for whom the rate is set or what the rate actually is. Each of these could be combined with the first four. For example, you could have a weekly minimum with a target, or a living wage with geographical variation. These are:

- Weekly minimum wages
- Geographical variation
- Sectoral approaches

2.3 In doing this we've considered: how responsive the policy would be to economic conditions; how complex it would be to operate and enforce; how compatible it would be with the LPC's social partnership model and independence; and whether they maintain the level playing field. We briefly consider the impact of each model on the youth and apprentice rates; Chapters 3 and 4 consider these rates in more detail. We haven't considered the level of the rate here, though the design and level are related. Within each model larger or smaller increases are both possible; this depends on the Government's level of ambition. The focus of this chapter is not on the level but on how the different models might operate.

Target-based approaches

2.4 Since 2016 the NLW has aimed for a target percentage of median hourly earnings, known as the 'bite'. This target ties the wages of the lowest paid to those in the rest of the economy, preventing rising inequality. The NLW's target approach also heralded an increase in the Government's risk appetite. The Office for Budget Responsibility (OBR, 2015) projected unemployment increasing by between 20,000 and 110,000 (with a central estimate of 60,000) by 2020. While the OBR described this as '*fractional*', particularly against their prediction of one million more jobs over the same period, it nevertheless represented a greater implied tolerance for job loss than under previous remits. Previously, the LPC's remit had asked us "*to have NMW rates that help as many low-paid workers as possible, while making sure that we do not damage their employment prospects*" (Department for Business, Innovation and Skills, 2014).

2.5 A key advantage of any target-based model is the published forward path of the increases needed to hit the target over coming years. We've consistently heard that employers find this useful, the advance notice helps them plan and prepare. For example, those negotiating long-term contracts of service use the path to negotiate a price. It's possible that the forward path is one of the reasons why we have seen limited employment effects so far, though we have no direct evidence for this. At the same time, forecasts are not guaranteed, and they can change. This means that the rate we recommend may be different to what we thought was required months before. These changes can catch employers off guard.

2.6 Having a target has arguably made LPC negotiations more straightforward. Both the Government's target and its greater tolerance for employment effects means there needs to be very good reason for the LPC to recommend coming off the path. Tolerance for negative effects, though, can be part of any model. It would be possible to have an ambitious target, but with little tolerance for employment effects. This would require greater acceptance of not hitting the target on the planned timescale.

2.7 When the NLW was first introduced the major disadvantage was a reduction in the LPC's ability to respond to economic circumstances. This was a feature, not a bug. The Government had decided it wanted to be more ambitious and introduced the target to make this happen. At the outset the LPC lost some credibility as many stakeholders believed we'd lost all flexibility. Some openly questioned why they should engage with us.

2.8 However, the changes to the framework we asked for after the first phase up to 2020 reintroduced some flexibility and our engagement with stakeholders remains strong. Remits after this point introduced an "emergency brake" whereby "*if the economic evidence warrants it, the Low Pay Commission should advise the government to adjust the target. This emergency brake will ensure that the lowest-paid workers continue to see pay rises without significant risks to their employment prospects.*" (Department for Business and Trade, 2023b).

2.9 It remains the case though that there is less flexibility than before the NLW, and this diminishes with each year closer to the target. In each year of the path there is the option to 'front load' or 'back load' increases in response to changing economic conditions. That is, we can go slower or faster in any year, knowing we can re-adjust in the next. But this flexibility diminishes throughout the target period and in the final year there is no longer scope to front or back load.

2.10 This brings us on to the target itself. In theory, having a target that is a percentage of average earnings means it responds to economic conditions. The theory goes that when the economy booms, so does pay and the target with it, and vice versa. However, it's more complicated than that. Our current target is based on median hourly pay, which is less responsive to economic shocks than average weekly pay. During a recession, workers are more likely to see a cut in hours (and hence weekly pay) than a cut in their hourly rate.

2.11 Our starting point for calculating the rate needed to hit target is the current level of median hourly pay. But these estimates are only available as an annual snapshot (the Annual Survey of Hours and Earnings (ASHE)). This snapshot can be affected by measurement issues, particularly during economic shocks, which can cause the sample to fall and compositional effects to muddy measurement of pay levels. During the pandemic the sample response rates for ASHE fell dramatically.

2.12 Given the limited availability of hourly pay data, we use actual and forecast weekly pay growth as a proxy for hourly pay growth from the most recent ASHE (each April) to the target date. So weekly pay outturn and forecasts inject flexibility/responsiveness into the model, but at the same time are acting as a proxy for something which is known to be less responsive. This tension doesn't matter in 'normal' economic times, when weekly and hourly pay tend to move in tandem, but it does during shocks, when the impact of the NLW matters more too.

2.13 Forecasts are needed to predict what pay will be in the future so we can aim for a percentage of that level. But forecasts are inherently inaccurate and are not available for our key measure – hourly pay – or over the appropriate time period (October to October). This means we need to use forecasts of weekly pay growth as a proxy for hourly pay growth.

2.14 These technical difficulties show how important the role of Commissioners' judgement is. No formula model can account for all the complexity and nuances of the economy and labour market.

2.15 Bite-based targets are just one kind of target. It would be possible to target something else, for example a flat cash target or indeed a different kind of earnings benchmark, for example one based on full-time earnings or on a higher earnings percentile of the wage distribution e.g. the 90th percentile. The advantage of a cash target would be clarity over future plans, but with far less responsiveness to economic conditions. The clarity over future plans is particularly important for employers who negotiate pay (and budgets) well in advance. This is the case, for example, within local government. If the economy boomed or crashed, and earnings likewise, the target would stay the same.

2.16 Were the decision taken to freeze the bite at two-thirds, this would in practice be another bite target. It would require wrestling with the all the technical issues highlighted in this section, but with even less flexibility for the LPC. In order that the recommendations each year do not become a purely technical exercise, such a target should include a margin within which the LPC could use some discretion. In the next section we discuss principle-based remits and how they could be combined with a target approach. For example, two thirds of median earnings could be a 'floor' for the rate but with scope to go above it if economic conditions allow.

2.17 Were Government to decide on another earnings bite target we would like to take the opportunity to review the methods and sources of data we use. When the NLW began the evidence was more limited. We did not have access to the Real Time Information (RTI) measures of pay for example. The Bank of England have recently updated their short-term forecasting approach, a 'nowcast'

of key labour market indicators. We would like to explore options for improving our method of projecting pay, using new data sources and methods.

Qualitative or principle-based approaches

2.18 Before the NLW, the LPC's remit was qualitative in nature. Rather than a numerical target it asked the LPC to recommend *"NMW rates that help as many low-paid workers as possible, while making sure that we do not damage their employment prospects"* (Department for Business, Innovation and Skills, 2014). Qualitative remits leave more room for judgement and negotiation, a key strength of the LPC. They also avoid the issues with targets being difficult to operationalise and inflexible to circumstances.

2.19 However, moving back to a principle-based approach need not automatically mean the pre-NLW remit. Indeed, this is one of the advantages of qualitative approaches. The language can be adapted to push the policy in one direction or another without having to put this into concrete numbers.

2.20 For example, if the Government wanted us to protect living standards it could simply give us a remit to: "increase minimum wages to protect the living standards of low paid workers but without significant risk to their employment opportunities". This would leave the trade-offs for the LPC to consider and communicate back to the Government in our advice.

2.21 Qualitative remits can also be flexible about the appetite for ambitious increases (and tolerance of job loss) without a target. For example, Government could opt for a direct switch to our old remit and, importantly, its old risk appetite ("without affecting employment"). More ambitiously, it could ask us to push pay as high as possible without "significant/substantial risk to employment" or urge us to "continue with ambitious increases that raise the bite."

2.22 The advantage of qualitative models is that without the need to hit a target by a certain point there is greater flexibility to respond to economic conditions. In addition, the LPC's credibility would be fully restored as both worker and employer representatives would know the LPC's recommendations are fully based on the evidence rather than a numerical target.

2.23 A further advantage – for the LPC at least – would be the elimination of the complexity around plotting a target. The flip side of this would be one of its main disadvantages – there would be no forward path. The target path, as difficult as it is to calculate, does give employers something to plan against for the coming years. We have heard repeatedly that this is very useful for employers. But plotting a forward path would be far more difficult without a target.

2.24 If the Government returned to the old NMW remit, one might expect increases of a similar level to those before 2016. But this would discount everything we've learned from the NLW. The NLW's ambitious increases and apparently benign impacts have changed how negotiations might work in the future. Without a target, it is possible that Commissioners would start their negotiations further apart. Worker representatives might push for continued ambitious increases. And employers would know that there is no target to hit. The negotiations may become more difficult. That said, the LPC has a strong track record of reaching consensus, including in times of crisis like the pandemic.

2.25 Finally, it's important to note that target-based systems and qualitative approaches need not be entirely separate. For example, Government could tell the LPC that two-thirds is now the 'floor' but there is freedom to move above this if economic conditions allow. Likewise, there could be a similar emergency brake that allowed the bite to fall if certain conditions were met.

Living wage approaches

2.26 Living wages are based on an approach that calculates the cost of a basket of goods and services needed to meet a certain standard of living. While there are various campaigns around the world, including the UK, we are not aware of any statutory minimum wages based on a formula to calculate a standard of living. The Irish Low Pay Commission (2022) recently decided against a living wage approach following a Government request for advice. They instead opted for a target based on median hourly earnings.

2.27 The Living Wage in the UK, as managed by the Living Wage Foundation (LWF), is based on a Minimum Income Standard (Cominetti and Murphy, 2023). The Minimum Income Standard is the level of income needed to afford a basket of goods and services that provide an acceptable standard of living. The Joseph Rowntree Foundation (JRF) set this basket each year based on the views of representative focus groups.

2.28 In Ireland the Living Wage Technical Group (LWTG) takes a similar approach, calculating a Minimum Essential Standard of Living (MESL), but for a single full-time worker living in rented accommodation. The Irish Low Pay Commission concluded that the subjectivity involved in calculating living wage rates was problematic: *"Although the MESL approach can be the result of a rigorous process, determining what items are necessary to include in a basket of goods approach in order to allow workers to achieve a 'socially acceptable living standard' remains largely subjective. A living wage rate calculated using the MESL approach would be based on what individuals within focus groups believe workers need to consume in order to achieve a 'socially acceptable living standard' as opposed to real observations of what workers actually consume."*

2.29 The main advantage of living wage approaches is that the rate is more responsive to price increases, and therefore more likely to protect living standards during a price shock. But calculating a single hourly rate that provides sufficient living standards to a broad range of household types and circumstances is difficult. The Irish Low Pay Commission found *"the representative worker used in the calculation of a living wage rate by the Living Wage Technical Group (LWTG) works full-time, does not have any dependents, and is living in private rental accommodation. Although this profile may be representative of some minimum wage workers, it is not representative of all minimum wage workers."* Indeed, the huge variation in characteristics and circumstances across households is why benefits systems tend to be complex.

2.30 Recognising this, the Living Wage Foundation (LWF) in the UK takes a broader approach, calculating the weekly needs of 17 different household types (single, couple, lone parent with one child, lone parent with two children etc). An hourly rate requirement is calculated for each household type, assuming full take-up of eligible benefits. Each of these household types are given a weighting and an average is generated to calculate the overall Living Wage. This means the final rate is different to that for individual household types. For example, the current Living Wage is £12 (outside London) but for a lone parent with a 3–4 year old child the minimum hourly wage requirement is £15.25 and if they have

two children aged 5-11 and 12-16 it is £23.75. The final Living Wage is lower than the 'hourly wage requirement' for the majority of household types considered. This is because the calculation weights each group according to its share within the population, so the childless 'single' and 'couple' groups receive weightings of 32 per cent and 34 per cent respectively (no other group is weighted more than 7 per cent).

2.31 Until recently the formula assumed full-time (37.5 hours per week) working for all workers. The LWF are now in the process of assuming more representative working patterns for lone parents and second earners (22 and 28 hours per week respectively). This will mean the Living Wage will need to be commensurately higher to cover the weekly living costs the calculation is based on. The rates announced in October 2023 were the first to include this change, but the LWF estimate it will take three years to fully take effect.

2.32 Because the increases driven by this change were large, the LWF's 'shock absorber' took effect in 2023. This mechanism prevents substantial change in the LW from year to year. It limits any annual percentage change to the CPI inflation rate of the lowest income households, plus or minus 3 percentage points.

2.33 While calculating a living wage is complex, there may be long-term implications as well. Living wage approaches may result in lower increases for workers in the long term. This is because in "normal times" wages grow faster than the prices that drive living wage approaches, while the NLW has grown ahead of earnings. The Irish Low Pay Commission found: *"since 2014 the living wage rate as estimated by the LWTG has been declining relative to the median wage. If a MESL minimum wage had been adopted in 2015 this would have implied that the minimum wage would have risen at a slower rate than wages in the wider economy since then."* If the NLW had risen in line with prices from 2015 it would have been closer to £8.00 than £9.50 in April 2022. Linking the minimum to prices rather than wages during periods of real wage growth could increase pay inequality. At the same time though, it's likely that as general living standards improve, the focus groups who determine the basket of goods and services necessary also upgrade their view on what is required.

2.34 There are questions about the LPC's constitution with a formula-based Living Wage approach. It's questionable whether it could continue to be independent of the Government if much of the formula is dependent on Government policy, particularly benefits policy. The Government may prefer the decision to be brought in-house for the same reason. The focus on living costs would mean employer and worker voices would carry less weight, undermining the social partnership. In turn this would affect the LPC's credibility and its ability to convene workers and employers. This latter point also raises the possibility of negative employment effects as these formulas are only responsive to prices, not the economy or labour market in general.

2.35 However, we are not suggesting that minimum wage recommendations should ignore prices and living standards, far from it.[2] At the end of this chapter we show that many of our stakeholders

[2] The LPC has always tried to recommend real increases wherever possible. For example, during the pandemic the LPC recommended a lower than expected increase of 2.2 per cent because of the economic shock, but this increase was "…*chosen to be modestly higher than that for prices in the year the rate applies, meaning low-paid workers' living standards should be protected as they will continue to receive a real-terms pay rise*."

believe that inflation and living standards more generally should be key considerations. We agree with this, but an approach incorporating living standards need not be formulaic. If Government wants us to protect living standards it could ask us via a principle within our remit rather than a specific formula or target. For example, we could be asked to "increase minimum wages to protect the living standards of low paid workers but without significant risk to their employment opportunities".

"Lock" mechanisms or indexation

2.36 Some have advocated a 'lock' style mechanism, analogous to the pension triple lock, which ensures the state pension rises by the larger of inflation, average wage growth or 2.5 per cent. Like the target models, these have the advantage of predictability. Forecasts of wages or earnings or whatever the target is indexed to could be used as a guide to future increases. Though forecasts themselves are inherently uncertain. Lock mechanisms are used in several countries, see Box 2.

2.37 The simplicity of locks and indexation is a problem during economic shocks. The formula, and policy framework around it, would need to be able to respond to economic shocks. For example, during the pandemic measures of weekly pay crashed in spring 2020, as fewer hours were worked due to lockdown, then as the economy recovered and workers returned to their usual jobs and hours pay growth spiked dramatically. This led to the pension triple lock being suspended temporarily.

2.38 There is also the issue of credibility. Current rate increases have credibility because they are recommended by the independent LPC, and both employer and worker representatives feel their voices are heard and that we weigh the evidence fairly. A formula would have no such credibility. In our consultation this year stakeholders themselves told us they were sceptical of indexing to particular metrics (see the "stakeholder views" section at the end of this chapter).

Box 2 - International comparisons of indexation of minimum wages

According to the OECD, eight countries have some form of indexation as part of their minimum wage setting process. These are: Belgium, Canada (since April 2022), Costa Rica, France, Israel, Luxembourg, the Netherlands and Poland. In some cases, these indexations are automatic, meaning that the minimum wage can be uprated multiple times per year. For example, between January 2021 and May 2023 the Belgian minimum wage increased 8 times; the UK's rate increased 3 times in the same period. According to the OECD *"Automatic indexation helps to safeguard the purchasing power of minimum wage earners and improve the predictability of future increases. However, it also reduces the scope for governments, social partners or commissions to exercise judgement on future increases and could lead to an excessive compression of the wage distribution if other wages are not raised, with consequences both for individual careers, and for the design of redistribution policies".*

Source: Organisation for Economic Cooperation and Development (2023a).

Weekly minimum wages

2.39 Over the years we have heard frequently of the need to focus on hours of work and not just hourly pay, with one solution being a weekly minimum wage. In practice this would be a de-facto minimum number of hours for minimum wage jobs. For example, were a weekly minimum applied this year at £200, then those on the NLW of £10.42 would need to be paid for just over 19 hours of work a week.

2.40 The cohort of workers covered by a weekly minimum would likely be different to those covered by an hourly rate. This is because the UK labour market has many part-time jobs, including some which have a good hourly rate. For example, an NLW (£10.42) worker doing 37 hours a week earns £385, but someone on a much higher hourly rate, say £15, but doing only 20 hours a week earns £300 and would more likely be affected by a weekly minimum.

2.41 This raises the question of how we might set the level of a weekly wage. In 2019 around one in five NLW workers worked fewer than 16 hours a week. If a weekly rate is set low to avoid affecting jobs with few hours, then it will likely have a minimal effect on weekly pay of other minimum wage workers. Likewise, a higher rate would drive weekly pay more but cause problems for employers of those on few hours. The current NLW of £10.42 is 65.2 per cent of median hourly pay. A similar bite applied to weekly pay would be £375. A weekly minimum at this level would cover more than a fifth of all jobs (21.5 per cent) and be equivalent to 36 hours on the NLW of £10.42.

2.42 Further, as we know, hours can fluctuate day to day and week to week, and so we would need to consider over what period the weekly rate applied. For example, would it be firmly week to week or consider an average over a longer period to allow for fluctuations. But if so how long? Hourly rates don't have this problem: if someone has done five hours work in one week, they must be paid at least the minimum for those five hours, and if they do ten hours the next week the same applies.

2.43 This leads to the key risk for weekly minimum wages, a disconnect between the minimum and how many hours a worker works. A weekly minimum would create the incentive to get workers do as many hours as possible, therefore lowering their hourly pay rate. Using our £200 a week minimum example again, the employer would be incentivised to demand more than 19 hours of work a week. It is possible that some situations deemed non-compliant now because some hours of work went unpaid, would be compliant under a weekly minimum.

2.44 To target a weekly minimum on the lowest hourly-paid workers, it could be applied if their hourly pay was below a certain level. For example, if someone is paid over £15 an hour, they can be paid anything on a weekly basis, but if their hourly rate is lower they need to meet the weekly minimum (or there could be a more complex interaction without a cliff edge.) This might help target the policy towards low-paid workers but at the cost of greater complexity.

2.45 We show in Chapter 6 that the NLW has driven up pay for workers on low weekly pay as well as workers on workers on low hourly pay. The fact that the NLW has helped reduce low weekly pay as well as hourly pay suggests less need for a weekly minimum. Weekly minimums would reduce the options of workers who want flexibility and make jobs with fewer hours less viable. This might harm the job prospects of those who need fewer hours e.g. those with caring responsibilities or disabilities etc.

2.46 It's likely that the LPC's proposals on one-sided flexibility (see box 3 below) would offer greater protection of overall hours worked and therefore weekly pay, but at much lower risk. In addition, without stricter regulation of bogus self-employment, there is a real risk a weekly minimum would push more people into self-employment. These difficult issues may explain why in most countries, minimum wages are legally defined as an hourly rate (even when they may be calculated and communicated alongside an equivalent weekly or monthly rate, based on full-time hours). This in turn means that there is limited

evidence of the kind of impact weekly minimum wages have, particularly in countries like the UK which have a lot of part-time jobs.[3]

Box 3 - Our recommendations on one-sided flexibility

In 2018, in the wake of Matthew Taylor's review of modern working practices, the Government asked the LPC for advice on 'one-sided flexibility'. We used this term to refer to a set of practices including imposing unreasonable requirements around workers' availability; unpredictability of shifts making it difficult for workers to manage finances; and an overarching fear of losing future work if they raised a concern or turned hours down.

We recommended a package of measures intended to give workers greater protection against unfair work practices (Low Pay Commission 2018). Our recommendations were:

- A right to switch to a contract which reflects normal working hours. This is not about a worker requesting a change to the amount of work they do, but rather proper recognition of their regular working pattern, built up over time. We believed this would help to tackle the fear of employer retaliation by providing a guarantee of the worker's normal hours.
- A right to reasonable notice of work schedule. This was intended to encourage employers to provide workers with their work schedule in advance so that individuals can plan their lives.
- Compensation for shift cancellation or curtailment without reasonable notice. This was intended to discourage employers from cancelling shifts at the last minute or partway through a shift.
- Information to workers. The written statement of terms from employers should detail the rights we are proposing here.

The Government has yet to bring forward legislation to implement these. We note the Workers (Predictable Terms and Conditions) Act, which received royal assent in September 2023, introduces the right for workers to request more predictable terms and conditions of work. In our view, a right to request falls short of the stronger right which we recommended.

Geographical variation

2.47 Minimum wages could be varied geographically. For example, the USA has different rates by state and some cities alongside a federal minimum. Likewise, Japan varies rates by prefecture, although within Europe geographical variation is rare. Even countries like Belgium and Germany, which are more devolved than the UK, still have single national minimum wage rates.

2.48 The main advantage is that geographical variation would allow tailoring to local circumstances. For example, London is a high wage area and so the bite of the NLW there is much lower than the rest of the country. With a single national NLW, NLW workers in high-cost areas will have lower living standards than NLW workers in low cost areas. It's also important to consider the devolution agenda, it

[3] According to the Organisation for Economic Cooperation and Development (2023b), in 2022 just under 21.9 per cent of people work part-time (fewer than 30 hours) in the UK, compared with an OECD average of 16.1 and EU average of 14.5 per cent. Only Germany, Japan, Switzerland, and the Netherlands have more part-time jobs than the UK.

is likely that devolved nations, cities or other areas would like to have control of minimum wages in their area.

2.49 However, geographical variation would add complexity. The more complexity, the harder it is for HMRC to enforce and for workers and businesses to know where they stand. Compliance cases would become more complicated, needing to consider location, commuting, workers spending time at multiple sites, businesses located in one minimum wage area but trading and sending workers into another (delivery drivers, transport workers etc). All of this complexity means it will take longer to investigate cases, spreading resources over fewer cases/workers. This in turn would give unscrupulous employers more leeway and reduce workers' confidence in the system.

2.50 It is already challenging to communicate NMW rates to workers and employers. More rates mean more communication issues, which lead to more confusion and less compliance. Currently the number of complaints from workers relative to the scale of underpayment is very small. A more varied picture geographically is unlikely to improve this.

2.51 Employers on either side of a rates line would be in different competitive environments but potentially the same markets for their goods and services, raising questions about fair competition. The notion of the 'level playing field' is key for employer buy-in to both the minimum wage itself and its enforcement. All employers know that they are (or should be) facing the same rules. But geographical variation may go against this. One example is high street retailers in a city competing with online retailers/warehouses based outside of the city but delivering within, potentially on a lower NLW (and already with certain tax advantages in some cases).

2.52 Throughout the LPC's history it has heard arguments against variation in rates by age, which are regarded by many as unfair and possibly in breach of equalities legislation. Differences by geography might be similarly regarded, though location is not a protected characteristic. Whether it is fair or not to do so, any kind of geographical variation can be labelled a 'postcode lottery'.

2.53 Even if the principle of geographic variation is accepted, it's not obvious which geographies to use and where to draw the line(s). There is far greater variation of wage and other costs within regions than between them. A more appropriate distinction might be between urban and rural, but it would be practically impossible to enforce this divide. The most obvious and clear case for a different rate is with London, but this would do nothing for the differences between rural Northumberland and Newcastle for example.

2.54 The appropriate geographical level raises the question of who makes the decision. The UK Government could set local rates (potentially based on LPC advice) or devolved nations/cities could do so (again based on LPC advice potentially). In the devolved scenario local politics would be important determinants of the rates. There is a risk that the politicisation of rates that the LPC was designed to avoid plays out at a local level instead. Given that devolved powers are still fairly limited in the UK, local minimum wages would likely be central to any local/devolved elections. Local elections could become "bidding wars" for local minimum wage rates.

2.55 This broad array of issues may explain why, when we look internationally, few countries vary their minimum wages geographically.

Sectoral approaches

2.56 The pros and cons for sector-based systems would likely be similar to those for geographical minimum wages. The more rates there are, the more complexity we'd have and therefore more difficulty in enforcement and communication. And there would be variations in wages and affordability within sectors as well as between them, like there are with geographies.

2.57 However, there are some important differences too. The playing field would likely be more level than under geographical minimum wages. Under the latter scenario similar businesses would be competing with each other under different rules if they are in different areas. But in a sectoral approach all restaurants would all face the same rate, as would all supermarkets or care homes. Though, this highlights the key issue of identification of sector and breadth of coverage. Geographies may be easier to define than industries or firms, particularly firms that straddle industries. It might be straightforward to get retailers to all face the same rate, but should delivery firms do likewise? Or should they face a higher rate?

2.58 This shows that one of the advantages of a sectorial approach is that the policy could flex to take account of differing economic circumstances in different industries. But managing the interdependencies would be challenging and there would need to be an overarching strategy. For example, would the aim be to set sectoral rates that simply reflect affordability in each sector? Or to take account of interdependencies (a high minimum wage rate in one sector creates a staff shortage in another). Would the overarching strategy be to equalise sectoral rates over time or to recognise the differences?

2.59 In some sectors there may be scope for sector-level pay agreements between employers and workers. Sector-level pay agreements are common are common across many European countries and have gained increasing interest elsewhere. New Zealand has recently introduced a system for sector-level agreements ("Fair Pay Agreements"). Our view is that any such agreements should sit on top of the minimum wage rather than replace it. They should also be agreed on by the relevant employers and workers.

Implications for young people

2.60 Each of these models raises different questions and implications for young people. For each of them, the Government would need to decide what to do with rates for young people i.e. whether to have separate rates or not and how to calculate them.

2.61 With the target-based approaches we face the same issues we've been wrestling with since the NLW's introduction. The adult rate has a target, but the youth rates remit remains to push them as high as possible without causing job loss. This separate and more cautious remit is because young people are more at risk of employment effects: they tend to work in pro-cyclical sectors like retail and hospitality, they are more likely to be on temporary contracts and have less experience. In addition, scarring effects mean that unemployment while young effects earnings and employment chances for longer.

2.62 The issues we've wrestled with throughout the NLW are largely to do with the gap between the NLW and the youth rates. A large gap arguably provides additional "shelter" to young people, as their lower wage floor makes them relatively cheaper to recruit, protecting their employment chances. But this gap raises questions about fairness, particularly as it has widened over time. Also, large jumps in rates between age groups can cause problems when young people become eligible for the next rate up and require a large pay increase. Currently a 20 year old minimum wage worker is entitled to a £2.69 an hour pay increase on their 21st birthday (35 per cent). We discuss the impact of these differing remits in the next chapter.

2.63 Weekly minimum wages would particularly affect young people as they overwhelmingly work in part-time jobs, often alongside full-time education. The issues raised earlier about effective minimum hours would be particularly pertinent to them.

2.64 If the Government opted for a formula-based living wage it would need to decide whether to have separate youth rates. The Living Wage Foundation calculate their living costs for everyone aged 18 and above and one of the criticisms we frequently hear about youth rates is that many young people face the same living costs as adults. Nevertheless, as with the NLW target, including younger workers in the calculation is likely to lower the resulting rate. This is because on the whole young people are less likely to be parents and less likely to live independently, which will pull down the average estimate of living costs. But this last point is a chicken and egg situation. Young people are now living with their parents for longer, lowering their living costs and therefore any living wage. But they may be doing so precisely because their wages are too low relative to the costs they face, particularly rents.

2.65 With both geographical and sectoral minimum wages it would be possible to have separate youth rates that were also split along geographic/sectoral lines, though these would add to the complexity. It's possible that the geographies of youth labour markets are different to older workers, with less travelling due to the costs and need for a car etc. So separate youth rates might complicate the already difficult question of what geography should apply.

Stakeholder views

Worker representatives advocate a further target based on median hourly earnings

2.66 Unison said that we should "set a course for raising the National Minimum Wage to £15 an hour, in line with the path set out by the TUC." Likewise, Usdaw said their "policy is for an immediate rise in the National Minimum Wage to £12 an hour, as a step towards £15 an hour." However, Usdaw also noted that "a further target linked to median earnings, to guide the Commission's work, higher than a rate of two thirds of median earnings, has merit."

2.67 The TUC *"believes a more ambitious 75 per cent target is needed for the Low Pay Commission, alongside a government plan for higher wage growth for all workers. The 75 per cent target should be set on as fast a timeframe as possible with the Low Pay Commission responsible for charting an ambitious path for its introduction. This would ensure that the process is led through social partnership by a body with authority to test the limits of minimum wage policy, alongside consideration of prevailing economic conditions."*

Stakeholders proposed factoring living costs into future rate decisions, but not with formulas or indexation

2.68 Some unions noted that future increases should consider inflation. Usdaw said *"…people go out to work so that they are able to afford to live. As such, Usdaw believes that the Low Pay Commission's deliberations and policy objectives must include reference to the cost of living."* Similarly, Community told us *"The National Living Wage needs to rise by at least the value of inflation each year."*

2.69 A large national tourism firm told us during a visit that *"the number's got to be such that the average person that is impacted by the NLW can do more than survive ... we've got to pay people so that they can actually have proper, meaningful enriched lives for them and their children."*

2.70 Similarly, the Association of Labour Providers[4] (ALP) say " *The next stage of development of the National Minimum Wage should be for the Low Pay Commission to work collaboratively with the Living Wage Foundation towards a common definition of the UK living wage and this should set a target for future NLW levels."*

2.71 The Association of Convenience Stores (ACS) also considered formula-based living wage approaches to the minimum wage. They said that *"The LPC could explore alternative wage models, involving setting wage rates based on a more comprehensive assessment of living costs, taking into account factors like housing, healthcare, and transport".* Though they go on to note issues with these calculations however: *"there may be some discrepancies in living cost assessments, and such analysis would have to be conducted on a regional or even sub-regional level in order to be meaningful, thus undermining the concept of a national statutory wage rate."*

2.72 Make UK thought that indexation to prices (or wages) would be too restrictive *"Indexation of the rates to annual CPI inflation or annual median earnings might further restrict the role of the LPC in determining the new rates, effectively reducing much of the process to a simple set of calculations each year."* Similarly, in a survey of FSB members just 12 per cent advocated the LPC following *"a formula set by government linking increases to inflation."*

Employers do not want another target and would prefer the old remit, or something like it

2.73 Employers tend to prefer minimum wages being set according to economic conditions rather than what they view as an "arbitrary" target. British Chambers of Commerce said *"Beyond 2024, we believe the LPC should not have to operate to a target set by the government but should have the independence to recommend NLW rates according to the evidence available and the performance of the economy."*

[4] The ALP represent the staffing agencies ("Gangmasters") who provide workers to agriculture and food production sectors and are regulated by the GLAA (Gangmasters and Labour Abuse Authority).

2.74 Make UK say *"...there is little appetite for a fresh, specific long-term target to be set. The clear preference for manufacturers is for the NLW and NMW rates to be set according to what is happening in the economy and the labour market, rather than determined by what is sometimes felt to be an arbitrary target set according to political, rather than economic, considerations".* The FSB surveyed their members and found just 8 per cent advocated the LPC follow *"a target set by government to achieve a particular level relative to median earnings."*

2.75 Similarly, the ACS said *"We recommend that the LPC be empowered to set wage rates independently of political targets, setting out a clear framework on what is an acceptable trade-off between employment and wages. An 'emergency brake' mechanism to suspend uprating when wage rates have a detrimental effect on employment opportunities could prove crucial……[A further target] would pose further challenges for businesses such as convenience stores with tight profit margins and a high proportion of costs attributable to wages."*

2.76 The British Retail Consortium (BRC) called for *"a cautious approach to the trajectory for the NLW beyond 2024, taking full account of the current economic environment."* Similarly, the NHBF said *"The Government should take a cautious approach to any future rises beyond 2024. We support moving away from a targets-based approach to a wider assessment of the economic and labour market conditions for future NMW/NLW rate setting."*

2.77 UKHospitality propose a slightly different approach, with a 'lock' at two-thirds of median earnings and the freedom to go above this where economic conditions allow: *"The available evidence shows that there has not been a negative impact on overall employment levels since the NLW was introduced in 2016. But there clearly is a level for the NLW which would be damaging for employment, and we would favour a careful and cautionary approach after 2024…..Having attained the two-thirds level, we would support a policy of the NLW being increased each year by the increase in average earnings. Such a 'lock' would protect the two-thirds attainment. The Low Pay Commission should be given the broader remit (as in the years before the introduction of the NLW) for being ambitious with minimum wage rates without damaging employment levels".*

2.78 Some employers accept that no target means no forward path to plan against, others prioritise predictability. Make UK accept this trade-off in favour of rates being set according to economic circumstances: *"Not setting a new target and simply committing to updating the rates each year, while removing the longer-term visibility, may improve employer confidence in the new rates being genuinely reflective of the economic circumstances and effectively agreed through a bargaining process between the commissioners that is a familiar approach to wage setting for many manufacturing businesses".*

2.79 Predictability remains important for some employers though. One large hospitality employer did not advocate for a particular target or model beyond 2024, but instead urged *"forward visibility of NLW plans beyond 2024 as soon as possible, to aid business planning".*

2.80 The LGA note that *"Predictability is also key…Having a target for the NLW that is reliant on unknown future figures is deeply problematic for employers and we would strongly urge those setting the next NLW policy to ensure its growth or review is as predictable as possible. A multi-year approach would greatly assist, ideally with even increases rather than erratic increases from one year to the next".*

2.81 They go on to explain that sectors where wages are subject to collective bargaining need earlier knowledge of rates to inform their negotiations in good time: *"A multi-year approach would greatly assist with preparedness in sectors, like local government, that are heavily unionised and use a process of collective bargaining, where timing and duration of the negotiation process is difficult to predict. In 2021-22 we did not reach an agreement with the unions until February 2022 for rates that should have come into force on 1 April 2021. Consequently, it was impossible for negotiations for 2022-23 to even begin, let alone be concluded, before the start of that financial year and the introduction of the NLW rate on 1 April, hence our need to ensure we were above that rate 'the year before' it was introduced".*

Conclusion

2.82 A range of options for minimum wages exist, each with strengths and limitations. We've also set out some principles that we think should be followed: social partnership and independence; responsiveness to economic conditions; maintaining the level playing field; ease of operation and long-term consistency.

2.83 Following these criteria, the LPC's views is that geographical, sectoral, indexed, weekly and living wage approaches have weaknesses that make them unsuitable for policy. This means that further targets or a principle-based remit are the preferable options. Clearly there is scope for a lot of variation within these models. Targets can be ambitious or cautious. If Government does ask us to pursue another target, we would ask for improved labour market data and better data access, so we can better forecast pay (see Chapter 7 for details). With better data, we can provide better guidance on future rates to workers and businesses.

2.84 Principle-based remits can more easily guide the LPC on other goals of the policy e.g. on living standards. For example, we could be asked to "increase minimum wages to protect the living standards of low paid workers but without significant risk to their employment opportunities". We could respond to this by using inflation for the lowest income households as some kind of floor below which our recommendations would not fall without good reason. Alternatively, we could follow the Australian approach whereby qualitative research into the household incomes and spending informs considerations, but is not binding on them.

2.85 From our stakeholders we hear that employers and their representatives have little appetite for further targets. Instead, they would like an approach similar to what we had before the NLW which prioritises responsiveness to economic conditions. By contrast worker representatives point to the success of the NLW so far and advocate another bite target, for example 70 or 75 per cent.

2.86 In Chapter 1 we said that Government should decide what policy outcome it wants to achieve. This decision will help guide its decision on what framework to use. A targeted approach is best suited if the aim is to continue reducing hourly wage inequality. If the aim is to instead protect the progress made so far and be more responsive to economic conditions then a principle based remit is best suited.

2.87 Many stakeholders have told us that while the recent increases in the NLW are welcome, progress on weekly pay and household incomes more generally has not been good enough. In some cases they propose weekly minimum wages to tackle this.

2.88 Our view is that the best response would be enacting our recommendations on one-sided flexibility. These included a right to switch to a contract that reflects your regular working pattern, to reasonable notice of your work schedule and to compensation if your shift is cancelled or curtailed at short notice. These measures would protect workers against unreasonable requirements around availability; unpredictability making it difficult to manage finances; and an overarching fear of losing future work if they raised a concern or turned hours down.

Chapter 3

What are the policy options for young people?

Key findings

- **Youth rates exist to protect youth employment** – They enable more young people to acquire essential skills and experience. They prevent the greater scarring effect unemployment has on young people and recognise that young people's employment is more responsive to minimum wage changes than adults. This rationale for lower rates still holds, particularly for the youngest workers.
- **At the same time, the Low Pay Commission (LPC) has always recognised that age-based rates are not necessarily fair** - Jobs that use the youth rates may not offer good opportunities for training and skills development, with young workers paid less than their older counterparts for doing the same work. Stakeholders tell us this can affect the morale of young people and their willingness to enter the labour force. A fairer model would be linked to training and experience, rather than age, but this is difficult to implement.
- **Youth rates (for workers under 21) have lost ground against the adult rate over the past decade** - This was first driven by high youth unemployment and greater use of the youth rates after the financial crisis, and then by the rapid increases of the National Living Wage (NLW) combined with a more cautious remit for younger workers. The large gap between the youth and adult rates contributes to the sense of unfairness and leads to large changes in minimum wages when young people reach the next age band.

The LPC view is that:

- **There is a case for reducing the gap between youth and adult rates -** The current gap is large by both historical and international standards and many employer and worker representatives tell us that it is too large. Meanwhile, young people's average wages have grown faster than those of older workers over the last decade, despite their minimum wages lagging behind. This gives us headroom to increase the youth rates without harming employment.
- **There is scope to reduce the age of eligibility for the NLW, but this should be done with caution** - We recommend moving towards an adult rate that starts at 18 years old by gradually reducing the age of entitlement to the NLW, as was done for 21–24 year olds. However, the risks are greater than they were for lowering the age to 21. Both the level of increase required, and the share of jobs affected are higher. It should therefore be managed carefully, with time allowed for full evaluation of each step. The LPC should have the discretion to recommend the timing and extent of each change and to deviate from any planned goal if the evidence suggests it is necessary.

Introduction

3.1 This chapter sets out the main considerations for young people's minimum wages beyond 2024. It looks only at those aged under 21, as everyone aged 21 and over will be eligible for the adult rate of the minimum wage from 2024.

3.2 Each option considered in relation to the adult rate has a youth dimension, but here we focus on some options that are distinct to the youth rates:

- Setting the relationship between youth and adult rates;
- Targets for youth rates;
- Changing the structure of the rates.

3.3 We conclude by highlighting the interactions between the youth rates and the Apprentice Rate, which is discussed further in Chapter 4. The Low Pay Commission (2019a) undertook a detailed review of the youth rates of the minimum wage in 2019, much of which remains relevant today. This chapter does not attempt to repeat the review and a more detailed discussion of many of the topics touched on here can be found in that report.

Background

Minimum wages for young people and trainees in the UK

3.4 Since the introduction of the minimum wage in 1998, the UK has taken several different approaches to younger workers and apprentices (as shown in Figure 1). Initially, under-18 year olds and certain apprentices were exempt from the minimum wage, while a 'Youth Development Rate' was set for workers aged 18-21. While the Youth Development Rate was based on age, the LPC (2000) had originally intended for it to be tied to accredited training in recognition of the costs to employers. This was judged fairer than rates based solely on age: *"We do not claim that a lower rate for young workers is fair. We restate our aspiration that in time any lower rate would be linked to the provision of accredited training."*

3.5 By 2003 the LPC (2003) had abandoned the aim of tying rates to accredited training for a range of reasons. Firstly, employers, particularly smaller employers, didn't undertake accredited training and viewed using the Youth Development Rate as difficult or bureaucratic or simply didn't know how. Secondly, many jobs have value *"…even where little or no formal training is provided, these jobs offer young people the chance to gain experience, learn the disciplines of work and acquire worthwhile, transferable job skills"* so this kind of employment is worth protecting too. Finally, the kinds of jobs that young people do often don't require much training or don't fit with accreditation*: "in many cases, their content does not require much, if any, accredited training and the young people doing them frequently work part-time, for relatively short periods, or intermittently."*

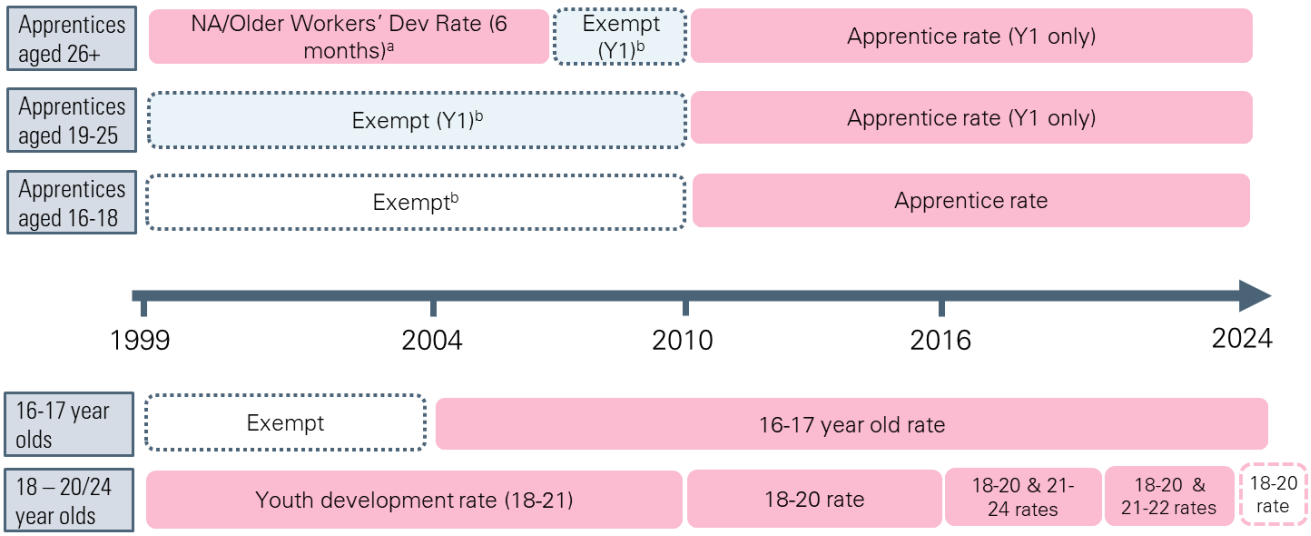
3.6 For these reasons the LPC stated in 2003 that *'to make accredited training a condition of paying the Youth Development Rate would risk discouraging firms from offering these jobs to young people. We continue to believe strongly in the importance of training. But the conditions are not in place to*

enable the Youth Development Rate to be made conditional on accredited training without creating a risk to youth employment.'

