

National Minimum Wage

Low Pay Commission Report 2023



National Minimum Wage Low Pay Commission Report 2023

Presented to Parliament by the Secretary of State for Department of Business and Trade by Command of His Majesty

March 2024

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Contents

Contents	iii
Introduction	iv
The Commissioners	vi
The Government's remit to the Low Pay Commission	viii
Executive summary	x
Recommendations	xiv
List of Figures	xv
List of Tables	xix
Chapter 1: Economic context and outlook	1
Chapter 2: The Labour Market	
Chapter 3: Who are minimum wage workers?	
Chapter 4: The National Living Wage	75
Chapter 5: Youth rates	
Chapter 6: Apprenticeships	
Chapter 7: Employer responses to the minimum wage	
Chapter 8: Compliance and enforcement and the accommodation offset	
Chapter 9: The path of the National Living Wage	
Chpater 10: Recommendations	
Appendix 1: Consultation respondents	
Appendix 2: Research evidence	
Appendix 3: Main data sources	211
Appendix 4; International minimum wages	
Appendix 5: Previous LPC recommendations	
References	

Introduction

1 We, the Low Pay Commission (LPC), are the independent body that advises the Government on the levels of the National Minimum Wage (NMW), including the National Living Wage (NLW). This report – our 25th – provides the evidence and rationale behind our recommendations that apply from 1 April 2024. The Government announced its acceptance of our recommendations on Tuesday 21 November, the day before the Autumn Statement.

2 Our recommendations reflect a consensus between all members of the Commission, including representatives of workers, employers, and labour market experts, reached through careful consideration and discussion of the available evidence. However, this task was made more difficult this year by the fact that only two of the three worker Commissioners were in post at the time of the Retreat, where we agreed our recommendations. This position has been vacant since the beginning of 2023. This is the first time in the Low Pay Commission's history that we did not have a full complement of nine Commissioners. We urge the Government to avoid this happening again.

3 Since 2020, the Government has set our remit for the NLW to recommend a rate consistent with reaching the target of two-thirds of median hourly earnings by October 2024. Our job is to plot the path to this target, monitor the effects as we go and advise on any risks. Our NLW recommendation this year is historic, we anticipate it will enable the Government to reach an ambition it first mooted in 2018.

4 Also, 21-22 year olds become eligible for the NLW for the first time in April 2024, fulfilling a recommendation we first made in 2019. For the other rates of the NMW, our remit remains to recommend as high a rate as possible without damaging the employment prospects of each group affected.

5 Our remit this year included some further tasks. As last year, we were asked to consider the impact of minimum wages on different parts of the country; and on different groups of workers with protected characteristics.

6 We submitted our recommendations to the Government on Friday 20 October 2023. The evidence we present and the conclusions we draw are based on information available up to Wednesday 18 October, when we met to agree our recommendations. We do not include data and forecasts published after this point.

7 The Labour Force Survey (LFS), a key source of information on the labour market suffered a significant decline in reliability over 2023. This weakening of the LFS as a source of information had some implications for our analysis (including our in-house econometric research). The sharp fall in response rate became particularly evident from August 2023, and led to the ONS cancelling publication of its LFS data in the Labour Market Statistics Bulletin in October.

8 Much of our analysis in this report uses LFS microdata up to the second quarter of 2023. That is considered by ONS as reliable. However, measures of employment from other sources had diverged from the trends in LFS since the onset of the pandemic. There were also issues with some groups, such as young people, for whom response rates had already become problematic due to small sample sizes. We have been able to supplement our LFS analysis with additional data kindly provided to us by HMRC from their payroll data. Our overall view is that the LFS is likely understating the performance of the labour market.

9 Although there were data issues, we were able to undertake econometric analysis of the initial impacts of the most recent NLW and NMW increases. Our internal econometric analysis is summarised alongside other research in Appendix 2 and will be published in full in the near future.

10 We received 63 written consultation responses and met with more than one hundred businesses, unions, workers and other bodies across the UK. As ever, we are grateful to all those groups and individuals who contributed to this year's evidence-gathering process. Appendix 1 lists those stakeholders who responded to our consultation and whom we met over the year, and who agreed to be listed.

11 This report is structured as follows:

- Chapter 1 sets out the state of the UK economy at the time we made our recommendations.
- Chapter 2 considers recent developments in the labour market.
- Chapter 3 looks in more detail at who NLW and NMW workers are and their experiences in and out of the workplace.
- Chapter 4 looks at the strength of the labour market for workers eligible for the NLW.
- Chapters 5 and 6 do the same as Chapter 4, but for younger workers affected by the age rates of the NMW and apprentices respectively.
- Chapter 7 then looks at other ways employers have responded to the rising minimum wage, including through rising prices.
- Chapter 8 considers the workings of the minimum wage, including our review of the Accommodation Offset and certain aspects of compliance and enforcement.
- Chapter 9 discusses the path of the NLW to 2024, including stakeholder views on the twothirds target.
- Chapter 10 sets out recommendations and their rationale.

12 There are several appendices covering consultation responses, commissioned research, data sources, international minimum wage comparisons and previous LPC recommendations.

The Commissioners

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Kate Bell Assistant General Secretary, Trades Union Congress

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

The Government's remit to the Low Pay Commission

This text is reproduced from the Government's remit for the Low Pay Commission, which can be found here (DBT, 2023b)

The government wants to make the UK the best place possible to live and work. Making work pay for the lowest earners in our society is a core part of our commitment. This April, increases to the National Living Wage and National Minimum Wage rates are expected to boost the wages of over 2 and a half million low-paid workers.

The National Living Wage was introduced in April 2016, and in 2019, the government set a target for the National Living Wage to reach two-thirds of median earnings by 2024 for workers aged 21 and over, taking economic conditions into account. We have also issued the Low Pay Commission with a remit asking them to gather evidence to inform future decisions on low pay.

Having accepted the Low Pay Commission's recommendations in full, on 1 April 2023 the National Living Wage will increase by 9.7 per cent to £10.42 an hour, applicable for workers aged 23 and over. The government is also introducing increases between 9.7 per cent and 10.9 per cent to each of the National Minimum Wage rates for younger workers and apprentices.