3.7 When introduced, the 18-21 Youth Development Rate offered a discount of about 15 per cent on the adult rate, which remained relatively stable over the first decade of the minimum wage. The 16-17 Year Old Rate was introduced in October 2004, and set around 40 per cent lower than the adult rate. Workers under school-leaving age (usually 16) remain exempt from the minimum wage.

3.8 The first minimum wage regime also included an Older Workers' Development Rate. This rate could be used for up to 6 months for workers aged 22 and above participating in accredited training. In 2006, the Older Workers' Development Rate was abolished, on the LPC's advice, as evidence showed it was little used.

Figure 3.1: A timeline of minimum wage regimes for young people and apprentices



Source: LPC records.

Notes:

a. When the minimum wage was introduced, apprenticeships were only available to those aged under 26, with starts limited to those aged under 25. This age limit was removed in 2004/5. The 12-month exemption from the minimum wage was then extended to all apprentices aged 19 and over from October 2006.

b. From 2005, apprentices on Government-funded schemes were entitled to a weekly wage equivalent to the benefits they could receive if they went to college.

Use and bite of youth minimum wages in the UK

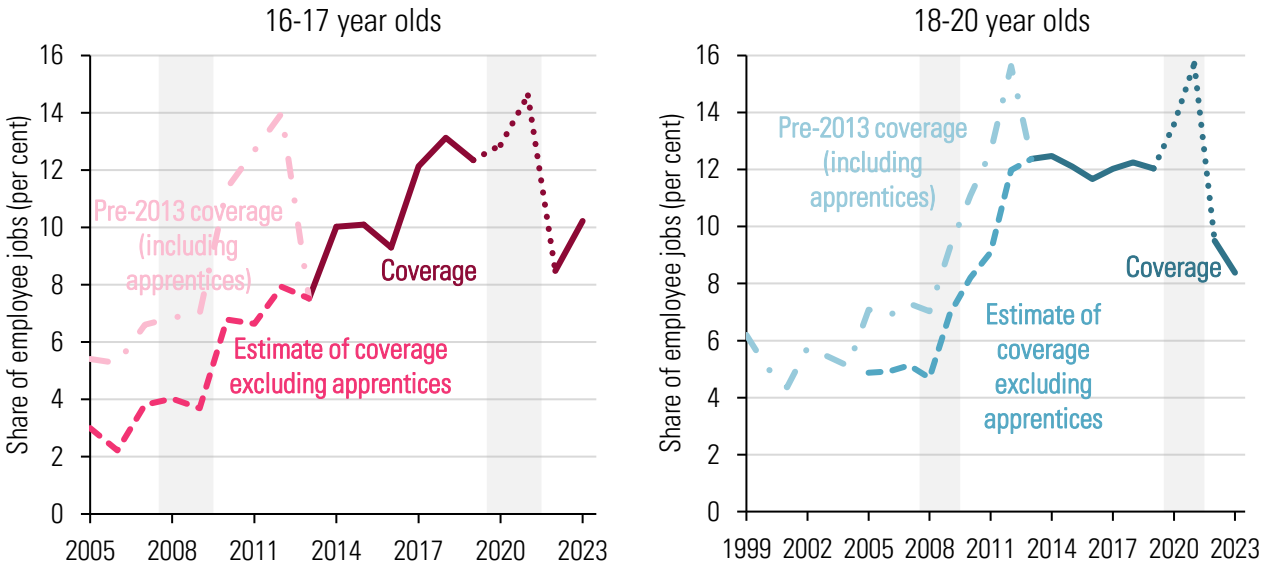
3.9 Use of the age-related rates for 16-20 year olds was low when they were first introduced. We define coverage as jobs paid up to 5 pence more than the rate. By April 2005 we estimate that, excluding apprentices, fewer than 5 per cent of 18-20 year olds were covered by the Youth Development Rate. The 16-17 Year Old Rate came in in October 2004, and we estimate that only 3 per cent of jobs done by 16-17 year olds were covered by the new rate in April the following year.

3.10 However, during and after the financial crisis of 2008, coverage increased significantly for young workers. 18-20 year old coverage more than doubled to 12 per cent by 2013 and stayed at that level until the pandemic recovery (see right panel of Figure 3.2). For 16-17 year olds, coverage carried on

rising following its introduction up to the pandemic. This rising coverage, combined with high youth unemployment, prompted the LPC to make cautious recommendations for the youth rates over this period (although young people's median wages were generally growing faster than older workers').

3.11 Use of the rates fell dramatically in the context of worker shortages following the pandemic and as of 2023 remains below pre-pandemic levels at 10 per cent of jobs for 16-17 year olds and 8 per cent for 18-20 year olds. However, it is not clear if this marks a longer-term step change in how the rates are used or if coverage will rise again as the labour market loosens.

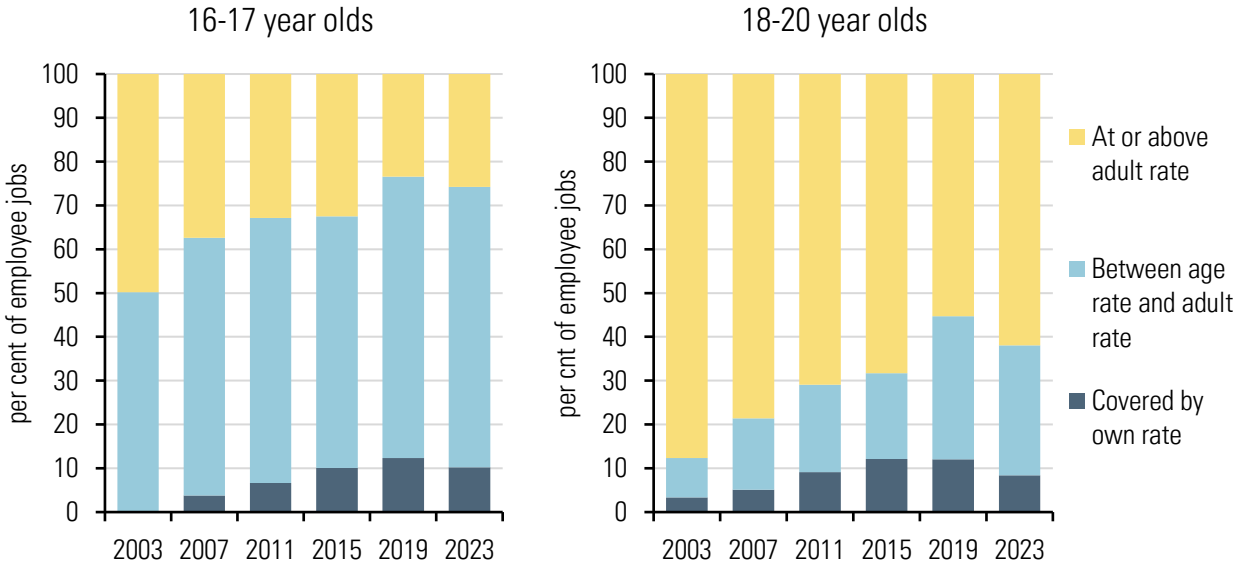
Figure 3.2: Coverage rate for 16-20 year olds, UK, 1999-2023



Source: LPC analysis of ASHE, low pay weights, UK, 1999-2023. 16-20 population. Excludes workers eligible for the apprentice rate from 2013 onwards. Between 2005 and 2013, coverage excluding apprentices is imputed using ASHE and Department for Education data on historic apprenticeship starts (Department for Education, 2017). ASHE figures are chain-linked to account for methodology changes during the series (see Appendix 1).
Note: Until ASHE 2011, the relevant minimum wage rate for 18-20 year olds was the Youth Development Rate, which applied to those aged 18-21. For consistency, we limit our sample to 18-20 year olds in all years, however it is possible that changes in the age band could have knock-on effects on coverage and bite.

3.12 Importantly, 'effective coverage' – the share of young workers paid anywhere below the adult rate of the minimum wage – remains high (Figure 3.3). The majority (just under two thirds) of 16-17 year olds and just under one third of 18-20 year olds are paid between their own rate and the NLW (the adult rate). This share has generally grown as the gap between the youth rates and adult rates increased. On one hand, this indicates that use of the youth rates – in the broad sense of permission to pay a lower rate – is more widespread than indicated by coverage figures alone. This may prompt caution when considering changes to the structure of the rates. On the other hand, the fact that many employers already choose to pay above the youth rates may suggest there is scope to move them closer to the NLW.

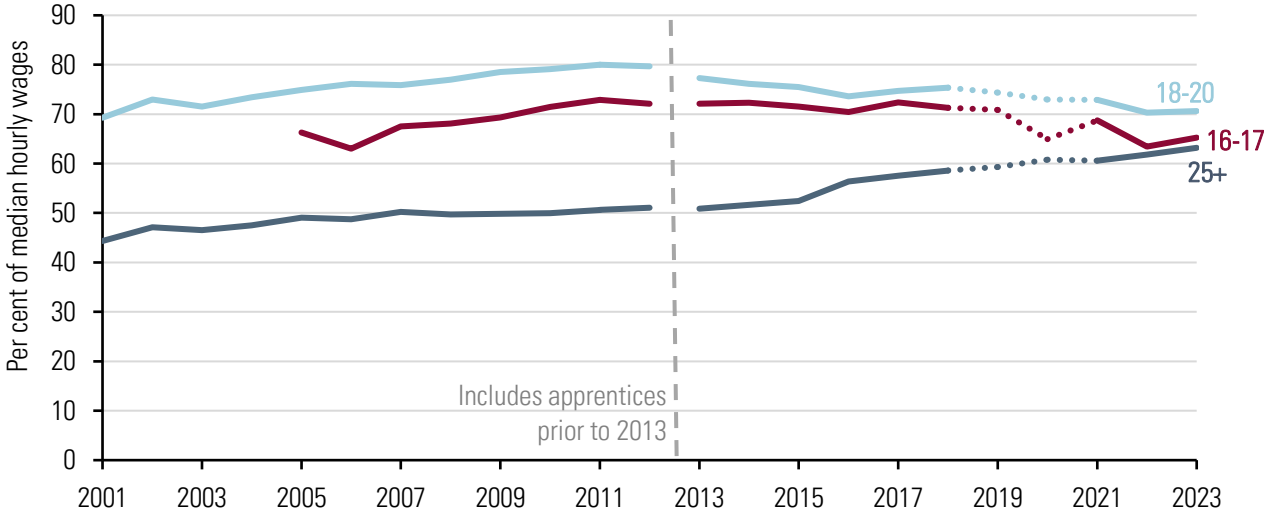
Figure 3.3: Effective coverage, 16-20 year olds, 2003-2023



Source: LPC analysis of ASHE, low pay weights, UK, 1999-2023. 16-20 population. Excludes workers eligible for the apprentice rate from 2013 onwards. Before 2013, coverage excluding apprentices is estimated using ASHE and Department for Education data on historic apprenticeship starts (Department for Education, 2017). ASHE figures are chain-linked to account for methodology changes during the series (see Appendix 1).
Note: In 2003, 16-17 year olds were exempt from the minimum wage and so the coverage of their own rate was by definition zero.

3.13 In contrast to coverage, the bite of the youth rates – their value as a percentage of the median – has generally fallen over the last decade (Figure 3.4), particularly for 18-20 year olds. This is because young people's median wages have grown strongly compared with their minimum wages. Bites remain higher for young people than for adults because under 21 year olds are concentrated in low-paying occupations and sectors. This means there is far less variation in their wages than in the adult labour market, where workers do a much wider range of jobs.

Figure 3.4: Bite of the minimum wages for different age groups, UK, 2001-2023



Source: LPC analysis of ASHE, standard weights, UK, 2001-2023. 16+ population. Excludes workers eligible for the Apprentice Rate from 2013 onwards. Figures are chain-linked to account for methodology changes during the series.
Note: Until ASHE 2011, the relevant minimum wage rate for 18-20 year olds was the Youth Development Rate, which applied to those aged 18-21. For consistency, we limit our sample to 18-20 year olds throughout the period.

Minimum wages for young people and trainees in other countries

3.14 Here we provide some examples of systems used by countries that are broadly comparable to the UK in economic terms. Nevertheless, direct comparison between countries requires context, as the broader policy environment, as well as the local labour market and the level at which adult and reduced minimum wages are set, can all influence the success of a particular minimum wage regime.

3.15 Many countries do not have separate youth rates, or limit reduced rates to those under 16. However, in most of these instances there are separate rates for certain kinds of trainee, or for young people in certain circumstances. For example, New Zealand imposes a six-month time limit on the use of reduced rates, while some Canadian provinces limit the number of hours that can be worked at their 'student rate' to ensure it is only used for young people working alongside their studies.

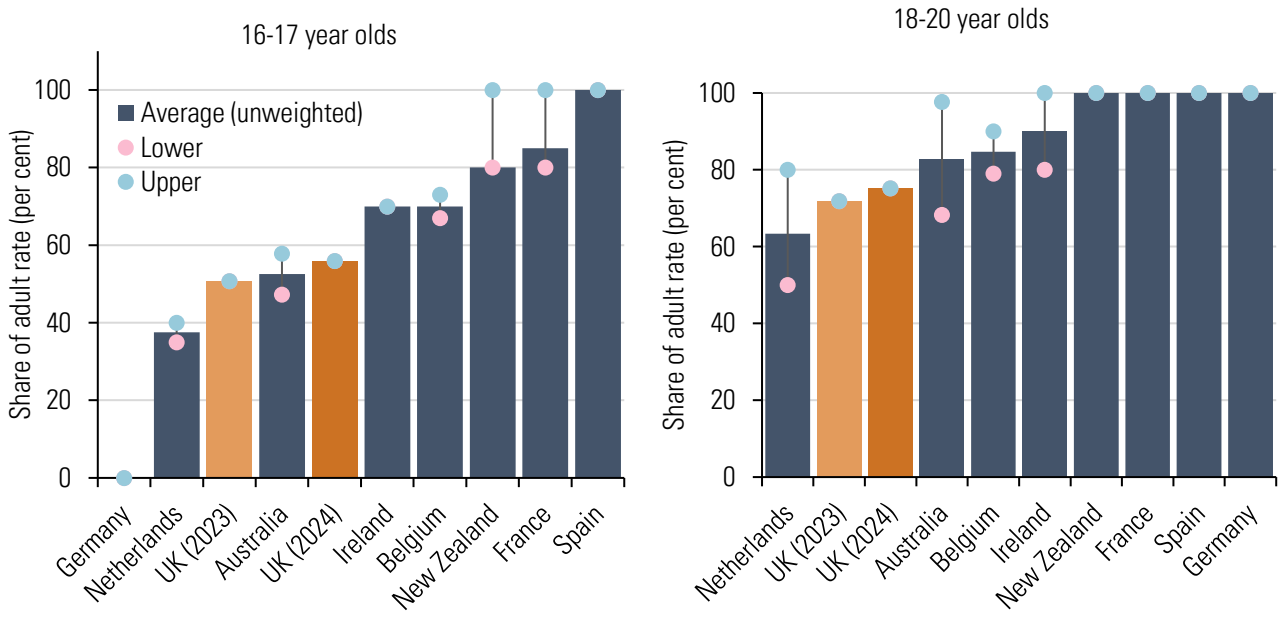
3.16 Other countries break youth rates down to a more granular level than the UK: for example, the Netherlands and Australia have different rates for each single year age band between age 15 and 20 (with those 21 and over entitled to the adult rates) as well as separate rates for (some) apprentices. In these two cases, youth rates are tied to the adult rate and are set as a fixed proportion: between 36.8 and 97.7 per cent in Australia and between 30 and 80 per cent in the Netherlands.

3.17 Some countries exempt some groups of young people (as is the case in the UK for those under school leaving age) or trainees. In Germany, workers under 18 are exempt from the minimum wage, as are trainees in certain short-term accredited programmes or those entering the labour market from long-term unemployment. Apprentices are exempt from the hourly minimum wage, but are instead entitled to a minimum monthly training allowance.

3.18 The aim of reduced rates – particularly in trading off age versus training requirements – can also drive the level at which they are set: The French system, for example, provides much greater reductions for training provision, even though it maintains an age dimension: the youth rates (only applicable to young people with less than 6 months experience) start at 80 per cent of the adult rate, while apprentice rates (also age dependent) start at 25 per cent of the adult rate.

3.19 When compared with other similar countries, the UK's youth minimum wages are low relative to the adult rate – particularly for 18-20 year olds (Figure 3.5). This is partly because the NLW is high by international standards. However, while most countries tie their youth rates to the adult rate (as a set percentage), the UK does not.

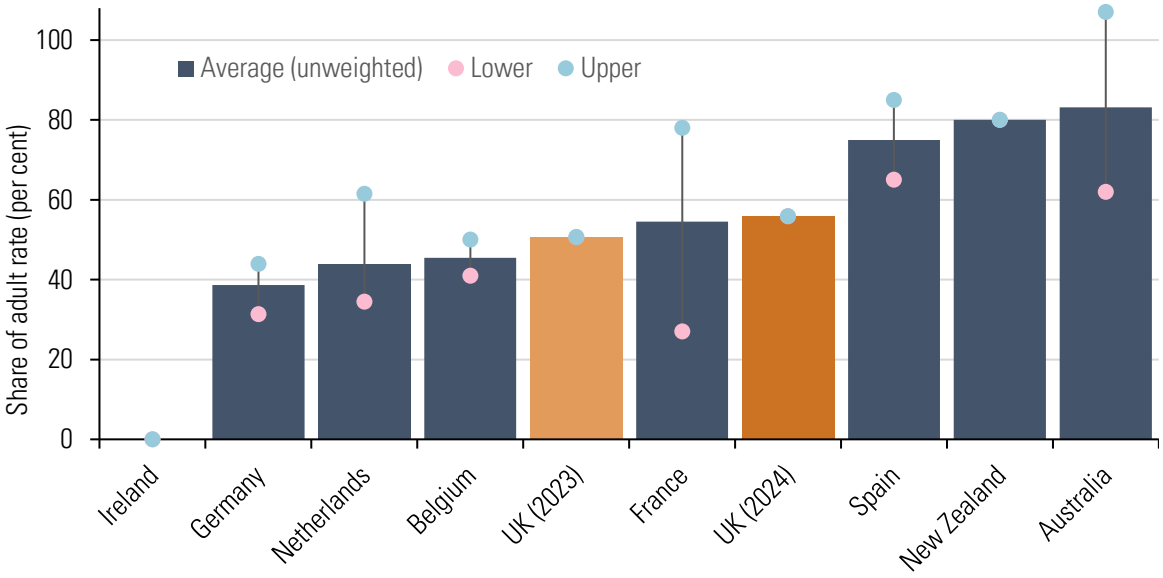
Figure 3.5: The relative value of youth rates in selected OECD countries, 2023-2024



Source: LPC analysis of information available from other countries. Upper and lower bounds indicate the minimum and maximum rates that may apply within the given age group. Often these are due to more granular age boundaries or conditions on use of the rates. Where both reduced and full rates may apply at the same age (e.g. where reduced rates are applicable for a limited period), averages are taken of reduced rates only.
Note: We attempt to capture a summary of minimum wage rates that can be compared with the UK rates, but recognise that it may not reflect the full complexity of different minimum wage systems.

3.20 The same is not the case for training rates, where the UK's Apprentice Rate falls closer to the middle of the pack when compared to the same countries (Figure 3.6). There is, however, considerable variation in how eligibility is defined across countries, with differences based on age, length of training and qualification type making it more difficult to compare directly. As with youth rates, it is notable that most of the comparator countries shown here tie their training rates to a set proportion of the adult rate.

Figure 3.6: The relative value of training and apprentice rates in selected OECD countries, 2023-2024



Source: LPC analysis of information available from other countries. Upper and lower bounds indicate the minimum and maximum rates that may apply. As in the UK, some apprentices and trainees are often subject to the adult rate of the minimum wage, depending on age and year of training. We have only included apprentice/training-specific rates here.
Note: Training and apprentice rates are often the most complex area of a country's minimum wage system. We have tried to choose rates that are most comparable to the UK rates, but comparisons should be considered in the context of the different policy contexts, including conditions on the use of the rate and funding arrangements, that may apply.

Evidence on the impact of minimum wages for young people

3.21 Employment effects are a greater concern for young people because of evidence that unemployment at a young age has a long-term effect on labour market outcomes. This is referred to as 'scarring'. Research evidence on employment effects for young people varies, particularly by country, suggesting that context is important to how youth employment responds. However, the weight of the evidence suggests young people's employment is more responsive to minimum wage changes than adults', particularly for the youngest age groups (those aged 16-17) and/or during economic downturns. The evidence also suggests that lower youth minimum wage rates, as well as effective youth employment programmes, can mitigate these negative impacts. The key studies behind these results are summarised in the Low Pay Commission's Review of the Youth Rates (2019a).

3.22 More recent evidence continues to show a mixed picture depending on age and context. For example, Maré and Hyslop (2021) find that minimum wage increases in New Zealand – where most workers aged 16 and over are entitled to the adult rate – have negative effects for 16-17 year olds, but they don't find consistent evidence of impacts for 18-19 year olds. They relate the scale of negative impacts to coverage of the incoming rate, which is very high for young workers in New Zealand. Looking at an earlier minimum wage increase in New Zealand, van der Westhuizen (2022) finds positive employment effects for 16-17 and 18-19 year olds, although cautions that this may be due to prior trends in the data.

3.23 Cardoso (2019) revisits the large minimum wage increases for workers aged 17-19 in Portugal in the 1980s. Looking at the long-term career outcomes of those affected, she finds no impact on

employment prospects. Studying slightly older workers, van Bezooijen, van den Berge and Salomons (2021) find that large minimum wage increases for workers aged 20-22 in the Netherlands in 2017 had no effect on employment while slightly increasing hours worked. The positive hours impact was concentrated among full-time, non-student workers, suggesting that the impact was positive for *"[young] workers who rely on low-wage jobs for a living"*.

3.24 There is some research evidence suggesting that age-related 'cliff edges' in minimum wage rates may have a (temporary) negative impact on young people's employment as they approach the next rate up. Kabátek (2015), looking at the Netherlands, finds increased flows out of employment as young people approach eligibility for the next age rate. The effect is stronger at some ages than others and is largest in the retail sector. A similar study in Denmark[5] (Kreiner, Reck and Skov, 2020) found that large wage discontinuities at the age of 18 were associated with falls in both employment and hours as workers reached the age threshold. Further work would be needed to confirm to what extent the size of the wage jump determines the size of any impact.

3.25 Another consideration specific to young people is their position between education and work. Some have expressed concern that high minimum wages may sway young people's decisions away from continuing in education. However, a binary distinction between work and education does not reflect the labour market reality for many young people. In the UK the vast majority of 16-17 year olds who work do so alongside full-time education, and combining the two provides important work experience. The research evidence finds only limited evidence of a trade-off between the two. One study of very large changes in the minimum wage for 16-17 year olds in New Zealand found evidence of reduced enrolment (Hyslop and Stillman, 2004). Looking at slightly older groups (from age 18), a recent paper from the US (Schanzenbach, Turner and Turner, 2023) found that large minimum wage increases reduced community college enrolment, but primarily among those who were already less likely to graduate. Other studies, including UK-based studies, have not found any association (e.g. Crawford et al., 2011; Bowyer et al., 2019).

3.26 Linked to the above, we may expect that higher minimum wages would encourage young people into the labour market more generally, and so reduce economic inactivity. The economically inactive are people who are not working and are not seeking work or are not available for work. Stakeholders representing young people have told us that the lower youth rates can be demotivating and discourage young people from seeking work. There is some evidence that higher minimum wages reduce inactivity, including in research commissioned by the LPC following the reduction in eligibility for the adult rate from 22 to 21 in 2010 (London Economics, 2015). However, when researchers have found a reduction in inactivity, this has not generally been associated with an increase in employment – either because the additional labour market participants move into unemployment, or because resulting changes in employment are too small to be detected statistically.

3.27 These main research findings have informed the approach taken to the youth rates of the minimum wage so far in the UK.

[5] Denmark does not have a Government-mandated minimum wage, but collective agreements typically have differential rates for those under 18.

Stakeholder views on the youth rates

3.28 Amongst the worker representatives and civil society organisations we spoke to, there was a broad consensus in favour of removing at least the 18-20 Year Old Rate, and in some cases removing all youth rates. Most arguments were grounded in fairness. Usdaw told us that "*It is wrong that young workers doing the same job alongside older workers are paid less simply for being young".* The Prince's Trust – who advocate moving to an NLW starting at 18 years in the longer-term – said that "*any variation [in pay] should be based on the individual's skills and contribution, not an arbitrary age threshold, with the NLW as a fair minimum.*" These sentiments were echoed widely and the current size of the gap was cited by various sources, including Unison, Youth Employment UK and others, as compounding the sense of unfairness.

3.29 Youth Employment UK told us that this unfairness is demotivating for young people and sends a message that pay isn't related to effort or productivity: "*They can be trying hard and someone who does less is earning more just because they're older".* They suggested this could have a broader impact on young people's willingness to participate in the labour market. The Scottish Women's Convention (SWC) said that young single mothers in particular felt "*targeted unfairly by Westminster"* because of the combination of reduced Universal Credit payments (based on age) and a lower minimum wage. Unite argued that the youth rates encourage substitution of older workers with younger workers as employers try to reduce costs.

3.30 Views from employers and employer representatives were more mixed. We consistently hear that most employers don't use the youth rates, particularly for workers aged 18 and over. However certain sectors and types of business depend on them more than others. UKHospitality found that 60 per cent of the hospitality businesses they surveyed made some use of age rates. The British Retail Consortium said that the vast majority of retailers pay the NLW or above regardless of age, however a minority of younger employees in smaller retailers were paid below the NLW. Other, smaller sectors with high concentrations of young workers, such as the equestrian industry and hair and beauty, also report widespread use of the youth rates.

3.31 Some employer representatives clearly support the continued existence of the youth rates and the current differentials. UKHospitality told us "*We support the continuation of youth rates – 16-17 and 18-20. The existing differential to the NLW should be maintained.*" Manufacturing Northern Ireland stressed that young workers are typically not as productive as their older counterparts and that "*it could be a year before they begin to even approach covering their costs*." Reduced rates mean that employers were able to take risks on young people (under 21) in a way they wouldn't be willing to if they had to pay them the same as older workers.

3.32 However, even in sectors that use the youth rates, it was not uncommon for employers or their representatives to have mixed feelings. Some told us that they used the rates because they felt they had to keep costs down, but still felt that it was unfair. A large national hospitality firm told us they would prefer not to use the youth rates, particularly as the differential has become so wide. But changing their pay policies was a tough decision and they encouraged us to consider reducing the differential: "*from 23 to 18 would be a big impact for us … that's quite a difficult decision to take when it's a choice you can make..... Sometimes it needs the help of the legislation and the rates that are agreed to push it along a bit.*"

3.33 Others highlighted the recruitment impact of using the youth rates. One leisure provider told us they aspired to put all their young workers onto the adult rate, mainly due to fairness but also because offering a wage above the minimum can attract better candidates. The British Beauty Council (BBCo) acknowledged that use of the rates was widespread in their sector, but also told us that it hinders recruitment: "*Employers are desperate for new talent but are seeing a lack of new recruits due to low wages".* They highlighted that the large differences between the rates don't reflect the difference in the contribution employees make.

3.34 Another small business owner we spoke to in Manchester commented that the large jumps between the rates – she had had employees turn 21 and come off the Apprentice Rate – could be a significant cost shock. The Greater Manchester Chamber of Commerce (GMCC) said that it wasn't unusual for businesses to be surprised by the difference between the rates (including the Apprentice Rate). The British Chamber of Commerce (BCC) told us that they would like to see the gap between the rates reduced.

Options after 2024

3.35 This section looks at the options for young people's minimum wages after 2024. We consider three broad models for the future rates:

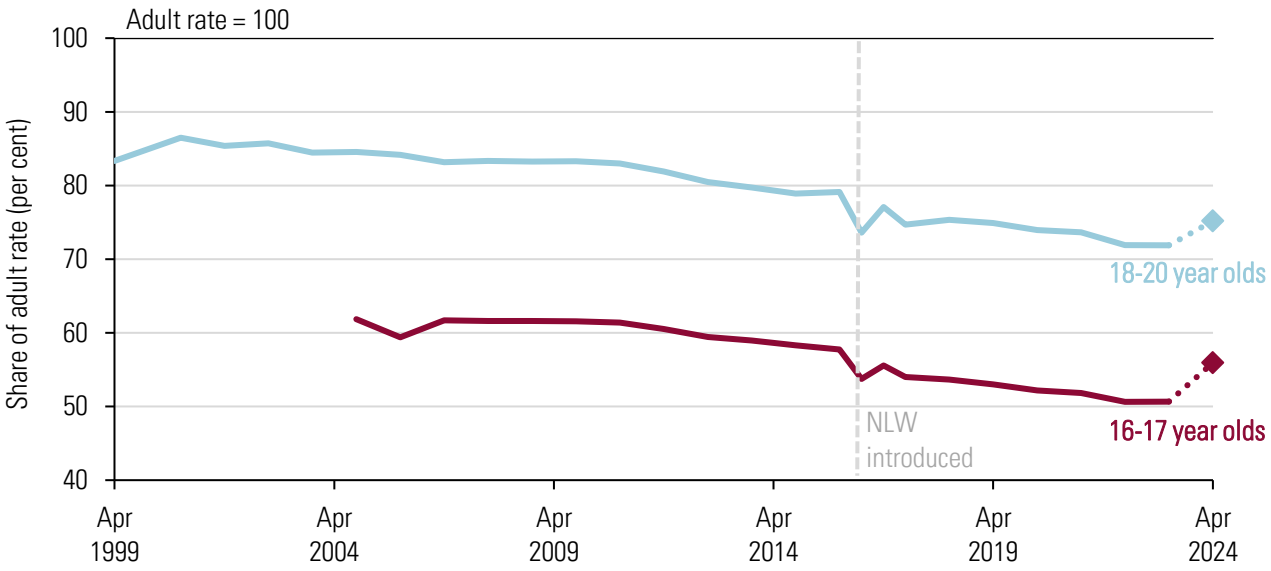
- Setting the relationship between youth and adult rates;
- Targets for youth rates;
- Changing the structure of the rates.

3.36 As well as the theoretical or principled approach to each area, we need to consider the practical implications. The current system of multiple rates that move independently provides considerable flexibility for the LPC to respond to economic conditions and stakeholder evidence. However, it arguably has disadvantages in terms of predictability. Any future policy on youth rates will need to consider this trade-off.

Setting the relationship between the adult rate and the youth rates

3.37 The youth rates of the minimum wage have been falling relative to the adult rate since the financial crisis (as shown in Figure 3.7). This was driven by concern for the possible consequences for young people's employment in the wake of the financial crisis and then the large rises in the NLW alongside a more cautious remit for young people. This led to a growing gap in relative and cash terms. The LPC's 2024 recommendations explicitly recognised the need to address this gap, and proposed large upratings to the youth rates that went some way to reversing the trend. A future policy will need to take a view on this gap.

Figure 3.7: Age-related minimum wages relative to the adult rate, UK, 1999-2024



Source: LPC analysis of historic minimum wage rates.

3.38 The literature on youth minimum wages does not offer a 'best' relative value at which to set youth rates. In the comparator countries we looked at above, the relative value of the rate for 18 year olds ranged from 50 to 100 per cent of the adult rate. Lower relative values may be helpful for youth employment but there are clear disadvantages to a growing gap: It increases the gap between workers of different ages within the same employer or even the same job role, which several stakeholders cited as exacerbating the perceived unfairness of the rates. It also leads to a large wage jump when minimum wage workers reach the adult rate (or the next age rate), which can be a cost shock to employers and may encourage employers to substitute workers with younger replacements as they cross the age thresholds (Kabátek, 2015). Furthermore, the more the gap widens, the more difficult it will be to close it, with increasingly large upratings needed to do so; this could limit future policy options.

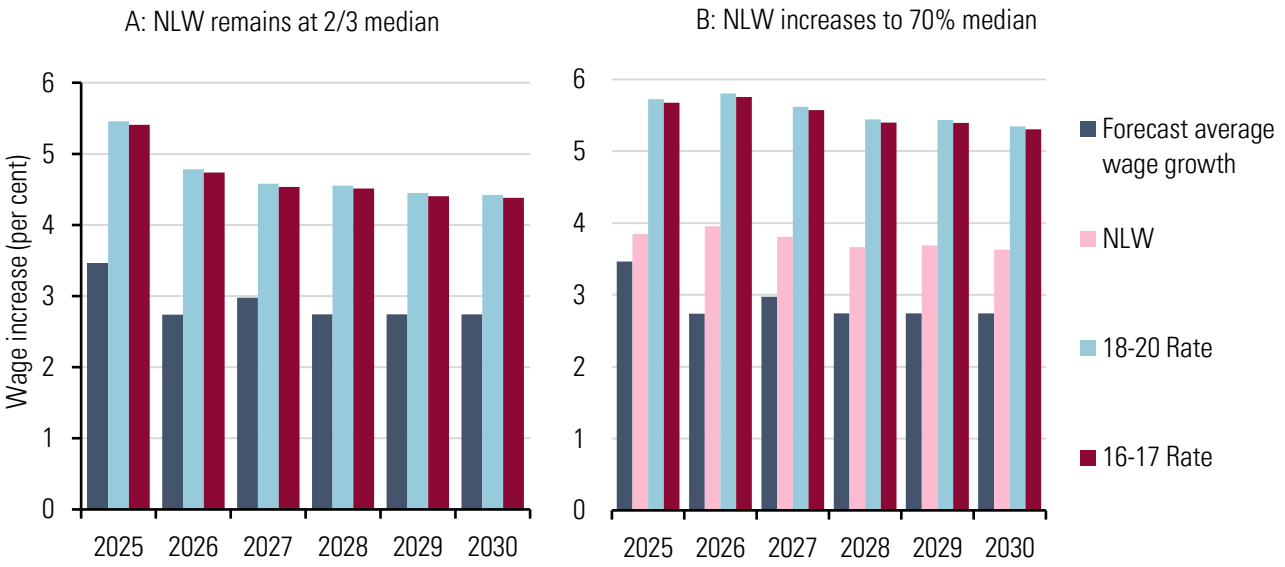
3.39 This combination of a widening of the gap between youth and adult rates, stakeholder ambivalence about youth rates' fairness and the falling bite and coverage of youth rates has led the LPC to conclude that there is scope to reduce the gap. To achieve this, the Government could set a specific target for the youth rate relative to the adult rate, or it could include a general principle to reduce the gap in the LPC's remit. The latter, principle-based approach would allow the LPC to respond to economic conditions and emerging evidence.

3.40 The kinds of increases needed for the youth rates to catch up will depend on how quickly the adult rate grows. A higher target for adults will make it more difficult to close the gap. Most obviously, large upratings for the adult rate mean that higher upratings for young people are needed to match or surpass them. Higher upratings also make it more difficult to contain the nominal (cash) gap between the rates, and this is what is typically of concern to workers.

3.41 Even where the adult rate grows more slowly, we should not underestimate the increases that would be needed. For example, maintaining the adult rate at two-thirds of median earnings would mean increasing it in line with forecast median earnings each year. So, for the youth rates to catch up, they would have to increase faster than average earnings. For example, Figure 3.8 shows that if we wanted the 18-20 Year Old and 16-17 Year Old Rates to return to their original relative value by 2030, they would

need to increase around 2 percentage points faster than average wages each year. We have only recommended this scale of increase for young people a handful of times in the history of the minimum wage – prior to 2024, 5 such upratings were made to the 18-20/21 Year Old Rate (mostly before 21 year olds were eligible for the adult rate) and only 2 to the 16-17 Year Old Rate. If the NLW were to rise to 70 per cent of median hourly pay over the same period, increases of 2.5 - 3 percentage points above average wage growth would be needed. The consequent increases in bite and coverage would likely be small, particularly if implemented over a long time period like this – however, they are not insignificant.

Figure 3.8: Scenario 1: Youth rates regain their original relative value by 2030



Source: LPC analysis using ASHE, Average Weekly Earnings, forecasts from HMT panel, OBR and Bank of England. This chart uses the same method we have previously used to calculate on-course rates (see Appendix 1 and Low Pay Commission, 2023a). We assume median pay continues to grow at same rate as last available forecasts, from 2027 onwards.
Note: increases in rates are based on wage forecasts available at the time this advice was submitted and should not be taken as definitive. See discussion in Chapter 5.

Changing the structure of the rates

3.42 The age structure we are moving towards in 2024 is the result of recommendations we made in the Youth Rates Review of 2019 (LPC, 2019a). As discussed above, the evidence presented in that review still stands: 16-20 year olds remain more likely to experience negative employment effects and scarring and they remain distinct in important ways from older age groups. This case holds most strongly for the youngest workers.

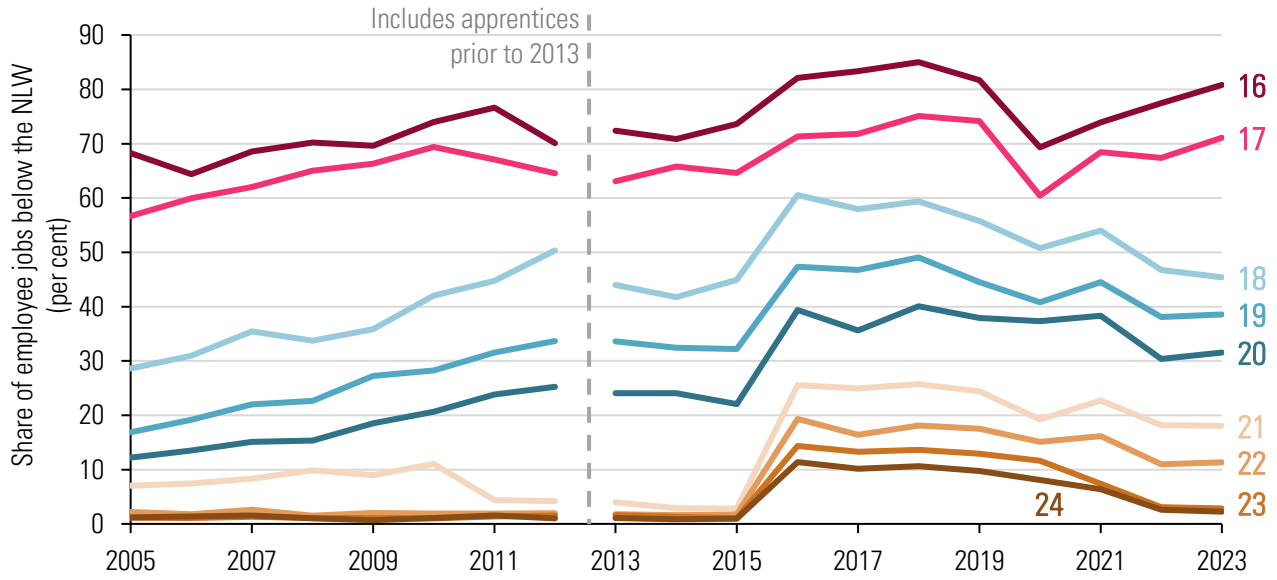
3.43 Nevertheless, as shown in the review of international systems, the structure of the current youth rates is one of many possible options and some stakeholders – particularly those representing young people – have called for us to reconsider the existence of the youth rates. We have already shown minimum wages falling behind median wages for young people, with reduced coverage and more young workers being paid at the adult rate. If this is a longer-term change in the labour market, rather than a blip, it strengthens arguments for revisiting the age structure.

3.44 In light of this, we believe there is scope to reduce the age of eligibility for the NLW and move towards an adult rate that starts at 18 years old. This could be achieved by gradually moving the 18-20

rate towards the NLW – an extension of reducing the gap – or through moving young workers onto the NLW one age at a time.

3.45 We believe the latter, reducing the age threshold step by step, is the best approach. It would allow us to monitor the impacts on each age cohort as they move across and respond by changing the pace or ultimate goal where necessary. It would also reflect wage variations within age bands: 18 year olds are considerably more likely to be paid below the NLW than 20 year olds (Figure 3.9), and evidence of negative effects is weaker as age increases.

Figure 3.9: Share of young workers paid below the adult minimum wage rate/NLW, by age, 2005-2023



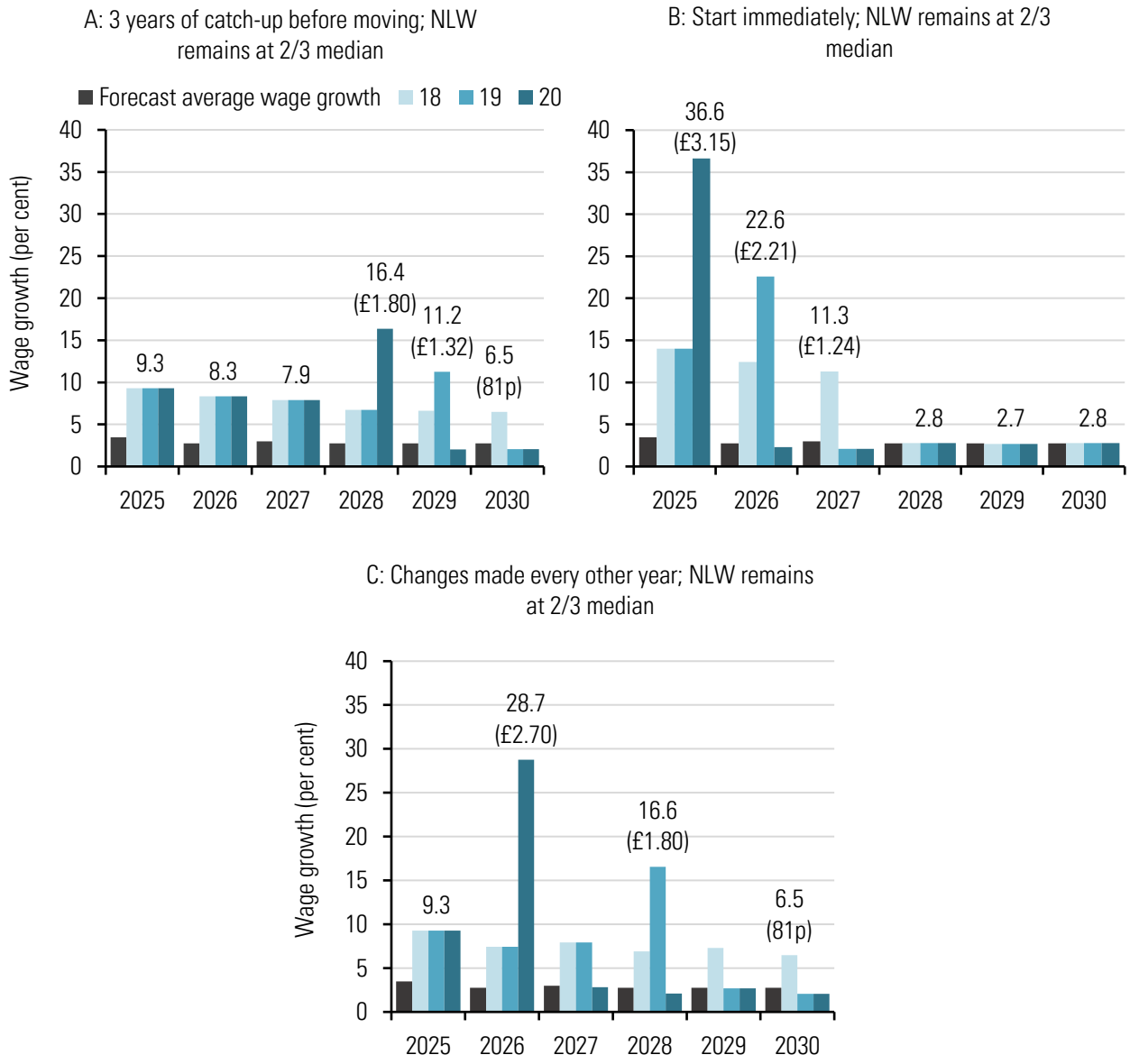
Source: LPC analysis of ASHE, low pay weights, UK, 2005-2023. 16-20 population. Workers eligible for the Apprentice Rate are excluded from 2013 onwards. Figures are chain-linked to account for methodology changes during the series.

3.46 Figure 3.9 also shows the considerable gap between age 17 and 18. While this might be reinforced by the current structure of the age rates, it also reflects a real divide in the labour market. Given the differences between the groups and the weight of research evidence discussed above, we believe it is appropriate to retain a lower minimum wage rate for 16-17 year old workers. Nevertheless, the 16-17 Year Old Rate should not fall too far below the rate for 18 year olds. A large cliff-edge as workers turn 18 could have unintended consequences.

3.47 There are risks to reducing the age threshold for the NLW. Even without further changes to the adult rate, Figures 3.9 and 3.3 above demonstrate the significant share of jobs that are currently paid below the NLW and so would be affected by the removal of the 18-20 Year Old Rate. 18-20 year olds are more than twice as likely to be paid below the NLW now as 21-24 year olds were when the LPC recommended a reduction in the age threshold from 25 to 21. We know that the risks to young people's employment can be amplified by economic conditions. We discuss these risks further below, but they point to the importance of carefully evaluating changes as they are made. This includes evaluating the extension of NLW eligibility to 21 year olds, which begins in April 2024. Any policy should allow time for this, and discretion to move away from a given goal or timeline if needed.

3.48 The timing of the change can make a large difference to the jump in wages for each age as they move onto the NLW. Moving 18-20 year olds on to the NLW one age group per year, beginning with 20 year olds in 2025, would result in very large increases (Figure 3.10 panel B). Panel A shows that allowing three years of 'catch-up' before making changes to the threshold could roughly halve the percentage increase needed when each age moves across (given expected wage growth over the period). But it would still require persistently large increases over an extended period. In practice, we would want to leave time between each change in the age threshold to evaluate the impact – an example of this is shown in panel C, although we may wish to extend the change over a longer period.

Figure 3.10: Scenario 2: 18-20 year olds are moved onto the NLW one age at a time



Source: LPC analysis using ASHE, Average Weekly Earnings, forecasts from HMT panel, OBR and Bank of England. This chart uses the same method we have previously used to calculate on-course rates (see Appendix 1 and Low Pay Commission, 2023a). We assume median pay continues to grow at the same rate as last available forecasts from 2027 onwards. Projections assume that the residual youth rate (e.g. 18-19) is moved closer to the NLW in each year.
Note: increases in rates are based on wage forecasts available at the time this advice was submitted and should not be taken as definitive. See discussion in Chapter 5.

3.49 Reducing the age threshold will increase coverage and bite of the minimum wage for young people. With the NLW remaining at two thirds of median earnings, a 'naïve' estimate – not accounting for spillovers - suggests that coverage could increase to just over 40 per cent for 18-20 year olds (compared to c. 8 per cent in 2023). In reality, coverage is likely to be lower as some employers seek to maintain a differential with the minimum wage, but this will also depend on other factors including economic conditions.

3.50 The impacts of increases to the youth minimum wages are likely to be concentrated in certain sectors. Just over half of 18-20 year olds work in retail or hospitality, increasing to more than 60 per cent for minimum wage workers. This pattern of coverage is unlikely to change as the rate is increased. We expect to see small increases in coverage in sectors where youth rates are not typically used, such as agency work and social care, however these make up a very small share of the jobs done by young workers.

3.51 Further ambition for the adult rate would amplify the effects of changes to the youth rates. If youth rates were removed alongside an increased bite target for the adult rate – and potentially removal of the Apprentice Rate – this would have huge implications for the youth labour market. At the same time, including younger workers would lower the rate needed to meet any bite target for the adult rate, as it lowers the median wage the target is based on.

3.52 For example, removing the 18-20 Year Old Rate alongside a 75 per cent bite target for the adult rate could see the majority of young workers having their pay set by the minimum wage. A similar naïve estimate to that given above suggests coverage could increase to nearly 80 per cent for 18-20 year olds (implying a bite of 100 per cent). Even though these coverage figures are likely to be overestimates, they demonstrate that there would be substantial changes for young people. The approach to the youth rates also has important knock-on effects for apprentices. We discuss these in paragraph 3.58 below.

3.53 Reducing the age threshold for the NLW is not the only option for changing the structure of the rates. For example, other countries have more granular age bands, allowing a gradual transition from younger ages to the adult rate. However, this introduces additional complexity for employers. Another alternative is to introduce time limits for use of the rates, as is the case in New Zealand. Such a move would need to be considered carefully to avoid a cliff edge that could encourage employers to only hire young workers for short periods.

Targets for youth rates

3.54 We have considered setting the youth rates with respect to the adult rate – which could effectively create a target. There is also the option to introduce a target for the youth rates which is unrelated to the adult rate. This could take the form of a cash target or a relative target, e.g. targeting bite as is done for the NLW. Many of the pros and cons of a target discussed in Chapter 2 on NMW models also apply here.

3.55 An advantage of setting a separate target for young people is that (in theory) it could remain closely tied to the performance of the youth labour market, even when there was divergence between this and the older workforce. However, it is not obvious what a suitable relative target would be without any connection to the adult rate. To target youth wages in the future we would need forecasts of these

wages, these do not exist currently and producing them separately to the adult distribution is likely unfeasible.

3.56 A cash target would be simpler to implement and communicate, however it removes any link between the target and economic conditions. For example, it is not clear what it would mean in real terms (accounting for inflation), particularly for a target set some way into the future. However, if a cash target is set for the adult rate, then targets on a similar basis for young people may reduce, rather than increase, complexity.

3.57 Depending on the approach to the adult rate, separate targets for youth rates also add an element of uncertainty about the future relationship between the youth and adult rates. On the whole, creating a youth target independent of the adult rate is likely to add extra complexity without bringing clear benefits.

Relationship with the Apprentice Rate

3.58 We consider the Apprentice Rate in more detail in Chapter 4. It is however important to note the interactions between any decision made on the apprentice and youth rates. Removing both the youth and apprentice rates would lead to a large increase in wages for many apprentices and young people. Removing both rates at the same time removes any 'shelter' for young people or trainees. The two rates don't directly substitute for one another, but they are both (largely) addressed at the youth labour market: If either the apprentice or youth rates are removed, employers that previously relied on that rate have the option to move towards using the other one, but without that option they may be more likely to reduce employment.

Risks and opportunities of increasing youth rates

3.59 The options we have considered equate to differing levels of risk for the youth rates. Within each there is scope to adjust this by adjusting the speed with which changes are made or the gap is closed. We favour models that allow for collection and monitoring of evidence as changes are made, that use the strengths of the LPC in considering current conditions and permit a degree of discretion. Nevertheless, policymakers will need to consider how much risk they wish to take and the extent to which any negative consequences may be tolerated to achieve their aims. Here we highlight some of the risks and opportunities of an ambitious approach to the youth rates.

Risks

3.60 The main risk is that large changes to the youth rates may have a negative effect on young people's employment opportunities. In turn, this could affect the longer-term career outcomes of those who don't manage to find work as a result. This is a serious risk and we therefore urge caution on sudden changes to the system and stress the importance of gathering evidence as changes are made. Equally, we do not think it justifies excessive caution. Evidence from the UK system so far suggests there is scope for some additional increases without negative employment consequences. Although softening, the labour market remains tight, suggesting reasonable demand for workers, including young people. However, if it softens further this will likely increase the risks for young people.

3.61 Two risks that may exacerbate the first are to do with characteristics of the cohorts entering the 16-20 age group in the coming years. Firstly, this population is set to increase. This means that more employment opportunities suited to young workers will be needed, and that more people will potentially be affected by any changes to the rates. Secondly, we have not yet seen the full impact of the pandemic and the associated disruptions to schooling on employment prospects for these age cohorts. It may be that they need additional support in their transitions into work (although it is not necessarily the place of the minimum wage to provide that support). We are yet to see the impact of the most recent change in eligibility for 21-22 year olds and intend to evaluate this before making further changes.

3.62 Finally, there are a set of risks related to decisions made on the other rates. Firstly, as discussed in the options, an ambitious remit for the adult rate will multiply any risk for the youth rates if they are to catch up or even avoid falling further behind. Secondly, any decision to remove the Apprentice Rate would remove alternative 'shelter' for young people's employment. Large changes to the youth and apprentice rates at the same time could be a significant shock to the youth labour market.

Opportunities

3.63 The key opportunity is to reduce the – real or perceived – unfairness in the youth rates. While many stakeholders have told us that the youth rates are unfair in principle, they often stress that the large gap exacerbates this sense of unfairness.

3.64 The large gap in itself presents an opportunity, as it gives scope for significant increases while retaining some shelter below the adult rate. In the case of removing the 18-20 Year Old Rate, this could allow us to evaluate the impact of large increases in minimum wages before committing to move age groups across to the NLW. The falling bite of the youth minimum wage also suggests there is scope for higher increases, as median wage growth for all young people has outstripped minimum wage growth.

3.65 This high median wage growth has accompanied a generally positive picture for the youth labour market in recent years. If this persists, it will make youth employment more resilient to minimum wage changes – although this picture may change over the coming years.

Conclusion

3.66 There continues to be a rationale for lower youth rates to protect youth employment and enable more young people to acquire essential skills and experience. However, the growing gap between youth and adult rates may also have negative consequences. Future policy will need to take a position on this gap between the rates and whether to actively reverse it.

3.67 The LPC view is that the evidence supports reducing the gap in the wage floor between young people and adults. The current gap is large by both historical and international standards and many employer and worker representatives tell us that it is too large. Meanwhile, young people's average wages have grown faster than those of older workers over the last decade, despite their minimum wages lagging behind. Altogether, the evidence suggests there is scope for some additional increases without negative employment consequences.

3.68 There is scope to reduce the age of eligibility for the NLW. We recommend moving towards an adult rate that starts at 18 by gradually reducing the age of entitlement to the NLW, as was done for 21-

24 year olds. However, the risks are greater than they were for lowering the age to 21. Both the level of increase required and the share of jobs affected are higher.

3.69 Because of the risks in both reducing the gap between the youth and adult rats and lowering the NLW age of eligibility these changes should be managed carefully, with time allowed for full evaluation. In particular, we would want to carefully monitor levels of demand for young workers. The labour market is tight now, but is softening, if this continues then the risks increase. We also want to measure the impact of the very large increases we have recommended for both youth rates in 2024. These increases will go some way to closing the gaps with the adult rate.

3.70 We discuss improvements to the evidence base in Chapter 8 that would improve our evaluation efforts. In particular, improved access to HMRC's real-time payroll data would allow us evaluate these changes as they are made. The LPC should have the discretion to recommend the timing and extent of each change and to deviate from any planned goal if the evidence suggests it is necessary.

3.71 We recommend that the Government considers the case for lowering the gap between the youth rates and adult rates and for further lowering the NLW age of eligibility, and ask us to take this forward in a future remit. This could be through a target relative to the adult rate or through a principle to reduce the gap. The latter, principle-based approach would allow the LPC to respond to economic conditions and emerging evidence.

3.72 There are important interdependencies here. An ambitious approach to the adult minimum wage may make lowering the youth-adult rates gap and the NLW age threshold more difficult. There is also the relationship with the Apprentice Rate of the minimum wage, which we discuss in the next chapter.

Chapter 4

What are the policy options for apprentices?

Key findings

- **Many of our stakeholders believe the Apprentice Rate (AR) should go** – We've received representations from a variety of sources, including employers, in favour of removing the Apprentice Rate. They argue that the lower minimum wage tarnishes the brand of apprenticeships and reduces take-up rates as the wages are unable to cover the cost living especially for those from deprived backgrounds. However, some employer representatives expressed concerns about the greater costs of training and managing apprentices and the implications for differentials with skilled employees if the apprentice rate was removed.
- **Removing the AR would affect a significant number of apprentices -** A quarter of apprentices aged 18 and over are paid below the NMW rate for their age and would therefore need a pay rise if the AR were removed. Three sectors, including hairdressing, sport & leisure, and teaching assistants would be significantly affected as they make significant use of the AR.
- **Research evidence suggests that apprenticeships where use of the AR is most prevalent deliver poor returns to apprentices** – In principle, the lower pay apprentices receive while training is compensated by higher earnings once they qualify. This is the case for many, but not all, apprenticeships. There is a gender split, with some low-paying apprenticeships undertaken predominantly by women delivering no or minimal returns in the longer term. Drop-out rates are high and social mobility impacts are underwhelming. This weakens the case for a differential AR.
- **We need to consider employment risks in the context of the wider youth labour market and the alternatives available to young people** – The current strength of the youth labour market has had a knock-on effect on the apprenticeship market, with falling use of the AR and employers reporting difficulties recruiting apprentices. This strong labour market gives us confidence that alternative work is available (for now) to young people who don't access an apprenticeship, but apprenticeships may become more important if the youth labour market weakens. Alternative pathways may also not deliver the same long-term returns to young people – and there is no other established route for young people to receive vocational or workplace-based training.
- **While there are grounds to remove the AR, doing this at the same time as reducing the gap between the youth and adult rates for non-apprentices brings considerable risk** – Bringing 18-20 year olds progressively into the NLW, as we proposed in Chapter 3, would materially increase the risk to apprenticeships in this age range, as it would involve very significant increases in their pay floor and remove the alternative shelter that the youth rates would otherwise offer. We have just

recommended a substantial 21 per cent increase (£1.12 per hour to £6.30) in the AR for 2024. This is comfortably the largest ever cash increase and we want to see the effect of this major change.

- **Our view is that changes to the NMW age structure should be prioritised over changes to the treatment of apprentices** – Lower minimum wages on the basis of training is more justified than on the basis of age. Although there continue to be questions around the value of certain apprenticeships, it is clear that there is value in apprenticeships as a training route, and reforms in progress to consolidate this. This is something we want to preserve.
- **We propose that, for apprentices aged 18 and over, the Apprentice Rate changes to a simple discount of the NMW age rate during the apprentice's first year** – This, combined with the lowering of the age for NLW eligibility, will result in substantial increases in the wage floor for apprentices, but continue to recognise the additional costs relating to the substantial training they receive.

Introduction

4.1 In 2020 we recommended that the Apprentice Rate (AR) and the 16-17 Year Old Rate be aligned. This followed widespread feedback that the level of the AR was too low, with negative consequences for both apprentices themselves and the functioning of the apprenticeship programme. It reflected Commissioners' judgement that there was scope to increase the rate significantly without damaging apprentices' employment prospects. From stakeholder evidence and data on apprentice starts and pay, we are confident that this alignment has been successful and so last year we committed to reviewing whether the distinct treatment of apprentices under the National Minimum Wage (NMW) was still justified.

4.2 There are important interdependencies with both the National Living Wage (NLW) and the rates for young workers. The recommendation to move towards a full adult rate from age 18 discussed in the previous chapter has implications for apprentices, even more so if the AR were removed. In this chapter, we take stock of how these decisions interact – and how we might prioritise making changes across these rates. This chapter sets out how we have reached a recommendation on the longer-term future of the rate.

Rationale for the Apprentice Rate

4.3 As discussed in Chapter 3, apprentices have been treated differently to other workers since the introduction of the minimum wage (Figure 3.1). Originally, employers were exempt from paying certain apprentices the NMW. This applied to all apprentices aged 16 to 18, and to older apprentices in the first year of their course only. In 2010, this exemption was removed and, for the first time, apprentices were entitled to a minimum wage. At the time this was set lower than any other NMW rate, including the 16-17 Year Old Rate, at just over 40 per cent of the adult minimum wage.

4.4 The main rationale was to avoid disrupting an important route for young workers into training and the labour market; and to acknowledge the cost of the investment employers are expected to make in training apprentices (see Low Pay Commission, 2015 and 2020). Apprentices accept lower pay during their apprenticeship in expectation of higher earnings once they are qualified.

4.5 In our 2020 Report, we recommended a significant change by increasing the Apprenticeship Rate over two years to align it with the 16-17 Year Old Rate. At the time, we said: *"Overall, we still*

believe there is a case for looking at apprentices separately from other groups of workers within the NMW structure … Like our predecessors in past Commissions, we do not want to disrupt an important route for workers – especially young workers – into training and the labour market. It is important to acknowledge the investment that employers are expected to make in training apprentices – and to be mindful that the minimum wage does not cut across this and so affect training provision." (Low Pay Commission, 2020)

4.6 This change came into force in April 2022, when an 11.9 per cent increase in the AR aligned it with the 16-17 Year Old Rate at £4.81. We have since maintained the two rates' alignment, including in our recommendations for April 2024. We now have two years' of data on the impact of this alignment. This includes the most recent Apprenticeship Evaluation Survey (AEvS), which has more reliable pay estimates for apprentices than the Annual Survey of Hours and Earnings (ASHE).

4.7 In our advice to the Government in 2022 (Low Pay Commission, 2022c), we noted we had seen no negative effects stemming from the alignment of the two rates. "*With this in mind, we are considering if there is a need for a separate Apprentice Rate long term."* This chapter goes on to look at the case for removing or retaining the AR.

Risks and criteria

4.8 Broadly, there are two main risks in removing the AR. The criteria we go on to discuss are aimed at assessing these risks, or understanding the wider policy position and whether our approach is aligned with it.

- Reducing starts – In theory a higher minimum wage means employers are less likely to take apprentices on. But in recent years, stakeholders have told us that the AR is not a major determinant of employers' recruitment decisions. Nevertheless, it may impact recruitment decisions in the sectors which use the rate most. This risk is also linked to the state of the youth labour market, the value of an apprenticeship and young people's options.

- Reducing training hours or quality - There is some evidence that raising wage rates leads to employers squeezing training time. It is an open question whether this should constrain our recommendations on the rate, or whether there are other policy interventions to enforce and protect training.

4.9 We are also sensitive to the risk of increasing non-compliance. This is already higher for apprentices than for any other group. Our view remains that a major cause of underpayment of apprentices is that employers are not paying for training time (Low Pay Commission, 2019c). If this is the case, until and unless employers reliably pay all apprentices for their off-the-job training time, non-compliance will persist regardless of the level of the AR.

4.10 We use six criteria to assess the case for keeping the rate.

- Are the bite and coverage of the AR low enough to suggest the risks from removing the rate are minimal and manageable?

- Does the context of the youth labour market and education system suggest other options are open to young people?

- Does this change have widespread support from stakeholders?
- Are the risks to apprentices' training mitigated by other policy interventions?
- Does the evidence suggest that apprentices paid at or close to the AR are compensated with better pay once they qualify?
- Does this change align with the wider Government policy on apprenticeships?

Assessment of criteria

Impacts of removing the Apprentice Rate

Are the bite and coverage of the Apprentice Rate low enough to suggest risks from removing the rate are minimal and manageable?

4.11 We have used the 2023 AEvS to look at how apprentices are paid and understand the potential impacts of removing the AR. The box on page 48 provides more information about the AEvS dataset. Overall, employers expect apprentices to accept lower pay than non-apprentices: Table 4.1 show that median pay for apprentices is consistently lower than for non-apprentices of the same age.

Table 4.1: Median apprentice and non-apprentice pay, AEvS and ASHE, 2023

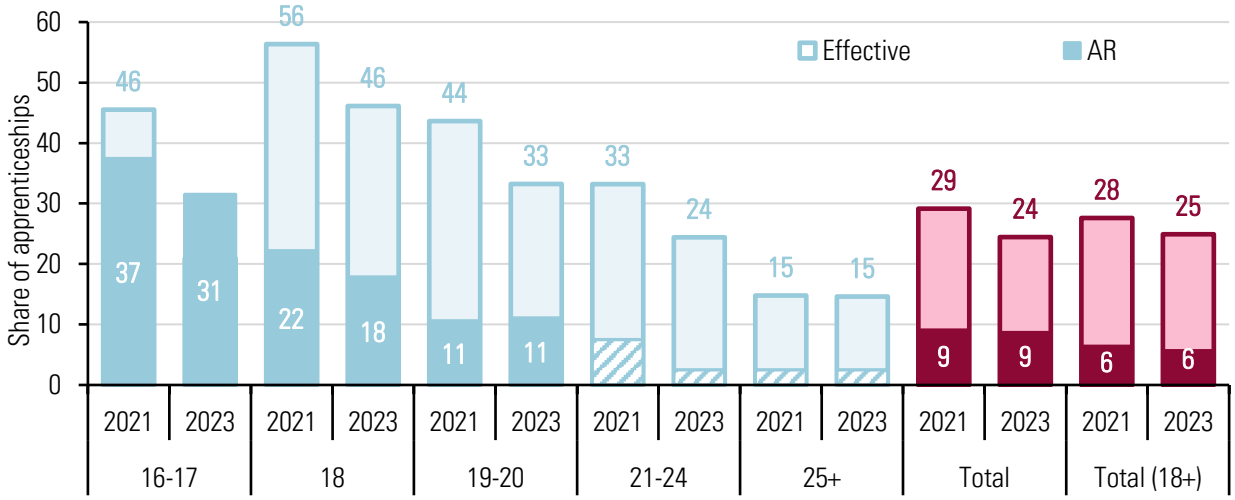
Age group	Apprentice median 2023 (ASHE)	Apprentice median 2023 (AEvS)	Bite of AR (AEvS, %)	Non-apprentice median 2023 (ASHE)
16-17	£6.34	£6.17	85.6	£8.09
18	£7.72	£7.49	70.5	£10.45
19-20 (Y1 apprentices)	£8.29	£8.32	63.5	£10.81
21-22 (Y1 apprentices)	£10.89	£11.16	47.3	£11.51
23+ (Y1 apprentices)	£12.43	£13.08	40.4	£16.26
Total	£9.15	£10.87	48.6	£15.57

Source: LPC analysis of ASHE, standard weights, UK, 2023,16+ population, and AEvS, pay weights, England, 2023, 16+ apprentice population. Sample sizes for each age group are provided in the accompanying data tables (Chapter 4, additional table).
Note: Apprentice medians are calculated only for those eligible for the Apprentice Rate. Non-apprentice medians exclude all apprentices (including those not eligible for the apprentice rate) and so may differ from figures used elsewhere.

4.12 Figure 4.1 shows the share of apprentices covered by the AR and the share who are 'effectively covered' broken down by age. Effective coverage means those apprentices paid below their age-relevant NMW rate. This tells us how many apprentices would need to have their pay increased if the AR were removed. Overall, one in four apprentices aged 18 or older are paid below the relevant NMW rate for their age. Effective coverage is far higher for 18 year olds with just under half paid below the rate for 18-20 year olds. This is similar to the share of 16-17 year olds who were paid less than the rate for their age before this was aligned with the AR. However, if the AR were removed then 18 year olds would see a greater increase in their wage floor than 16-17 year olds did when the AR was aligned with the 16-17 Year Old Rate. In total, we estimate there are 44,000 apprentices whose pay would be directly affected by the removal of the AR.

4.13 The share of 16-18 year olds paid at the AR fell from 2021 to 2023 even while the rate increased sharply. This is positive and likely reflects the tight labour market for this age group in the post-pandemic period. It also suggests that – where the context permits – large changes to apprentice pay can be managed by employers. Coverage decreases with age, and payment at the AR is negligible for apprentices aged 21 and over.

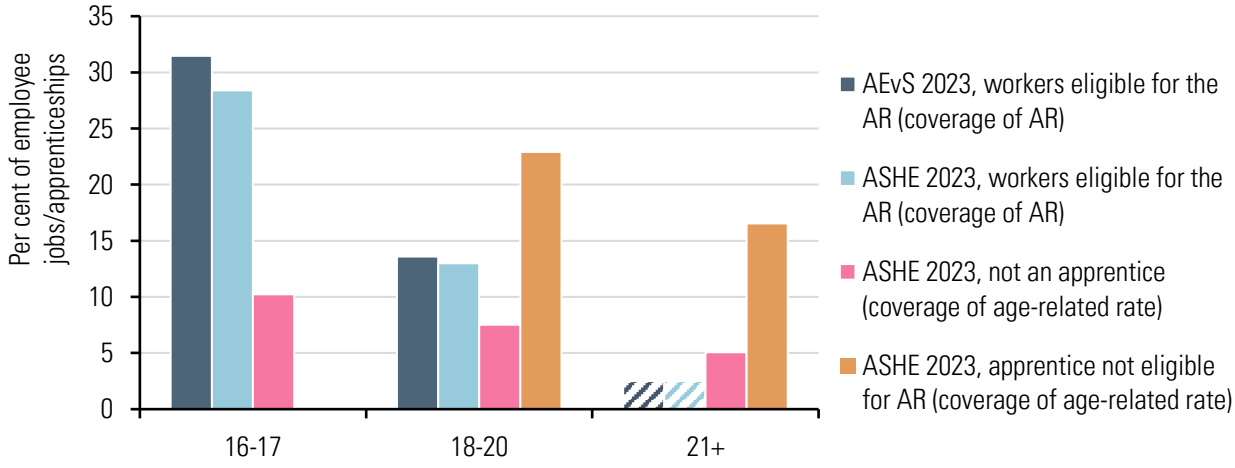
Figure 4.1: Coverage and effective coverage by age, 2021 and 2023



Source: LPC analysis of AEvS, pay weights, 2021 and 2023. Population eligible for the Apprentice Rate only. Striped bars indicate where precise estimates have been suppressed due to low sample sizes.

4.14 Employers are more likely to pay a young apprentice at the wage floor than a young non-apprentice. For example, around 30 per cent of 16-17 year old apprentices are paid at the AR, compared to around 10 per cent of non-apprentices (Figure 4.2). While coverage of the AR is very low for those aged 21 and over, ASHE data suggests that they are much more likely to be paid at their age-related minimum than non-apprentices, even once they are in their second year or beyond (and no longer eligible for the AR).

Figure 4.2: Comparison of coverage rates across data sources and apprentice status, 2023



Source: LPC analysis of ASHE, low pay weights, 2023, and AEvS, pay weights, 2023. 16+ population. Striped bars indicate where estimates have been suppressed due to low sample sizes.

Apprentice Pay Data: The Apprenticeship Evaluation Survey

The Apprenticeship Evaluation Survey (AEvS) is commissioned by the Department for Education (DfE). It collects information on the experiences of apprentice employers, past apprentices and current apprentices (in England only). In 2023, the sample included 4,919 current or completer apprentices, 506 learners that did not complete their apprenticeship and 3,926 employers.

Since 2021, the AEvS survey of current apprentices has included questions on pay. However, the sample size, geographic coverage and level of detail remain limited compared with the Apprenticeship Pay Survey – a series of past surveys focused on apprentice pay with a typical sample size of around 9,500. In the 2023 AEvS, 1,822 participants were able to provide data on their pay and hours. Of these, 1,182 were eligible for the Apprentice Rate (that is, aged 16-18 and in any year of their apprenticeship or older and in the first year of their apprenticeship). Our analysis focusses on this group and so pay estimates included here will differ from those published by DfE for the wider apprentice population.

The AEvS has some advantages over ASHE for looking at apprentice pay. It is weighted to the apprentice population and includes information on subject area and level that is not available in ASHE. However, as a worker survey, pay figures may be subject to recall error. Where possible, pay data is collected based on a recent payslip. In 2023, 42 per cent of the sample eligible for the Apprentice Rate provided data from a payslip, with the remainder providing it from memory. The distribution of calculated hourly pay was similar between these two groups, although those without a payslip were slightly more likely to report pay at or below the Apprentice Rate (9.1 per cent compared with 8.1 per cent).

While the AEvS is largely comparable between 2021 and 2023, there are some differences that may affect our analysis. For example:

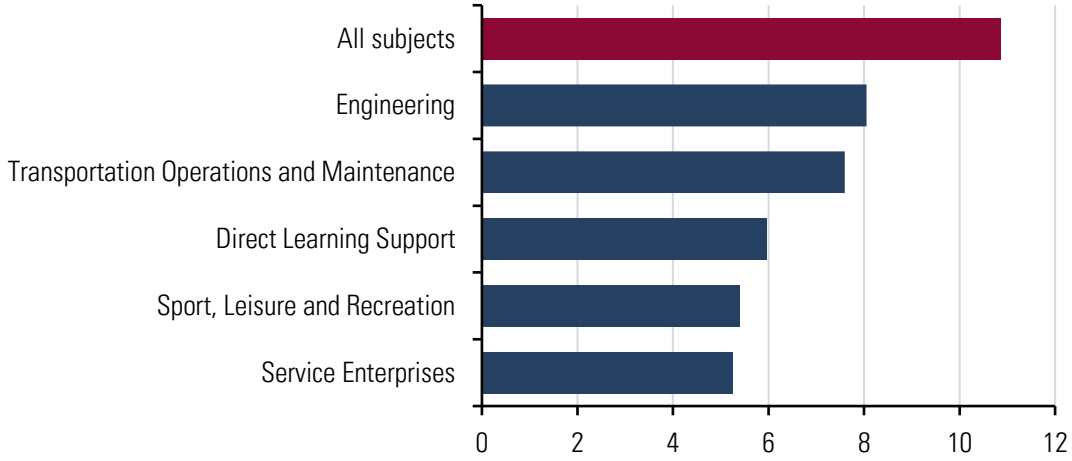
- In 2023, improvements were made to ensure that pay and hours information related to the most recent minimum wage period. As a result, 2023 pay measures (particularly coverage and underpayment) are more reliable.
- Interviews took place later in 2023, with a longer lag from the date the sample was drawn. This means that apprentices were somewhat further along their course at the time of interview compared with 2021. The survey will not capture apprentices at the very beginning of their apprenticeships.
- Paused apprentices were included in the survey in 2021 (as a larger number of apprenticeships were paused due to the pandemic) but excluded in 2023.
- In both years, year of apprenticeship is calculated based on the Start Date recorded on the apprentice's individualised learner record (ILR). In certain circumstances – such as where an apprenticeship has been paused and restarted – this may not reflect the original start date. As a result, we may incorrectly identify some apprentices as eligible for the Apprentice Rate. We expect the number of observations affected to be small, but it is likely to be higher in 2021 than 2023.

Further details of the methodology for the 2021 survey can be found in DfE's AEvS Reports 2021 (Department for Education, 2022a). The full findings and methodology of the 2023 AEvS are expected to be published in 2024 (Department for Education, forthcoming).

4.15 The significant variation in pay by subject and level means the impact of removing the AR would also vary by subject and level. As Figure 4.3 shows, the median in the lowest-paying subject area is less than the AR – a feature also observed in previous Apprentice Pay Surveys (Low Pay Commission, 2019c). The three lowest-paid subject areas are cut adrift from the rest and so would most likely be affected by removal of the AR. Service Enterprises includes hairdressing, where it has long been the case that apprentice pay is lowest and the bite of the AR is 100 per cent. Sport, Leisure and Recreation

has a bite of is 98 per cent. Direct Learning Support is made up almost entirely of Teaching Assistant apprenticeships; the bite of the rate for these apprentices is 89 per cent. For no other subject area is the bite above 70 per cent.

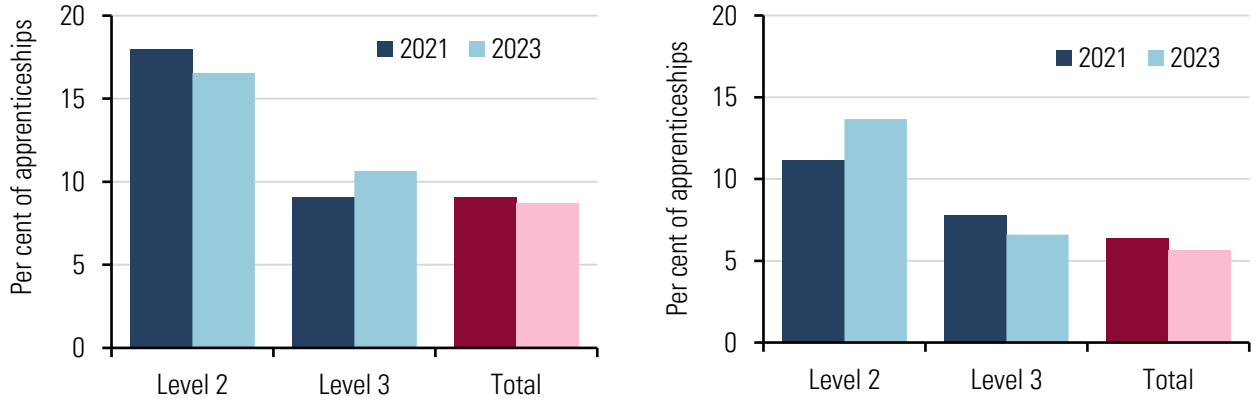
Figure 4.3: Median hourly pay in the lowest-paid subject areas, 2023



Source: LPC analysis of AEvS, pay weights, 2023. Population eligible for the Apprentice Rate only. Excludes subject areas with fewer than 20 observations or a weighted count of less than 1,500.
Note: This analysis uses a detailed subject area variable, and so will differ from more aggregate analysis published in Department for Education (forthcoming).

4.16 Figure 4.4 shows that the AR is most used for the lowest-level apprenticeships (Level 2),[6] where 16 per cent of apprenticeships are paid at the rate. One in ten Level 3 apprenticeships are also covered and this proportion has increased since 2021. Coverage at Level 4 and above is negligible and therefore not shown in Figure 4.4. Among those apprentices aged 18 and over (who would be affected by the rate's removal), coverage at both levels is slightly lower.

Figure 4.4: Coverage at Levels 2 and 3, overall (LHS) and for apprentices aged 18+ (RHS), 2021 and 2023

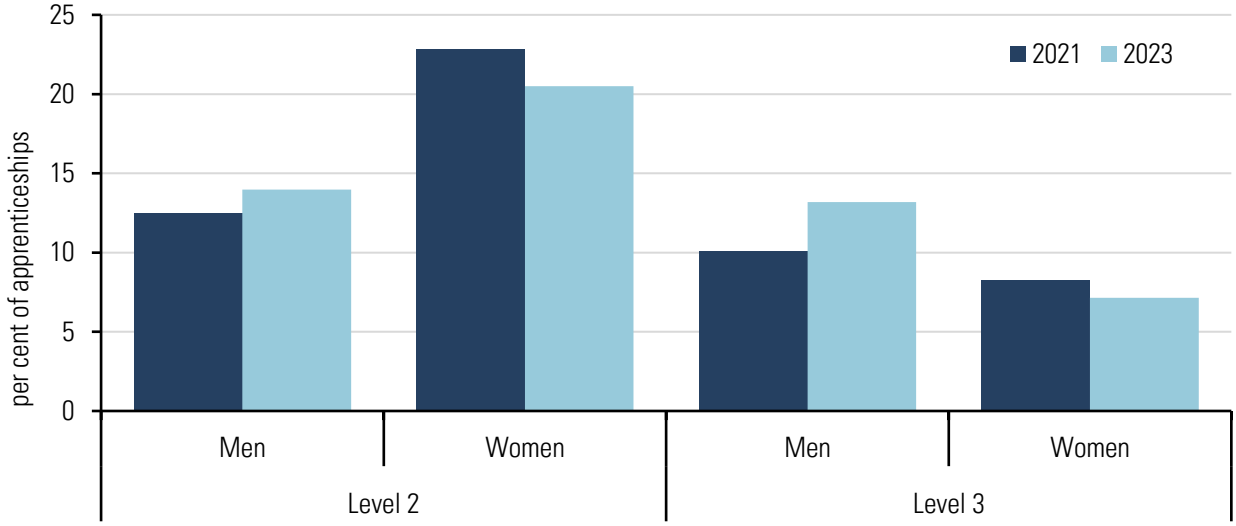


Source: LPC analysis of AEvS, pay weights, England, 2021 and 2023. Population eligible for the Apprentice Rate only.

[6] A Level 2 apprenticeship is equivalent to GCSE qualifications, Level 3 is equivalent to A Level, and Level 4 is the first level of higher education (equivalent to, e.g., a certificate of higher education).

4.17 As we go on to discuss in the sections that follow, there is an important gender dimension to the apprenticeships which young people undertake and the pay progression they can expect upon completion. Women on Level 2 apprenticeships are more likely to be covered by the AR than their male counterparts, although this pattern reverses at Level 3. This is a consequence of the heavily skewed gender balance in certain low-paying apprenticeships. In two of the three lowest-paying subject areas (Service Enterprises and Direct Learning Support), a large majority of starts are by female apprentices.

Figure 4.5: Coverage by gender and level, AEvS, 2021 and 2023



Source: LPC analysis of AEvS, pay weights, England, 2021 and 2023. Population eligible for the Apprentice Rate only.

4.18 In summary, there is a broad risk to the one in four of the population eligible for the rate and who are paid below their age-related NMW rate. The group most affected would be 18 year olds, where just under half would need a significant pay rise if the AR were removed. Also, hairdressers, leisure operators and the schools who use apprenticeships to bring in teaching assistants would feel the removal of the AR acutely. In these sectors the AR is something akin to the going rate for an apprentice. In these cases, it is more likely apprentice starts would be affected.

4.19 Some factors mitigate these risks. The first is that, having already aligned the AR with the 16-17 Year Old Rate, removing the AR would have no further impact on this, the most vulnerable group of apprentices. Another is the arguments made by the Department for Education and the devolved administrations, set out below, that we should weigh other factors against preserving low-paying apprenticeships and that, in any case, they have levers to address declining starts.

4.20 We go on to discuss the link between the AR, perceptions of apprenticeships and drop-out rates. As much as the headline minimum wage rate, the high levels of measured underpayment (see discussion in Appendix 2) are a factor affecting perceptions and experiences of apprenticeships. A wide range of employers and public authorities worry the NMW is harming the apprenticeships brand; for the same reasons, they should be worried about underpayment. It should be an ongoing priority for the Government to better understand and address this.

Rates of return

Does the evidence suggest that apprentices paid at or close to the Apprentice Rate are compensated with better pay once they qualify?

4.21 Closely related to use of the AR during the apprenticeship is the level of pay return after an apprentice completes. The trade-off in most apprenticeship systems around the world is simple. Apprentices accept lower pay during their apprenticeship in exchange for higher pay post-completion. This lower wage during training means the employer can more easily afford the extra management and training costs of an apprentice. The employer benefits too when the apprentice is fully qualified by getting a more productive worker (assuming they are able to retain the qualified apprentice) and, more broadly, a long-term talent pipeline.

4.22 So, if an apprenticeship is not a stepping stone to higher pay later down the line, this undermines the case for a lower apprentice rate. Likewise, if wage returns don't materialise later on then it is likely that the desired productivity effects won't either.

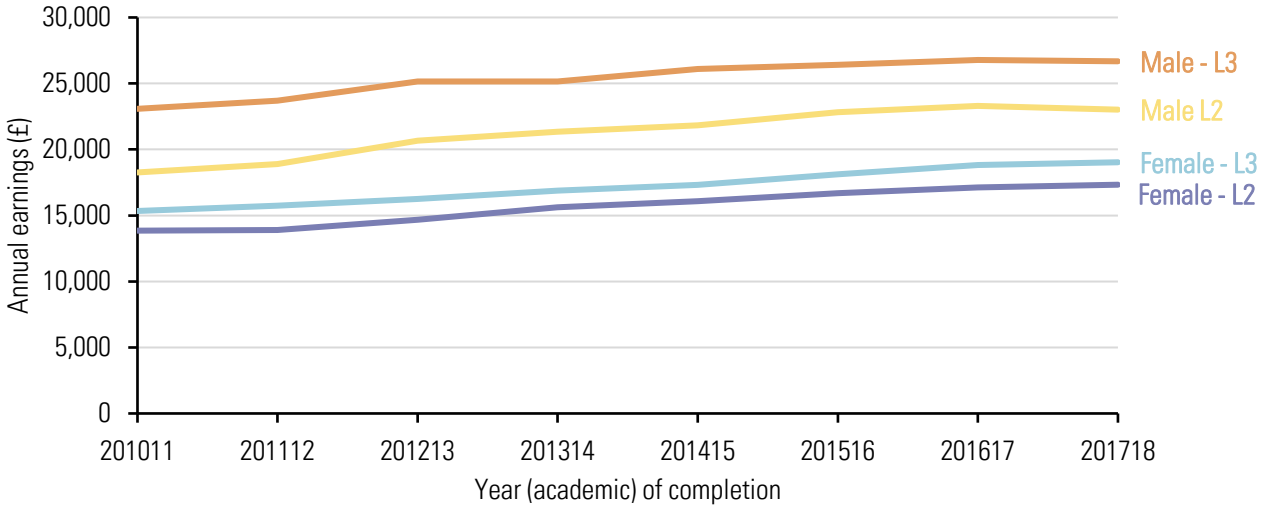
4.23 On this question, the evidence is dated but striking. An April 2020 study by researchers at the Centre for Vocational Education Research (CVER) followed students in England as they moved through education and into the labour market (Cavaglia, McNally and Ventura, 2020). On average, the authors found that doing an apprenticeship led to a positive earnings differential – but with large variations by sector and a notable gender gap. The positive differential was much smaller for women than for men, especially for those educated up to level 3. The research found that *"the overall picture is one where young men have a very high earnings differential to starting an apprenticeship in all sectors, although the magnitude varies depending on the sector. On the other hand, the differential for women is lower and only exists (on average) in some sectors."*

4.24 We can see this relationship in the earnings outcomes data (see Figure 4.6). It shows that the 'deal' on apprenticeships is very different for men and women. Figure 4.5 showed that male level 2 apprentices are less likely to be paid the AR during their apprenticeship, but Figure 4.6 shows they receive higher returns once they complete. For women, it's the opposite. They are more likely to be paid the AR during their (Level 2) apprenticeship but the earnings outcomes several years after completing are much lower.

4.25 The gender earnings gap is driven mainly by sector. There is little overlap in the most popular sectors for men and women. As an example, construction and engineering are dominated by men; service enterprises (i.e. hairdressing, beauty), child development and health and social care are dominated by women (Cavaglia, McNally and Ventura, 2022 and Department for Education, 2023).