1. National Living Wage and National Minimum Wage rates

The labour market is strong, delivering close to record low unemployment, but workers and employers continue to face the challenge of high inflation and squeezed incomes in real terms.

In this context, the government asks the Low Pay Commission to monitor and evaluate the National Living Wage and recommend the rate which should apply from April 2024 in order to reach two-thirds of median earnings (of those eligible for the National Living Wage) in 2024, taking economic conditions into account. We are committed to lowering the age threshold for the National Living Wage to aged 21 and over by 2024. We therefore ask the Low Pay Commission to recommend a National Living Wage rate applying to those aged 21 and over.

The government asks the Low Pay Commission to closely monitor developments in the labour market, including the impact of increases to the minimum wage rates, and advise on emerging risks. The government remains committed to the 2024 target, but 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.

The government notes that the Low Pay Commission will continue to expand its evaluation capabilities and commission minimum wage research from leading experts, using new methods and sources of evidence for its assessment of the impact of the National Living Wage.

The government also asks the Low Pay Commission to monitor and evaluate the levels of each of the different National Minimum Wage rates (aged 17 and under, 18 to 20 age groups, and apprentice rate) and make recommendations on the increases it believes should apply from April 2024, such that the rates are set as high as possible without damaging the employment prospects of each group. In addition, we ask the Low Pay Commission to recommend the accommodation offset rate that should apply from April 2024.

To further expand the evidence base, the government asks the Low Pay Commission to continue to gather particular evidence on groups of low paid workers with protected characteristics. As identified in the government's impact assessment, groups more likely to be affected by changes to the minimum wage rates include younger, older, disabled, women, and ethnic minority workers.

Additionally, we ask the Low Pay Commission to continue to gather evidence on the differing impact across the United Kingdom of increases to the minimum wage rates, to inform how the minimum wage contributes to the mission to improve pay, employment, and productivity in all areas of the UK.

In making its recommendations for the minimum wage rates, the Low Pay Commission is asked to take into account the state of the economy, employment and unemployment levels and the wider labour market, business impacts, and relevant policy changes.

2. Timing

The Low Pay Commission is asked to provide a final report in response to this remit to the Prime Minister and the Secretary of State for Business and Trade by the end of October 2023.

Executive summary

1 The task of the Low Pay Commission (LPC) is to advise the Government on the levels of the National Minimum Wage (NMW), including the National Living Wage (NLW). This report, our 25th, contains the evidence and rationale for our recommendations to apply from April 2024. We met to agree our recommendations on 18-20 October 2023.

2 Our remit from Government is to recommend increases that raise the NLW up to two-thirds of median hourly earnings of those aged 21 and over by 2024. So, our NLW recommendation determines whether we hit the target or not.

3 In providing this advice, Government asked us to 'closely monitor developments in the labour market, including the impact of increases to the minimum wage rates, and advise on emerging risks'. The remit notes that 'if the economic evidence warrants it, the Low Pay Commission should advise the government to review the target or its timeframe'. The Government refers to this as an 'emergency brake', the purpose of which is 'ensuring that the lowest-paid workers continue to see pay rises without significant risks to their employment prospects'. For the other rates of the NMW, for younger workers and apprentices, our remit remains as always: to recommend as high a rate as possible without damaging the employment prospects of each group.

4 In our previous report, we recommended significant increases in the NLW and the youth rates for April 2023. This was because the high levels of demand for workers combined with record inflation to drive wages, and therefore our target, higher. We anticipated that our recommended 9.7 per cent increase to £10.42 would mean a smaller increase of around 6 per cent would be needed to hit the target in 2024. Since then though the economic situation has changed, with wage settlements continuing to be higher for longer, such that larger increases in the NLW are now required to hit the target of two-thirds of median hourly earnings.

The economy

5 In 2022 the principal economic factor was double digit inflation, driven primarily by energy costs. This caused a cost-of-living crisis and prompted the Bank of England to increase interest rates to their highest level for years. Inflation peaked in late 2022 and declined throughout 2023. Though it remained above the Bank of England's target and pre-pandemic levels at the time we submitted our advice in October 2023.

6 The combination of inflation reducing real incomes and interest rates raising borrowing costs have weakened economic growth. Despite revisions to GDP data showing the economy recovered faster from the pandemic than previously thought, the level of monthly GDP has barely changed in the year to August 2023.

7 UK GDP is forecast to grow at around 0.5 per cent in both 2023 and 2024. This is lower than prepandemic growth and far lower than the 2.5-3 per cent norm before the financial crisis. The UK is expected to have some of the weakest growth in the G7 in the next year or so.

8 And yet despite this weakness in GDP, the labour market appears resilient at the time of our decision making retreat (October 2023). Even with steady falls in the vacancy rate since spring 2022, it remains above pre-pandemic norms and employers still complain of staff shortages. Despite weak economic growth, unemployment is expected to rise slightly but stay at historic lows. However, understanding the state of the labour market has been made more difficult by a collapse in the response rate to the main source of data on employment, the Labour Force Survey (LFS). Our view is that the headline figures from the LFS are likely understating the labour market's current performance.

Low-paid workers

9 These tight labour market conditions are apparent in the lower paying part of the labour market. As the NLW moves up the wage distribution we would expect, all other things being equal, coverage (the number of jobs paid at or below the rate) to rise. Instead, it fell for the second year in a row in 2023. We also still see more NLW workers moving off the wage floor into better pay in the year to April 2023 than before the pandemic – suggesting more outside options for low-paid workers.

10 Young workers have also benefitted from the tight labour market. They continued to see robust growth in their median hourly pay into 2023, with 18-20 year olds' wages growing more than all other age groups. Even with 2023's large increases in the youth minimum wage rates, young people's median pay has risen faster than minimum wages since 2016. This means the bite of the youth rates (their value relative to the median) fell over the same period. As with adults, use of the youth rates remains below pre-pandemic levels, particularly in the low-paying industries where firms are more likely to report worker shortages.

11 These findings are consistent with a competitive low-paid labour market. Employers need to pay above the minimum to attract and retain workers. We have found little evidence to suggest the minimum wage has reduced average hours or the number of jobs in the low-paid labour market.

12 From worker representatives we heard that recent increases in the NLW had not kept pace with the cost of living and that there was growing hardship. We heard accounts of food bank usage and rising indebtedness, as targeted government support introduced last year began to fall away. Workers in low-paying industries continued to tell us they struggled to secure sufficient regular hours; for many, the unpredictability of their working time exacerbated their financial challenges.

Employer responses to the NLW

13 Small and medium-sized businesses reported the greatest concerns with the state of the economy. They were more worried than other businesses about their financial resilience and becoming insolvent. Small businesses told us they faced progressively more difficult choices in how they responded to each year's minimum wage uprating. Firms in low-paying sectors were more worried about reduced consumer demand, costs of energy and the cost of labour than firms in other sectors.

As in 2022, businesses felt pressured to pass NLW increases onto consumers. More were worried in 2023 that they were reaching a limit in what they could pass through without undermining demand. And there remain large low-paying sectors – social care and childcare in particular – where employers' ability to pass costs on is highly constrained. The pressure from the rising NLW on pay structures continued to be a prime source of concern and a challenge for affordability: employers face a choice between allowing differentials to narrow or delivering large across-the-board pay increases. The consistent story we heard from employers of NLW workers was one of difficulty in recruiting.

Apprentices

15 We recently aligned the Apprentice Rate (AR) with that for 16-17 year olds. This involved a large increase in the AR. Despite this, the evidence suggests use of the rate actually fell over the last year. This again likely reflects the tight labour market but also the ongoing shift towards older apprentices studying at a higher level.

16 Many stakeholders continue to tell us that the Apprentice Rate is too low. Both employer and worker representatives told us it discourages young people from choosing apprenticeships. Despite this, there remain sectors where the rate is widely used, or where employers value the flexibility it enables. Although the share of eligible workers paid the rate has fallen, it remains higher than for other NMW rates. We also estimate that between 30 and 40 per cent of apprentices aged 18-22 are currently paid below the age-related NMW they would be entitled to if not an apprentice.

17 There was widespread support for removing the Apprentice Rate. However, as with the youth rates we are considering the long-term need for the distinct treatment of apprentices and we think it important to look at these questions in tandem as part of our advice on the post 2024 framework.

Recommendations

18 We recommend an NLW rate of £11.44 for those aged 21 and above. We expect this increase will meet the Government's target of two-thirds of median earnings for those aged 21 and over by 2024. We also believe this substantial increase will restore the real value that has been eroded through the recent cost of living crisis. Our judgement is that this increase will not significantly risk employment prospects.

19 We are conscious that this rate is above the range in our projections published in spring 2023. This reflects the strengthening in both measured pay and forecasts of pay that we use to calculate the target since that point. These forecasts, as noted above, are subject to greater uncertainty than usual and as we considered our recommendations the level of uncertainty was increasing. We discuss this in detail in Chapter 10.

20 It is important to remember that the LPC's recommendations are not purely formulaic. Predicting the rate needed to hit the target is difficult and involves a number of uncertain factors, particularly given recent data issues. Navigating these to arrive at a recommendation that works for the economy and the labour market requires careful judgement. **21** Lowering the age of eligibility to the NLW to 21 completes a recommendation we first made in 2019 (Low Pay Commission, 2019a). Workers aged 21 and 22 will see their wage floor increase by 12.4 per cent as they move from the temporary rate for 21-22 year olds to the NLW.

22 In making our recommendations on youth rates, Commissioners were conscious that the gap between the youth rates and the NLW had widened in recent years. There was a consensus that this should be addressed. Several stakeholders – some employers as well as unions and youth groups – argued this gap had become too large. Our recommended rates for 2024 will go some way to closing the gap.

23 16-17 year olds saw a significant boost to their employment in the aftermath of the pandemic. Some of that has now unwound, but their employment remains above pre-pandemic levels. Rapid growth in median pay relative to their minimum wage means the bite of the minimum wage has fallen. Coverage is up a little for this group in 2023, but still below pre-pandemic levels. For this group we recommend an increase of £1.12 or 21.2 per cent to £6.40.

A range of data sources for 18-20 year olds suggest employment is above pre-pandemic levels (albeit not to the same extent as for 16-17 year olds) and there has been a slight rise in unemployment and inactivity. This may be affected by LFS issues. More encouragingly, this group saw the strongest median pay growth of any age group and their coverage fell again, making it the lowest of the youth populations. More than 60 per cent are paid at the NLW or above (in 2019 it was 55 per cent). For this group we recommend an increase of £1.11 or 14.8 per cent to £8.60.

25 Commissioners recognise that these are ambitious increases for young people, which carry some risks. But as noted above, the youth labour market appears strong and without a substantial increase the wage floor for young people risks being cut adrift from prevailing wage rates in the labour market.

26 Last year we reviewed the Accommodation Offset. Among other recommendations, we noted that "The value of the offset as a proportion of the NLW will not increase significantly until we have some assurance that there are robust minimum standards in place for accommodation quality and that these are enforced." We have not seen progress towards the quality standards which would enable us to take a more positive view on the offset. So, in the meantime we recommend increasing the offset in line with the NLW, i.e. 9.8 per cent to £9.99.

Recommendations

The National Living Wage and other minimum wage rates

We recommend that the following rates apply from 1 April 2024:

2024 rate		Annual increase (pence)	Annual increase (per cent)		
National Living Wage (21 and over)	£11.44	£1.02	9.8		
18-20 Year Old Rate	£8.60	£1.11	14.8		
16-17 Year Old Rate	£6.40	£1.12	21.2		
Apprentice Rate	£6.40	£1.12	21.2		
Accommodation Offset	£9.99	£0.89	9.8		