4.26 Sector, however, isn't a complete explanation. In the few sectors where there is overlap (i.e. they are popular among both men and women), Cavaglia, McNally and Ventura (2020) continued to find a higher earnings premium for men. The authors speculate that hours of work – perhaps linked to childcare responsibilities – could explain the residual earnings gap.

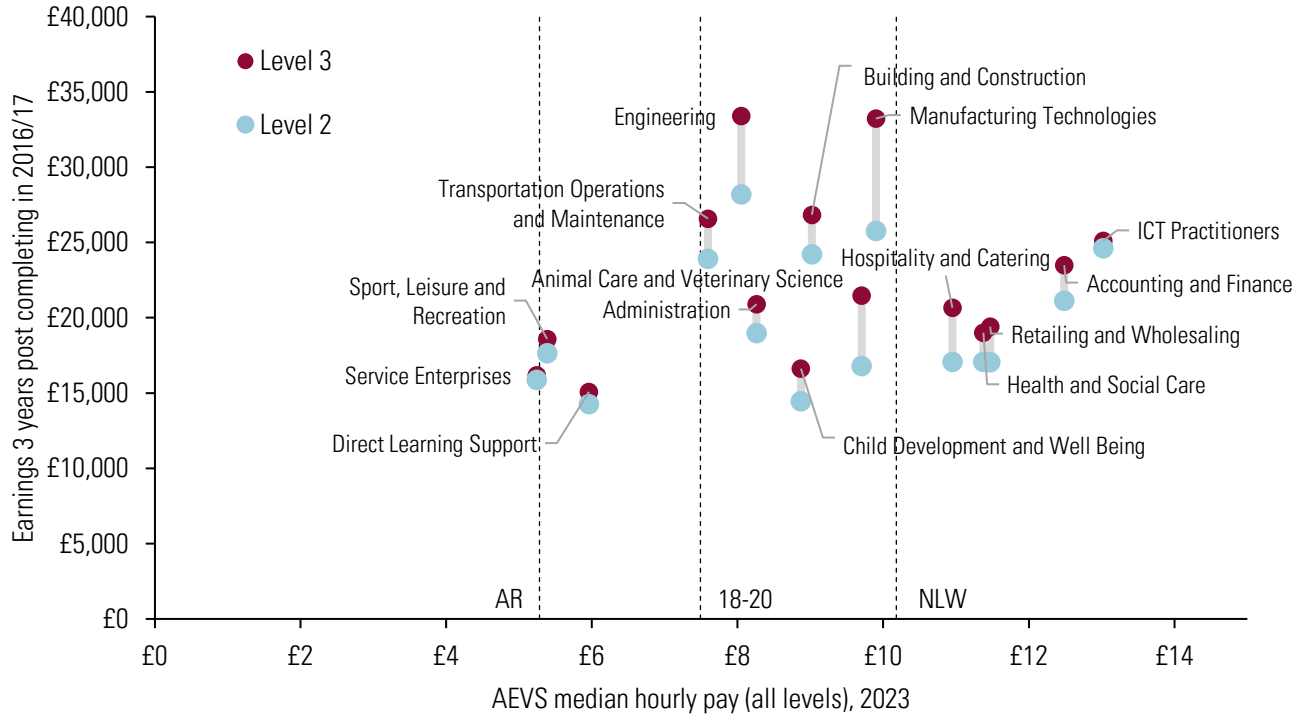
Figure 4.6: Median earnings three years after completing an apprenticeship by gender and level, 2010/11-2017/18 cohorts



Source: LPC analysis of DfE Further education outcomes data (Department for Education, 2022b, table ear01), 2020/21. Annual earnings do not control for part-time work, and this likely plays a role in women's lower earnings.

4.27 Using DfE's Longitudinal Earnings Outcomes (LEO) data, we can plot median pay in the 2023 AEvS against the earnings of past apprentices (who completed their course in 2016/17) three years after they completed their course in the same subject area. We can see that the three subject areas with the lowest median pay in AEvS also tend to have among the lowest earnings outcomes for completers.

Figure 4.7: AEvS median pay and earnings three years post apprenticeship



Source: LPC analysis of AEvS, pay weights, England, 2023, population eligible for the Apprentice Rate and DfE Further education outcomes data (Department for Education, 2022b, table ear01), England, 2020/21. Earnings three years after completion are for the cohort completing their apprenticeship in the 2016/17 academic year. This analysis uses a detailed subject area variable, and so will differ from more aggregate analysis published in Department for Education (forthcoming).
Note: Business management is excluded from the chart as median earnings during the apprenticeship are > £15.

4.28 It is important to recognise there have been significant changes to apprenticeships since the period examined in the CVER report, which have continued to bed in after the LEO data used here. Reforms such as the move from frameworks to standards have explicitly aimed to standardise and improve the quality of training. DfE characterised reforms as part of an effort *"to increase the quality and prestige of the programme"* which included changes to rules around off-the-job training and rigorous end-point assessments. Recent research (Griffiths, Jefferies and Pullen, 2024) also highlighted that for some apprentices, the choice to do an apprenticeship was because it offered the best route to a chosen career (particularly in hairdressing). For some it also offered broader benefits in terms of allowing them to find out more about the world of work or move away from classroom-based routes that didn't suit them.

4.29 Despite this, there remain questions about quality and whether apprenticeships give learners meaningful pathways to careers and pay progression. A 2022 report by the think tank EDSK (Regan and Richmond, 2022) argued the skills requirements embedded in some standards are so low they will inevitably offer apprentices a poor deal. These standards, they argue, enable a re-badging of routine low-skilled jobs rather than something which would be commonly understood as an apprenticeship.

4.30 Evidence on drop-out rates also undermines the idea that apprenticeships offer a reliable career pathway. In England in 2021/22, the achievement rate for apprenticeships was 53.4 per cent – meaning nearly half of apprentices failed to complete their course. This figure is lower still for female level 2 apprentices, at 49.8 per cent. This suggests that the majority of a group highly exposed to the AR are unlikely to complete and pass their apprenticeship. We discuss the reasons behind these drop-out rates below in our discussion of alignment with the Government policy.

4.31 There is a need for more timely evidence looking at the links between pay and returns to apprentices, and the impacts of recent reforms. In the absence of an updated evidence base, we are mindful of the risk that the AR is offering a poor deal to a group of – overwhelmingly female – apprentices. Many accept low pay during their apprenticeship but do not receive a commensurate increase in pay later on. This is either because of the nature of the work they have qualified for or because there is a high chance of non-completion. However, we are also mindful that for others, apprenticeships do pay off. There is a risk that removing the AR affects apprenticeships that have low pay during training but deliver substantial wage returns later.

Labour market context

Does the context of the youth labour market and the education system suggest other options are open to young people?

4.32 A strong youth labour market means young people who can't find an apprenticeship can find a non-apprenticeship job. Though they would lose access to the training opportunities (and subsequent greater productivity and earnings potential) which an apprenticeship is supposed to bring. As we've just seen though, these earnings returns do not always materialise.

4.33 The evidence suggests the strength of the youth labour market is already influencing young people's decisions. Low-paying apprenticeships are less attractive at a time when living costs are rising, and there is a relative abundance of better-paid roles for young workers.

4.34 Youth Employment UK told us 80 per cent of young people put 'fair pay' as the most important factor in finding good work in their recent Youth Voice Census. Young people, they told us, "*know that if they go to Aldi, that's £11 … There's an argument to be made to a young person around the long-term earning potential, but ultimately they're 17 or 18…"* They argued: *"we need to think about how we can encourage young people onto a path that is going to be good for their longer-term outcomes. They might be able to see that there's a payoff at the end, but for this moment they face the immediate choice of being paid £5 an hour."* However, research we commissioned with former and current apprentices (Pullen, Griffiths & Jefferies, 2024) suggests that apprenticeships are seen as more secure than other work available to young people, with apprentices commenting that they offered a better total – if not hourly – wage than alternative casual jobs.

4.35 It is harder to form a judgement as to whether alternative education and training routes can mitigate risks to apprenticeships. Our expertise is in the labour market rather than the education system. Apprenticeship remains the leading route into vocational training. Despite potential problems with the quality of lower-level apprenticeships, we are not convinced that other routes, including T-levels, offer a comparable alternative pathway into vocational training and on-the-job learning. In any case, the relative benefits and trade-offs between different routes are complex and the information available to young people is imperfect.

4.36 Overall, our judgement is that there are other options available in the youth labour market and education system. This can change though – including as a result of other decisions on the NMW youth rates.

Stakeholder support

Does this change have widespread support from stakeholders?

4.37 Overall, the proposal to remove the Apprentice Rate has support from the majority of stakeholders. The Federation of Small Businesses (FSB) told us the rate was *"not a significant factor in the decision to take on an apprentice and our previous evidence shows many small businesses choose to pay above the apprentice rate to attract high-quality candidates."* They argued that *"higher pay for apprentices will help boost the attractiveness of apprenticeships as a career option among young people and their parents".*

4.38 The British Chambers of Commerce (BCC) thought removal of the rate would *"help to improve not only the image of apprenticeships for candidates of all ages, but will also result in more effective and high quality outcomes for employers and individuals"*. UKHospitality described it as *"a reasonable ambition"* to remove the rate, but thought the earliest date for implementation should be April 2025. The British Beauty Council (BBCo) stated strong support for the proposal, arguing that current pay rates were a deterrent to uptake as they did not provide a credible income, while training commitments left apprentices unable to top up their wages with other jobs. They also called for more support from the Government *"to incentivise and fund employers taking on and training apprentices."*

4.39 Unison described the Apprentice Rate as "*grossly inadequate*" and discriminatory. The National Society of Apprentices told us that, "*Apprentices consistently identify low pay as having a negative impact on their learning, ability to complete their apprenticeships and their mental health.*"

4.40 The Prince's Trust told us an uplift to the rate may increase take-up and improve the social mobility impact of apprenticeships. The End Child Poverty Coalition (ECPC) agreed that the rate's removal would make apprenticeships a more attractive prospect. The Scottish Women's Convention (SWC) thought removing the rate could help raise the number of young women considering roles within construction and engineering: *"I don't feel women get the same opportunities, like apprenticeships for example. Women are always steered towards hairdressing and caring roles, whereas guys get engineering and STEM apprenticeships."*

4.41 The BBCo told us that increasing pay rates for apprentices would help increase uptake and encourage more people from low income households or with caring responsibilities to consider apprenticeships. The National Farmers' Union (NFU) thought the change *"could simplify the system and so assist with employer understanding and aid greater compliance."* CIPP members thought the change could simplify the NMW structure; attract more apprentices; benefit apprentices financially; reduce hiring in some areas (manufacturing was mentioned); and lead to spillover effects for other workers.

4.42 On the other hand, Make UK opposed removal of the rate: *"A majority of manufacturers believe that despite the scarcity with which the apprentice rate is used, it should be kept in place and should increase at the same rate as the other age bands. While there is little appetite to use this rate in practice, there may be some lower-level apprentice roles where pay is closer to the wage floor and manufacturers find it helpful to use the legal minimum rate as a benchmark for wage setting."* The Food and Drink Federation (FDF) echoed this, saying *"the point is really just to have some sort of flexibility."*

4.43 The Local Government Association (LGA) told us that removing the rate was likely to lead to a reduction in starts in schools in particular, although a lack of data made it hard to estimate the extent of this: *"As school budgets are likely to remain tight for the foreseeable future, schools may not have enough resource to allow them to absorb the changes in the pay rate proposed here and apprenticeship numbers in schools may fall as a result."* This is in line with finding above that apprenticeship pay rates for teaching assistants are among the lowest.

Alignment with Government policy

Does this change align with the wider Government policy on apprenticeships?

4.44 It is important that our recommendations align with the terms of our remit – but equally, that the terms of our remit support the Government policy as broadly as possible. We consulted with the Department for Education (DfE), the Scottish Government and the Welsh Government and spoke with officials in Northern Ireland's Department for the Economy. Each argued that the current approach to the Apprentice Rate worked against their policy goals, on apprenticeships and more widely.

4.45 DfE told us the Apprentice Rate was *"a potential barrier to starts and achievements and presents a risk to our ambitions … to offer high quality opportunities for individuals".* They said *"unemployed jobseekers and young people who are reliant on entering the labour market, are less able to take lower paid work for longer-term career benefits."* They also linked low pay to high drop-out rates: *"many apprentices either opt to withdraw from their programme due to low pay, or if this was not their primary reason for leaving, they stated that a higher apprenticeship wage would have made them stay."* Finally, they told us the Apprentice Rate tarnished perceptions of the apprenticeship programme and made it challenging for employers to attract high-quality candidates.

4.46 We've already noted that drop-out rates in England are particularly high. The 2021 Apprentice Evaluation Survey (Department for Education, 2022a) found that "the salary was too low or you were struggling to get by financially" was either a key or partial reason for 22 per cent of non-completers. This figure was notably higher (37 per cent) for those aged under 19 years, where use of the AR is higher.

4.47 However, more non-completers (40 per cent) reported that personal or domestic factors contributed to their non-completion, most commonly a job or career change. The most common apprenticeship-related reasons that contributed to non-completion were: lack of time for learning and training, training not being as good as hoped and the apprenticeship being badly run or poorly organised. Achievement rates in England vary consistently by the learner's location and how it scores on indices of multiple deprivation. Learners from the most deprived postcodes are 8-10 per cent less likely to complete their course than those from the least deprived. More generally, apprenticeships in England appear to be shifting away from learners from a more deprived background. (Cavaglia, McNally and Ventura, 2022) find fewer apprentices previously eligible for free school meals (13 per cent) than the student population (17 per cent) in 2020 and that recent changes such as the shift to higher level apprenticeships *"do not suggest a pattern of apprenticeship participation that would either reduce socio-economic inequality or improve social mobility."*

4.48 The Scottish Government told us their policy was that *"all workers should be paid at least the real Living Wage regardless of age and status. Aligning the minimum wage for apprentices to the NMW for other employees of the same age would be a good step towards fairer pay for apprentices."* The NMW Apprentice Rate, they argued, *"goes directly against the Scottish Government's Fair Work policy, which aims to encourage higher standards of pay and conditions in typically low-paid and precarious sectors with the narrowing of the gender, disability and ethnicity pay gaps."*

4.49 The Welsh Government went beyond calling for the removal of the Apprentice Rate, instead calling for the rate to be increased and aligned to the 21-22 Year Old Rate. This would mean a higher minimum wage for apprentices than for young people not doing an apprenticeship. This would *"help incentivise 16–19 year olds to start an apprenticeship and influence young people when choosing education and employment options."* They argued this change would enhance the profile of apprenticeships, build parity with full-time education and *"address child benefit disparity."*

4.50 The Scottish Government recognised the potential risk to employment but thought this would be "relatively low" given the high proportion of employers who paid apprentices at higher rates. A higher minimum wage would "support a greater proportion of quality apprenticeships overall." DfE argued "the removal of the rate is likely to have little impact on most businesses" and overall risks were "negligible"; "as owner of apprenticeship policy, DfE has levers to monitor and mitigate any risks associated."

4.51 Similarly, they told us risks to training time would be better addressed via other policy channels than the minimum wage. DfE told us their *"robust quality measures will ensure apprentice learning time is protected and that they continue to receive appropriate renumeration. We see no risk to paid learner time from abolishing the rate."* The Scottish Government told us that Skills Development Scotland had *"robust contract monitoring and quality assurances processes in place with training providers"* which included the monitoring of appropriate training time.

4.52 In discussion with officials at Northern Ireland's Department of the Economy, we heard the department encouraged employers of apprentices to be competitive on pay. Although apprenticeship funding in Northern Ireland is currently focused on the 16-24 age group, the department expected in the future to direct more funding to older apprentices in priority economic areas – an expansion to age groups less likely to be paid the AR.

4.53 Overall, the submissions we received give us confidence that this criterion is met. In future remits, we urge the Government to ensure what is asked of us aligns with the broader policy aims for apprenticeships.

Effects on training

Are the risks to apprentices' training arrangements mitigated by other policy interventions?

4.54 The key difference between apprenticeships and 'normal' jobs is the amount of training involved. Aligning minimum wage rates means employers face the same employment costs for workers who should be doing very different amounts of training (at least 20 per cent of an apprentice's time should be spent in off-the-job training). Raising the AR means raising the cost of this training.

4.55 Previous research (Papps, 2020) found that increases in the minimum wage led to downwards pressure on training hours. That was based on Apprentice Pay Survey data running up to 2019. Since then, the dominant model of apprenticeships in England has changed from frameworks to standards, which in principle have more stringent training requirements. The AEvS contains information on training hours but proper analysis of the relationship with pay and the NMW requires regression analysis which we have not had the opportunity to carry out.

4.56 DfE's submission to us set out how the transition from frameworks to standards had introduced more rigorous rules around training – which would mitigate risks around training hours. The Scottish Government told us they had robust assurance processes in place with training providers which included the monitoring of appropriate training time. Scotland differs from England, in that there are no minimum training hours or mandatory percentage of time in off-the-job training – these are dependent on the apprenticeship framework being taken.

4.57 In general, policy interventions tend to target off-the-job training, but on-the-job training is equally important for apprentices. In the interviews conducted by Sheffield Hallam University, both current and former apprentices spoke about the importance of their learning experiences in the workplace, formalised or not, in acquiring professional competence. The government policy has fewer levers to influence the behaviour of employers and colleagues towards apprentices in the workplace.

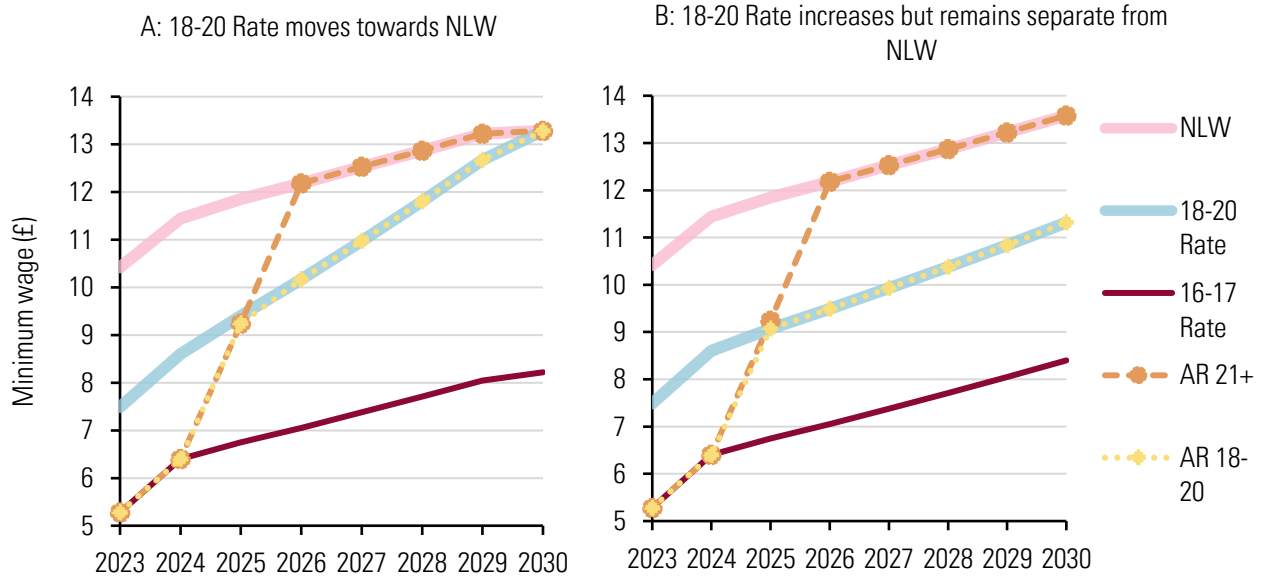
4.58 Overall, we have considered the risk to training hours in tandem with the strong steers received from the Government and the devolved administrations. We are sensitive to the risk that removing the AR could depress apprentices' training hours. Against this, the organisations with overall responsibility for apprentices' success argue that there would be other significant benefits from this change, and that they have policy levers to mitigate this risk. As such, we do not judge this criterion should prevent us removing the AR.

Relationship with the youth rates

4.59 Throughout this and the previous chapter, we have emphasised the interaction between the youth rates and apprentice rates. If the AR were removed, but youth rates retained, apprentices currently paid at the rate would move to their respective age rate. For many apprentices they would go to the 16-17 Year Old Rate and so there would be no change in their wage (as those two rates are currently aligned). For older apprentices paid at the rate, there could be a significant jump in wages. This would depend on timing of the policy, and the approach to the gap between the youth and adult rates (and indeed the gap between the 16-17/Apprentice and 18-20 Year Old Rates). There may be spillover effects for young non-apprentices where employers wanted to retain a differential between apprentices and other workers.

4.60 Figure 4.8 illustrates the interaction between the policy for 18-20 year olds and the AR by comparing two scenarios. In the left-hand panel, both the AR and the 18-20 Year Old Rate are removed. For simplicity, we show the 18-20 Year Old Rate moving gradually towards the NLW, but it can easily be extrapolated to our preferred model where age cohorts move across one year at a time. In the right-hand panel, the AR is removed while the 18-20 Year Old Rate is retained. Both scenarios illustrate the large increases required when the AR is initially removed: for those over 21, this could equate to an increase in the wage floor of around £6. For apprentices aged between 18 and 20, who are much more likely to be paid at or close to the current AR, the path of their minimum wage is moderated by the 18-20 Year Old Rate but could still increase steeply if this rate is removed.

Figure 4.8: Illustrative paths for removing the Apprentice Rate under different policies for 18-20 year olds



Source: LPC analysis using ASHE, Average Weekly Earnings, forecasts from HMT panel, OBR and Bank of England. This chart uses the same method we have previously used to calculate on-course rates (see Appendix 1 and Low Pay Commission, 2023a). We assume median pay continues to grow at the same rate as last available forecasts from 2027 onwards.
Note: Both scenarios assume that the NLW remains at 2/3 median wages for the relevant population and that the Apprentice rate is removed in steps over two years. 16-17 year old apprentices would be entitled to the 16-17 Year Old Rate.

4.61 Removing the youth rates while retaining the AR would not directly affect apprentices, but it could incentivise apprenticeship creation in the medium term. The 18-20 Year Old Rate is also used as a

benchmark for apprentice pay, with a cluster of apprentices paid at the rate and around one in five paid between this rate and the NLW.

4.62 This discussion highlights the need to consider what role the youth rates would play in the absence of a training-related rate, and vice versa. It relates to a broader set of questions around how we assume – or intend – that employers use the youth rates, as well as the limits of the minimum wage relative to other policy on education, skills and youth employment.

Conclusion

4.63 Overall, our view is that there are grounds to remove the AR. A broad range of stakeholders including employer and worker representatives and policy makers in the four nations support this. Their view is that the rate is too low and this tarnishes the brand. In some cases the earnings returns to apprenticeships are also low, undermining the case for a lower rate during training. Policy makers believe that removal of the rate wouldn't harm training standards or volumes.

4.64 But removing the AR at the same time as reducing the gap between the youth and adult rates for non-apprentices brings considerable risk. Under the current NMW structure, employers would have the option to pay 18-20 year olds below the NLW, providing shelter for 18-20 year old apprentices. Bringing this age group progressively into the NLW, as we proposed in Chapter 3, would materially increase the risk to apprenticeships in this age range, as it would involve very significant increases in their pay floor.

4.65 Our view is that changes to the NMW age structure should be prioritised over changes to the treatment of apprentices. Lower minimum wages on the basis of training is more justified than on the basis of age. Although there continue to be questions around the value of certain apprenticeships, it is clear that there is value in apprenticeships as a training route, and reforms in train to consolidate this. This is something we want to protect. Furthermore, we have just recommended a substantial 21 per cent increase (£1.12 per hour to £6.30) in the AR for 2024. This is comfortably the largest ever cash increase and we want to see the effect of this major change.

4.66 If the Government agrees to our recommendation to, over time, lower the gap between the youth and adult rates and lower the age of eligibility to the NLW further, then we think the current structure of the AR should also change. We would propose that, for apprentices aged 18 and over, the AR changes to a simple discount of the NMW age rate during the apprentice's first year. We have not sought to define what that discount should be. We think this should be subject to further consideration. An AR set in the range of 75 to 90 per cent of the adult rate would seem a reasonable starting point for consultation, given international practice (see Chapter 3) and the requirement in England for at least 20 per cent of an apprentice's time to be spent training.

4.67 This, combined with the lowering of the NLW eligibility, would result in substantial increases in the wage floor for apprentices, but continue to provide some shelter in recognition of the additional costs relating to the substantial training they receive. The precise increases in apprentices' wage floors would depend on the trajectory and structure of future rates (See Figure 4.9 for an example scenario). As an illustration, the value of the AR from April 2024 will be 74 per cent of the 18-20 Year Old Rate and 56 per cent of the NLW. Increasing apprentices' wage floor to 90 per cent of the NMW rate for their age group would result in a further increase of 20 per cent for 18-20 year olds and 61 per cent for over-21s.

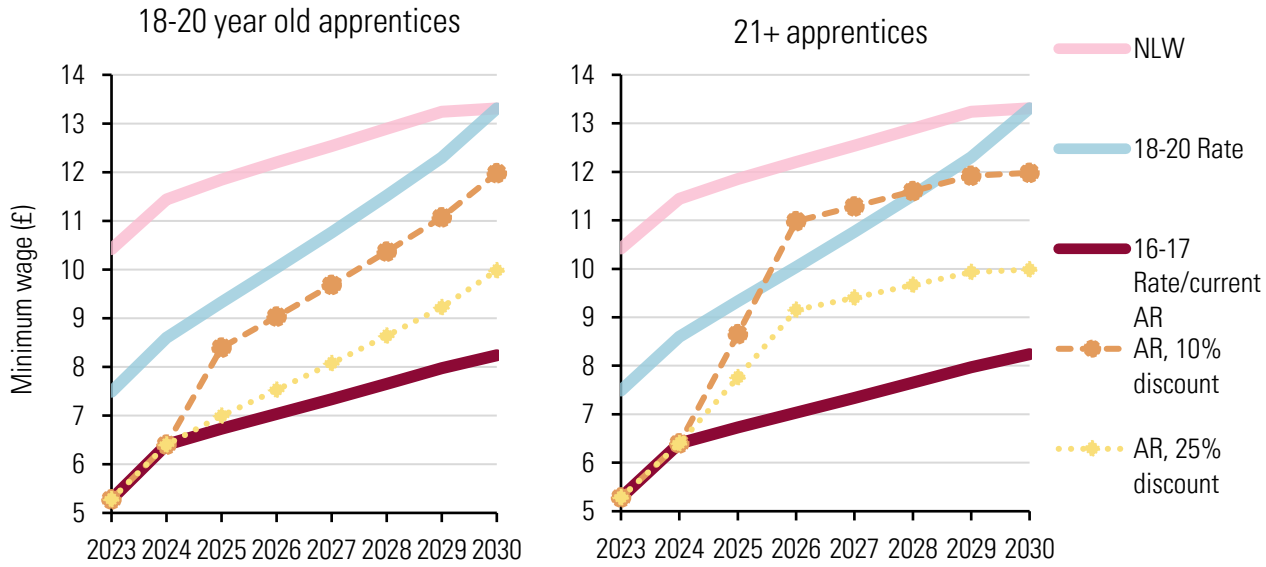
If the NLW is extended to the 18-20 age group, the increase in the wage floor of apprentices in that age group would be correspondingly greater.

Table 4.2: Proposed structure of the apprentice minimum wages

	Wage floor for non-apprentices	Value	Wage floor for apprentices	Value with 25 per cent discount	Value with 10 per cent discount
16-17 year olds	16-17 Year Old Rate	£6.40	16-17 Year Old Rate (no discount)	£6.40	£6.40
18-20 year olds	18-20 Year Old Rate	£8.60	Discount on the 18-20 Year Old Rate	£7.74	£6.45
21+ year olds	National Living Wage	£11.44	Discount on the National Living Wage	£10.30	£8.58

Note: Examples use incoming April 2024 NMW rates. Assumption of a 25 per cent or 10 per cent discount is for illustration only.

Figure 4.9: Illustration of wage increases for apprentices with a discount rate and removal of the 18-20 Year Old Rate, 2023-2030



Source: LPC analysis using ASHE, Average Weekly Earnings, forecasts from HMT panel, OBR and Bank of England. This chart uses the same method we have previously used to calculate on-course rates (see Appendix 1 and Low Pay Commission, 2023a). We assume median pay continues to grow at the same rate as last available forecasts from 2027 onwards.

Note: In this illustration, the change to the Apprentice Rate is made in steps over two years. For simplicity, we assume that the 18-20 Year Old Rate gradually aligns with the NLW, but this can easily be extrapolated to our preferred scenario where 18-20 year olds move over to the NLW one age year at a time (and the discounted Apprentice Rate moves with them).

Chapter 5

Which jobs would be affected by further increases in the National Living Wage?

Key findings

- **Since its introduction the NLW has risen substantially more in real terms than median hourly –** Between 2015 and 2023 the NLW increased by 22.8 per cent in real terms i.e. taking account of inflation. Hourly pay at the median grew by just 2.3 per cent.
- **The NLW pushed pay higher than it otherwise would have been for the bottom third of jobs** – Spillover effects, whereby employers try to maintain pay differentials with the wage floor, spread pay rises up the distribution. We estimate these spillovers affected up to a third of jobs from 2015 to 2019. However, since the pandemic, this pattern is hard to discern in the data. It's likely the NLW still has spillover effects, but these are harder to separate from the additional pay pressures resulting from labour shortages and high inflation.
- **When the NLW was introduced, it led to a big increase in coverage (the number of workers paid at or below the rate)** – But subsequent increases did not lead to more coverage, and during the period recovering from the pandemic, coverage fell. This is due to strong spillover effects and the tight labour market. However, we have seen an increased bunching of jobs paid just above the rate. Between 2015 and 2023, the share of jobs paid within £2 of the minimum wage (in 2015 wages) increased from 24 per cent to 31 percent. This means more workers will be affected by future rises in the NLW.
- **If Government adopts a further target, the level of the NLW will depend on the level of the target and how fast average wages rise -** We currently estimate that if the NLW remained at two-thirds of median pay, in 2030 it could be between £12.65 and £14.62 depending on the speed of median pay growth. Since 2015 the NLW has risen rapidly relative to median pay. If it continued to rise at a similar rate (relative to median pay), it would reach 75 per cent of median earnings in 2030. This could mean an NLW between £14.23 and £16.45.
- **If spillover effects are similar to those seen from 2015 to 2019 then further rate rises will only cause modest increases in the share of jobs paid at or below the rate** – Instead, there will be further bunching of jobs just above the minimum. But spillover effects may be stronger or weaker in future and other factors will also affect the pay distribution.

- **The characteristics of workers affected by the NLW may change** – If the NLW continues to increase relative to median wages, it will likely affect more public sector workers, more salaried workers, and more workers outside traditionally low-paid sectors.
- **There is not likely to be much of an increase in the share of minimum wage jobs that are in tradable sectors, which are those most at risk** – The tradeable sector is most at risk because these firms compete internationally and have less flexibility over pricing. However, less than ten per cent of minimum wage jobs are currently in tradeable sectors and we do not anticipate further increases will change this considerably.
- **Future rate increases will affect a different set of jobs, so pose a different set of risks** – There is no strong evidence to suggest that the new jobs affected by a higher minimum wage will increase the risk of employment effects (subject to public funding), but they will be different which may suggest caution.

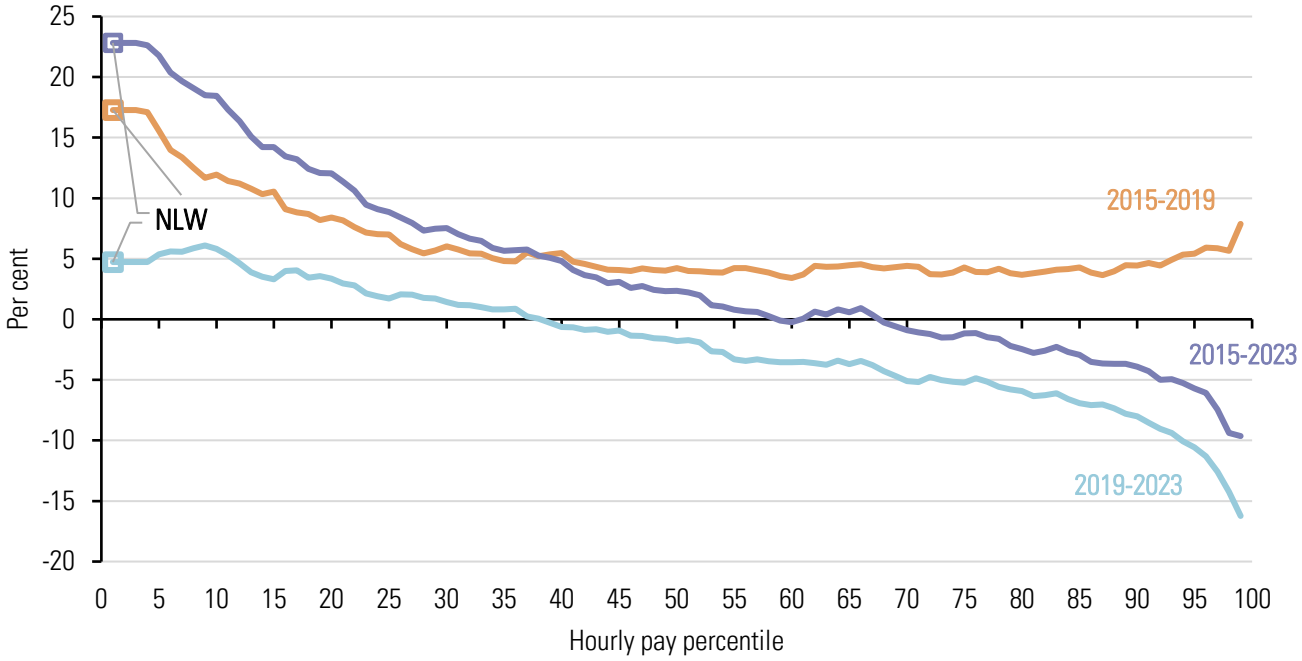
Introduction

5.1 This chapter describes which jobs and workers have been affected by the National Living Wage (NLW) since it was announced in 2015 and introduced in 2016. It also discusses who might be affected by further increases in the NLW. We look at three scenarios for further increases relative to median earnings. A scenario where the NLW reaches two-thirds of median earnings (as we expect it to do in 2024) and then stays at this level. One scenario where the NLW rises to 70 per cent and one where it rises to 75 per cent of median earnings.

How have increases in the National Living Wage since 2019 affected pay?

5.2 The NLW grew much faster than median wages between 2019 and 2023 (4.7 per cent growth compared with a 1.8 per cent fall in real terms). This meant that the NLW continued to drive up pay for minimum wage workers.

Figure 5.1: Growth in hourly pay percentiles, UK, 23+ population, 2015-2023 (real terms, 2023 prices)



Source: LPC analysis of ASHE, standard weights, 23+, UK, 2015-2023. Figures are chain-linked to account for methodology change in 2021. Excludes first year apprentices. Does not show bottom 2 percentiles which are below the NLW in some years.

5.3 The pattern of real pay growth from 2019 to 2023 differs from that observed from 2015 to 2019. First, higher inflation meant that far fewer workers received real terms pay increases from 2019 to 2023 (only for the bottom 38 per cent of workers). Second, real pay growth was much weaker for better-paid workers in 2019-2023 than 2015-2019.[7]

5.4 The third difference is that it is more difficult to see the direct impact of the NLW on "spillovers" in 2019 to 2023 than from 2015 to 2019. "Spillovers" is the term for how minimum wages effect the pay of jobs paid above the minimum, such as managers or supervisors. Employers try to maintain a pay differential in recognition of the greater responsibility, skill or seniority of these roles. These differentials cause minimum wage increases to "spill over" up the pay distribution.

5.5 From 2015 to 2019, Figure 5.1 shows that pay grew fastest at the NLW and then gradually slowed until around the 35th percentile. Above the 35th percentile pay was broadly flat across the distribution. This suggests that the NLW was driving up pay for workers up to the 35th percentile (approximately around £3 above the minimum in 2015). Giupponi et al (2022) also find strong spillover effects of the NLW, up to £1.50 above the incoming rate. Using these two estimates as a range suggests the NLW directly or indirectly affects between 7.2 million (27 per cent of jobs) to 9.4 million

[7] However, administrative data does not suggest this is the case for monthly pay, so this may reflect data issues with the Annual Survey of Hours and Earnings (ASHE), which our analysis is based on. We cannot use alternative sources for this analysis as ASHE is the only dataset with detailed hourly pay information.

(35 per cent of jobs).[8] Of the jobs affected by the NLW, only 1.4 million (5 per cent of all jobs) are paid at or below the rate.

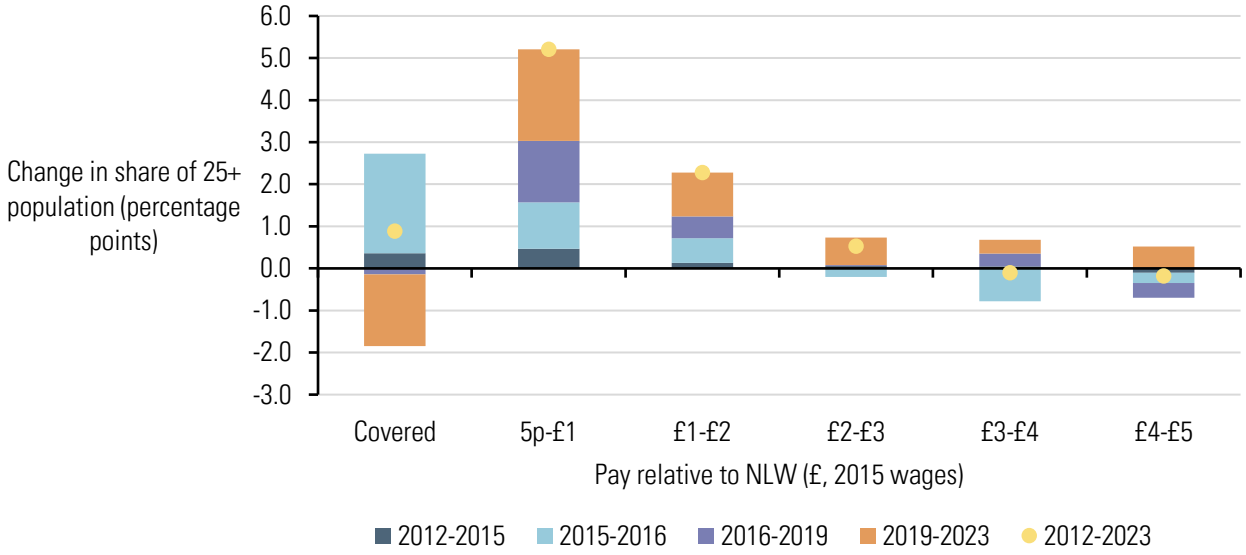
5.6 In 2019-2023 other factors were also driving up pay for low-paid workers. Pay actually grew fastest for workers paid just above the NLW, in the 5th to 10th percentiles. This may be because many workers moved off the NLW in this period. We heard from employers that a shortage of available workers led them to raise pay above the minimum. For example, in 2022, UKHospitality told us "*the workforce supply crisis has led to substantial increases in basic rates of pay with intense competition between firms. For the first time since the NMW was introduced, we are seeing many firms having joining/starter rates of pay well above the statutory minimum*."

5.7 During 2019-2023 strong growth in the NLW acted as a baseline for pay increases in low-paid roles. Firms were competing to attract workers by raising pay by more than the rises in the NLW. Strong growth in the NLW meant they were competing from a high baseline. So, while we did not see the same pattern of spillovers in 2019-2023 as we did in 2015-2019, the NLW probably still did increase pay growth for workers paid above the NLW, not just those on it. Competitive pressures likely added to the NLW's spillover effects, causing pay to rise across a greater swathe of the distribution.

5.8 The share of workers aged 25 and over that are paid the minimum wage, often referred to as coverage, jumped from 4.3 per cent in 2015 to 6.7 per cent in 2016 when the NLW was introduced. But it has not increased since then, despite a series of large increases in the minimum wage. This is shown in Figure 5 2. There are several reasons for this. First, the NLW has had spillover effects. Some employers are keen to maintain a differential between their workers' pay and the statutory minimum, so as the NLW has risen, pay for workers above has risen at similar rates. Second, competition for workers has driven up pay for low-paid workers. Between 2019 and 2023 the share of jobs paid the NLW fell from 6.5 per cent to 4.9 per cent despite big increases in the minimum wage. Finally, some employers may choose to pay just above the rate to ensure they stay compliant with the regulations. Recent research found that a quarter of employers affected by the NLW do this (CIPD, 2023a).

[8] The lower value of the range is all jobs within £1.50 (in 2015 wages) of the NLW in 2023. The upper value of the range is all jobs in the bottom 35 percentiles, as previous LPC analysis has suggested spillovers could spill up to the 35th percentile. These figures relate to the population aged 23 and over.

Figure 5.2: Change in the per cent of jobs by different pay bands relative to the NMW/NLW, UK, 2012-2023, 2015 wages



Source: LPC analysis of ASHE, low-pay weights, 25+, UK, 2012-2023. Figures are deflated by index of median wages, see Appendix 1 for more detail. Figures are not chain-linked. Excludes first year apprentices.

5.9 While coverage has not increased, we have seen more jobs paid near the NLW since 2016. For example, in 2015, around 24 per cent of jobs were paid within £2 of the minimum (in 2015 wages). In 2016 this jumped to 28 per cent and by 2023 it reached 31 per cent. Evidence on spillovers suggests that these workers are likely to be affected by future NLW rises. (Giupponi et al. (2022) and Low Pay Commission, 2021).

What could future NLW rates be under different scenarios?