List of Figures

Figure 1.1: Contributions to consumer price (CPI) inflation, UK, 2020-2023	4
Figure 1.2: Producer price inflation, UK, 2000-2023	5
Figure 1.3: Factors affecting firms raising prices, 2022-2023	6
Figure 1.4: Evolution of inflation forecasts in 2023 and 2024, UK, 2020-2026	7
Figure 1.5: Comparison of recoveries from recent recessions, 1979-2023	8
Figure 1.6: Expenditure components of GDP, UK, 2019-2023	9
Figure 1.7: Comparison of economic recoveries from recent recessions, by expenditure componen GDP, UK, 1979-2023	
Figure 1.8: Real disposable household income, spending and savings, UK, 2019-2023	11
Figure 1.9: Gross value added, by selected sector, UK, 2020-2023	12
Figure 1.10: Consumer confidence, UK, 2008-2023	13
Figure 1.11: Profit share, UK, 1958-2023	15
Figure 1.12: Bank of England Agents' scores for credit availability, by size of firm, 2015-2023	16
Figure 1.13: Share of firms with low or no confidence of meeting debt obligations by firm size, 202 2023	
Figure 1.14: Firms reporting a moderate or severe risk of insolvency	18
Figure 1.15: Business confidence, 2005-2023	19
Figure 1.16: Investment intentions and profit margins	20
Figure 1.17: International comparisons of actual and forecast GDP growth, 2019-2024	21
Figure 2.1: Growth in LFS employees, Employee jobs and PAYE RTI, UK, 2017-2023	27
Figure 2.2: Change in LFS employees and PAYE RTI by nationality, 2019 Q4 – 2022 Q4	27
Figure 2.3: Growth in PAYE RTI employees by age, UK, 2014-2023	29
Figure 2.4: PAYE RTI employees by nation and region, UK, 2017-2023	30
Figure 2.5: PAYE RTI employees by industry, UK, 2017-2023	31
Figure 2.6: Change in vacancies since February 2020	32
Figure 2.7: Worker shortages by low-paying and non-low paying sectors, BICS, UK, 2021-2023	33
Figure 2.8: Ease of hiring new employees compared to normal, DMP, UK, 2021-2023	33
Figure 2.9: Worker shortages by sector, BICS, UK, 2021-2023	34
Figure 2.10: 'Worker' visas granted to main applicants, year ending June 2019 - June 2023	36

Figure 2.11: 'Temporary Worker' visas granted to main applicants, year ending June 2019 - June 2023	36
Figure 2.12: Inactivity level and rate, UK, 2008-2023	. 37
Figure 2.13: Net change in inactivity levels since February 2020 by age and gender, UK, 2020-2023	. 38
Figure 2.14: Change in inactivity since February 2020 by reason and gender, UK	. 39
Figure 2.15: HR1 potential redundancy notifications and BICS planned redundancies, UK, 2019-2023	. 40
Figure 2.16: Share of firms forecasting redundancies in next three months by firm size, UK, 2020-2023	
Figure 2.17: Unemployment level and rate, UK, 2008-2023	
Figure 2.18: Beveridge Curve: vacancy and unemployment rates, UK, 2001-2023	
Figure 2.19: Average Weekly Earnings (AWE) total pay growth, PAYE RTI median of monthly pay grow and forecasts of AWE total pay growth, 2015-2024	
Figure 2.20: Pay settlements, UK, 2005-2023	. 44
Figure 2.21: Real Average Weekly Earnings total and regular pay, GB, 2001-2023	. 45
Figure 3.1: Number and per cent of jobs paid at or below the minimum wage, UK, 2013-2023	. 48
Figure 3.2: Per cent of jobs within 50p or £1 of the adult NMW/NLW, 2012-2023, UK	. 50
Figure 3.3: Per cent of employee jobs covered by the relevant NMW/NLW rate, by personal and job characteristics, UK, 2019 and 2023	. 52
Figure 3.4: Total coverage by ethnicity, 2016-2023, UK	53
Figure 3.5: Total coverage by country of birth, 2016-2023, UK	. 53
Figure 3.6: Total coverage by qualifications and disability, 2016-2023, UK	. 54
Figure 3.7: Local Authority NLW coverage on workplace [LHS] and residence basis [RHS], 2023, UK	. 56
Figure 3.8: Share of minimum wage coverage by mode of transport, 2015-2022, UK	. 57
Figure 3.9: Coverage rate by mode of transport, 2015-2022	. 57
Figure 3.10: Per cent of employee jobs low-paid, by hourly or weekly pay, UK, 2011-2023	. 59
Figure 3.11: Nominal growth in mean hourly pay and weekly pay by hourly pay deciles, 23+, UK, 2022 2023	
Figure 3.12: Per cent of employee jobs low-paid, by age group and hourly and weekly pay, UK, 2011-2023.	. 61
Figure 3.13: Per cent of employee jobs on low hourly pay, by gender and hourly and weekly pay, UK, 2011-2023	. 62
Figure 4.1: Bite and Coverage Rate of the adult National Minimum Wage, UK, 25+, 1999-2023	. 77
Figure 4.2: Per cent growth in hourly pay percentiles and NLW, UK, 23+, 2022-2023	. 78
Figure 4.3: How employers report changing pay differentials in response to the NLW?	. 79
Figure 4.4: Share of adult NMW/NLW workers escaping the NLW in following year, UK, 2013-2023, (only includes workers employed for two consecutive years)	. 81

Figure 4.5: Bite and coverage rate in low-paying industries, UK, 23+, 2022-23
Figure 4.6: Employees by industry, UK, 23+, 2022-23
Figure 4.7: Change in average hours, selected industries, UK, 2019-2023
Figure 4.8: Share of workers in different measures of precarious work, total and in low-paying industries (LP), UK, 2014-2023
Figure 4.9: Share of jobs paid at or below the National Living Wage, by employer size, private sector, aged 25+, UK, 2012-2023
Figure 4.10: Private sector employees index (2019=100), by firm size, UK, 2012-2023
Figure 4.11: Change in employment rates, by age and qualification level, 2019 Q2 -2023 Q2, UK91
Figure 4.12: Employee growth (2022 Q2 – 2023 Q2) and coverage rates (2022) by local authority, UK 92
Figure 5.1: Employee numbers compared to August 2019, by age, 2015-2023
Figure 5.2: Projected change in population compared to change in employee numbers, 2019-2023 98
Figure 5.3: Share of young people who have never had a job, 16-17 year olds (LHS) and 18-20 year olds (RHS), 2016-2023
Figure 5.4: Growth in median hourly wages, 2022-2023 (LHS) and cumulative growth in median and minimum wages, 2016-2023 (RHS)
Figure 5.5: Cumulative growth in median and minimum wages, 2016-2023, 16-17 year olds (LHS) and 18-20 year olds (RHS)
Figure 5.6: Coverage of different rates of the minimum wage, 2016-2023
Figure 5.7: Minimum wages for 16-20 year olds as a share of the adult rate, 1999-2023
Figure 5.8: Coverage rates for 16-20 year olds in low-paying and other industries, 2016-2023 (LHS) and change in coverage rates for 16-20 year olds in the largest low-paying industries, 2019-2023 (RHS) 104
Figure 5.9: Coverage of own minimum wage rates and higher rates, 16-20 year olds, 2019, 2022 and 2023
Figure 5.10: Change in employee numbers and projected change in population, 21-24 year olds 106
Figure 5.11: Coverage of the minimum wage (LHS) and bite of the NLW and NMW (RHS), 21-22 year olds, 2019-2023, compared to 23-24 year olds in 2019
Figure 5.12: Coverage of age-related minimum wage and NLW, 21-22 year olds, 2019 and 2023 108
Figure 6.1: Growth in apprentice median pay, by age and year of apprenticeship, 2019-2023 115
Figure 6.2: Apprentice median wages (LHS) and difference from non-apprentice minimum wage (RHS), by detailed age and year of apprenticeship, 2019 and 2023
Figure 6.3: Bite of the Apprentice Rate by age and year of apprenticeship compared to the bite of age- related minimum wages for 16-17 and 21-22 year old non-apprentices, 2013-2023
Figure 6.4: Apprentice coverage by age and year of apprenticeship, 2019-2023
Figure 6.5: Coverage and effective coverage of the Apprentice Rate (AR), by age and year of apprenticeship, 2022-2023

Figure 6.6: Apprenticeship starts by level (LHS) and age (RHS), England, 2017/18-2022/23 1	19
Figure 6.7: Vacancies advertised on Find an Apprenticeship site, England, 2020-2023 1	20
Figure 6.8: Modern apprenticeship starts, by level (LHS) and age (RHS), Scotland, 2019-2023 1	20
Figure 6.9: Apprenticeship starts by level (LHS) and age (RHS), Northern Ireland, 2017-2022 1	21
Figure 6.10: Apprenticeship starts by level (LHS) and age (RHS), Wales, 2017-2023 1	21
Figure 6.11: Achievement rates by level (LHS) and IMD quintile (RHS), England, 2019-2022 1	22
Figure 7.1: Responses to NLW increases among surveyed employers, CBI (left panel), FSB (centre panel), CIPD (right panel), 2021-2023	30
Figure 7.2: Annual inflation of food and non-food items, by exposure to the minimum wage 1	33
Figure 7.3: Actions taken to improve productivity in response to NLW increases, 2023 1	34
Figure 8.1: LFS underpayment totals by rate population, UK, 2016-2023	43
Figure 8.2: LFS and ASHE underpayment as a share of coverage, UK, 2016-2023	44
Figure 9.1: Projection of the median hourly earnings, 2022-2024	57
Figure 9.2: Change in our central projection of the NLW in 2024, January 2020-October 2023 1	61
Figure 10.1: Minimum wage coverage by age, 21+, 2011-20231	72
Figure A3.2: LFS sample sizes for 16-24 year olds	222
Figure A3.3: Comparisons of LFS with RTI for 16-22 year olds	23
Figure A4.1: Comparison of minimum wage changes in national currency, 2022-2023	235
Figure A4.2: Comparison of international minimum wages adjusted for purchasing power parity, OECD 2022	
Figure A4.3: Change in the real value of minimum wages, 2021-2022	237
Figure A4.4: Change in real value of the minimum wage across OECD countries, 2015-2022	238
Figure A4.5: Comparison of international minimum wages relative to average median wages of full-tim workers, 2022	ne 239
Figure A4.6: Change in international minimum wages relative to average median wages of full-time workers, 2015-2022	240

List of Tables

Table 1.1: Forecasts available in mid-October 2022 for GDP growth, CPI inflation and average wagegrowth, 2022-232
Table 1.2: GDP and CPI inflation forecasts, 2023-2024
Table 3.1: Number and per cent of employee jobs covered by the minimum wage, by rate population,UK, 2019, 2022 and 2023
Table 3.2: Number and per cent of employee jobs covered, by age group and gender, UK, 2019, 2022and 202351
Table 3.3: Number and per cent of employee jobs covered, by low-paying occupation, UK, 2019, 2022and 202355
Table 3.4: Per cent of employee jobs by hourly and weekly pay decile, UK, 2023
Table 4.1: Employment rates and Coverage Rates, by personal characteristics, aged 23-64, UK, 2019-2023
Table 8.1: Number and per cent of employee jobs paid below the minimum wage, by rate population,UK, 2019, 2022 and 2023
Table 9.1: Wage growth forecasts, 2023-2024
Table 9.2: Evolution of the projected path of the NLW, 2020-2023
Table 10.1: Median hourly pay and bite projections, by rate populations, UK, 2023-2024
Table 10.2: Projections for the number and jobs covered, UK, by NMW rate
Table 10.3: Projected value of the NMW/NLW for different rate populations, cash and real terms 172
Table 10.4: Household incomes for two examples households with a NLW worker, 2023/24-2024/25 174
Table A2.1: Research for the 2023 Report
Table A2.2: Low Pay Commission in-house research 208
Table A3.1: Chain-linked and non-chain-linked estimates of median, coverage rate and underpaymentrate, by rate population, 2015-2019216
Table A3.2: Low-paying industries and occupation definition

List of Tables

Chapter 1 Economic context and outlook

Key findings

- Inflation and costs were at the front of stakeholders' minds. Inflation has started to fall but remains high. Forecasters expect inflation to slow further over 2024 but to remain above the Bank of England's target of 2 per cent. Firms and households face continued squeeze although cost pressures have eased.
- Recession was avoided with growth stronger than had been expected but it remains weak with little growth in monthly GDP since the spring of 2022. The drivers of the post-pandemic recovery have been investment and government spending. This is in contrast to the recoveries following the 1980s and 1990s' recessions when consumer spending played the key role.
- Real household incomes have held up more than expected but that did not feed through into equivalent increases in consumer spending. That has implications for many of the low-paying sectors with the gross value added of consumer-facing services still below that before the pandemic. Government spending on welfare and health during the pandemic along with business and government investment have supported growth.
- Interest rate rises were implemented to tackle inflation. They will affect demand. Consumers (mortgagees and those using credit) will have less to spend although that will be offset to some extent by increased savings. Business costs of finance may weigh on investment along with weak growth outlook. Government borrowing costs have increased with debt servicing taking an increasing share of Government spending.
- The outlook for the economy is weak with forecasts for growth of around 0.5 per cent in 2024.