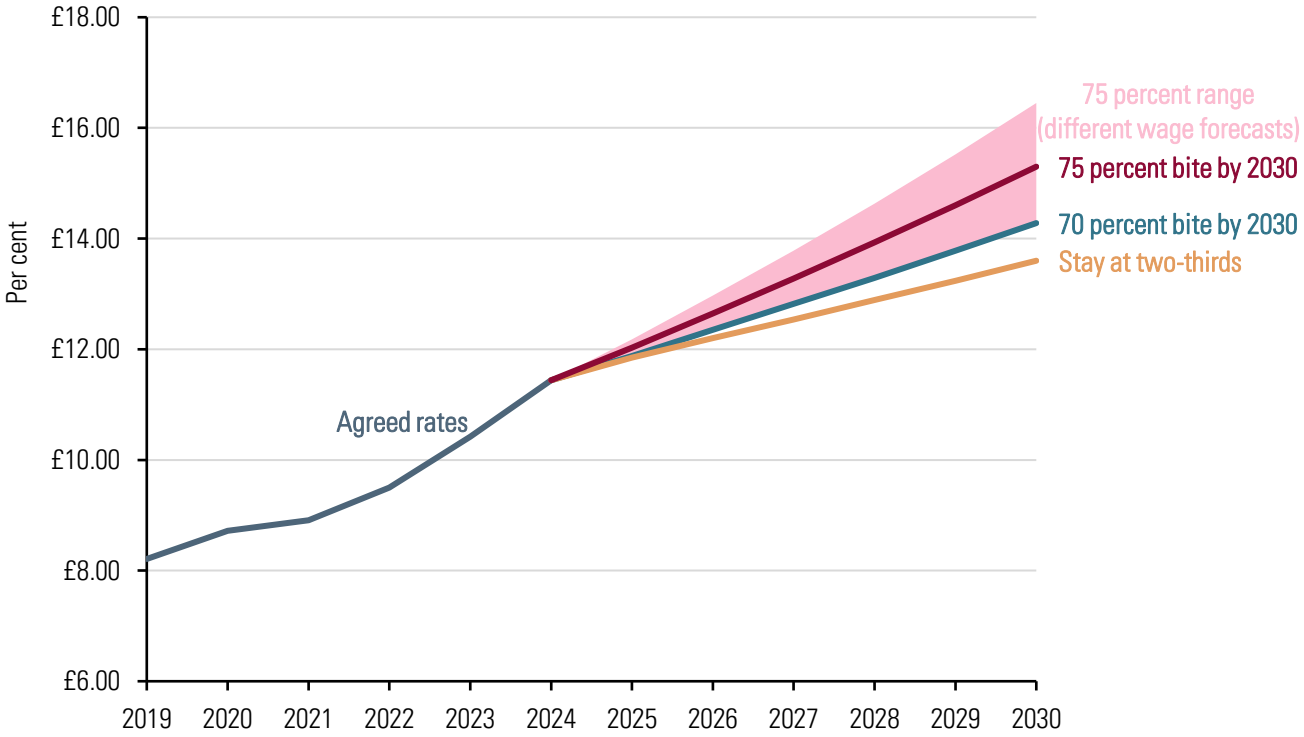
5.10 If the Government chooses to aim for another earnings-based target, the value of the NLW in future will depend on both growth in median pay and how the minimum wage changes relative to the median pay. Figure 5.3 shows projections for the NLW if it grows smoothly to meet different bite (minimum wage as a per cent of median wage) values by 2030. If the NLW increases relative to median earnings at a similar rate to the 2015-2024 period, it will hit 75 per cent of median earnings in 2030. Our current central estimate is that this would be equal to £15.30 in 2030. However, projections for median wages this far forward are very uncertain. We estimate it could be anywhere between £14.23 and £16.45, depending on the speed of wage growth across the economy.

5.11 If the NLW increases at a more moderate pace it would reach a 70 per cent bite by 2030. This would be roughly equivalent to the pace of NMW increases (relative to median earnings) from 1999 to 2015. We estimate that this could be anywhere from £13.28 to £15.35 in 2030, with a central estimate of £14.28. Alternatively, if the NLW stayed at two-thirds of median earnings, our central estimate is that that it would reach £13.60 in 2030, with a range from £12.65 to £14.62.

5.12 Bringing younger workers into the NLW reduces median pay for eligible workers, so reduces the rate needed to achieve a given 'bite'. The scenarios here show the potential values of the NLW keeping

the eligibility at 21 and over. In Chapter 3 we recommend the Government move towards reducing the age of eligibility of the NLW from 21 to 18. If the Government made this change and aimed for a 70 per cent bite target, the final rate would be approximately 30 pence lower in 2030 than otherwise. The size of this effect will vary based on the framework for setting the NLW and median pay growth.

Figure 5.3: Potential values for the NLW under different bite scenarios, UK, 2019-2030



Source: LPC analysis using ASHE, Average Weekly Earnings, forecasts from HM Treasury panel, Office for Budget Responsibility and Bank of England (latest figures as at end of November 2023). We only show the range for 75 per cent bite scenario, but there is similar uncertainty for the two other scenarios. For more detail on calculations see Appendix 1.

How many jobs might be affected by further increases?

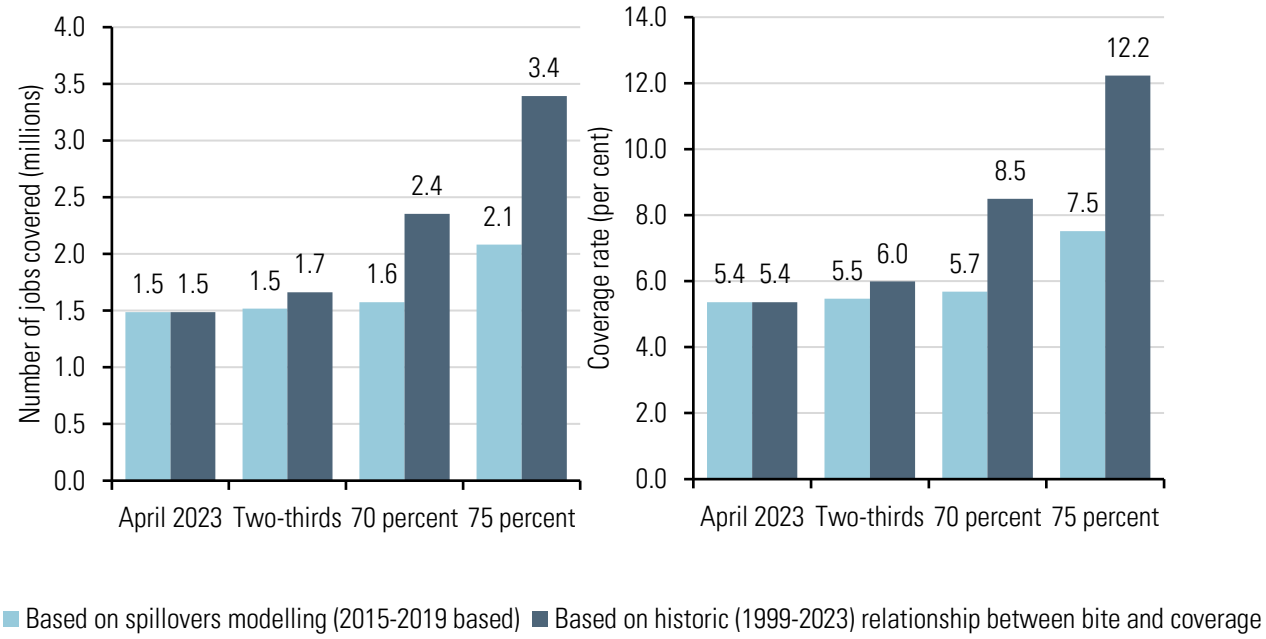
5.13 We use two methods to estimate how many jobs would be paid the minimum wage in different scenarios. We refer to the share of workers paid at or below the minimum wage as the "coverage rate". The first method assumes that further increases in the NLW result in the same spillover effects we saw between 2015 and 2019.[9] This is shown in the light blue bars in Figure 5.4.

5.14 The second method uses the historical relationship between the bite (the ratio of the NLW to the median wage) and coverage rates (the share of jobs paid at or below the minimum) from 1999 to 2023 to project what might happen to the coverage. Over time, bite and coverage tend to move together, though the relationship is not simple. For example, the NLW's introduction in 2016 caused a

[9] This modelling is based on the LPC estimates of spillovers. These are slightly stronger than alternative estimates such as Giupponi et al (2022). If we used alternative estimates to model future increases, we would project a similar pattern but with higher future coverage and weaker spillovers. We assume the total number of jobs remains constant and that wage growth would be the same for all workers without the NLW rise. More details on the assumptions of this modelling in Appendix 1.

jump in the bite and coverage. Subsequent increases raised the bite further, but coverage stayed flat. This second scenario is shown with the navy bars in Figure 5.4.

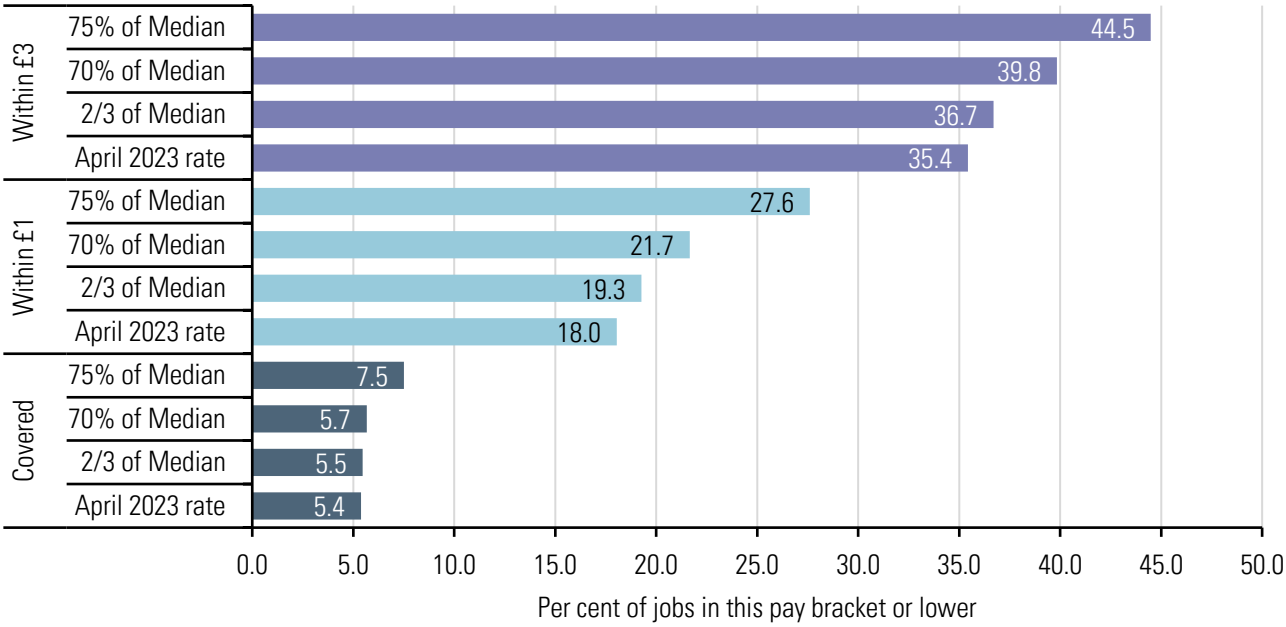
Figure 5.4: Modelled NLW coverage rate and levels at different bite scenarios, 21+, UK



Source: LPC analysis of ASHE, low-pay weights, 21+, 2023. Projections assume total number of jobs remain constant. Excludes first year apprentices. 'April 2023' is latest outturn data which is used as the base for projections in both approaches. For 21-22 year olds we assume that any worker currently paid below the NLW is covered.

5.15 Projections using the first method suggest that coverage would increase moderately, depending on the extent of the increase in the NLW. For example, if the bite increased to 75 per cent, we estimate coverage of 7.5 per cent (or 2.1 million jobs). This is only slightly higher than peak coverage in 2020 (1.9 million jobs). Rather than large increases in coverage, further NLW increases would likely lead to more workers bunched just above the NLW because of spillover effects. Figure 5.5 shows that if the NLW reached 75 per cent of median pay, we project that the share of jobs paid within £1 of the NLW would increase from 18 to 27.6 per cent.

Figure 5.5: Per cent of jobs within range of NLW with NLW at various target rates, modelled estimates, 21+, UK, 2023 wages



Source: LPC analysis of ASHE, low-pay weights, 21+, 2023. Projections assume total number of jobs remain constant. Figures are in 2023 wages. Excludes first year apprentices. 21-22 workers are classed as covered if they are paid at or below the NLW, rather than their own rate. Coverage rate differs from figures cited earlier as includes 21-24 year olds.

5.16 However, our assumption about spillover patterns may not hold and we may instead see coverage matching the historical relationship with the bite as per scenario 2. If this is the case, then coverage could be far higher. A bite of 75 per cent could result in coverage of around 3.4 million or 12 per cent. This would be more than double the coverage in 2023.

5.17 The number of jobs affected by the NLW will grow more slowly if other factors continue to raise pay for low-paid workers, as we've seen since 2019. If there continue to be shortages in certain low-paying sectors, we might see little or no growth in coverage and limited increases in the number of people who are indirectly affected by rises from the NLW. Further rises in the NLW relative to median earnings will likely lead to moderate increases in coverage, but more substantial increases in the share of jobs near the minimum wage.

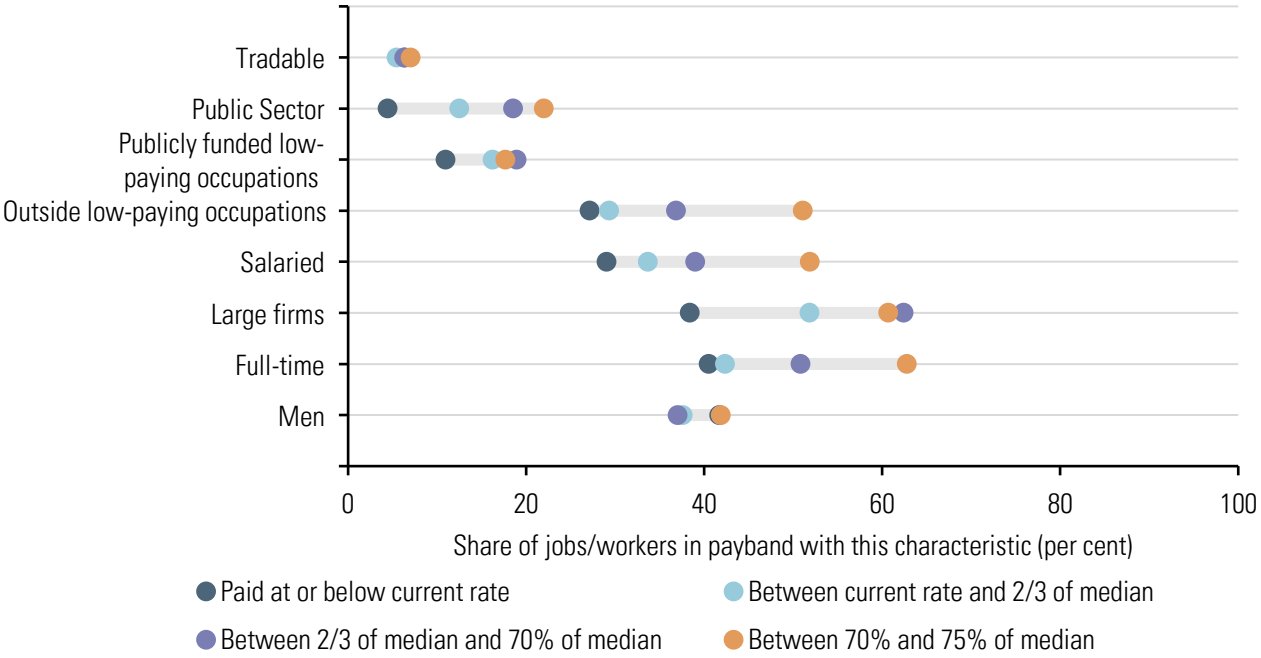
Which jobs would be affected by further increases?

5.18 While the extent of jobs affected by further increases is difficult to establish, we know that those paid just above the minimum are the most likely. We can look at those jobs now to see if they differ from current minimum wage jobs. This matters as minimum wages have different effects on different sectors and on different groups of workers. Further, we can compare our pre-NLW expectations with what happened. For example, in 2015 we anticipated an increase in full-time jobs covered by the NLW, but this didn't happen as spillover effects appeared to be larger for full-time jobs.

5.19 Figure 5.6 shows the share of jobs in pay bands relative to the NLW with a given characteristic. One key result is that only 6.4 per cent of NLW jobs are in tradable sectors. There is little to suggest this would increase dramatically since the share of jobs paid just above the NLW in tradable sectors is also

low. Jobs in tradeable sectors are the most vulnerable to minimum wage effects as these firms are competing with others who may not face a rising minimum wage. Price competition is more intense internationally, so there is less scope to pass increased costs on through higher prices. Previous studies have found evidence of the minimum wage having negative employment effects in tradeable sectors in both the US and Hungary (Gopalan et al. 2021; Lordan and Neumark, 2018; and Harazstoszi and Lindner, 2019). The low share of tradeable jobs in the UK's low-paid market is likely one reason we have not seen negative employment effects from the NLW so far. A higher NLW is unlikely to draw in a much greater share of tradeable jobs.[10]

Figure 5.6: Share of jobs in different pay bands with a given characteristic, 21+, UK, 2023



Source: LPC analysis of ASHE, low-pay weights, UK, 21+, 2023. Excludes first year apprentices. Current rate refers to April 2023 rate (£10.42).

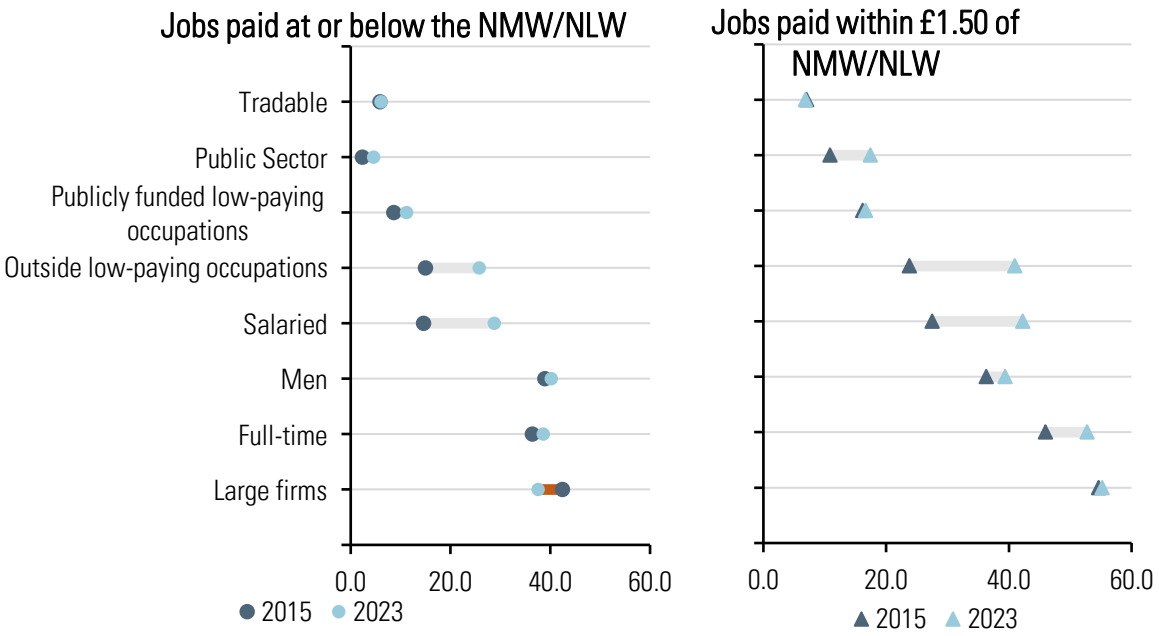
5.20 There are jobs where we would expect an increase in their prevalence within coverage figures with further NLW rises. For example, jobs outside our definition of low-paying occupations currently make up around a quarter of covered jobs but make up 40 per cent of jobs paid between two-thirds and 70 per cent of the median, and half of jobs paid between 70 and 75 per cent of the median.[11] Full-time jobs and those in large employers follow a similar pattern. This suggests with further rises (relative to

[10] This analysis uses a relatively tight definition of tradeable jobs taken from Mian and Sufi (2014). Only 7.8 per cent of all jobs are classed as tradeable on this definition. We have also run analysis using a broader definition taken from classification 'c' in Mano and Castillo (2015). Using this definition, more minimum wage jobs are in tradable sectors (24 percent) but there is still almost no difference between the tradable share of jobs on the minimum wage or jobs paid just above it.

[11] Low-paying industries and occupations are the industries and occupations where workers are most likely to be affected by the minimum wage. For more detail see Appendix 1.

median pay), we might draw more jobs with these characteristics into coverage. However, looking at the NLW's history shows these relationships are not straightforward.

Figure 5.7: Per cent of jobs in pay range with characteristic, 25+, UK, 2015-2023, 2015 wages

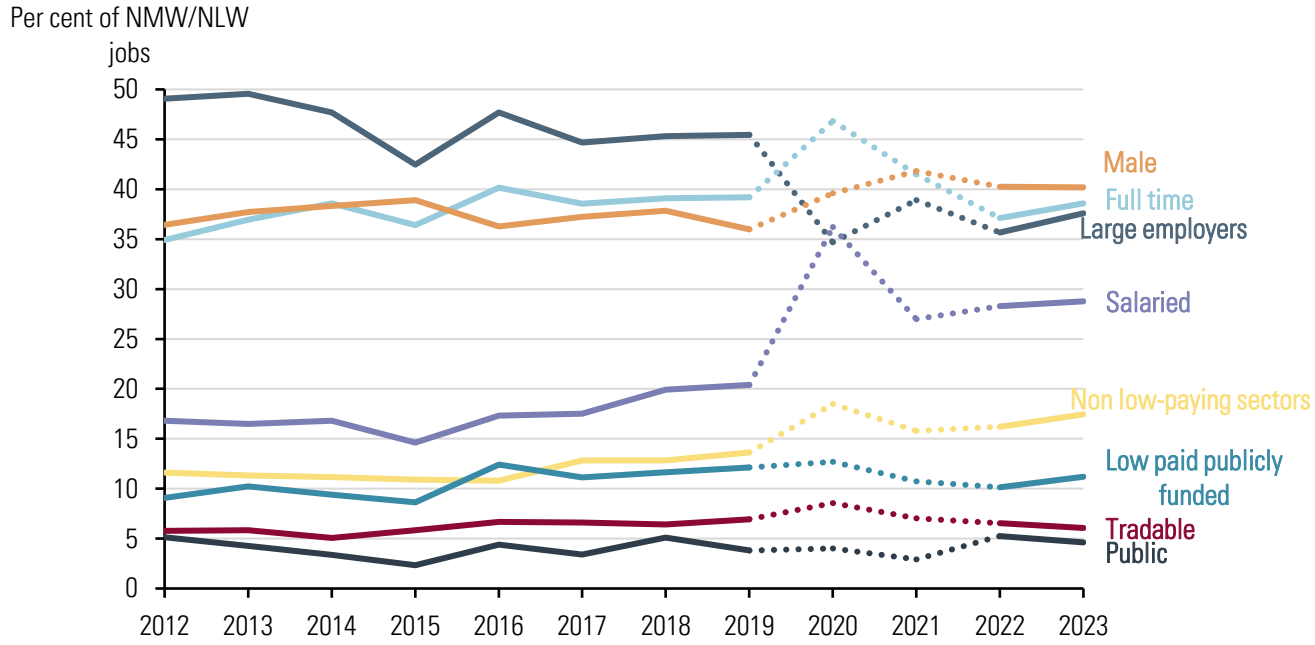


Source: LPC analysis of ASHE, low-pay weights, 25+, UK, 2015-2023. Excludes first year apprentices. Jobs within £1.50 of the NMW/NLW is in 2015 wages. Pay is deflated by an index of median of wages, see Appendix 1.

5.21 If we'd carried out a similar exercise in 2015, on the eve of the NLW's introduction, we'd have seen a similar pattern. Figure 5.7 shows the share of covered jobs and those paid up to £1.50 above that had certain characteristics then. For example, in 2015 just 2 per cent of covered jobs were in the public sector, but 11 per cent of jobs paid up to £1.50 above the NLW were in the public sector. This suggested NLW increases would draw in these public sector jobs paid just above the NLW. We might also have expected the share of minimum wage jobs which are full-time and in large firms to increase as 49 and 58 per cent of jobs paid up to £1.50 above the NLW fell into these categories (respectively) in 2015. But did these types of jobs make up a greater share of coverage as the NLW rose?

5.22 Following the NLW's introduction, we only saw some of the expected changes in the make-up of covered jobs. Covered jobs became more likely to be salaried and outside low-paying occupations but there was little change in the share of covered jobs which were with large employers and in full-time jobs. In fact, after the pandemic, the share of covered jobs which were full-time or in large firms was lower than before the NLW. This might suggest spillovers are greater in large employers and for full-time jobs, or other factors were driving up pay in these types of low-paid jobs.

Figure 5.8: Share of NLW covered jobs with a given characteristic, UK, 2012-2023



Source: LPC analysis of ASHE, low-pay weights, 25+, UK, 2012-2023. Excludes first year apprentices. There is increased uncertainty over 2020 and 2021-related data due to pandemic related data issues (see Low Pay Commission, 2021). Figures are not chain-linked.

5.23 Since 2015, the NLW has become increasingly important for public sector pay. The share of public sector jobs directly paid the minimum wage has stayed low. The number of public sector jobs paid the minimum wage was still only 57,000 in 2023. However, in the same period the number of public sector jobs paid within £1.50 of the NLW (in 2015 wages) more than doubled from 0.5 million (8 per cent of public sector jobs) to 1.2 million (17 per cent of public sector jobs). While they are not directly paid the minimum wage, it still plays a large role in pay-setting for these jobs. Further increases in the minimum wage (relative to median earnings) are likely to lead to more public sector jobs falling within spillover range of the minimum. There are also thousands of jobs in childcare and social care which are on or near the minimum, which indirectly depend on public sector funding.

Conclusion

5.24 If the labour market responds to further minimum wage increases in a similar way, we can expect more public sector workers, salaried workers and those outside of traditionally low-paid occupations to be covered by the NLW or affected by spillovers. As the types of jobs and workers affected by the minimum wage change, we may find that the effects of the minimum wage change. Evidence on previous minimum wage rises can only tell us about how the minimum wage has affected the types of jobs currently affected, not the types of jobs which will be affected in future.

Chapter 6

What are the trade-offs, risks and benefits of further increases?

Key findings

- **Firms reduced pay differentials in response to previous National Living Wage (NLW) rises; the room for further reductions has diminished** – Employers worry that narrowing differentials between the lowest paid staff and better paid staff lower the incentive for workers to move to the next rung in the job ladder, making it more difficult to fill these posts. However, the evidence suggests workers are finding ways to progress despite a rising minimum wage and shrinking differentials. Since 2019, fewer employers report cutting differentials. This means more have had to pass on the higher increases to better-paid workers too, making the NLW more costly. Firms will have less room to narrow differentials for future NLW rises, so the costs firms must absorb will be higher.
- **The NLW's increases in hourly pay for the lowest-paid workers have translated into weekly pay rises for those workers** – Since the NLW was announced in 2015, hourly pay for the bottom tenth of workers has increased by over 20 per cent in real terms, while barely changing for other workers. The real weekly pay of NLW workers increased by a similar margin, suggesting no change in their hours of work.
- **The NLW is likely to continue being vital for those on the lowest household incomes** – NLW workers at the bottom of the working household income distribution are overwhelmingly the highest earner in their household, making the NLW very important for their income. Further increases relative to average earnings will likely have further positive effects on (hourly) pay inequality on a range of dimensions (overall, gender, spatial etc).
- **The pandemic and evidence base issues mean greater uncertainty around the NLW's impact on employment** – It has been difficult to reliably measure the impacts of the NLW since 2019 for two reasons. First, it is almost impossible to isolate the impact of the NLW from those of the pandemic. Second, official data on pay and employment has become less reliable. This makes it harder to robustly evaluate the minimum wage. It is even harder to predict the impact of future rises. Future NLW rises could have employment effects which range from moderate positive effects to substantial negative effects.
- **Despite the uncertainty, our best estimate remains that the National Living Wage (NLW) has had limited employment effects** – Econometric studies consistently find negligible effects on aggregate employment. However, there is suggestive evidence that certain groups, such as women working part-time, have been affected. Since 2019, there are some negative signs for employment in the low-paid labour market. The number of jobs in low-paying industries has grown considerably slower than the number of jobs in other industries. Employment rates have fallen for workers without

degrees. However, other factors such as the pandemic are the more likely drivers of these changes than the NLW. Vacancies in low-paying industries remain high and employers still rarely report reducing employment in response to the NLW.

- We need to consider other, non-employment, effects of the minimum wage – The recent evidence is that employment effects are close to zero. However, there are likely other trade-offs with a higher minimum wage. These might include worsening terms and conditions, work intensification, automation, price increases, investment reductions and reduced profits.
- Further increases might result in price increases, but the effect on inflation will likely be small – Employer surveys show that price increases are an increasingly commonly reported response to NLW increases. But this doesn't tell us about the extent of those price increases and our analysis shows a limited impact on prices so far. Furthermore, it may be that the high inflationary environment makes passing NLW costs on through prices more viable currently, but this will pass as inflation falls.
- The NLW may have a small positive effect on economic growth, although evidence so far is inconclusive – The theoretical impact of the minimum wage on economic growth is ambiguous. The main impact of the minimum wage is to transfer money directly from employers to workers, with indirect effects on consumers and Government. These transfers are unlikely to have long-run effects on economic growth. It could increase growth if it increases employment or productivity. Some recent evidence suggests the NLW may have lowered economic inactivity, increasing the pool of workers willing to work. There is some previous evidence that minimum wages can raise productivity, but our most recent analysis found no evidence to suggest the introduction of the NLW increased productivity.

6.1 In this chapter we summarise what we know about the impacts of the UK minimum wage rates since the NLW was introduced in 2015 and use this to set out the potential risks and benefits from further rises.

Does the NLW shrink pay differentials and harm opportunities for progression?

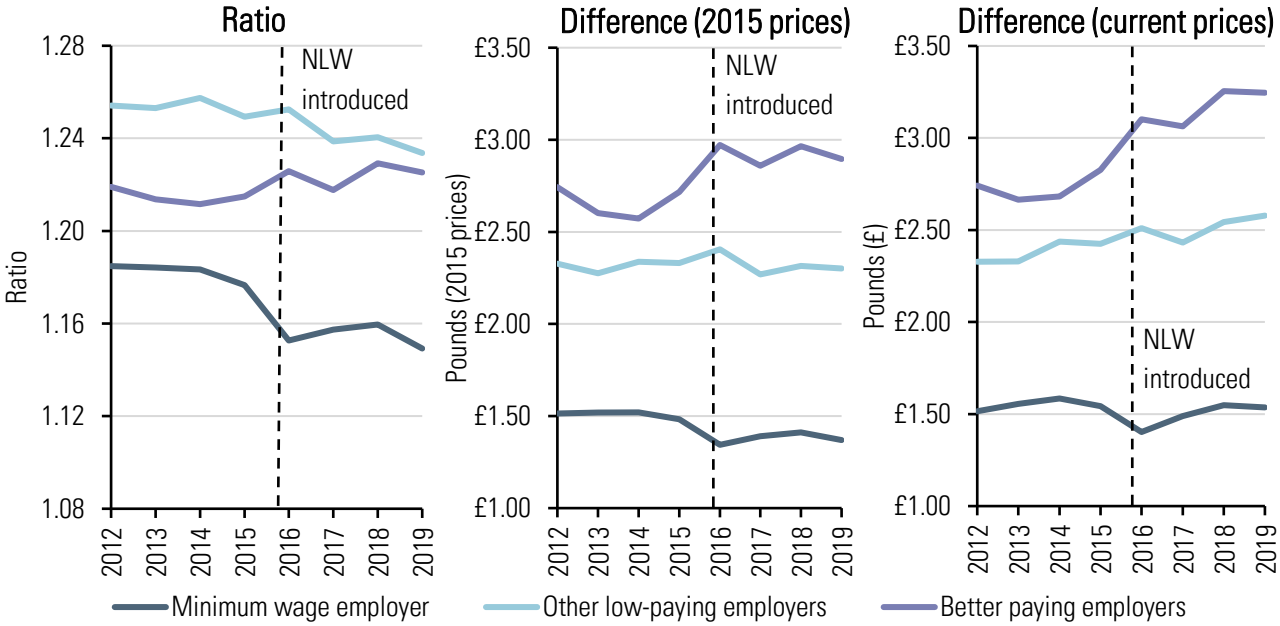
6.2 Differentials are the difference in pay between an employer's lowest-paid workers and workers on the next pay grades up. Employer efforts to maintain differentials are part of what drives the spillover effects we described in Chapter 5. Employers worry about the cost of maintaining them. They also worry that allowing them to fall reduces the incentive for workers to progress into more demanding roles. For example, one large retailer told us in 2023 there was only a 26 pence differential between a team member (£10.60) and a senior team member (£10.86), while the gap to shop manager (£12.76) had also narrowed, with impacts on recruitment, retention and encouraging staff to take on additional responsibilities.

6.3 We also heard about shrinking differentials from workers. A hospitality worker in Birmingham told us his differential as a supervisor had shrunk to 50 pence above the NLW, and then again to 20 pence. He said the supervisor role had "*much more workload.*" "*So I actually stepped down from that role and moved from a 40 hour contract to a zero-hours contract,*" reducing his hours and taking on a second job in sales.

6.4 We can track within-firm differentials for very large employers. The data in Figure 6.1 covers employers who had 500 employees or more (approximately) from 2012 to 2019. We divide firms into three groups based on the wage of the lowest paid worker. It shows (left hand panel) that the ratio between pay at the 20th and 40th percentiles[12] within minimum wage employers fell when the NLW was introduced in 2016. The real terms difference in pay between the 20th and 40th percentiles within minimum wage firms also fell (see central panel). This suggests the NLW reduced differentials. Giupponi, Ray-Chaudhuri, and Xu (2024) also find that the introduction of the NLW has reduced differential ratios in large firms. They show that it has reduced the pay premium for more experienced workers within minimum wage firms.

6.5 The right-hand side of Figure 6.1 shows that minimum wage firms have maintained differentials in cash terms. However, inflation means a given cash difference is worth much less now than in 2015 (central panel of Figure 6.1). If workers think about their pay differentials in cash terms, they may not notice the full extent of the closing gap.

Figure 6.1: Ratio, real terms, and cash differences between the first and second quintile of pay for large firms, UK, 25+, 2012-2019



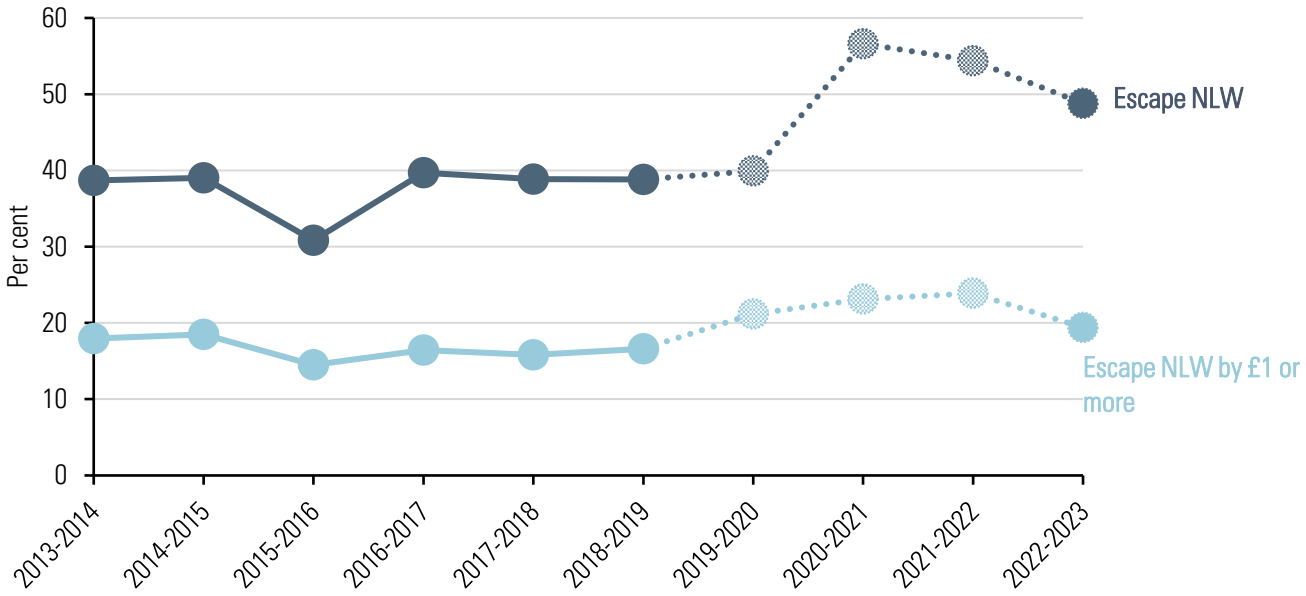
Source: LPC analysis of ASHE, UK, 2012-2019. Only includes employers with more than 5 observations each year from 2012 to 2019 in ASHE. This is approx. equivalent to firms with 500 or more jobs. Minimum wage employers are employers whose lowest-paid worker is paid the minimum wage in 2015. Other low-paying employers are employers whose lowest-paid worker is paid within £1.50 of minimum wage in 2015. Real terms figures are deflated by CPI.

6.6 However, we have found little evidence that shrinking differentials have reduced workers' ability to progress off the minimum wage. Figure 6.2 tracks workers who are employed for two consecutive years. It shows the share of minimum wage workers who escape the NMW/NLW in the following year fell temporarily when the NLW was introduced in 2016, but then returned to pre-NLW levels. The latest

[12] These are the pay rates that 1 in 5 workers and 2 in 5 workers in the firm will be paid less than and respectively.

data from 2022-2023 suggests that a higher share of workers are progressing off the minimum wage now than before the NLW was introduced. So far, the evidence suggests that firms have managed to reduce differentials without harming progression.

Figure 6.2: Share of adult NMW/NLW workers escaping the NLW in following year, UK, 2013-2023, (only includes workers employed for two consecutive years)



Source: LPC analysis of ASHE, UK, 23+ from 2021, 25+ before 2021. Only includes workers employed for two consecutive years in the ASHE data. 'Escape NLW by £1' refers to £1 in 2023 wages. Figures are deflated by an index of median wages, see Appendix 1.

6.7 There is some evidence we are starting to hit the limits of how far firms can cut differentials. Between 2019 and 2023, the CIPD's Labour Market Outlook survey (CIPD, 2023b) shows a fall in the share of employers saying they have reduced differentials, from 37 to 26 per cent. If firms have started to reach the limit of their ability to cut differentials, they will then need to pass the full NLW rise on to a greater share of their workers, making it more costly for them.

Does the NLW raise weekly pay and household incomes?

6.8 Hourly pay is only one factor that drives living standards. If employers are struggling to afford NLW increases, they may reduce hours of work. Many low-paid workers are on flexible contracts that allow this kind of flexibility. Similarly, if their income rises because of hourly pay increases, workers may choose to work fewer hours. So, hours of work, working patterns within families and the tax and benefit system are also important drivers. In this section we summarise the evidence we have on this.

6.9 In Chapter 5, we showed that the NLW increased hourly pay for low-paid workers and reduced hourly pay inequality. Table 6.1 shows that workers on low hourly pay have seen much faster than average increases in both real weekly and hourly pay since the NLW was introduced. This suggests that

hourly pay increases have translated into weekly pay increases. So, in aggregate, workers on low hourly pay have not had their hours cut in response to the rising minimum wage.

Table 6.1: Coverage rates and real terms weekly and hourly pay growth, UK, 25+

Group of workers	Per cent paid at NLW (2023)	Per cent paid within £1.50 of NLW (2023)	Growth in mean hourly pay (2015-2023, real terms)	Growth in mean weekly pay (2015-2023, real terms)
NLW workers	100.0	100.0	21.3	21.7
Low hourly paid (lowest decile)	48.8	100.0	19.9	20.1
Low weekly paid (lowest decile)	21.2	64.5	13.1	16.1
All workers	4.8	21.7	-0.4	-0.2

Source: LPC analysis of ASHE, standard weights used for means and low-pay weights used for coverage rates, UK, 25+ excluding workers eligible for apprentice rate, 2015-2023. We use ONS CPI series to calculate real terms pay growth. Figures are chain-linked to account for methodology change in 2021.

Notes:

a. Pay growth for NLW workers does not exactly match growth in the NLW as some NLW workers are paid below the NLW.
b. These figures use ASHE as this is the only detailed information available on hourly pay, other data sources such as HMRC Real Time Information (RTI) and Average Weekly Earnings (AWE) suggest stronger growth in average pay since 2015.

6.10 This table also shows that just one in five workers in low weekly pay are on the NLW. This is because the UK labour market has many part-time jobs, including those that attract a high hourly rate but where the low number of hours worked brings them into low weekly pay. This helps explain why the NLW has had a weaker effect on pay growth for those on low weekly pay than for those on low hourly pay. Changes in low weekly pay are driven by the hours and pay of jobs that are paid above the NLW.

6.11 The effect of these weekly pay increases on household income depends on the NLW worker's role in the household and whether they receive benefits. NLW workers are spread throughout the household income distribution, albeit more concentrated at the lower end. This might seem counterintuitive but is largely explained by the different roles NLW workers take within the household.

6.12 Around two-thirds of NLW workers are secondary earners. This means their income is bolstered by at least one other higher earner, in many cases their partner. Around a quarter are young people living at home with their parents. Compared with those in lower-income households, NLW workers in middle and higher income households are more likely to be aged under 25. On average, the earnings of secondary earner NLW workers contribute around a fifth of total household income. In many cases other earners in the household bring in substantial income.

6.13 The remaining third of NLW workers are the main earner (from work) in their household. For these workers the NLW is a crucial part of their income. This is particularly because main earner NLW workers tend to be in households at the lower end of the income distribution.

6.14 These lower income households are also more likely to be receiving benefits. Between 2015/16 and 2019/20, benefits rates and thresholds were not increased as fast as the NLW. This meant that as earnings increased for NLW households, benefits income was tapered away. From 2019/20 to 2021/22 benefits actually increased faster than the NLW, partly due to temporary pandemic measures such as

the £20 per week uplift for all Universal Credit recipients. This helped boost incomes (in nominal terms) for NLW households in this period. Future benefit policy will be an important determinant of incomes for NLW households.

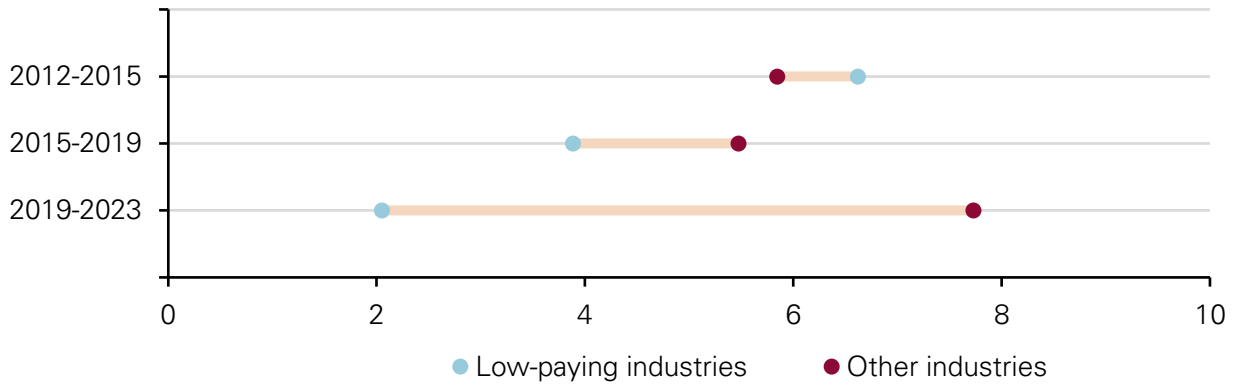
6.15 Overall, it is likely that the NLW will continue to be a vital contributor to household incomes, particularly for those at the lower end of the household income distribution. If current patterns continue then further rises will likely lead to real weekly increases in pay, but this cannot be guaranteed.