There was great uncertainty about the economic and political outlook when we agreed our recommendations in the autumn of 2022.

1.1 When we met to agree our recommendations in the autumn of 2022, there was much greater uncertainty than usual with regards to both the economic and political outlook. Indeed, during our deliberations and before we had agreed our recommendations, the Prime Minister (Elizabeth Truss) resigned. That had followed a mini Budget that implemented substantial tax changes which led to turbulence in the financial markets and consequent sharp increases in interest rates. The instability had been addressed to some extent in October 2022 by the reversal of most of the proposed tax changes announced the month before.

1.2 As well as the political turmoil, there was also economic uncertainty as the economy emerged from the pandemic and responded to the effects of leaving the EU and the inflationary consequences of the Russian invasion of Ukraine. This helped explain why the forecasts for the economy, available to us

in October 2022 as shown in Table 1.1, showed little consensus. GDP in 2022 was expected to continue its recovery from the pandemic recession but was then forecast to flatline or even fall into recession in 2023. Inflation was expected to peak in the fourth quarter of 2022 but the extent of its slowing was dependent on whether the Energy Price Guarantee would be extended beyond March 2023 (forecasts at the time suggested that it could make up to 5 percentage points difference). There was more consensus around average wage growth, which was expected to remain higher than had been experienced prior to the pandemic.

Table 1.1: Forecasts available in mid-October 2022 for GDP growth, CPI inflation and	
average wage growth, 2022-23	

	GDP growth (%)		CPI price inflation in Q4 (%)		Average wage growth (%)	
	2022	2023	2022	2023	2022	2023
Bank of England (August 2022)	3.5	-1.5	13.0	5.5	5.3	5.3
HM Treasury panel (October 2022)						
Median	3.6	0.0	10.4	4.2	5.9	4.6
Lowest	2.3	-1.9	7.4	0.9	4.1	2.7
Highest	5.5	2.0	14.0	6.6	7.3	6.6

Source: HM Treasury panel of forecasts (HM Treasury, 2022e) and Bank of England (2022c). Forecasts made in three months to October 2023 for HM Treasury panel. Indicative projections consistent with the MPC's forecast from the Bank of England.

1.3 When making our recommendations in autumn 2022, labour shortages and cost of living considerations had increased pressures on wages. As a result, actual and forecast wage growth were stronger than had been projected in the previous autumn. Our projections of the NLW path were therefore revised upwards. We recommended an on-course increase of 9.8 per cent to £10.42 in 2023 with our projection of a further increase of 6.3 per cent to £11.08 in 2024 to meet the target of two-thirds of median earnings.

1.4 We were concerned that our recommendations should not lead to a further deterioration in the real value of the National Living Wage. With the inflation forecasts available, we also judged that the recommended increase of 9.8 per cent would restore the real value of the NLW to its 2021 level – the highest it had been in real terms.

1.5 Before we look at what has happened to the UK economy, we reflect on the pervasiveness of inflation in our stakeholder consultation during the spring and summer of 2023. We then consider how inflation has evolved before looking at GDP growth. In considering how the economy has evolved, we will also look at the prospects over the next year or so. In the next chapter we turn our attention to the labour market, including wage growth.

Inflation and costs were at the front of stakeholders' minds

1.6 For most employers we spoke to inflation was the leading concern. The BCC told us inflation was "by far and away the top concern for UK firms," alongside skills shortages. UKHospitality (UKH) told us "inflation is the big story that dominates the economic backdrop for our members," with price inflation running at around 20 per cent in the sector and an inability to pass costs onto customers. Make UK thought price growth would continue to outstrip forecasts: "it is our forecast that price-setting growth within the industry will remain at higher levels than non-industry bodies predict. The implication

for the wider economy over the medium term is that there will be continued upward pressure applied to consumer inflation as this supply-side inflation remains in the economy." Similarly, Manufacturing NI told us "no one expects prices to come down any time soon".

1.7 The BRC expected inflation to ease with domestic producer price inflation easing although imported food inflation would linger: "We estimate upwards of a 3–9 month lag between producer and domestic retail prices." The Food and Drink Federation (FDF) argued inflation had plateaued, but estimated a seven to twelve month lag for price pass-through: "we're still in the eye of the storm". Similarly, Make UK expected inflation to remain "quite sticky" as manufacturers continued to recoup losses made in 2022.

1.8 Energy costs continued to be a prominent concern. NHBF told us energy costs were at the top of businesses' concerns and that members had seen large increases since the Energy Bill Discount Scheme was launched on 1 April 2023. The Association of Convenience Stores (ACS) said impacts depended on when fixed deals expired. In Birmingham, one restaurant owner gave the example of a monthly energy bill increasing from £1,800 to £7,000. In Wales, UKH told us about firms who were locked into high rates and unable to take advantage of recent reductions in energy costs: a hotel in Snowdonia paying 90 pence per unit when, if able to renegotiate, it could pay 30 pence per unit.

1.9 Worker representatives argued inflation was driven mainly by businesses profit-seeking. GMB Union argued "there is strong evidence that a significant proportion of price rises equates to profit protection" and noted evidence on net profit rates and corporate dividends ("a real-terms increase of 39 per cent on pre-financial crash (2006) levels"). Unite told us the cost of living crisis had been driven by price-gouging and corporate profits. It cited its own research findings that "company profits are responsible for almost 57 per cent of overall inflation … the cost-of-living crisis is to a great extent a profiteering crisis where wages, and what they can buy, are being squeezed by companies pursuing runaway profits." It concludes from this that "an RPI+ increase to the NLW is affordable for companies … without the need to pass on costs to consumers or reduce employment." The TUC argued inflation had been driven by supply shocks and "wage rises are not inflationary in this context."