Does the NLW reduce employment and hours?

6.16 The current evidence suggests that the NLW has had close to zero effect on overall employment. However, it has been hard to measure the employment effects of the NMW and NLW in the last four years. First, it is difficult to separate the effects of the pandemic-induced recession and other shocks from the minimum wage. Second, there have been several significant issues with official data sources since 2019, we discuss these in more detail in Chapter 7. Together, these issues mean there is a large degree of uncertainty around the employment impacts of the NLW so far and the effects of any future rises.

6.17 The number of jobs in low-paying industries has grown more slowly than the number of employees in other industries since the NLW was introduced (Figure 6.3). Low-paying industries include sectors such as hospitality, retail and cleaning, where the share of workers paid at or near the minimum wage is much higher than the rest of the economy. So, this slower growth is what we would expect if the NLW had adversely affected employment.

Figure 6.3: Growth in number of employee jobs, by low-paying industries, UK, 2012-2023



Source: LPC analysis using employee jobs (JOBS03), UK. Low paying industries are defined here at the 2 digit level, see Appendix 1 for more details. LFS data shows larger relative decline for employees in low-paying industries, but there are concerns about the reliability of the LFS at industry level, see Low Pay Commission (2023d) and ONS (2023a, 2023b and 2023c).

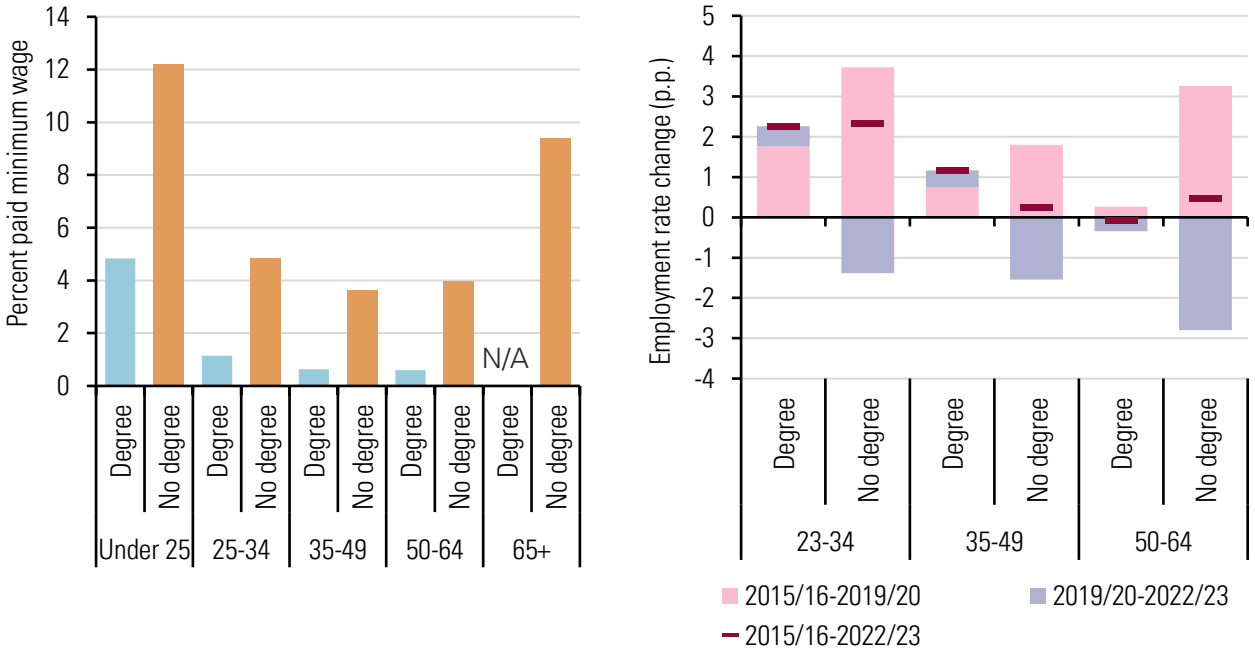
6.18 However, other factors are likely playing a role in this change. Employment in high street retail has been in relative decline in the UK as it has in other countries in the last ten years. (Low Pay Commission 2022c, Dorfman, 2022). Since 2019, the UK has experienced two major economic shocks (the Covid-19 pandemic and exiting the EU), which have both disproportionately affected low-paying industries (Joyce and Xu, 2020 and Sumption et al., 2022). The NLW is at most one driver of the relative decline in low-paying industry jobs.

6.19 We have already shown that the share of jobs covered by the NLW has fallen (Figure 5.2) and Figure 6.2 shows that workers are more likely to leave the wage floor for a better paying job. Both indicate a tight labour market for low paid workers with sufficient demand.

6.20 Even if the NLW has caused employment to fall in low-paying industries, the displaced workers may move into other better-paying industries. Dustmann et al. (2021) show that the introduction of a minimum wage in Germany reallocated employment from less productive firms to more productive firms and Engbom and Moser (2022) find a similar process occurred in Brazil in response to minimum wage hikes. More evidence is needed but the NLW may be one factor contributing to the reallocation of workers from lower-paying industries to better-paying industries.

6.21 If the NLW had negative employment effects, we would expect them among workers more likely to be paid it. Age and qualification level are the two personal characteristics that best predict someone being a minimum wage worker (London Economics, 2023), see Figure 6.4. Gender is also an important predictor, in 2023, 6.2 per cent of women were paid the minimum wage, but only 4.5 per cent of men were.

Figure 6.4: Per cent of jobs paid at or below the minimum wage, by age and qualification levels, GB, 2011 (LHS) and change in employment rates, by age and qualification levels, UK, 2015/16-2022/23 (RHS)



Source: LPC analysis of ASHE-2011 Census linked data, WED weights, GB, 2011. Only includes observations with matched census records. We have used data from 2011, as this is when the match to census records is most complete. A more up-to-date analysis using the Labour Force Survey shows similar patterns (LHS). LPC analysis of LFS, UK, 23-64. "Degree" refers to degree level qualifications. The ONS changed the qualification question in 2022 Q1 which may affect the results (RHS).

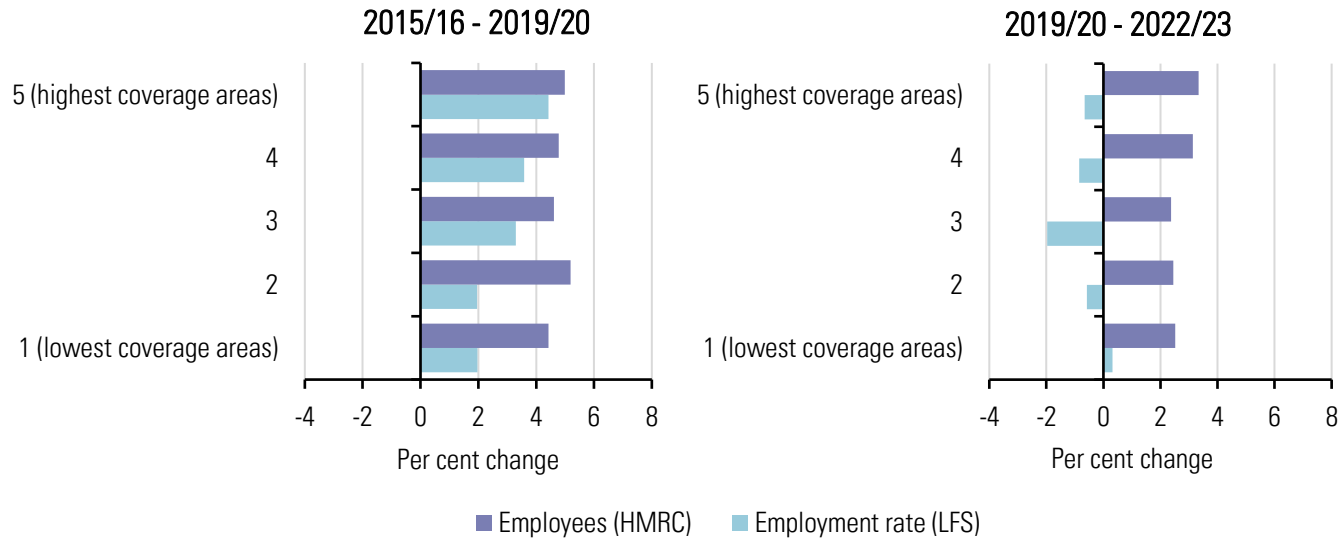
6.22 Employment rates increased more for non-graduates than graduates between 2015/16 and 2019/20. This is the opposite of what would be expected if the NLW reduced employment. One explanation is that the higher minimum wage could have got more people into work by increasing the incentive to search for work. Hampton and Totty (2023) show that minimum wage increases in the US increased employment for retirement-age individuals. There are other policy changes which also

changed work incentives during this time, most notably the introduction of Universal Credit and the increase in the State Pension age. This means we cannot isolate the effect of the NLW in this period using this analysis, but this evidence points towards a relatively benign effect up to 2019.

6.23 However, between 2019/20 and 2022/23 the pattern reversed and employment rates fell for non-graduates. For several reasons, the pandemic is a more likely explanation for this change than the minimum wage. First, non-graduate workers became inactive rather than unemployed, meaning they were not actively seeking jobs (Low Pay Commission 2022c). The pandemic is more likely to have discouraged or prevented people from looking for jobs than the NLW. Second, vacancies in low-paying industries were heightened during the pandemic, again suggesting jobs were available (Joyce et al., 2022). Third, employment amongst non-graduates fell more for men and older workers rather than for women and younger workers who are more likely to be paid the minimum wage. Finally, there is some evidence of similar reductions in employment for older, less qualified workers in other countries not affected by minimum wage rises (Barrero, Bloom and Davis, 2023). Although the pandemic is the most likely explanation for these results, the NLW may also have played some role.

6.24 We find a similar pattern for employment when we look geographically. If the minimum wage reduced employment, we would expect this more in lower-paying areas. However, the left of Figure 6.5 shows that between 2015/16 and 2019/20 employment grew strongly in high coverage areas. The right of Figure 6.5 shows that over the pandemic period employment rates fell more in medium or high coverage areas than low coverage areas on Labour Force Survey (LFS) measures. It's likely that these falls in employment are the same trends we have just described – pandemic-related increases in inactivity – played out geographically. This is because the workers most likely affected by the pandemic were more likely to live in lower-paying areas.

Figure 6.5: Per cent change in employees and employment rates using alternative measures, by local authority coverage quintiles, GB, 2015/16-2022/23



Source: LPC analysis of LFS, standard weights, 23-64 year old population, GB, and LPC analysis of HMRC RTI data, all workers, GB. Excludes Isles of Scilly and City of London. Analysis is on a residence basis.

6.25 Administrative data shows a more positive picture for employment in low-paying areas than the LFS. This could be due to differences in exactly what we are measuring. Administrative data can only

tell us about employee numbers, not the employment rate. Employee numbers could grow while the employment rate falls if the population is increasing (as it has since 2019). Employee numbers could also overstate employment growth if there has been a shift from self-employment, which according to the LFS has happened.

6.26 Alternatively, the LFS could be showing different patterns to the administrative data, due to data collection issues. The ONS has stopped carrying out in-person interviews for the LFS since 2020, which has likely made it harder to reach a representative sample of people. In the most recent data, the share of households responding has fallen to 16 per cent. This means we are cautious about relying on the LFS when it differs from administrative measures which do not have these sampling issues. These issues with the LFS also increase the uncertainty around our analysis of employment rates by age and degree, and some recent econometric analysis (discussed in following section).

6.27 Our analysis of recent data suggests that employment has fallen for jobs and workers more exposed to the NLW (relative to other jobs/workers). However, we are not certain what has caused this reduction. Currently, other factors such as the pandemic-induced recession appear a more likely cause than the NLW, but we cannot rule out a role for the NLW. To get a better picture, we need to combine our analysis with academic research and stakeholder views. We discuss these in the following sections.

Econometric evidence on employment effects from the UK

6.28 Throughout the analysis so far we've shown that worker's characteristics are important determinants of their labour market outcomes, as are other long-term trends such as the shift away from retail. We use econometric approaches to make more careful comparisons and control for these potentially confounding factors. They also allow us to systematically understand the uncertainty around our estimates, subject to the assumptions they rely on.

6.29 Econometric evidence on the first stage (2016-2019) of the NLW suggests it had a small effect on employment. Giupponi et al. (2022) compare changes in the pay distribution in low-paying areas to high-paying areas from 2015 to 2019. They find a small negative effect which is not statistically significant. They cannot rule out either large negative effects or moderate positive effects (within their 95 per cent confidence intervals). This result is consistent with the average effect that Dube (2019) found when reviewing the international evidence.

6.30 Our own estimates suggest that the NLW may have actually had a positive effect on the amount of people searching for work. Butcher and Dickens (2023) compare outcomes for different gender-age-region segments (e.g. women aged 50-55 in the North East). They find that the first stage of the NLW (2016-2019) had a positive but not statistically significant effect on employment. They find a negative statistically significant effect on economic inactivity during this period too. This suggests that the increased pay offered by the NLW may have drawn people in to search for work. However, other changes in policy (such as Universal Credit) could affect this result.

6.31 Econometric evidence does suggest that the NLW had negative employment effects on some groups of workers from 2015 to 2019. Giupponi et al. (2022) find a borderline statistically significant negative employment effect on women. Aitken, Dolton and Riley (2018) also found a negative effect on employment retention for women in part-time work. In contrast, Capuano et al. (2019) find a negative effect on employment retention for men in part-time work as well as women. There is strongest

evidence for negative effects in 2016, immediately following the introduction of the NLW. Aitken, Dolton and Riley (2018) and Capuano et al. (2019) did not find repeat effects in the following years. The NLW has likely had some small negative employment effects on some groups, even if aggregate effects appear muted. The Government should consider these distributional effects in setting the post-2024 framework.

6.32 Our own analysis suggest employment has fallen for minimum wage workers since 2019. However, as the rest of this chapter notes, this likely reflects pandemic effects and data issues rather than minimum wage effects. We have replicated Giupponi et al. (2022) and Butcher and Dickens (2023) with data from 2019 to 2023. Both of these new studies find large negative employment effects on minimum wage workers relative to better-paid workers. However, both studies use the LFS, which has become increasingly unreliable since 2019. Sampling problems with the survey could help explain the results. Second, the direct and indirect effects of the pandemic challenge the assumptions required for both studies. To interpret the results as causal, we would need no other factor to differentially affect minimum wage workers and other workers over time. The pandemic clearly did have a differential effect on low-paid workers and so is likely driving at least some of the observed result.

Box 4 - International evidence on the employment effects

In 2019, Professor Arin Dube carried out a review of the international evidence for HM Treasury and concluded that most evidence points towards zero or small negative employment effects (Dube, 2019). He collected a range of studies and found that on average they suggested for every 1 per cent increase in wages driven by the minimum wage, there is only a 0.04 percentage fall in employment. This was his central estimate based on the literature and he did find some studies which suggested large positive or negative effects. Crucially, he noted that most studies have been carried out on minimum wages at a much lower level relative to median earnings than where the NLW currently sits. Other reviews of the literature have found more evidence to suggest there has been negative employment effects (Neumark and Shirley, 2022).

Since 2019, some studies have found that the minimum wage had negative employment effects, although often concentrated in certain contexts. Clemens and Strain (2021) find evidence that particularly large minimum wage hikes cause negative employment effects in the US. Gopalan et al. (2021) found that higher minimum wages in the US reduced hiring, especially in tradeable sectors where firms have limited ability to pass costs on to prices. We showed in Chapter 5 that UK minimum wage workers are unlikely to work in tradeable sectors, which may help explain the limited evidence of employment effects we have found so far in the UK.

Stakeholder evidence on employment effects

6.33 Evidence from stakeholders backs up these findings. In surveys conducted by employer representative bodies, the shares of respondents saying they have responded to NLW increases by reducing the number of employees has been consistently low relative to other responses. These findings have largely been mirrored in our discussions with employers over the period, in which it has been more common to hear about reduced hiring than redundancies. In recent years, employers in many sectors have experienced the opposite problem, of struggling to recruit and retain enough staff in a tight labour market.

6.34 In surveys conducted by the Federation of Small Businesses (FSB) between 2018 and 2023, in most years between 5 and 6 per cent of respondents affected by the minimum wage said they had made redundancies because of the NLW. (The exception was 2020, at the onset of the pandemic, when 9 per cent of respondents gave this response.) The number of respondents saying they would simply absorb the costs of the increase over the same period was around 70 per cent. In surveys by the British Chambers of Commerce between 2018 and 2022, similar proportions of businesses (between 5 and 9 per cent) said they would make more redundancies in response to NLW increases over the next three years.

6.35 In surveys conducted in 2022 and 2023 by the Confederation of British Industry (CBI), 11 and 15 per cent of respondents respectively said they had already offset the costs of the NLW by reducing employment. As well as redundancies, this is likely to include reductions via slower hiring and changes to working hours. In the FSB's survey, the proportion of respondents stating the NLW had led to them hiring fewer workers has ranged between 14 and 24 per cent; those reducing hours worked between 19 and 25 per cent. These responses were slightly less common in the BCC's surveys: between 11 and 19 per cent of respondents stated the former, and between 7 and 15 per cent the latter. In the Chartered Institute of Personnel and Development's (CIPD) surveys, redundancies and reduced recruitment are grouped together as a single response. From 2018 to 2023, between 11 and 18 per cent of respondents said they were responding to NLW increases in this way.

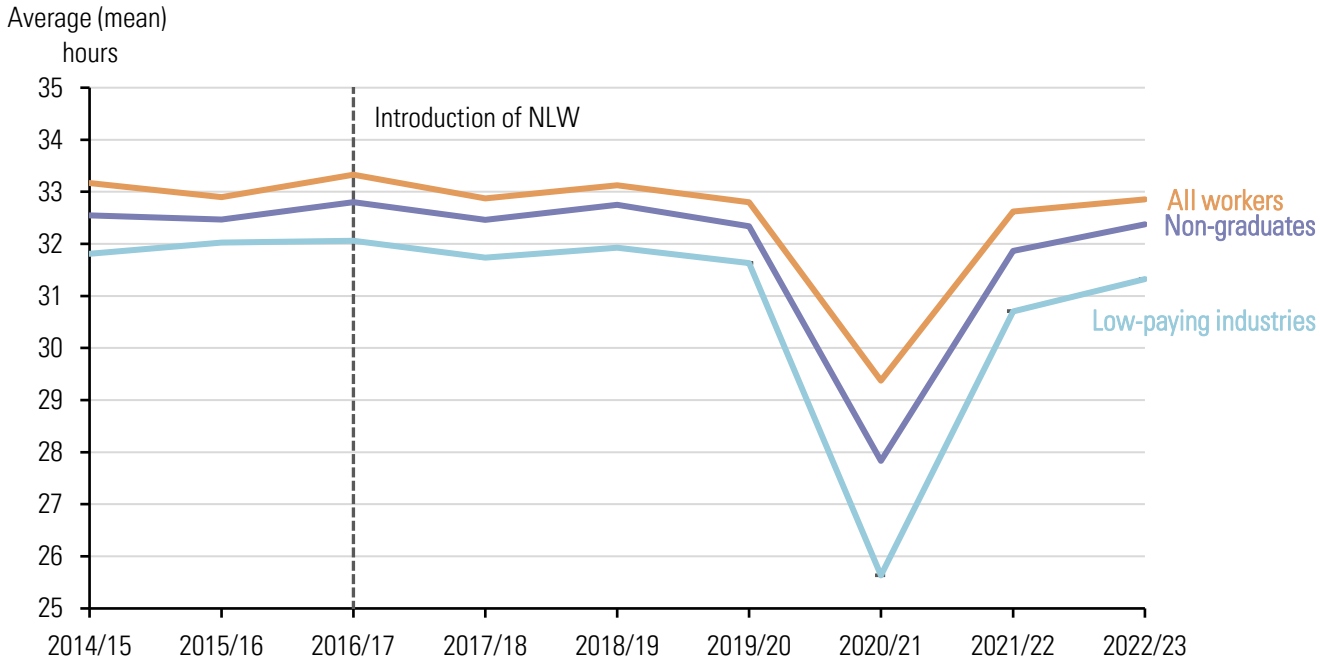
6.36 Overall, the evidence still suggests that the NLW has likely had a small negative employment effect in aggregate or no employment effect at all. There is some evidence that the NLW reduced employment for women in this period. However, there is more uncertainty over that result now than there was in the 2015 to 2019 period. We have not been able to reliably evaluate the effects of the NLW between 2019 and 2023 for two reasons. First, the pandemic had a disproportionately large effect on employment in low-paid jobs. It is difficult to isolate the effects of the NLW from the pandemic and other factors in the 2019-2023 period. Second, data issues have made measuring the effects of the NLW harder. In devising a future framework for the minimum wage, the Government should bear in mind the uncertainty around the employment effects of the NLW from 2019 to 2023.

Hours and insecure work

6.37 Firms could also respond to minimum wage hikes by reducing hours rather than employment. Again, we find limited evidence that this is happening. Figure 6.6 showed that average hours of work remained broadly unchanged from 2015/16 to 2019/20. There is no evidence from this data that the NLW caused firms to reduce working hours.

6.38 In 2020, the pandemic caused average working hours to fall dramatically for all workers and especially for workers more likely to be paid the minimum wage. Hours have since recovered on aggregate but remain two per cent lower than their 2015/16 level in low-paying industries. This is likely the result of adjustments in working patterns following the pandemic rather than a minimum wage effect. In 2023, the share of workers who wanted more hours was lower than before the pandemic in 2019.

Figure 6.6: Average (mean) hours worked, selected workers, UK, 2014-2023



Source: LPC analysis of LFS, standard weights, 23-64, UK. The ONS changed the qualification question in 2022 Q1 which may affect the results.

6.39 Another way firms may attempt to absorb costs from the rising NLW is by moving workers onto alternative work arrangements. One form of insecure work is zero-hours contracts, where employees have a contract with no guaranteed hours. There is some evidence that the introduction of the NLW increased the use of zero-hour contracts (Datta, Giupponi, and Machin, 2020 and Albagli, Costa and Machin, forthcoming). However, we have found little evidence to suggest a long-run effect.

6.40 More encouragingly, Albagli, Costa and Machin (forthcoming) find no evidence to suggest that the NLW increased other forms of insecure work (such as involuntary part-time work) or pushed workers into solo self-employment. They actually find some evidence that the NLW may have reduced involuntary part time work. Underemployment and involuntary part-time work tends to be more common in low-paid jobs, but they have become less common over time (Low Pay Commission, 2022c).

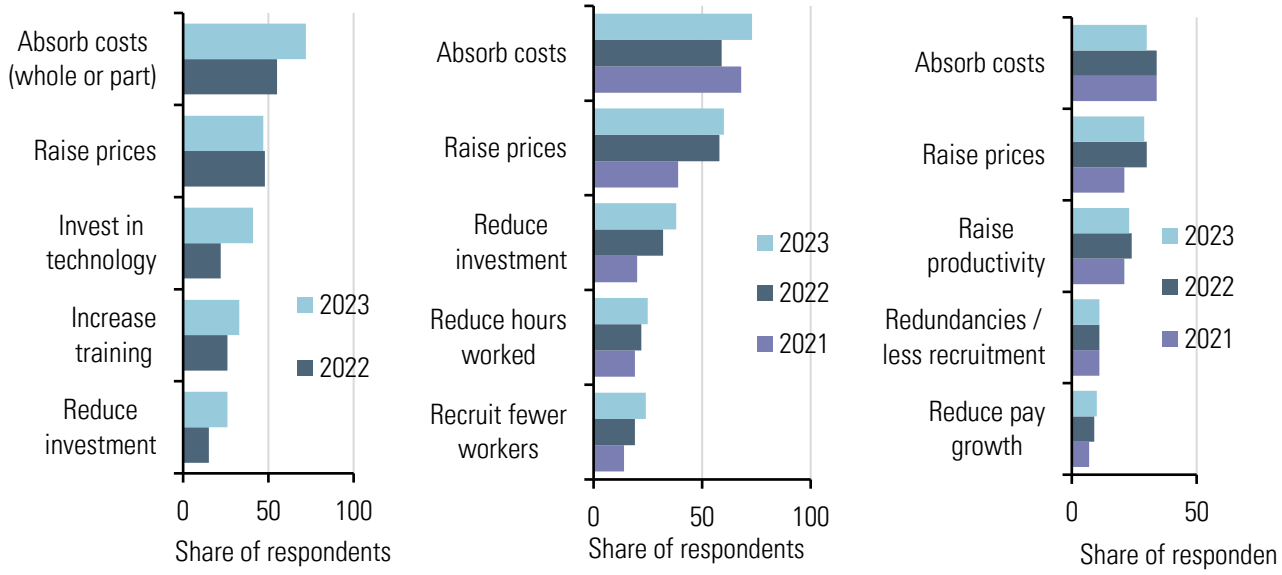
How else have firms absorbed the costs of the increasing NLW?

6.41 As the evidence suggests that employment effects have been minimal so far, this raises the question as to how employers have managed these extra costs. The first and most common reported response is simply to absorb increases via reduced profits. The next is to pass NLW increases on via prices. Employers can adjust to the NLW by making their business more productive, although there are varying routes to achieving this. Another way employers adjust to a higher minimum wage is by reducing differentials, as discussed earlier in this chapter. At the less common end of the spectrum, employers might remove non-pay benefits, cut back on training, substitute older workers at the NLW for younger workers or apprentices on lower pay or change the types of contracts they give to workers.

6.42 Figure 6.7 gives an overview of the most common responses reported in recent years, using business surveys carried out by the Confederation of British Industry (CBI), Chartered Institute of Personnel and Development (CIPD) and the Federation of Small Businesses (FSB). In all three cases, the most frequent adjustment method has been to absorb costs. This fits with previous research, which found the introduction of the minimum wage in the UK reduced firm profits and a more recent study which found that the announcement of the NLW reduced stock values (a proxy for future profits) for affected firms (Draca, Machin and Van Reenen, 2011, and Bell and Machin, 2018). However, some companies can absorb the whole cost into profits, while others only absorb some of the cost.

6.43 The prevalence of employers raising prices in response to the NLW increased markedly in 2022 and 2023 as inflation accelerated in the wider economy. Beneath these two leading responses, we see a mixture of approaches, with productivity perhaps most prominent. But while CIPD respondents have sought to raise productivity and CBI members are more likely to have made investments than not, FSB members report reducing investment. This may reflect the different investment conditions (e.g. poorer access to finance) faced by small businesses.

Figure 6.7: Responses to NLW increases among surveyed employers, CBI (left panel), FSB (centre panel) and CIPD (right panel), 2021-2023



Source: LPC analysis of the CBI/Pertemps Employment Trends Survey, 2022 and 2023; the Chartered Institute of Personnel and Development, 2021, 2022 and 2023b; surveys by the Federation of Small Businesses carried out for their submissions to LPC consultations in 2021, 2022 and 2023.

Notes:

c. Charts show most common responses rather than all responses.

d. Responses to the CBI/Pertemps survey are to the question: 'How has your company already responded to the introduction of the NLW?' No comparable question was asked in the 2021 survey.

e. Responses to the CIPD's survey are to the question: 'You've said that the National Living Wage and the National Minimum Wage has increased your organisation's wage bill since April 2016. How has your organisation been managing these additional wage costs?' In the 2022 and 2021 surveys, respondents were asked to choose up to three options. In the 2023 survey, there was no limit to the number of options they could choose.

f. Responses to the FSB's survey are to the question: 'You've said that the National Living Wage has increased your organisation's wage bill. How is your organisation managing these additional wage costs?'

Does the NLW affect prices?

6.44 The frequency of employers reporting price increases as a response to the rising NLW has grown. There remain large low-paying sectors where the ability to pass increases on via prices is restricted. This is the case for social care and childcare for example, where rigid funding rates are set by the Government and local authorities. It is the case for agriculture, where most producers are price-takers, dependent on what retailers are willing to pay. In hospitality, where prices have risen sharply in recent years, in 2023 more employers began to tell us that a limit had been reached, and any further price increases would undermine demand. As UKHospitality told us, "*there is a limit to how much businesses can [raise prices] given the current economic conditions for customers*."

6.45 While the costs of the NLW may be an important driver of prices in certain sectors, our analysis suggests that price increases resulting from the NLW have a limited impact on inflation overall. NLW employment makes up only around 2 per cent of the UK-wide wage bill, despite covering around 5 per cent of jobs. Even once we account for spillovers to those higher up the wage distribution[13] and non-wage costs, the total cost of employing NLW workers accounts for a very small share (around 7-8 per cent) of the total costs faced by employers economy-wide. Following from this, we find that even if firms passed on 100 per cent of the cost of NLW increases and spillovers – an improbable scenario – this would only increase total inflation by up to 0.3 percentage points.

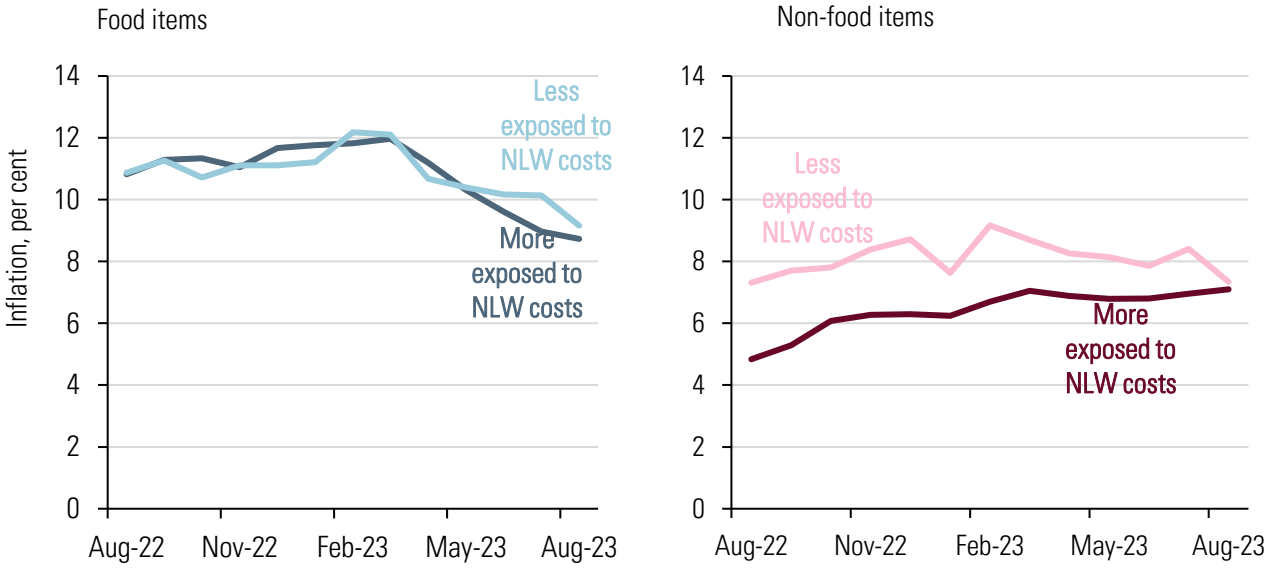
6.46 Previous research we commissioned on the inflationary impacts of the NLW (Wilson, 2020) suggests that even in those sectors most affected by the NLW firms typically pass on only a small share of any NLW increase through prices. Price pass-through is likely to increase in a higher inflation environment, but recently we have seen that other price increases – particularly food and energy – have been more of a concern for some businesses.

6.47 For example, a caterer we met in Birmingham noted that "*it's not as big as a rise in terms of everything else because… everything else is like a punch in the face. And this is more like a tap on the shoulder*". Analysis of Business Impacts and Conditions Survey (BICS) data shows that on average firms were more concerned by the impact of the cost of materials on business turnover than the cost of labour. This was especially the case for firms in low-paying sectors where over 30 per cent felt the cost of materials was a challenge on turnover compared to around 20 per cent for the cost of labour.

6.48 This is echoed when we compare price increases for goods and services where the NMW makes up a large share of the costs ('more exposed to the minimum wage') to those where it makes up a lower share of costs ('less exposed to the minimum wage'). Figure 6.8 shows that when we look at food items, for example, inflation is similar across items more and less exposed to the minimum wage. Among non-food items, inflation has generally been higher for less exposed good and services, however this compares a diverse range of products, and so may reflect an imbalance in the cost of other inputs, such as energy.

[13] Here we account for an equivalent percentage increase for all workers paid up to £1.50 above the NLW. As spillovers diminish moving up the pay scale, this is likely an overestimate.

Figure 6.8 Annual inflation of food and non-food items, by exposure to the minimum wage, 2022-2023



Source: LPC analysis of ONS price microdata, CPI weights, August 2021-August 2023. Non-tradeable items only. List of sectors and goods/services most exposed to the minimum wage is taken from Wilson (2020), with updates to account for changes in the CPI basket of goods.

Does the NLW drive productivity improvements?

6.49 One of the original intentions of the NLW was to *"encourage a model of higher pay and higher productivity"* (BIS, 2015). As Figure 6.9 suggests, approaches to productivity tend to diverge between larger and smaller employers. In our review of the NLW between 2015 and 2020 (Low Pay Commission 2022b), we concluded that there was no evidence that the NLW increased productivity. Improving productivity often requires costly investment and the pay-off may be uncertain. Employers who cannot fund additional investment, may fall back on work intensification to try and raise productivity. CIPD (2023b) captures the different routes employers take to realise productivity gains in response to the NLW. Responses around staff motivation, requiring more tasks and demanding a higher pace or standards all outstrip investment in training, innovation or automation in popularity.

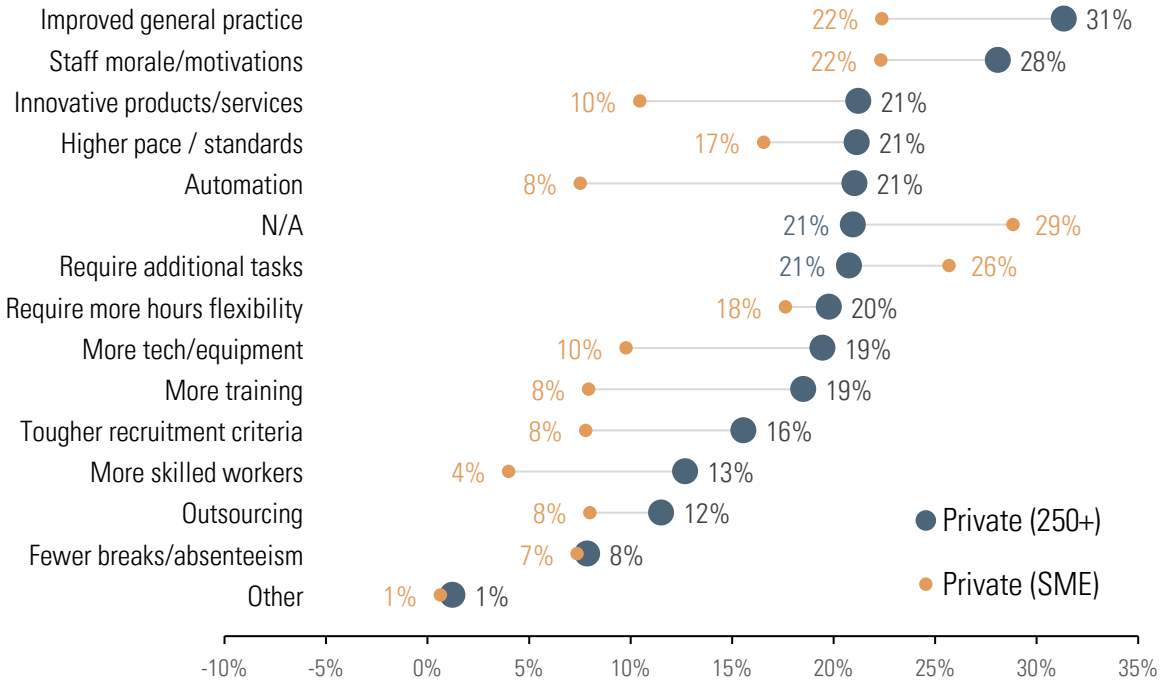
6.50 Employers we meet are generally aware of the need to increase productivity, but can struggle to translate this into concrete action. Some employers tell us that NLW increases limit the budget for investment; the CBI argued this year that increases had left businesses "*with no other option but to cut back on investment.*" As noted above, FSB members, who tend to be small or micro businesses, are more likely to say they have cut investment in response to the NLW. Figure 6.9 shows that 21 per cent of large private sector firms had developed innovative products or services in response to the NLW, but only 10 per cent of SME's had done likewise. Similarly, 21 per cent of larger firms had automated tasks, but just 8 per cent of SMEs had done so.

6.51 In some sectors, employers say there are real limits to the extent to which they can automate processes without undermining their product. In hospitality, for example, employers speak of "*an experience business*" – in the words of one large restaurant and pub operator, "*automation and experience don't necessarily go hand in hand.*" Their focus instead, was on "*ensuring our teams are well trained to be able to deliver that experience or … to work more productively.*"

6.52 From a workers' perspective, productivity improvements can translate to an intensification of work. In hospitality, we hear that some settings have adapted to lower staff numbers and workers report being expected to cover more tables: "*they are just trying to get more for less. …what they require from us is nothing like it was pre-Covid where there was a lot more staff available.*" Retail workers report similar pressures, with a widespread shift to supermarket workers being multi-skilled and able to cover several departments and tasks. In care, the pandemic was a crucial factor which led work to intensify, introducing additional tasks to ensure safety while restricting the more rewarding social aspects of the job.

6.53 Figure 6.9 shows that some employers are attempting to improve products and processes with more training, equipment and investment in automation or new products and services. But others are requiring staff to carry out more tasks, to higher standards and to work more flexibly.

Figure 6.9: Actions taken to improve productivity in response to NLW increases, 2023



Source: CIPD (2023a). The sample for this question is UK firms that say they are affected by NLW rises. The survey is weighted to be representative of UK business nationally.

Do minimum wages affect economic growth?

6.54 In theory, the minimum wage's effect on growth is neutral as it is simply a transfer from employers to workers. It could have a negative effect, if it reduced employment and/or hours of work. For example, in 2015, when the Government announced the NLW, the OBR calculated that real GDP would be 0.1 per cent lower in 2020 than it otherwise would have been. This was driven by expected falls in hours worked and people in work, albeit compensated by a slight rise in productivity. When it repeated this calculation upon the Government's announcement of the next target from 2020 to 2024, they drew the same conclusion – that GDP would be 0.1 per cent lower in 2024 than it otherwise might.

6.55 As this report shows, these expected effects on jobs and hours worked haven't materialised (to our knowledge) and so the NLW's effects on GDP haven't either. However, it's possible that minimum wages affect GDP growth in other more indirect ways too.

6.56 As we have shown above, minimum wages can reduce inequality. This has also been found in studies of other countries (see Box 5). There is some evidence of a relationship between inequality and economic growth (Box 6). Those results should imply that minimum wages may have a positive impact on economic growth. However, studies that have looked at this directly have tended to find small negative impacts (Box 7).

6.57 Other indirect effects include the potential for minimum wages to affect growth via the number of people looking for work. In particular, higher minimum wages could encourage people who are economically inactive to enter the workforce, expanding the number of workers available and therefore the potential capacity of the economy. Internal econometric analysis suggests this may have happened during the first phase of the NLW in the years leading up to the pandemic.(Butcher and Dickens, 2023). However, for this to increase GDP, it would need to increase employment and our overall estimates of employment effects still suggest no effects or small effects.

6.58 A further way the NLW could affect the supply side is via productivity. Indeed, this was one of the explicit aims of the NLW when it came in. The intention was for the higher minimum wage to incentivise firms to find more efficient ways of working and invest in the skills and equipment to justify the higher wage. At the outset many employers intended to raise productivity, but subsequently found this hard to achieve. Our most recent evidence suggests little effect on productivity (Latimer, 2022)

Box 5 - International evidence on minimum wages and inequality

DiNardo, Fortin, and Lemieux (1996), using data from the Current Population Survey, found compelling evidence that the fall in the real value of the minimum wage substantially explained the rise in wage inequality in the United States between 1979 and 1988, particularly for women. Lee (1999) found similar results using data at the state level from 1979 to 1991 in the United States. Autor, Manning and Smith (2016) also found that the minimum wage reduces wage inequality in the lower tail of the wage distribution in the United States. However, the effects were smaller than found in the previous study by Lee (1999).

Using industry-level data from Honduras for 2001 to 2004, Gindling and Terrell (2010) found that the minimum wage had an effect on reducing inequality. Bosch and Manacorda (2010) found that a large part of earnings inequality could be explained by the Mexican minimum wage. They used data from the Encuesta Nacional de Empleo Urbano, ENEU, between 1989 and 2001. The ENEU is similar to the CPS in the US. Lin and Yun (2016) used city-level minimum wage panel data and a representative Chinese household survey. They found that increasing the minimum wage reduces inequality – by decreasing the earnings gap between the median and the bottom decile – over the period from 2004 to 2009 in China.

In contrast, Neumark, Schweitzer, and Wascher (2005) using the Current Population Survey and non-parametric estimates, found that minimum wages did increase the incomes of some poor families in the United States, but that their net effect was to increase the proportions of families with incomes below or near the poverty line. Neumark, Cunningham, and Siga (2006) also found similar effects in Brazil for the period, 1996-2001.

Box 6 - International evidence on income inequality and economic growth

Ostry, Berg, and Tsangarides (2014) uses data collated by Solt (2009) from 153 developing and advanced countries for as many years as possible from 1960 to 2010. They concluded that inequality was a robust and powerful determinant both of the pace of medium-term growth and of the duration of growth spells, even controlling for the size of redistributive transfers. Berg and Ostry (2017) found that longer growth spells – periods of strong, healthy, per capita growth – were robustly associated with more equality in the income distribution, even when controlling for a range of other standard determinants. Cingano (2014) using data covering 30 years from the mid-1980s across OECD countries, found that income inequality had a negative and statistically significant impact on subsequent growth. In contrast to the previous OECD study, he found the gap between low income households and the rest of the population mattered most. He found no evidence that those with high incomes pulling away from the rest of the population harmed growth. These studies should be interpreted with caution as it is difficult to isolate the causal effect of inequality on economic growth, from other factors which differ across countries.

Box 7 - International evidence on minimum wages and economic growth

Brouilette et al. (2017) looked at the impacts of minimum wage increases on the Canadian economy. Using reduced-form estimates of direct minimum wage pass-through, they found that consumer price index (CPI) inflation could be boosted by about 0.1 percentage point on average in 2018. Their analysis suggested that that would reduce the level of gross domestic product by roughly 0.1 per cent by early 2019. While the net impact on labour income would be positive, employment would fall by 60,000 – a number that lies within the lower part of a range obtained from an accounting exercise (30,000 to 140,000). These are similar estimates to those conducted by the OBR (2015). Sabia (2015), using data drawn from the Bureau of Economic Analysis (BEA) and the Current Population Survey (CPS) from 1979 to 2012 for states in the US, found no evidence that minimum wage increases were associated with changes in overall state GDP.

Conclusion

6.59 Predicting the likely impacts of further increases in the NLW is very difficult, even more so if we don't know what the future policy will be. Our best estimates are based on the impacts to date, but these too are clouded by the effects of the pandemic. Nevertheless, our judgement is that the NLW continues to have limited impacts on aggregate employment, despite the large rises. This has likely been helped by the post-pandemic tight labour market where many employers have struggled to fill their roles.

6.60 The NLW has raised real weekly pay for low paid workers, and will likely continue to be very important for low paid workers living standards and household incomes. Employers worry that they may be reaching the limit of how far differentials can be reduced, though this doesn't yet seem to be affecting low paid workers' progression. Impacts on prices appear muted and efforts to drive productivity have been difficult with many low paid workers simply working harder than previously. A future policy should consider these broader impacts alongside the focus on employment and hours.

Chapter 7

What circumstances would support further rises?

Key findings

Strong labour market conditions lower the risk of further rises – We've already noted that the tight labour market lowers the risk of further upratings. International evidence suggests that minimum wage increases are more likely to have a negative impact during economic downturns.

The presence of frictions in the UK labour market likely lowers the risk of further increases in the NLW causing harm – Frictions, which slow or prevent workers from moving jobs, reduce wages below the level they would be in a competitive market. This implies room for the minimum wage to push wages higher without adverse effects on employment. However, measuring the extent of these frictions is difficult and their presence in no way guarantees further rises are risk free.

A sustainable funding settlement in low-paying publicly funded sectors would reduce risk – Sectors like social care and childcare are at particular risk from further increases. Their ability to afford the NLW is entirely dependent on their funding. A sustainable settlement would minimise these risks.

Improving the evidence base would mean we could be more confident in making further changes to the minimum wage – There is room for improvement in the evidence base for employment effects, while the evidence base for potential non-employment effects is even weaker. There are concerns about existing labour market data but forthcoming improvements to a range of data sources offer lots of potential for improvement.

If the NLW had a proven impact on productivity then further ambition might be merited – We have yet to find these effects but the evidence base could be improved.

Compliance and enforcement should be part of any decision making – Further rises mean more risk of non-compliance. The share of the NLW workers who are salaried rather than paid hourly is increasing and likely to increase further. This raises the risk of non-compliance. More complex or radical options for rates might worsen compliance.

Economic and labour market conditions

7.1 In this chapter we look at what circumstances would lower the risk of further ambitious increases in the minimum wage. By this we mean circumstances that reduce the likelihood that further increases will lead to job loss or other negative effects.

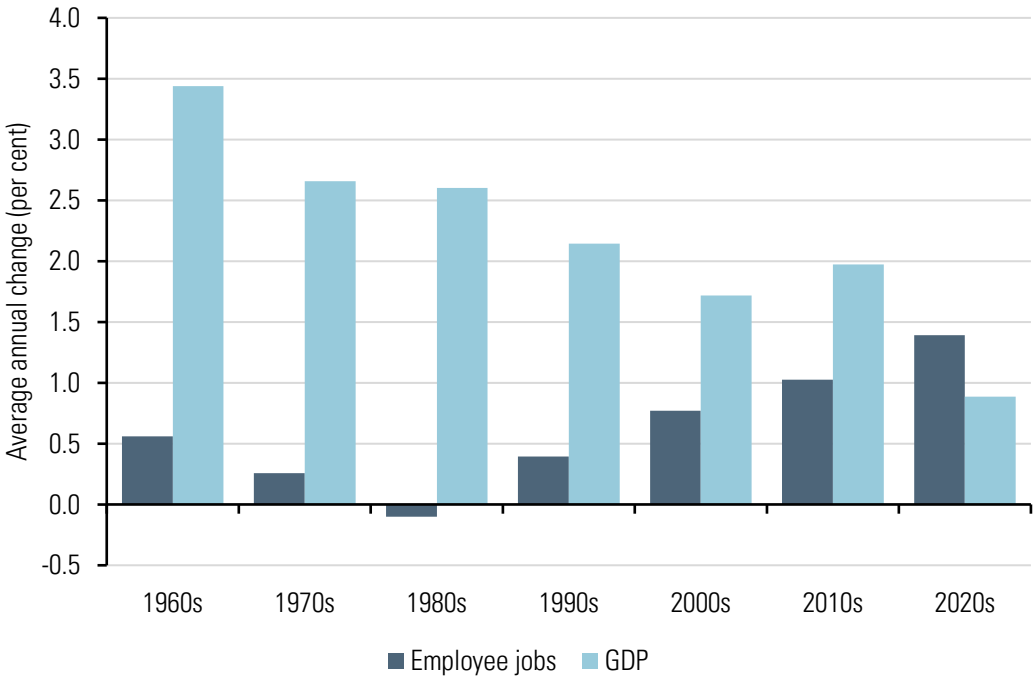
7.2 The principal economic factor that minimises the risks of further minimum wage increases is demand for labour. When this is strong, raising the cost of labour through increases in the minimum

wage should have less of an effect than when the demand for labour is weak. The strength of demand can be measured by a range of indicators including numbers of job vacancies, wage growth and employment itself. And across these we look at the types of worker, parts of the country and sectors and occupations most likely to be affected by the minimum wage. We also consider job quality and mobility of low-paid workers i.e. are they able to progress into better paid jobs? Healthy indications on these measures would mean we could be more relaxed about future increases in the minimum wage.

7.3 Chapter 6 looked at a range of these indicators and showed that the labour market recently has generally been tight, and that this has likely eased the impact of the NLW increases. On our visits and in stakeholder evidence, we have been told about the difficulty of recruitment and staff shortages. Many employers have told us that they have needed to increase wages above the minimum wage in order to attract and retain staff. If tight labour market conditions continue, with strong demand for labour, then further minimum wage increases are lower risk.

7.4 Strong demand for labour tends to reflect strength in the economy more generally. As output grows employers need more workers. However, in recent decades the relationship between GDP growth and employment growth has changed. Since the early 1990s average annual growth in GDP has declined, and yet the UK labour market has continued to generate jobs (Figure 7.1).

Figure 7.1: GDP and employment growth, UK, 1959-2023



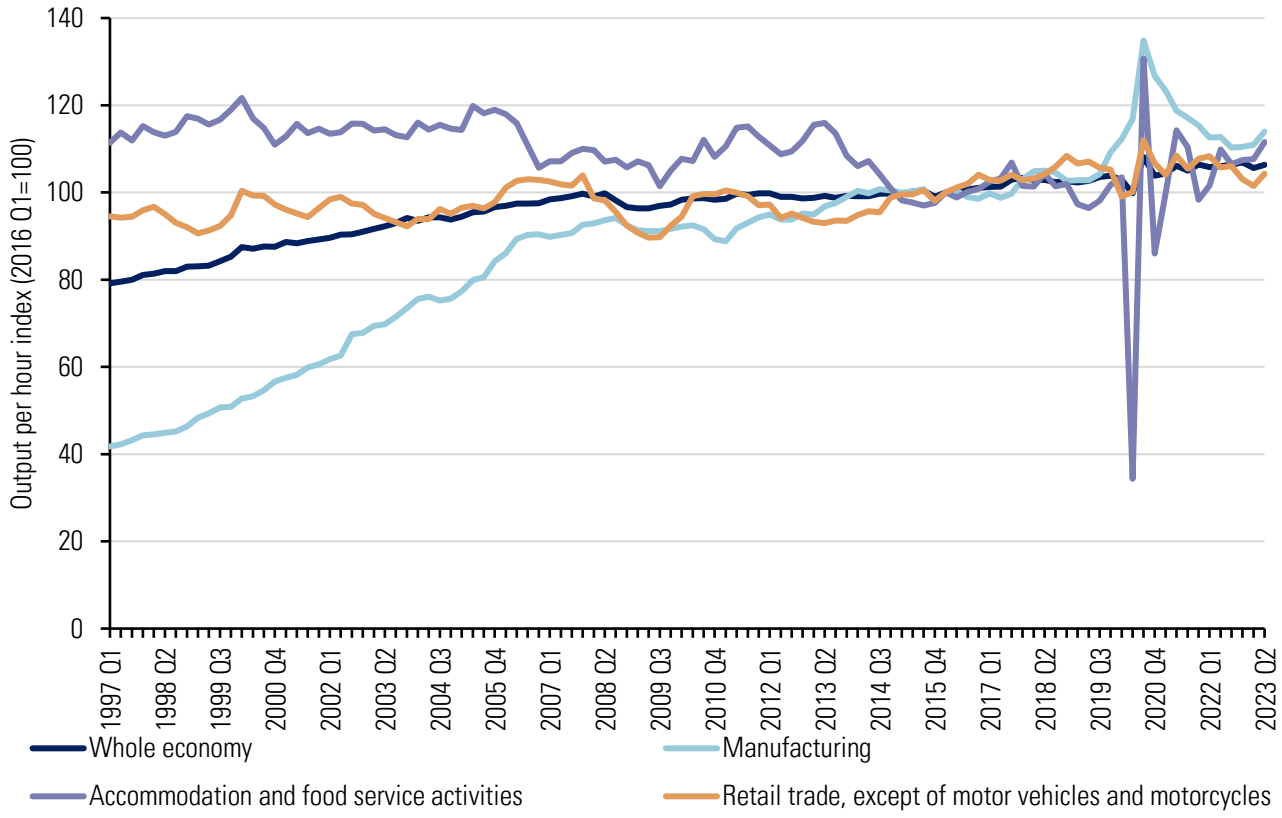
Source: ONS. LPC calculations based on real GDP (ABMI), 1959-2022 and Workforce Employee Jobs series (BCAJ), 1959-2023.

7.5 However, it remains our position that a strong economy lowers the risks of further minimum wage increases causing damage. We note that GDP growth is expected to be particularly weak over the next few years, with growth around 0.5 per cent in both 2023 and 2024. This is lower than pre-pandemic growth and far lower than the 2.0-3.0 per cent norm before the financial crisis. It would leave the UK with among the weakest growth in the G7 in the next year or so. If these forecasts are borne out this will test whether a tight labour market can be paired with weak GDP growth.

7.6 If forecasts turn out even weaker, especially if that weakness is concentrated in the low-paying sectors of the economy, increases in the minimum wage may put some jobs at more risk. As we noted in Chapter 6, previous research has generally found little to no significant impacts of the minimum wage on employment. Where it has found effects, this has generally been among particular groups at the introduction of a minimum wage or during recessions.

7.7 Healthy productivity growth would enable minimum wage increases as it means firms are able to get more out of each hour worked and can therefore more easily afford an increase in labour costs. However, with strong employment growth accompanying weak GDP growth, (labour) productivity growth has been particularly weak since 2010, as shown in Figure 7.2, including for low-paying sectors such as retail and hospitality. Despite this, the NLW was introduced during a low productivity period without having significant negative effects on overall employment. Nevertheless, like economic growth, our position remains that healthy productivity growth – particularly in low-paying sectors – would lower the risks of further rises. We looked at the question of whether the NLW itself can drive productivity growth in Chapter 6. The evidence that it can is at best mixed.

Figure 7.2: Productivity (output per hour), by sector, UK, 1997-2023



Source: ONS. LPC calculations using Output per hour worked, UK. Whole economy (A-T) from Table 38, Manufacturing (C) from Table 46, Accommodation and food service activities (I) from Table 46, Retail trade, except of motor vehicles and motorcycles (47) from Table 54, chained volume measures, index (2016 Q1=100), quarterly, UK, 1997-2023.

Frictions in the labour market

7.8 The ease with which workers can move from job to job affects how future NLW increases might impact employment. In a competitive job market workers can change jobs at little or no cost. This means that if workers can find better pay at another employer, they will do so. These competitive

pressures limit the extent to which an employer can push down on the wages paid to its workers. However, if these competitive forces are muted, the balance of power shifts away from workers and wages can be lower than they otherwise might be. This power imbalance is one of the justifications for minimum wages. If wages are lower than they would be in a competitive market, a wage floor can push them higher without damaging employment levels.

7.9 But how might this imbalance of power come about? One cause is "frictions" in the labour market. These frictions are anything that makes it costly for a worker to move from one job to another. If workers lack information about the alternative jobs available to them; if alternative jobs require a long commute or public transport routes don't go there or are too expensive; or simply that workers see moving jobs as a risk; then these competitive pressures are lessened, and with them the pressures on wages. Another cause is a lack of competition amongst employers for workers. Some workers may work in jobs, where there are few alternative employers locally.

7.10 Limited job mobility has been a dominant theme in our discussions with workers in recent years. Even in a tight labour market, where employers across low-paying sectors tell us they are struggling to recruit, low-paid workers see real risks and barriers to moving jobs. The quotes below illustrate some of the risks that workers worry about when moving jobs.

" I've literally just earned my employment rights at work. So me leaving to somewhere else, I'm back to square one. At least now I can go to a union. I've got the law behind my back if anything goes wrong."
Hospitality worker, Birmingham

"If I take the risk of going for another job, in this market the jobs are like 'last one in first one out' … the fear and the anxiety that would give me."
Retail worker, North Wales

"We're on an island, there's no competition so they can pay what they want and just pay the minimum wage…..other sites around Birmingham and Wolverhampton pay a minimum of £12.50 an hour."
Food production worker, North Wales

" It's such a risk if I was to move to another bar, I'm looking at that bar and wondering how do I know how they treat their staff? but I have absolutely no idea. I could go in there and it'd be worse. You're kind of trying to figure out if the situation that you're in is better, even if you're getting paid less."
Hospitality worker, Wales

" [public transport] limits greatly the kind of jobs I can take ... It keeps me in a profession I don't fancy any more. Retail jobs are the ones I can get to … It means I can't take a higher paid job in a rural area, it locks you in, it restricts where you end up living."
Retail worker, South East England

"Whether you're in one company getting low pay and then another *company, you're going to face the same situation and it doesn't address the real problem of low wages"*
Retail worker, Scotland

7.11 For some, it's about job security – they worry about 'last in, first out' recruitment practices. Others know it takes time for eligibility to statutory rights to accrue, alongside a good working relationship with a manager and colleagues. Concerns about both the volume of hours and their predictability are important for workers. Many have flexible and unpredictable working schedules – they worry they won't have any certainty in a new job regardless of what a contract might say. For others,

there is the interaction with benefits to contend with or a more general fear of the unknown. This perception of risk creates a fatalistic 'better the devil you know' attitude.

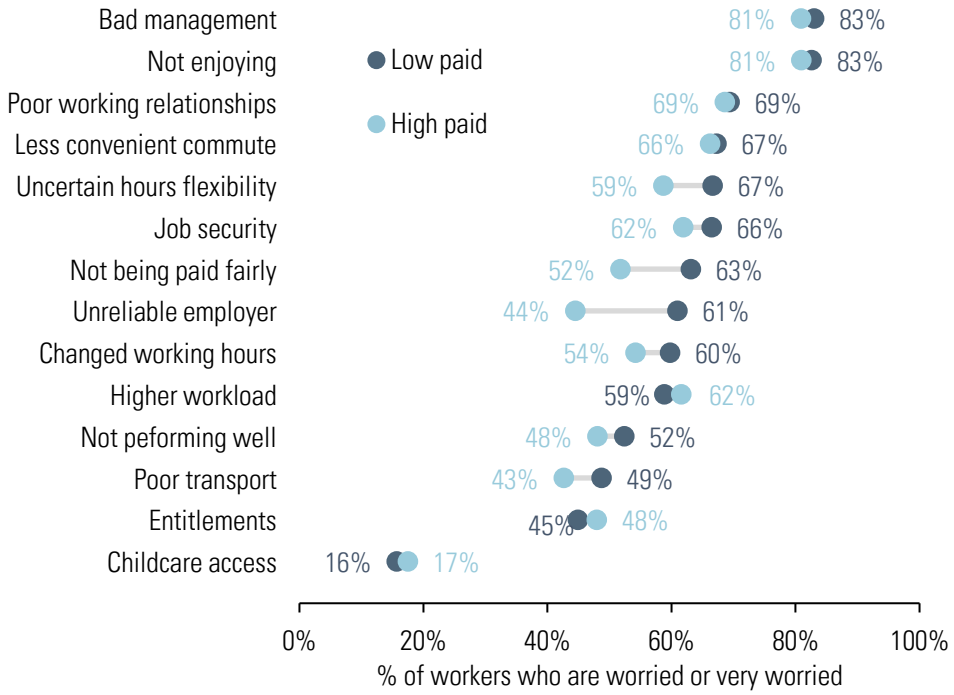
7.12 We commissioned YouGov to establish how widespread these concerns are and who they might affect. It found that a combination of factors make low-paid workers feel moving job is a substantial risk, even though they are dissatisfied with their pay and opportunities to progress within their current roles.

7.13 Pay – by a significant margin – is the most important motivation for low-paid workers when applying for new jobs. The majority of low-paid workers report feeling capable, experienced and qualified enough to apply for new jobs and that they have access to the right resources and support. But only half agree there would be value to them moving jobs. In qualitative interviews, some workers were less willing to move job for higher pay because they might end up in a worse situation. Overall, attitudes among low-paid workers are risk-averse and focus largely on what could be lost if they were to move job.

7.14 The most common worries among low-paid workers are that if they move jobs they might have a bad manager, not enjoy the job, or have poor working relationships. These fears are similar among higher-paid workers. Low-paid workers worry more about uncertainty, about the hours flexibility a new employer might offer, not being paid fairly, and having an unreliable employer.

7.15 Some say the opportunities just aren't there locally. Just over half say they live in an area where they have access to other job opportunities. Others feel they lack the time and financial resources to search and apply for other jobs. Many workers have restricted time and money to devote to moving jobs. Allied with a lack of motivation and worries that other jobs will not fit their situation and responsibilities, this means they are less likely to invest time in searching and applying for other opportunities.

Figure 7.3: Worries of workers when thinking about taking a job with a different employer



Source: YouGov (2023).

7.16 The presence of frictions in the UK labour market likely lowers the risk of further increases in the NLW having negative employment effects. This is because wages are likely to be below their competitive level and so there is room for the minimum wage to push them higher.

7.17 We commissioned Frontier Economics (forthcoming) to test how the impacts of the NLW varied with measures of the competitiveness of the local labour market. Its initial results suggest that there was less evidence of negative employment and hour effects in local labour markets where there are few employers. This is in line with international evidence (Azar et al., 2019, Devereux and Studnicka, 2023) and supports the theory that increasing minimum wages can raise wages without causing harm in markets where there are barriers to workers moving. However, measuring the extent of these barriers is difficult and their presence in no way guarantees further rises are risk free.

7.18 These frictions are bad for both workers and employers. Not only do they prevent workers from finding better or higher-paid work elsewhere, they constrain employers' recruitment. This in turn is bad for the economy as growing firms can't hire as readily and knowledge diffuses across the economy more slowly, which slows productivity growth. Search frictions can also keep workers in non-compliant jobs as well. As we noted in our 2023 report on compliance and enforcement (Low Pay Commission (2023c), a comprehensive strategy to protect workers against underpayment needs to go beyond enforcement and think about workers' power, their mobility and their willingness to assert their rights. As discussed earlier in Chapter 2, we think our 2018 recommendations on one-sided flexibility would be a good starting point for such a strategy.

Publicly funded sectors

7.19 The NLW already affects significant numbers of public sector workers – and there is potential for this to grow in the years ahead. This includes jobs within local government and the health and education sectors. Beyond the public sector, there are large low-paying sectors which are funded to a large extent by the public purse. These include social care, childcare and (to a lesser extent) the leisure sector. In each of these, the Government is the main source of funding; that funding has generally been squeezed over the NLW period; and employers have limited scope to offset a rising minimum wage via price increases.

7.20 Further NLW increases in these sectors bring with them particular risks, if they are not matched by proportionate increases in funding. The risks are that these services will be undermined, whether because they are unable to recruit staff or because they are no longer financially viable.

7.21 In social care and childcare in particular this has meant rising coverage as employers struggle to pay above the NMW. In step with this, we have seen a rise in recruitment and retention issues and a degradation of employment conditions (including, in parts of social care, a high degree of underpayment).

7.22 In social care, the LPC has consistently noted its concerns over the failure of funding to keep pace with the rising rates (see, for example, Low Pay Commission (2020, 2021 and 2022c)). The impact of minimum wage increases has been compounded by the pandemic, the cost-of-living crisis and rises in energy prices. Increasingly this year we heard concerns that this 'chronic underfunding' would be exacerbated by forthcoming reforms introducing a 'fair cost of care'.

7.23 Ultimately this will affect the delivery of services. As HCA told us: "*It will incentivise providers to try to cut corners that shouldn't be cut like call clipping or not paying staff for training. This may lead to worsening issues with staff retention. It could also put people using services and people waiting for services at risk and overload the NHS.*" Its survey found that 54 per cent of providers surveyed said they were delivering less care than a year ago – 91 per cent of this group report recruitment difficulties as a reason for this. Care England told us that "*If the LPC continues to increase the minimum wage without Local Authorities matching this with funded fee increases, providers will continue to have to absorb these costs, which may impact the financial viability of services.*"

7.24 Childcare faces a similar picture of long-term underfunding. The National Day Nurseries Association (NDNA) told us nurseries were facing "*a real crisis situation*" driven by inflation and underfunding. The hourly rates paid by councils have not increased nearly as much as wages, which form around 70 per cent of nurseries' costs. The Early Years Alliance (EYA) shared the outcomes of FOI correspondence with the Department for Education (DfE), showing funding rates to local authorities were markedly lower than the department's own estimates of the true cost of provision (£4.89 versus £7.49 per hour for 2020/21).

7.25 EYA argued that the expansion of funding announced in the March 2023 Budget would continue to leave a significant shortfall, estimated by the Women's Budget Group at £1.82 billion for the existing entitlement offers alone for 2023/24. The NDNA argued that increased provision of 'free' childcare would limit nurseries' ability to cross-subsidise. It estimated a gap of £2.30 per hour between the cost of provision and the rate paid by the Government for 'free' hours.

7.26 In common with social care, the consequence of funding constraints was a recruitment and retention crisis. EYA told us "*we have a recruitment and retention crisis that we have never witnessed before*", characterised by "*significant staff turnover and a high reliance on bank/agency staff.*" The NDNA told us retention was a huge issue, with providers struggling to get people at any level. Pay was an element, but the main issue was stress.

7.27 The net result of this according to NDNA is "*less reliable, flexible childcare for parents and less consistent, lower quality early education for children*". EYA told us the funding crisis was causing providers to close or consolidate – they themselves had cut delivery from 132 settings four years ago to 42 now. Ofsted figures show that nearly 5,000 providers had closed in the last twelve months. These effects were felt more in deprived and/or rural areas: "*there is no logical business reason why you would do this [invest in childcare services in deprived areas].*" The NDNA agreed closures were concentrated in deprived areas, with 95 per cent reporting making a loss or just breaking even. Those able to manage were in affluent areas, where parents purchased extra hours or paid for extra services such as after school care.

Improving the evidence base

7.28 Evidence has always been a critical part of decision-making on the minimum wage. To be confident about future decisions, the Government should be informed by the impacts so far. We have a range of data sources to assess the employment effects. These are the Labour Force Survey (LFS), notwithstanding its current issues,[14] ONS' Workforce Jobs series, the Annual Survey of Hours and Earnings (ASHE) and, increasingly, HMRC's payroll data on employment and pay (referred to as Real Time Information or RTI). Together these allow us to assess the minimum wage's effects and the state of the labour market more generally.

7.29 However, there are weaknesses in this evidence base. The ASHE is a snapshot survey that takes place once a year. This means we only have one data point per year to assess the picture for hourly pay, which is critical for assessing the impact of the hourly minimum wage. While understanding employment effects is important, it has been clear for some time now that employers have primarily been responding in other ways. They have absorbed the cost and accepted lower margins, passed the cost on in higher prices or tried to improve productivity in some way. The evidence base on these effects is more limited.

7.30 Over the coming years there will be opportunities to improve the evidence base and therefore our confidence in the impacts and the recommendations we make on the rate. Firstly, the Labour Force Survey has become less reliable and this is hindering our ability to evaluate the minimum wage. The ONS plan to introduce a new Transformed Labour Force Survey (TLFS) which should deal with some of the issues with the existing data. The ONS should ensure that the TLFS still collects detailed information on hourly pay where available, so that we can use it to evaluate the minimum wage. That means collecting detailed data on pay, periodicity and hours worked to derive a consistent hourly pay measure

[14] See for example, Bank of England (2023b), Giles (2023), House of Commons Library (2023), and ONS (2023a, 2023b and 2023c).

to match that produced in the previous LFS. The resulting data should have sufficient sample size to allow disaggregated analysis of the low-paying sectors and groups of workers.

7.31 The ONS should also reconcile the TLFS with other sources of employment data on employees (Workforce Jobs and RTI) and clearly explain why different data sources show different trends. It should also prioritise producing consistent time series for key labour market outcomes (for example the employment rate).

7.32 The ONS should reconcile its different data sources on pay (ASHE, AWE, and RTI). These data sources have diverged in the last three years (Low Pay Commission, 2022c). The ONS should explain the reasons for this and provide a recommendation as to which data source is a better guide to aggregate pay trends. This should also include looking at the quality of pay data in the TLFS and see if that can be improved to fill any gaps.

7.33 Third, the Government has announced its intention to ask employers to report on hours of work as part of its RTI returns (HMRC, 2023). The RTI already provides very useful information on both pay and employment, but this change has the potential to describe the impacts on jobs and hours of work for minimum wage workers in almost real time and with far greater accuracy. We recommend that HMRC go ahead with this change as soon as possible.

7.34 We already use the RTI data to assess the impact of minimum wage changes via HMRC's datalab and have access to data up to the 2017-18 financial year. More timely access would be a significant improvement to our evidence base, especially once the latest data includes hourly pay information. We recommend that the Department for Business and Trade works with HMRC to provide us more access to the RTI micro data. This would allow us to evaluate the latest minimum wage upratings more fully. We would also recommend that HMRC establish a portal to enable access to the RTI data for timely descriptive analysis, similar to the NOMIS portal produced by ONS.

7.35 Fourth, we are grateful for the work of the Wage and Employment Dynamics project in linking detailed pay data (ASHE) to other data sources to analyse the representativeness of the ASHE data (ASHE-BSD) and expand the list of observed characteristics (ASHE-Census 2011). This has already improved our evidence base and will improve it further when they release data linking ASHE to RTI and self-assessment data. We recommend the Government and other funders such as ADR UK pursue more projects that link the ASHE data to other relevant information such as the 2021 Census and DWP's benefits data from the Longitudinal Labour Market Dataset. We also welcome the establishment of the Integrated Data Service by ONS that will enable the linking of datasets.

7.36 In addition, the Government and ONS may be able to link more broadly across datasets, to improve both data collection and access to data for analysts and researchers. For example, there is an opportunity to improve ASHE using administrative data from RTI to pre-fill some of the questionnaire fields – reducing the time spent for employers and potentially enhancing response rates.

7.37 Finally, better data on firms can improve our understanding of the wider impacts of the NMW/NLW on prices, profits, productivity, investment, and firm exit. Currently, our ability to analyse the wider impacts of the minimum wage is limited by the lack of sufficiently detailed firm-level data. We welcome the ONS's existing efforts to improve firm-level data by introducing the Longitudinal Business Database. This will make it easier to measure the effects of the NLW on firm entry/exit. To fully answer

these questions, we need data that links information on prices with financial firm information and pay data. We ask the Government and the ONS to consider how they can improve data in this area.

Compliance and enforcement

7.38 Enforcement of the minimum wage is an important supporting condition for any increase in the NMW and NLW. It ensures a level playing field among employers and fairness for workers. Without fair and effective enforcement, there is a risk to the perceived legitimacy of the minimum wage and the policy's ability to meet the aims which the Government sets for it.

7.39 The level of non-compliance with the NMW is, by its nature, hard to measure. We produce estimates using both ASHE, a survey of employers, and LFS, a survey of workers. Using ASHE, for example, we estimate that over 365,000 workers were paid less than their due minimum wage in April 2023. Both measures have their flaws. Data sources cannot tell us the whole story and they are likely to include some misrepresentation of legitimate practices. Because of this, the estimates we produce in our annual reports into compliance and enforcement are carefully caveated to reflect these.

7.40 Despite the measurement difficulty, we have no doubt that underpayment exists. Workers and their representatives tell us about the ways in which they are underpaid. Employers tell us their competitors may be non-compliant with the rules. The enforcement body identifies thousands of cases of underpayment each year, affecting hundreds of thousands of workers. There are legitimate questions around both the precise scale and nature of underpayment but there can be no question it exists and is a serious challenge to the NLW's policy goals.

7.41 The introduction of the NLW in 2016 was accompanied by a major increase in the resources devoted to enforcement of the minimum wage by HM Revenue & Customs (HMRC). In 2014/15, £9.2 million was spent on enforcement and there were around 180 enforcement officers; by 2016/17 those figures had increased to £20 million and around 400 officers. This period also saw rapid growth in the numbers of workers who were found to have been underpaid and the value of arrears secured (although not in the number of cases HMRC opened and closed). HMRC's budget now stands at over £27 million and it employs around 450 compliance officers.

7.42 It remains open to discussion whether the enforcement regime is adequate to the scale of the challenge. It is common for stakeholders to cite the International Labour Organisation standard of one labour inspector per 10,000 workers and to note the UK's failure to achieve this benchmark. We note that despite the large increase when the NLW was introduced, enforcement resource has risen slowly since, and with the high inflation of recent years will have fallen in real terms.

7.43 The Government's ambition for the NLW and NMW needs to be matched by ambition in its enforcement strategy. Even if this does not translate into a greater budget or more officers, there are other changes which would make a material difference to how well we understand underpayment and how effectively it is addressed. Our latest compliance and enforcement report (Low Pay Commission, 2023c) contains a set of recommendations for the Government. These include expanding the data HMRC collects on its caseload; ensuring more regular naming rounds to create momentum and increase coverage; and taking forward our 2018 recommendations on one-sided flexibility. As we show in our report, a significant proportion of underpaid individuals remain trapped in underpaid jobs from year to

year; improving job mobility and reducing search frictions, as discussed earlier in this chapter, will support compliance and make it likelier the NLW achieves its policy aims.

7.44 The minimum wage affects far more salaried jobs now, which poses a particular risk for enforcement. Most minimum wage workers have an agreed stated hourly rate of pay. However, an increasing share of minimum wage workers do not have a stated hourly rate, and instead are paid weekly or monthly for a fixed number of hours. Our analysis in Chapter 5 shows that since 2015 the share of minimum wage jobs without a stated hourly rate has doubled from 14 per cent to 28 per cent. Future increases in the NLW are likely to increase the number of salaried workers on it further. Underpayment is more common in these jobs (Low Pay Commission, 2023c). Salaried workers also do not always have a record of their hours worked, which means it is difficult for workers to monitor whether they are being paid the minimum wage. HMRC may need to adapt their enforcement strategy to reflect the changing nature of minimum wage jobs.

Conclusion

7.45 This chapter has set out a range of factors that might support further increases in the minimum wage. Strong labour market conditions – particularly demand for workers – would lower the risk of further rises. We find evidence that frictions in the UK labour market prevent workers from easily moving from job to job. This means wages may be lower than they otherwise might be and therefore that the minimum wage can push them higher without harming employment. However, that is not guaranteed. Employers in low-paying publicly-funded sectors say a sustainable funding settlement is needed to afford further rises. An active compliance and enforcement regime helps ensure the level playing field and employer buy-in. Finally, improving the evidence base would mean we could be more confident in making further changes to the minimum wage without substantive risks.

Chapter 8
Conclusions

8.1 In 2024 we expect the National Living Wage (NLW) to reach the Government's target of two-thirds of median hourly earnings. This is a significant achievement of an ambitious target. The NLW has risen far quicker than previously and become one of the highest in the world.

8.2 This milestone should be celebrated as a genuine policy success. But it should also provide lessons to inform the next stages of policy for low-paid workers. The Low Pay Commission is also proud of the part it has played. Reaching unanimous agreement on the NLW throughout the economic crisis surrounding the pandemic was not easy. And though the full impacts of reaching the 2024 target cannot be yet known, the evidence so far suggests we made the right decisions when it mattered most.

8.3 The NLW has successfully raised pay for low-paid workers without significant damage to jobs. Pay inequality has fallen between men and women and gaps between other groups have diminished. These hourly pay rises have not only translated into weekly pay increases but also protected living standards. Over the lifetime of the NLW the lowest paid have seen substantial real pay increases at a time when other workers have faced real pay stagnation. Despite these successes the impact on household income is less clear cut. This tells us that the NLW is not a substitute for the welfare system, though it can be a powerful complement.

8.4 This success does not the mean the ambitious increases have been easy for employers. Far from it, employers have faced substantial challenges from the NLW, the pandemic, and huge energy driven cost increases. Instead of cutting jobs, employers have opted to absorb the cost and accept lower profits, pass on some costs through price increases, make cost savings elsewhere and try to improve productivity. Many are worried about the sustainability of these responses.

8.5 The NLW has been very successful, but it is not a panacea. Many stakeholders have warned that while the NLW's impact is welcome, low-paid workers' earnings can vary substantially and unpredictably and many jobs simply offer too few hours. The LPC's view remains that the recommendations we made on one-sided flexibility would protect workers' hours and provide more security without harming the labour market. These recommendations were: A right to switch to a contract that reflects your normal working hours; a right to reasonable notice of work schedules; and compensation when shifts are cancelled or curtailed at short notice.

8.6 The decision on the future framework of the minimum wage is a political one and the LPC's job is to provide the evidence and advice. Therefore, predicting what might happen next is challenging as we don't know what decision the Government is going to make. But regardless of the approach taken, the Government should think through what policy outcome it is trying to achieve, what trade-offs it is willing to accept and if it wants to mitigate these with other policy choices. This applies whether there is a target or not; with further increases there is always at least some risk.

8.7 This thinking should go beyond employment effects, as the evidence overwhelmingly tells us that employers have responded in other ways. There is room for improvement in the evidence base for employment effects but particularly for understanding the other margins firms use to absorb the costs of the minimum wage. Doing this would mean the Government could be more confident in making further changes to the minimum wage. Forthcoming improvements to a range of data sources offer lots of potential for improvement.

8.8 In choosing a model for the minimum wage in the future, there are certain principles the LPC believes should be followed:

- Responsiveness to economic conditions – when the economy is booming the lowest paid should not be left behind, and when the economy is struggling we should be mindful of the risks. Recommendations on what do in these circumstances should be based on evidence and the voice of workers and employers.

- Social partnership and independence – an agreed view between employer and worker representatives assures credibility for the Government's decisions and the minimum wage itself.

- Maintain the level playing field – employers should face the same rules with as few exceptions as possible, this 'level playing field' is a key principle for employer buy-in.

- Easily operated/enforced – any minimum wage model needs to be simple enough for both workers and employers to understand their rights and responsibilities, but also for the Government to enforce and communicate.

- Consistency – the minimum wage system benefits from consistency so that workers and employers alike know what to expect and can plan accordingly. The Government should set out the LPC's remit approach and only make changes with sufficient notice.

8.9 Applying these principles, the LPC's views is that geographical, sectoral, weekly and formula-based living wages are unsuitable for national policy making. We recommend the Government adopts another target or moves back to a qualitative approach. Either can be as ambitious (or not) as the Government chooses. The first provides clarity and momentum at the expense of flexibility to respond, while the second's responsiveness comes at the expense of clarity over a future path. These models are suited to different policy objectives so the Government should decide what it is trying to achieve. If the Government wants further ambition and reductions in inequality then a further target is likely best. If the aim is to instead protect the progress made so far and be more responsive to economic conditions then a principle based remit is best suited. Though the NLW's combination of ambitious increases with benign impacts has changed the way negotiations on rates might work. We shouldn't expect an automatic return to the level of increases seen before the NLW if the LPC's remit to "raise the rate as high as possible without damaging jobs" is restored.

8.10 The rationale for lower rates for young people remains, but there is scope to close the gap between the youth and adult rates and, if the evidence supports it, move to an adult rate that begins at age 18. The gap between the youth and adult rates has widened and the labour market's strength is an opportunity to reduce it. This could be achieved by a principle in our remit to reduce the gap as soon as possible without causing harm. We propose lowering the NLW eligibility age by one age group at a time so we can monitor the effects and establish if it is appropriate to continue. The labour market is tight

currently but is loosening so the more this continues, the greater the risks for young workers. This means we will want to continue monitoring the labour market carefully. Clearly, this aim also interacts with that of the NLW. The more ambitious the Government wants to be with the NLW, the more challenging it is to reduce the gap and vice versa.

8.11 We've heard from a range of stakeholders including workers, employers and the Government that the Apprentice Rate is too low and detrimental to the programme's aims. Our view is that removing the Apprentice Rate at the same time as reducing the gap between the youth and adult rates for non-apprentices brings considerable risk. To that end we recommend that we keep an apprentice rate but that, for those aged 18 and over, it changes to a simple discount of the age rate during the apprentice's first year. This, combined with the lowering of the NLW eligibility, will result in substantial increases in the wage floor for apprentices, but continue to recognise the additional costs relating to the substantial training they receive.

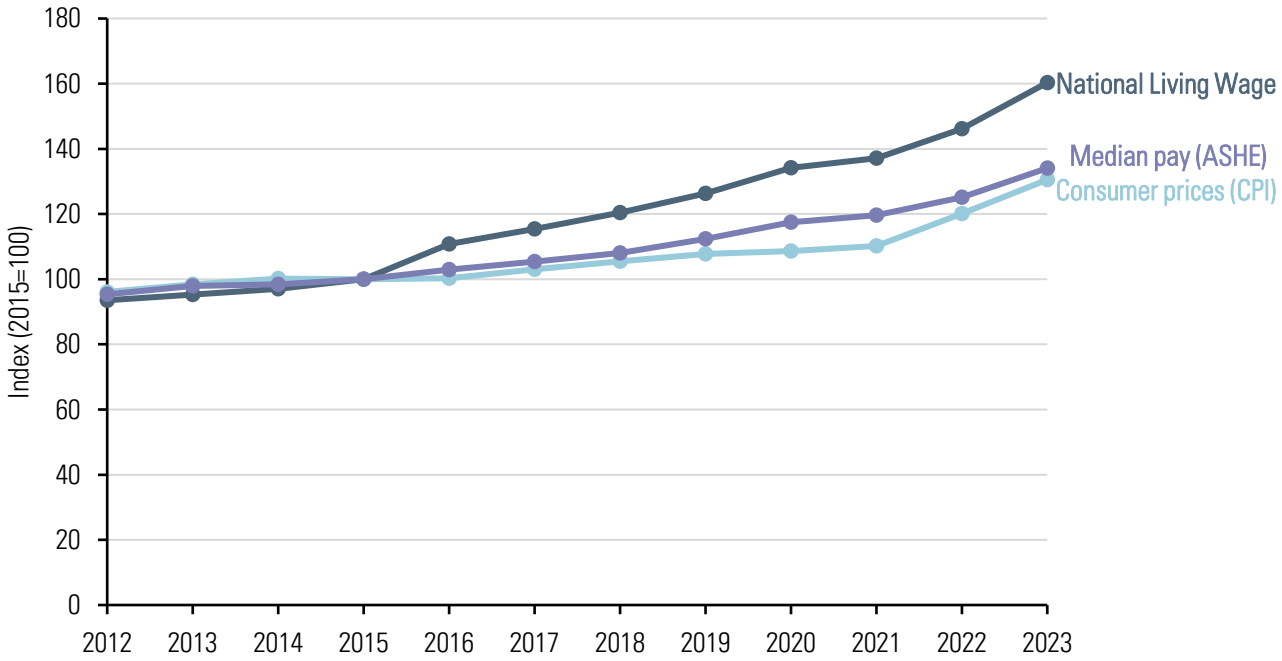
Appendix 1

Technical Annex

Using price and wage indices to deflate pay

A1.1 In this report, we deflate pay both by growth in consumer prices and by median pay. These two series have grown by a similar amount since 2015 so long-term comparisons tend to be similar using either approach, although individual year results can differ. We use the two different deflators in different situations for different reasons. We deflate by CPI, to show how pay has grown relative to prices. This can help us understand what NLW increases mean for household income. We deflate by median pay when we want to understand what NLW increases mean for the relative position of NLW workers (and other affected workers) within the pay distribution.

Figure A1.1: Indices of NLW, CPI and median pay, UK, 2012-2023



Source: LPC analysis of historic minimum wage rates, ASHE, standard weights, 21+, UK and CPI, 2012-2023. Chart only shows data for April each year.

Projecting the future value of the NLW in different bite scenarios

A1.2 In Figure 5.3 we project the future value of the NLW in different bite scenarios. We use 'bite' to refer to the ratio of the NLW to median pay for eligible workers. To estimate the NLW in these scenarios, we first make a projection of median pay. We start from a baseline of the latest observed median pay (currently April 2023). We then project this baseline forwards using the smoothed growth in average weekly earnings outturn data (when available) and the HMT panel of forecasts for average weekly earnings growth (when outturn data is not available). We add the Bank of England forecasts and Office for Budget Responsibility forecasts to this panel. The latest forecast year available in the panel is 2027. We carry the forecast 2027 growth rate forward and apply it in the following years. This gives us a projection of median pay in the future.

A1.3 We calculate the NLW as a percentage of the median pay projection based on the bite scenario. We increase the bite by even steps each year until it reaches the scenario amount. For instance, if we wanted to raise the bite of the NLW from 60 per cent to 70 per cent over 5 years, we would raise the bite in 5 steps of 2 percentage points. This would mean we would set the bite to 62 per cent in the first year, 64 per cent in the second year, 66 per cent in the third, 68 per cent in the fourth and 70 per cent in the fifth and final year.

A1.4 There is uncertainty around our projections of median pay. We project a range around each estimate. Pay growth at the bottom of this range is one percentage point a year lower than our central estimate. Pay growth at the top of this range is one percentage point a year higher than in our central estimate. This is not a formal confidence interval. It reflects our judgement of the range that median pay could fall into based on the typical error in historic pay forecasts. (Low Pay Commission, 2022a) provides more detail on our NLW path calculation.