1.10 Worker representatives highlighted that strong inflation was cutting the real value of pay awards, including the minimum wage. The TUC noted that despite pay growth running at over 7 per cent, and higher in the private sector, real wages had fallen, "extending the longest pay squeeze in modern history." It also argued that "higher private sector wage growth is particularly instructive for the direction the minimum wage should take, given much higher coverage in the private sector." Community too flagged that wage growth was not keeping up with the record levels of inflation and that wage settlements which were, at the time of negotiation, above inflation, become eroded pushing the lowest paid further into deprivation.

Inflation has started to fall but remains high

1.11 As economies emerged from the pandemic lock-downs in the summer of 2021, global prices for gas, electricity, oil and other fuels started to increase. As well as increased demand, some suppliers had restricted supply which had exacerbated price rises. This was further fuelled by tensions between Ukraine and Russia that developed into a full scale war. Prices of fuel and food (Ukraine is a major producer of corn) soared. Even though the Government had introduced a price cap in 2021, it was evident in early 2022 that energy prices would rise sharply and many consumers may have difficulty in

paying their bills. Between April 2021 and April 2022 household bills had doubled. They were set to double again by the start of January 2023. In the autumn of 2022, the Government announced an Energy Price Guarantee scheme that would limit the increase in the energy price cap for households. It also announced measures to help businesses with their energy costs. This reduced the inflationary impacts of the increase in wholesale energy prices by as much as five percentage points on the Consumers Price Index. Oil and gas prices have since fallen back but domestic gas and electricity prices remain elevated – albeit now below the level of the price guarantee.

1.12 The Bank of England was concerned that increases in energy and food prices would feed through into the prices of other goods. In addition, labour shortages after the pandemic and the UK leaving the EU caused greater pressures for wage increases as employers competed for scarce labour. Concerns of rising and persistent inflation led the Bank of England to increase interest rates steadily from November 2021 to August 2023.

1.13 We can see from Figure 1.1 that consumer price inflation slowed from a peak of 11.1 per cent in October 2022 to 6.7 per cent in September 2023. Fuel prices have fallen since June 2023, while the contributions from food and energy (through housing and household services) have reduced.



Figure 1.1: Contributions to consumer price (CPI) inflation, UK, 2020-2023

Source: LPC estimates based on ONS data. Consumer price index (CPI) inflation, UK: Food and non-alcoholic beverages (D7BU); Alcohol and tobacco (D7BV); Clothing and footwear (D7BW); Housing and household services (D7BX); Furniture and household goods (D7BY); Transport (D7C2); Recreation and culture (D7C4); Restaurants and hotels (D7C6); and other goods and services (includes Health (D7BZ), Communication (D7C3), Education (D7C5), and Miscellaneous goods and services (D7C7), monthly, UK, July 2020-September 2023.

1.14 There were increases in the prices of essential goods and services – the magnitude of which had not been experienced since the 1970s and 1980s. Peaks in energy, food and transport were the highest rates recorded since the CPI series began in 1989. However, as forecast, inflation for these goods and services has slowed sharply in 2023. By September 2023, energy price inflation was 5.0 per cent and food inflation was 12.2 per cent – still high but on a downward trajectory – while transport prices fell in June-August.

1.15 Reduced inflationary pressures were also apparent for businesses, as shown in Figure 1.2, over the second half of 2022 and into 2023. Producer input and output inflation had slowed rapidly, as had services producer prices. Inflationary pressures within businesses had generally weakened considerably in 2023 and are unlikely to drive further price rises in 2024.



Figure 1.2: Producer price inflation, UK, 2000-2023

Source: LPC estimates using ONS data. Producer input prices, inputs into manufacturing (GHIP); producer output or factory gate price, manufactured products for domestic market, excluding duty (GB7S); Services Producer Price Index (SPPI), top level, sections H to U excluding K (HQTI); and Consumer price index (D7BT), seasonally adjusted, quarterly, Q3 2000-Q3 2023.

1.16 However, core inflation – excluding food, energy and fuel – has remained stubbornly high and was still 6.1 per cent in September 2023. It had picked up sharply as the economy emerged from the pandemic reaching a peak of 7.1 per cent in May 2023 and is still well above its long-run average of around 2 per cent (between 1992 and 2021).

1.17 Price pressures had eased but rising prices for both goods bought and sold remain a concern for firms. We continue to see more firms in low-paying sectors reporting increases in their input prices than in non-low paying sectors. And, while not all firms pass on these costs in their output prices, it remains more common for low-paying sector firms to do so.

1.18 Some firms are considering raising prices due to energy and labour costs. The share citing these costs has fallen in the past year, as shown in Figure 1.3, but one in three firms in low-paying sectors still say energy costs are driving their prices, compared with just one in five other firms. Labour costs are also a factor for more firms in low-paying sectors.



Figure 1.3: Factors affecting firms raising prices, 2022-2023

Source: LPC estimates using SRS BICS data Waves 55-89 (see Appendix 3 for details), UK, May 2021-August 2023.

Inflation likely to continue to slow in 2024

1.19 In response to rising inflation, the Bank of England adopted an aggressive monetary policy of increasing interest rates. It began by gradually increasing interest rates from 0.1 per cent to 0.25 per cent in December 2021 reaching 1.25 per cent in June 2022. By doing this, it expected people would have less money to spend (as mortgages and loans became more expensive) and that would reduce inflationary pressure. As inflation continued to rise, the Bank increased interest rates more sharply. By August 2023, the Bank base rate had reached 5.25 per cent – its highest since before the financial crisis.

1.20 With the price increases in food and energy slowing and fuel prices falling towards the end of 2022, and the intervention of the Bank of England, inflation has slowed more quickly than had been forecast last autumn (as shown in Figure 1.4). However, despite the increases in interest rates, more recent forecasts suggest that inflation may be more persistent and not return to its target of 2 per cent until the second quarter of 2025. The forecasts in autumn 2022 suggested that would happen six months earlier (in the third quarter of 2024).