Projecting the pay impacts of further increases

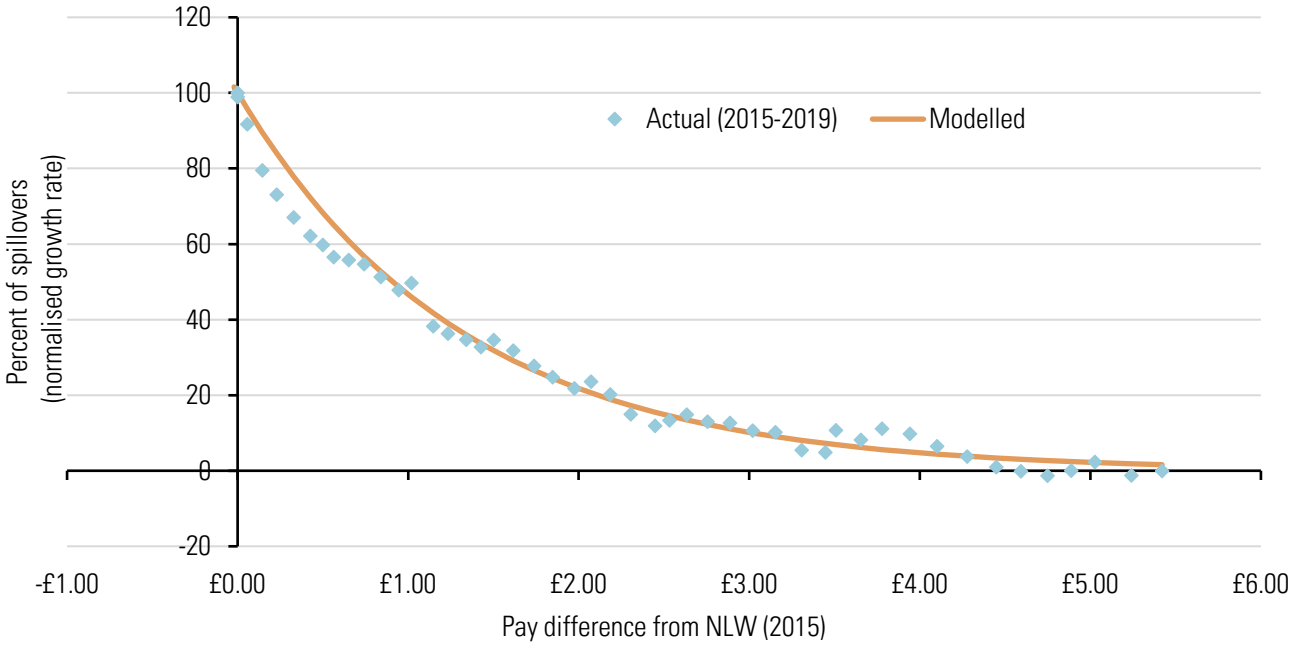
A1.1 In Chapter 5, we showed some indicative projections for how the number of people paid the minimum wage and the pay distribution would change in a number of different scenarios. We defined the scenarios in terms of the 'bite' of the minimum wage (the minimum wage as a percentage of median pay). We use two different methods to project the share of people paid the minimum wage.

A1.2 The first method explicitly models the spillover effects of the minimum wage. We also use this method to project how the pay distribution might change following further increases in the NLW (Figure 5.5). This modelling is based on the changes in the pay distribution following the introduction of the NLW from 2015 to 2019. The steps of the analysis are laid out below.

A1.3 We start by calculating the percentiles of the pay distribution in 2015 and 2019. We deflate the 2019 percentiles by an index of median wages. We then calculate the percentage growth in each percentile (relative to median growth). We also calculate the growth in the NLW relative to the median pay by deflating it by median pay growth. We then calculate the percentage growth for each percentile as a share of the NLW growth relative to the median. We refer to this as the 'per cent of spillovers' each percentile received. If the value is 100, they saw the same growth as the NLW over that period. If the value is 0, the percentile grew in line with the median. The blue points show the per cent of spillovers received at each percentile from up until the median.

A1.4 As expected, spillovers get smaller for percentiles that are further away from the NLW in 2015. We fit an exponential curve to the values (see orange line in figure below). We fit this curve only on percentiles up to 35th percentile to avoid issues with negative values. An exponential curve provides a better fit for this relationship than a linear relationship. The exponential curve means that spillovers decay at a fixed rate. The modelled relationship suggests that observations paid the NLW get 100 per cent of the spillovers, observations paid approximately £0.90 more than the NLW get 50 per cent of the spillovers and observations paid £1.80 more get approximately 25 per cent of the spillovers.

Figure A1.2: Actual and modelled spillover rates for bottom 50 percentiles, UK, 2015-2019



Source: LPC analysis of ASHE, UK, 21+, 2015-2019. Bottom two percentiles are excluded as they are below the NLW.

A1.5 For each scenario, we calculate the increase in the NLW needed to reach the specified percentage of median. In these scenarios, we assume this new NLW is applied immediately on to the 2023 distribution with no other source of pay growth. In April 2023, the NLW was 65.2 per cent of the median pay for workers aged 21 and over. Assuming an unchanged median, the NLW would need to increase by 7.4 per cent to hit 70 per cent of median pay.

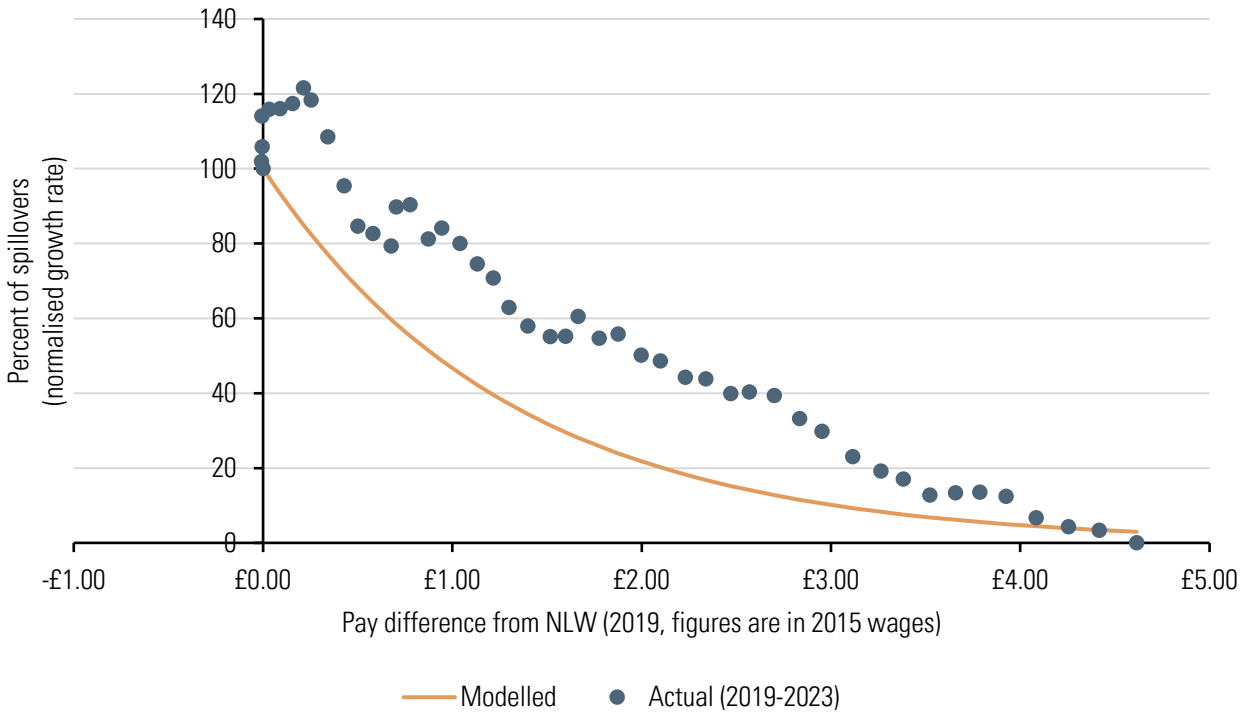
A1.6 It is possible that a small share of the minimum wage increase spills over to the median. Our modelling suggests this effect is likely to be small, but modelling would increase the complexity of our analysis without providing significant additional insight. We therefore assume spillovers stop at the median.

A1.7 We then use this modelled curve to project pay forward for future pay scenarios. For each pay observation in 2023, we calculate its pay premium above the NLW and deflate this difference in to 2015 wages. We then use the modelled curve in Figure A1.2 to estimate the percentage of spillovers for each observation. For example, for a pay observation £0.90 above the NLW (in 2015 wages), the model suggests it would get 50 per cent of the spillovers. In the scenario where the NLW is raised to hit 70 per cent of median earnings, we can then project that this pay observation would see their pay increase by 3.7 per cent (7.4 per cent * 50 percent). Using this approach for all pay points up to the median, we can create an adjusted pay distribution for the given minimum wage bite scenario. Some pay observations, which start sufficiently close to the NLW, will have modelled spillovers that put them below the new NLW. We set pay to the NLW for these observations and count them (and other observations within 5 pence of the new rate as 'covered'.

A1.8 Our projections of the pay effects of the NLW are illustrative rather than precise forecasts. They are based on two key assumptions. Firstly, we assume from 2015-2019 pay growth would have been even across the distribution if there had been no minimum wage increases. This allows us to attribute growth above median pay growth to the NLW. This is a strong assumption as many other factors affect the distribution of pay growth. Reassuringly pay growth was relatively flat across the middle of the distribution in this period (see Figure 5.1), which provides some support for this assumption in 2015-2019. Pay growth is uneven across the whole distribution in 2019-2023 (according to ASHE), which suggests other factors are driving uneven pay growth. Hence, we use the 2015 to 2019 data to build our modelled estimates.

A1.9 Second, we assume for forward-looking modelling that the spillover patterns from the NLW will be similar to the patterns we saw from 2015 to 2019. We explained in Chapter 5 that the jobs affected by future minimum wage rises will be different from the jobs affected by previous minimum wage rises and so the pay effects could play out differently from our modelled estimates. From 2019 to 2023, we saw faster pay growth than our model would have projected. This suggests either that the NLW had stronger spillover effects in this later period or other factors (such as labour shortages) helped drive up pay at the bottom. The fact that some workers actually saw faster growth than the NLW suggests that other factors (labour shortages and high inflation) helped drive pay up at the bottom.

Figure A1.3: Actual and modelled spillover rates for bottom 50 percentiles, UK, 2019-2023



Source: LPC analysis of ASHE, UK, 21+, 2015-2023. Bottom two percentiles are excluded as they fall below the NLW. Modelled spillover rates are based on 2015-2019 relationship applied to 2019 pay differences from the NLW.

A1.10 We also show alternative projections of coverage based on the historic relationship between the percentage change in the bite of the minimum wage and the percentage change in the coverage of the minimum wage. This takes the projected change in the bite of the minimum wage to reach a given scenario and then applies a linear relationship to estimate the percentage change in the coverage. We explain this in more detail in our 2022 report (Low Pay Commission, 2022c). This suggests a stronger growth in coverage than the spillover modelling. This is because we apply a linear relationship based on the whole history of the minimum wage (1999-2023), whereas our spillover modelling is based on 2015-2019 upratings. Spillover effects were weaker in the first phase of the minimum wage, than during the NLW period.

A1.11 While our pay modelling cannot reliably predict the effects of the NLW, it can point towards the shape of potential impacts. Both our internal analysis and independent analysis have shown the NLW to have strong spillover effects. We should therefore expect future minimum wage rises to have spillover effects and to continue to bring more workers within spillover range of the NLW (even if the number of workers paid the NLW does not increase). We do not know the exact magnitude of these effects as they depend on the types of jobs impacted by future rises and other factors affecting the labour market.

Chain-linking and structural breaks in the Annual Survey of Hours and Earnings

A1.12 The Annual Survey of Hours and Earnings (ASHE) is the best source of detailed pay data in the UK. It is currently available from 1997, although its predecessor (the New Earnings Survey) goes back to 1975. However, since the ASHE was introduced in 1997, there have been a number of significant changes to its methodology. The four key changes are the additional data collection in 2004; and revisions to industry and occupation classifications in 2006, 2011 and 2021. These changes can lead to discontinuities in data series.

A1.13 In some of our analysis, we adjust our results using a process called chain-linking to account for these structural breaks in the data. In the years when these changes occurred (the link year), we have data based on the old and the new method. This means for any given estimate (e.g. median pay for women under 50) we can calculate a factor which reflects the difference between using the new and old method. When we chain-link, we apply this factor to years before the change. This creates a proxy for what the estimate might have been in the earlier years, had we used the new method in those years.

A1.14 Chain-linking assumes that a methodology change will alter an estimate by a fixed percentage in every year. This assumption is unlikely to hold exactly, but often produces a better proxy for the previous data than making no adjustment. We do not chain-link all of our results using ASHE. For some estimates, such as those which track what happens to an individual worker's pay over time, chain-linking would be excessively complex. We also have concerns about using chain-linking for certain groups, especially when the sample size in the link year is small and/or the year is very different from usual (e.g. certain groups during the pandemic). In these scenarios, it is more likely that the factor derived from the link year reflects peculiarities of that year's observations rather than a general effect from the methodology change. We have used chain-linking on a case-by-case basis and note in the figures when we have used it. If we do chain-link, we have compared chain-linked figures to unadjusted figures to check the chain-linking does not change the key results from the analysis. We discuss chain-linking for the 2021 methodology change in more detail in the Appendix to our 2022 Report (Low Pay Commission, 2022c)

Low-paying industries and occupations

A1.15 In this report, we refer to low-paying industries and occupations. These are the industries and occupations where workers are most likely to be paid the minimum wage. In 2023, 83 per cent of minimum wage jobs were in low-paying occupations and 75 per cent were in low-paying industries. We recently reviewed this classification and a detailed discussion can be found on our website (Low Pay Commission, 2023b)

A1.16 For some analysis we use more aggregated industry classifications as detailed classifications of the data is not available. For Figure 6.3 we construct a definition of low-paying industries based on two-digit level industry codes. We do this so we can compare UK employee jobs data from the Workforce Jobs dataset to Labour Force Survey (LFS) data. We class a two-digit industry code as in a low-paying industry if the majority of observations in the LFS from 2017-2019 are in a low-paying industry (based on the more detailed five digit code mapping. In the data tables published alongside this, we include a table showing the mapping of two-digit industry codes to low-paying industries.

Appendix 2

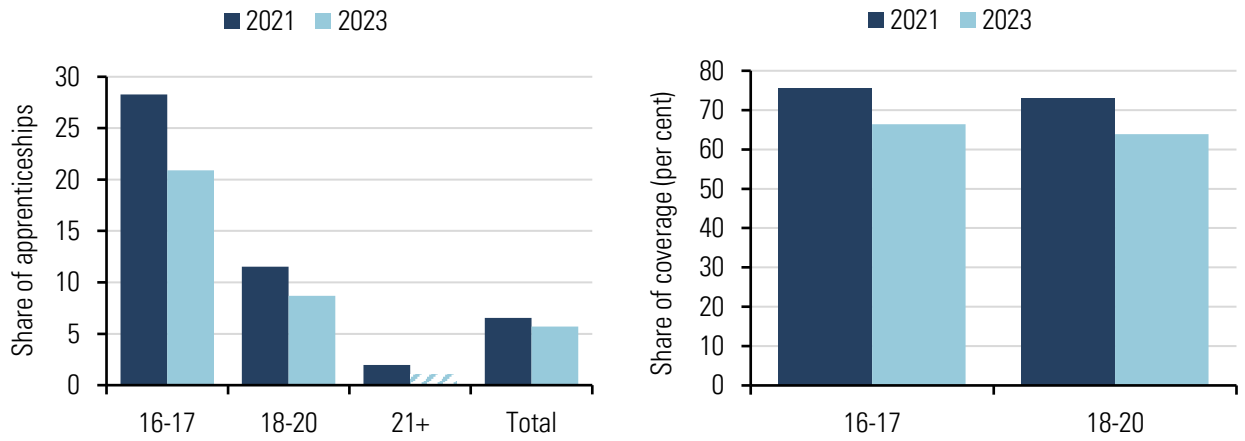
Underpayment of the Apprentice Rate

A2.1 It has long been the case that surveys of apprentice pay have found high levels of underpayment of the minimum wage, significantly higher than those identified in the rest of the (non-apprentice) population. The 2023 AEvS is no different.

A2.2 Figure A2.1 shows that although rates have fallen since the 2021 survey, we still find that nearly one in five 16-17 year old apprentices are underpaid (paid less than the minimum wage), and nearly one in ten 18 year old apprentices. As a share of coverage, underpayment sits well above 60 per cent for some age groups.

A2.3 Around half of those underpaid are paid within 5 per cent of the Apprentice Rate. In the past, we have suggested that there could be widespread failure to pay for apprentices' off-the-job training hours. A competing explanation is that employers fail to amend apprentices' pay when they cease to be eligible for the rate. (This would not explain the high rates observed for 16-18 year olds.) We have not had access to training hours data from the 2023 AEvS to investigate this further.

Figure A2.1: Underpayment of apprentices, overall rate (LHS) and as a share of coverage (RHS), by age, England, 2021 and 2023



Source: LPC analysis of AEvS, pay weights, England, 2021 and 2023. Population eligible for Apprentice Rate only. Striped bars indicate that estimates are suppressed due to low sample sizes.

A2.4 As set out above, we have not treated underpayment as a stand-alone criterion for our decisions on the future of the Apprentice Rate. It nevertheless informs our decisions in other areas in an important way. For example, one argument is that although employers tell us that the rate doesn't drive decisions about apprentices, this must be tempered by the fact that many simply aren't paying the correct rate. Employers might take a different view of the rate if they were paying it correctly.

A2.5 It is not clear whether a higher rate will cause underpayment to rise or fall. We note that the rate of measured underpayment in AEvS has fallen since the Apprentice Rate was aligned with the 16-17 Year Old Rate, but we don't draw definitive conclusions from this.

References

Aitken, A., P. Dolton, and R. Riley (2018). The impact of the introduction of the National Living Wage on employment, hours, and wages. *Research Report for the Low Pay Commission*. November 2018. (National Institute for Economic and Social Research and University of Sussex.)

Albagli, P., R. Costa, and S. Machin (forthcoming). Minimum wages and alternative work arrangements. Event: NLW Introduction. *Research Report for the Low Pay Commission.* (London School of Economics.)

Autor, D., A. Manning, and C. Smith (2016). The contribution of the minimum wage to US wage inequality over three decades: a reassessment. *American Economic Journal: Applied Economics,* 8 (1): 58-99. January 2016.

Azar, J., E. Huet-Vaughn, I. Marinescu, B. Taska, and T. Von Wachter (2019). Minimum wage employment effects and labor market concentration. NBER Working Paper 26101. 5 July 2019. (National Bureau of Economic Research.) Also available at SSRN: https://ssrn.com/abstract=3416016 or http://dx.doi.org/10.2139/ssrn.3416016.

Bank of England (2023a). *Monetary Policy Report – November 2023*. 2 November 2023. (Bank of England.)

Bank of England (2023b). Box B: Uncertainties around official estimates of labour market activity in *Monetary Policy Report – November 2023*. 2 November 2023. (Bank of England.)

Bank of England (ongoing). *Agents' summary of business conditions*. Eight times per year. (Bank of England.)

Bank of England (ongoing). *Monetary Policy Report*. Quarterly. (Bank of England.)

Bank of England (ongoing). *Monetary policy summary and minutes of the Monetary Policy Committee meeting.* Eight times per year. (Bank of England.)

Barrero. J., N. Bloom, and S. Davis (2021). Why working from home will stick. NBER Working Paper 28731. April 2021. (National Bureau of Economic Research.)

Barrero. J., N. Bloom, and S. Davis (2023). The evolution of work from home. *Journal of Economic Perspectives*, 37 (4). Fall 2023. 3 September 2023.

Bell, B., and S. Machin (2018). Minimum wages and firm value. *Journal of Labor Economics,* 36 (1): 159-195. January 2018. (University of Chicago Press.)

Berg, A., and J. Ostry (2017). Inequality and unsustainable growth: two sides of the same coin? IMF Economic Review, 65 (4): 792-815. November 2017. (Palgrave Macmillan; International Monetary Fund.)

Bosch, M., and M. Manacorda (2010). Minimum wages and earnings inequality in urban Mexico. A*merican Economic Journal: Applied Economics,* 2 (4): 128-149. October 2010.

Bowyer, A., A. Cerqua, G. Pietro, E. Gorman, and P. Urwin (2019). Assessing factors that affect the labour market decisions of young people aged 16 to 24: Research Informing LPC Review of Youth Rates. *Research Report for the Low Pay Commission*. 12 November 2019. (Centre for Employment Research, University of Westminster.)

Broadbent, B. (2023). Signal versus noise. Speech given at the London Business School. 18 December. (Bank of England.)

Brochu, P., and D. Green (2013). The impact of minimum wages on labour market transitions. *Economic Journal*, 123 (573): 1203-1235. December 2013.

Brouillette, D., C. Cheung, D. Gao, and O. Gervais (2017). The impacts of minimum wage increases on the Canadian economy. Staff Analytical Note/Note analytique du personnel, 17-26. December 2017. (Ottawa; Bank of Canada.)

Bryan, M., A. Salvatori, and M. Taylor (2012). The impact of the National Minimum Wage on earnings, employment and hours through the recession. *Research Report for the Low Pay Commission.* February. (Institute for Social and Economic Research, University of Essex.)

Bryan, M., A. Salvatori, and M. Taylor (2013). The impact of the National Minimum Wage on employment retention, hours and job entry. *Research Report for the Low Pay Commission*. February. (Institute for Social and Economic Research, University of Essex.)

Burn-Murdoch, J. (2022). Half a million missing workers show modern Britain's failings. *Financial Times*. 7 October 2022.

Butcher, T., and R. Dickens (2023). The impact of the National Living Wage on the UK labour market using geographic, age and gender wage variation. *Low Pay Commission Research Report*. September 2023. (Low Pay Commission and University of Sussex.)

Butcher, T., and R. Dickens (forthcoming). The impact of the National Living Wage on the UK Labour Market after the pandemic using geographic, age and gender wage variation. *Low Pay Commission Research Report*. (Low Pay Commission and University of Sussex.)

Capuano. S., J. Cockett, H. Gray, and D. Papoutsaki (2019). The impact of the minimum wage on employment and hours. *Research Report for the Low Pay Commission*. 5 December 2019. (Institute for Employment Studies.)

Cardoso, A. (2019). Long-term impact of minimum wages on workers' careers: Evidence from two decades of longitudinal linked employer-employee data. *Scandinavian Journal of Economics*, 121 (4): 1337-1380. October 2019.

Cavaglia, C., S. McNally, and G. Ventura (2020). Do apprenticeships pay? Evidence for England. *Oxford Bulletin of Economics and Statistics*, 82 (5): 1094-1134. 2 April 2020. (Wiley; the Department of Economics, University of Oxford.)

Cavaglia, C., S. McNally, and G. Ventura (2022). The Recent Evolution of Apprenticeships: participation and pathways. *Report for the Sutton Trust.* CVER Research Discussion Paper 039. December 2022. (Centre for Vocational Education Research.)

CBI/Pertemps (2022). Employment Trends Survey 2022. 28 November 2022.

CBI/Pertemps (2023). Employment Trends Survey 2023. 4 December 2023.

Chartered Institute of Personnel and Development (CIPD, 2021). *Labour Market Outlook Summer 2021*. August 2021.

Chartered Institute of Personnel and Development (CIPD, 2022). *Labour Market Outlook Summer 2022*. 15 August 2022.

Chartered Institute of Personnel and Development (CIPD, 2023a). *CIPD response to Low Pay Commission Consultation*. 12 August 2023.

Chartered Institute of Personnel and Development (CIPD, 2023b). *Labour Market Outlook Summer 2023*. 14 August 2023.

Chartered Institute of Personnel and Development (CIPD, ongoing). *Labour Market Outlook*. Quarterly.

Cingano, F. (2014). Trends in income inequality and its impact on economic growth. OECD Social, Employment and Migration Working Papers 163. (OECD Publishing.)

Clemens, J., and M. Strain (2021). *The heterogeneous effects of large and small minimum wage changes: evidence over the short and medium run using a pre-analysis plan*. NBER working paper 29264. September 2021. (National Bureau of Economic Research.)

Cominetti, N., and L. Murphy (2023). Calculating the Real Living Wage for London and the rest of the UK: 2023. Resolution Foundation Briefing. 24 October 2023. (Living Wage Foundation and Resolution Foundation.)

Crawford, C., E. Greaves, W. Jin, J. Swaffield, and A. Vignoles (2011). The impact of the minimum wage regime on the education and labour market choices of young people. *Research Report for the Low Pay Commission*. December 2011. (Institute for Fiscal Studies, University of York, and the Institute of Education.)

Datta, N., G. Giupponi, and S. Machin (2019), Zero-hours contracts and labour market policy. *Economic Policy,* 34 (99): 369-427. March 2019.

Department for Business and Trade (2023a). National Living Wage and National Minimum Wage: Government evidence on enforcement and compliance 2021/2222. 12 April 2023.

Department for Business and Trade (2023b). National Minimum Wage and National Living Wage: Low Pay Commission remit 2023. The Government's remit to the Low Pay Commission (LPC) outlining the areas they should consider when recommending the 2024 National Minimum Wage and National Living Wage rates. 27 April 2023.

Department for Business and Trade (2023c). National Living Wage and National Minimum Wage: remit on the future of the National Living Wage. Policy Paper. 27 April 2023.

Department for Business, Innovation and Skills (2013). Government sets out Low Pay Commission remit. The Government has written to the Low Pay Commission (LPC) today setting out its remit for its 2014 Report. Press Release. 27 June 2013.

Department for Business, Innovation and Skills (2014). National Minimum Wage: Low Pay Commission remit 2015. Letter from the Government to the Chair of the Low Pay Commission (LPC) setting out the remit for the Commission's 2015 Report. 18 June 2014.

Department for Business, Innovation and Skills (2015). National Minimum Wage: Low Pay Commission remit 2016. July 2015.

Department for the Economy (2023). ApprenticeshipsNI Statistical Bulletins Year 2021/22. ApprenticeshipsNI statistics from August 2013 to July 2022. 1 February 2023.

Department for Education (2017). Apprenticeships by sector subject area, level and age: starts 2002/03 to Q1 2016/17. January 2017.

Department for Education (2022a). Apprenticeship evaluation 2021 reports. *DfE Research Reports* RR1211-1214 and data tables. 26 May 2022.

Department for Education (2022b). Further education outcomes statistics, academic year 2019/20. 24 November 2022.

Department for Education (2023). Apprenticeships and traineeships statistics. Retrieved from GOV.UK: https://explore-education-statistics.service.gov.uk/find-statistics/apprenticeships-and-traineeships. 7 September 2023.

Department for Education (forthcoming). Apprenticeship evaluation 2023 reports. *DfE Research Reports*.

Devereux, K., and Z. Studnicka (2023). *Local labour market concentration and wages in Ireland*. UCD Centre for Economic Research Working Paper WP23/07. March 2023. (University College Dublin.)

Dickens, R., R. Riley, and D. Wilkinson (2014). The UK minimum wage at age 22: A regression discontinuity approach. *Journal of the Royal Statistical Society*, 117 (1): 95-114. January 2014.

Dickens, R., Riley, R., and D. Wilkinson (2015). A re-examination of the impact of the UK National Minimum Wage on employment. *Economica*, 82 (328): 841-864. October 2015.

DiNardo, J., N. Fortin, and T. Lemieux (1996). Labor market institutions and the distribution of wages, 1973-1992: a semiparametric approach. *Econometrica,* 64 (5): 1001-1044. September 1996. (The Econometric Society.)

Dolton, P., and C. Rosazza Bondibene (2011). An evaluation of international experience of minimum wages in an economic downturn. Report for the Low Pay Commission. March 2011. (National Institute of Economic and Social Research and University of Sussex.)

Dorfman, D (2022). Retail trade employment: before, during, and after the pandemic. *Beyond the Numbers: Employment & Unemployment*, 11 (4). April 2022. (US Bureau of Labour Statistics.)

Draca, M., Machin, S., and J. Van Reenen (2011). Minimum wages and firm profitability. *American Economic Journal: Applied Economics,* 3 (1): 129-151. January 2011.

Dube, A. (2019). *Impacts of minimum wages: review of the international evidence*. HM Treasury. 5 November 2019.

Dustmann, C., A. Lindner, U. Schönberg, M. Umkehrer, and P. vom Berge (2021). *Reallocation effects of the minimum wage*. The Quarterly Journal of Economics.

Engbom, N., and C. Moser (2022). Earnings inequality and the minimum wage: evidence from Brazil. *American Economic Review*, 112 (12): 3803-47. December 2022.

Eurofound (2023). *Minimum wages in 2023: Annual review*. (Luxembourg: Publications Office of the European Union.) 29 June 2023.

Federation of Small Businesses (ongoing). *FSB Voice of Small Business Index*. Quarterly.

Frontier Economics (2020). Impact of National Living Wage on businesses. *Research Report for the Low Pay Commission*. Frontier Economics. November 2020.

Frontier Economics (forthcoming). Monopsony and minimum wage effects. *Research Report for the Low Pay Commission*. (Frontier Economics.)

Giles, C. (2023). The UK's 'official' labour data is becoming a nonsense: How can we make economic policy if the figures we rely on are problematic? *Financial Times*. 25 October.

Gindling, T., and K. Terrell (2010). Minimum wages, globalization, and poverty in Honduras. *World Development*, 38 (6): 908-918. June 2010. (Elsevier.)

Giupponi, G., R. Joyce, A. Lindner, T. Waters, T. Wernham, and X. Xu (2022). The employment and distributional impacts of nationwide minimum wage changes. IZA Workshop: Labor Market Institutions. 22-23 September 2022. (Institute of Labor Economics (IZA), Bonn, Germany.) Also forthcoming in *Journal of Labor Economics.* 16 October 2023.

Giupponi, G., and S. Machin (2018). Changing the structure of minimum wages: firm adjustment and wage spillovers. Centre for Economic Performance Discussion Paper 1533 and CEPR: Discussion Paper DP12919. 21 March 2018. (London School of Economics and Centre for Economic Policy Research.)

Giupponi. G., S. Ray-Chaudhuri, and X. Xu (2024). How has the NLW affected pay differentials within firms? *Low Pay Commission Blog.* https://minimumwage.blog.gov.uk/2024/02/16/how-has-the-nlw-affected-pay-differentials-within-firms/ 16 February 2024. (Bocconi University; and Institute for Fiscal Studies.)

Gopalan, R., B. Hamilton, A. Kalda, and D. Sovich (2021) State minimum wages, employment, and wage spillovers: evidence from administrative payroll data. *Journal of Labor Economics*, 39 (3): 673-707. (University of Chicago Press.)

Griffiths, T-L., B. Jefferies, and C. Pullen (2024). Experiences and perceived impacts of the apprenticeship minimum wage: a qualitative scoping study. *Research Report for the Low Pay Commission*. 8 February 2024. (Sheffield Hallam University.)

Hampton, M., and E. Totty (2023). Minimum wages, retirement timing and labor supply *Journal of Public Economics.* 224 (104924). August 2023. (ScienceDirect; Elsevier.)

Harasztosi, P., and A. Lindner (2019). Who pays for the minimum wage? *American Economic Review*, 109(8): 2693–2727. August 2019.

HMRC (2023). *Consultation Outcome: Improving the data HMRC collects from its customers – Summary of Responses.* 27 April 2023.

HM Treasury (2015). *Summer Budget 2015*. HC 264. 8 July 2015.

HM Treasury (2018). *Budget 2018*. HC 1619. 29 October 2018.

HM Treasury (2023). *Forecasts for the UK economy: a comparison of independent forecasts November 2023*. 16 November 2023.

HM Treasury (ongoing). *Forecasts for the UK economy: a comparison of independent forecasts*. Monthly.

House of Commons Library (2023). *Has labour market data become less reliable?* House of Commons Library Insight from Brigid Francis-Devine. 30 October.

Hyslop, D., and S. Stillman (2004). Youth Minimum Wage Reform and the Labour Market. IZA Discussion Paper Series (1091). March 2004. (Institute of Labor Economics (IZA), Bonn, Germany.)

Irish Low Pay Commission (2022). Living Wage Report (2022). Report of the Low Pay Commission on progressing to a living wage. LPC No. 16 (2022). March 2022.

Joyce, R., and X. Xu (2020). *Sector shutdowns during the coronavirus crisis: which workers are most exposed?* IFS Briefing Note BN278. (Institute for Fiscal Studies.) 6 April 2020.

Joyce, R., F. Postel-Vinay, P. Spittal, and X. Xu (2022). *Job opportunities after the pandemic* IFS Briefing Note BN342. April 2022. (Institute for Fiscal Studies.)

Kabátek, J. (2015). *Happy Birthday, You're Fired! The effects of age-dependent minimum wages on youth employment flows in the Netherlands*. IZA Discussion Paper (9528). November 2015. (Institute of Labor Economics (IZA), Bonn, Germany.)

KMPG and Recruitment and Employment Confederation (ongoing). *Report on Jobs*. Monthly.

Kreiner, C. T., D. Reck, and P. E. Skov, (2020). 'Do lower minimum wages for young workers raise their employment? Evidence from a Danish discontinuity', *Review of Economics and Statistics*, 102 (2): 339-354. 1 May 2020. (Harvard University; MIT Press.)

Latimer, E. (2022). The impact of the National Living Wage on productivity. *Low Pay Commission Research Report.* Low Pay Commission. March 2022.

Lee, D. (1999). Wage Inequality in the United States During the 1980s: Rising Dispersion or Falling Minimum Wage? *The Quarterly Journal of Economics*, 114 (3): 977–1023. August 1999.

Lin, C., and M-S. Yin (2016). The effects of the minimum wage on earnings inequality: evidence from China. IZA Discussion Paper 9715. February 2016. (Institute of Labor Economics (IZA), Bonn, Germany.)

London Economics (2015). The impact of minimum wages on young people. *Research Report for the Low Pay Commission*. January 2015. (London Economics.)

London Economics (2022). Assessing the impact in the reduction in the age of eligibility to the National Living Wage (NLW) from 25 to 23. *Research Report for the Low Pay Commission*. December 2022. (London Economics.)

London Economics (2023). Machine-learning classification of minimum wage workers. *Research Report for the Low Pay Commission.* 14 October 2023. (London Economics.)

Lordan, G., and D. Neumark (2018). People vs machines: the impact of minimum wages on automatable jobs. Labour Economics, 52: 40-53. June 2018. (Elsevier.)

Low Pay Commission (1998). *The National Minimum Wage: First Report of the Low Pay Commission*. Cm 3976. June 1998.

Low Pay Commission (2000). *The National Minimum Wage: The story so far.* Second Report of the Low Pay Commission. Cm 4571. February 2000.

Low Pay Commission (2003). *The National Minimum Wage: Building on success.* Fourth Report of the Low Pay Commission. Cm 5768. March 2003.

Low Pay Commission (2015). *National Minimum Wage: Low Pay Commission Report 2015.* Cm 9017. 17 March 2015.

Low Pay Commission (2018). *A response to government on 'one-sided flexibility'*. Low Pay Commission Report. 17 December 2018.

Low Pay Commission (2019a). *A review of the youth rates of the National Minimum Wage*. Low Pay Commission Report. 4 November 2019.

Low Pay Commission (2019b). *The National Living Wage beyond 2020*. Low Pay Commission Report. 4 November 2019.

Low Pay Commission (2019c). *National Minimum Wage: Low Pay Commission Report 2019*. CP206. 10 January 2020.

Low Pay Commission (2020). *National Minimum Wage: Low Pay Commission Report 2020*. CP327. December 2020.

Low Pay Commission (2021). *National Minimum Wage: Low Pay Commission Report 2021*. CP565. December 2021.

Low Pay Commission. (2022a). *The National Minimum Wage in 2022*. Low Pay Commission Report. 1 April 2022.

Low Pay Commission (2022b). *National Living Wage Review*. Low Pay Commission Report. 18 May 2022.

Low Pay Commission (2022c). National Minimum Wage: Low Pay Commission Report 2022. CP758. January 2023.

Low Pay Commission (2023a). *The National Minimum Wage in 2023 and forecast National Living Wage in 2024*. Low Pay Commission Report. 23 March 2023.

Low Pay Commission (2023b). Low-paying sectors review. *Low Pay Commission Blog*. https://minimumwage.blog.gov.uk/2023/09/11/the-lpc-has-updated-its-definitions-of-low-paying-sectors/ 11 September 2023.

Low Pay Commission (2023c). *Compliance and enforcement of the National Minimum Wage.* 13 September 2023. https://www.gov.uk/government/publications/compliance-and-enforcement-of-the-national-minimum-wage

Low Pay Commission (2023d). Low Pay Commission summary of evidence 2023. 21 November 2023.

Manning, A. (2021). The elusive employment effect of the minimum wage. *Journal of Economic Perspectives*, 35(1): 3–26. Winter 2021

Mano, R., and M. Castillo (2015). *Level of productivity in traded and non—traded sectors for a large panel of countries.* IMF Working Paper WP/15/48. February 2015. (International Monetary Fund.)

Maré, D., and D. Hyslop (2021). *Minimum wages in New Zealand: Policy and practice in the 21st century*. Motu working paper 21-03. March 2021. (Motu Economic and Public Policy Research.)

Mian, A., and A. Sufi (2011). House prices, home equity-based borrowing, and the U.S. household leverage crisis. *American Economic Review*, 101 (5): 2132-2156. August 2011.

National Audit Office (2016). Ensuring employers comply with National Minimum Wage regulations. Report by the Comptroller and Auditor General. HC 889. Session 2015-16. 11 May 2016.

Neumark, D., W. Cunningham, and L. Siga (2006). The effects of the minimum wage in Brazil on the distribution of family incomes: 1996–2001. *Journal of Development Economics,* 80 (1): 136-159. June 2006. (Elsevier.)

Neumark, D., M. Schweitzer, and W. Wascher (2005). The effects of minimum wages on the distribution of family incomes: a nonparametric analysis. *The Journal of Human Resources,* 40 (4): 867-894. Autumn 2005. (University of Wisconsin Press.)

Neumark, D., and P. Shirley (2022). Myth or measurement: What does the new minimum wage research say about minimum wages and job loss in the United States? *Industrial Relations: A Journal of Economy and Society,* 61 (4): 384-417. October 2022. (Wiley.)

Office for Budget Responsibility (2015). *Economic and fiscal outlook: July 2015*. Cm 9088. 8 July 2015.

Office for Budget Responsibility (2023). *Economic and fiscal outlook: November 2023*. CP944. 22 November 2023.

Office for Budget Responsibility (ongoing). *Economic and fiscal outlook.* Twice a year.

Office for National Statistics (2023a). *Partial rescheduling of UK labour market statistics publication*. 13 October 2023.

Office for National Statistics (2023b). *Operational note – labour market statistics*. ONS Statement and Letters. 24 October 2023.

Office for National Statistics (2023c). *Update on the Labour Force Survey*. ONS Statement and Letters. 5 December 2023.

Office for National Statistics (ongoing). *Average weekly earnings in Great Britain*. Monthly.

Office for National Statistics (ongoing). *Annual Survey of Hours and Earnings (ASHE)*. Annual.

Office for National Statistics (ongoing). *Labour Force Survey (LFS)*. Quarterly.

Office for National Statistics (ongoing). *Business demography*. Annually.

Office for National Statistics (ongoing). *Business Insights and Conditions Survey*. Fortnightly.

Office for National Statistics (ongoing). *Earnings and employment from Pay As You Earn Real Time Information, UK*. Monthly.

Office for National Statistics (ongoing). *Employment in the UK*. Monthly.

Office for National Statistics (ongoing). *GDP first quarterly estimate, UK*. Quarterly.

Office for National Statistics (ongoing). *GDP monthly estimate, UK*. Monthly.

Office for National Statistics (ongoing). *Labour market overview*. Monthly.

Office for National Statistics (ongoing). *GDP Quarterly National Accounts, UK*. Quarterly.

Organisation for Economic Cooperation and Development (2022). *OECD Employment Outlook 2022. Building back more inclusive labour markets.* 9 September 2022.

Organisation for Economic Cooperation and Development (2023a). *OECD Employment Outlook 2023: Artificial intelligence and the labour market.* 11 July 2023.

Organisation for Economic Cooperation and Development (2023b). *Part-time employment rate (indicator)*. doi: 10.1787/f2ad596c-en (Accessed on 21 December 2023).

Organisation for Economic Cooperation and Development (ongoing). *Minimum relative to average wages of full-time workers*. OECDStat.

Organisation for Economic Cooperation and Development (ongoing). *Real minimum wages*. OECDStat.

Ostry, J., A. Berg, and C. Tsangarides (2014). *Redistribution, inequality, and growth*. IMF Staff Discussion Note SDN/14/02. February 2014. (International Monetary Fund.)

Papps, K. (2020). *How the minimum wage affects training among apprentices*. IZA Discussion Paper No. 13499. 29 July 2020. (University of Bradford; Institute of Labor Economics (IZA), Bonn, Germany.)

Recruitment and Employment Confederation (ongoing). JobsOutlook. Monthly.

Regan, E., and T. Richmond (2022). *No train, no gain: An investigation into the quality of apprenticeships in England*. November 2022. (EDSK.)

Sabia, J. (2015). Minimum wages and gross domestic product. *Contemporary Economic Policy*, 33 (4): 587-605. October 2015. (Wiley; Western Economic Association International).

Schanzenbach, D., J. Turner, and S. Turner (2023). *Raising state minimum wages, lowering community college enrollment.* NBER Working Paper 31540. August 2023. (National Bureau of Economic Research.)

Skills Development Scotland (2022). Modern Apprenticeship Statistics, Quarter 2, 2023/24 [1 April-29 September]. 7 November 2023.

Solt, F. (2009). Standardizing the World Income Inequality Database. *Social Science Quarterly,* 90 (2): 231-242. June 2009. (Wiley-Blackwall; Southwestern Social Science Association.)

Sumption, M., C. Forde, G. Alberti, and P. Walsh (2022). *How is the end of free movement affecting the low-wage labour force in the UK?* 15 August 2022. (Migration Observatory, University of Oxford.)

Taylor Review (2017). *Good Work: The Taylor Review of modern working practices*. Department for Business, Energy and Industrial Strategy. 11 July 2017.

van Bezooijen, E., W. van den Berge, and A. Salomons (2021). *The young bunch: Youth minimum wages and labor market outcomes*. CPB Discussion Paper. April 2021. (Het Centraal Planbureau (CPB) Netherlands Bureau for Economic Policy Analysis.)

van der Westhuizen, D. (2022). *Effects of minimum wage increases on teenage employment: Survey versus administrative data*. Auckland University of Technology (AUT) Economics Working Paper Series 2022/03. March 2022. (Auckland University of Technology.)

Wage Indicator (2023). *Minimum Wages*. 19 December 2023. https://wageindicator.org/salary/minimum-wage

Welsh Government. (2022). *Apprenticeship learning programmes started: February to April 2023 (provisional)*. 23 November 2023.

Wilson, C. (2020). Estimating the impact of minimum wages on prices. *Research Report for the Low Pay Commission*. 30 September 2020. (Frontier Economics.)

YouGov (2023). Perceived barriers and risks of job mobility and progression of low-paid workers. *Research Report for the Low Pay Commission*. December 2023. (YouGov.)