Figure 1.4: Evolution of inflation forecasts in 2023 and 2024, UK, 2020-2026

Source: LPC analysis using data from ONS, and forecasts from the Bank of England (2022c, and 2023c); the HM Treasury (2023e) panel of independent forecasts. Consumer price index (D7BT), quarterly, Q1 2020-Q3 2023; and forecasts of CPI, quarterly, Q2 2021-Q3 2026. Note: Bank of England forecasts for CPI assume market interest rates. Short-term forecasts for 2023 Q4 and 2024 Q4 taken from the HM Treasury (2023c) panel.

1.21 The increase in interest rates will affect demand and prospects for the economy but we will return to those consequences after we consider what has happened to economic growth. You will recall from Table 1.1 that most forecasters were expecting the economy to go into a mild recession or flatline in 2023.

Recession was avoided with GDP growth stronger than had been expected

1.22 The latest ONS data show that the UK economy had recovered back to its pre-pandemic peak in the fourth quarter of 2021. This was a much stronger recovery than had been suggested by earlier data, which showed that the economy had still not recovered by the second quarter of 2023 (See Box 1.1). Some forecasts last autumn, such as the Bank of England (2022c) had projected that the UK economy would fall into recession in 2023, while the median of the HM Treasury (2022e) panel of forecasts had zero growth. The UK economy had grown more strongly than those forecasts – growing by 0.6 per cent between the second quarter of 2022 and the second quarter of 2023. Those forecasts had anticipated higher inflation with the Bank responding by increasing interest rates faster than it had.

1.23 As shown in Figure 1.5, the pandemic recession was the deepest of any recent recession but the recovery from the pandemic had been much stronger than in recoveries from other recent recessions. Despite the depth of recession, it took just eight quarters for GDP to return to its pre-

pandemic level. That contrasts with the 13 quarters for the 1980s and 1990s, and the 22 quarters after the financial crisis.



Figure 1.5: Comparison of recoveries from recent recessions, 1979-2023

Source: LPC estimates using ONS data. Real GDP (ABMI), quarterly, seasonally adjusted, UK, 1979 Q4-2023 Q2. Note: Q0 is defined as 1979 Q4 (for early 1980s), 1990 Q2 (for early 1990s), 2008 Q1 (for the late 2000s), and 2019 Q4 in the pandemic.

But economic performance remains weak with GDP barely growing

1.24 Figure 1.5 also shows that having recovered quickly, the economy has stalled with GDP growth 14 quarters after the start of the recession (1.8 per cent) similar to that of the recoveries from the recessions in the 1980s and 1990s. It should be noted that is still stronger than after the financial crisis.

1.25 The combination of inflation eroding real incomes and monetary policy both hitting demand have had a significant impact on economic growth. Using the more timely monthly GDP data, annual growth as measured by the 12-month rolling average had slowed to 0.7 per cent in August 2023. This is much lower than the average of 2.8 per cent before the financial crisis or the average of 2.0 per cent in the 2010s. Further, there has barely been any growth in GDP for much of 2022 and 2023. Indeed, the level of monthly GDP in August 2023 was slightly lower than that in May 2022.

1.26 This weakness in GDP is even more evident if looking at GDP per head of population. With the population growing, GDP per head is the same in the second quarter of 2023 as it was before the pandemic in the fourth quarter of 2019.

Box 1.1: ONS revised the GDP data in September 2023

In September 2023, in line with ONS practice each year, the GDP data were revised back to 1997 as a result of methodological changes, including improved source data and additional updated data. These revisions were larger than normal, reflecting the larger movements in GDP and the practical challenges of estimating GDP throughout the coronavirus pandemic. The revisions had no impact on GDP growth in 2019 and 2020 but growth was revised up for 2021 (from 7.6 per cent to 8.5 per cent) and 2022 (4.3 per cent from 4.1 per cent). This meant that the UK economy had recovered back to its pre-pandemic peak in the fourth quarter of 2021. This showed a much stronger recovery than had been suggested by the previous data, which showed that the economy had still not recovered by the second quarter of 2023, or projected by the forecasts. (See ONS (2023d and 2023f) for more detail.)

The drivers of the post-pandemic recovery have been investment and government spending



Figure 1.6: Expenditure components of GDP, UK, 2019-2023

Source: LPC estimates using ONS data. Real GDP (ABMI), consumer spending (ABJR), total investment (NPQT), Government spending (NMRY), exports (IKBK) and imports (IKBL), quarterly, seasonally adjusted, UK, Q4 2019-Q2 2023.

1.27 As shown in Figure 1.6, the recovery from the pandemic has been driven by Government spending and investment. Both Government current spending and total investment (both public and private sectors) were around 8.5 per cent higher in the second quarter of 2023 than before the start of the pandemic. Overall, GDP is 1.8 per cent higher. However, consumer spending was still 1.1 per cent below that level. Trade has also acted as a drag on growth as imports have increased faster than exports.

1.28 This contrasts starkly with previous economic recoveries. Figure 1.7 compares previous recent recessions by showing how the expenditure components of GDP evolved after 14 quarters from the start of those recessions. It shows that in the three previous recessions, investment had been slow to recover (with levels still below pre-recession levels after 14 quarters) but in the pandemic recovery it has

been a key driver. The super-deduction investment incentive in place from April 2021 to March 2023, likely accelerated some business investment. Government spending has also played a stronger role in recovery than in previous recessions. In contrast to the 1980s and 1990s, when consumer spending was the main driver of recovery, consumer spending has not recovered as quickly after the pandemic. In the 1980s and 1990s' recessions, real wages had increased. That compares with stagnant or falling real wages in the aftermath of the financial crisis and the pandemic. After the pandemic, trade has also acted as a drag with imports growing and exports falling. In the 1990s and after the financial crisis, the growth in exports exceeded the growth in imports and acted as a boost to economic growth.



Figure 1.7: Comparison of economic recoveries from recent recessions, by expenditure components of GDP, UK, 1979-2023

Source: LPC estimates using ONS data. Real GDP (ABMI), consumer spending (ABJR), total investment (NPOT), Government spending (NMRY), exports (IKBK) and imports (IKBL), quarterly, seasonally adjusted, UK, Q4 1979-Q2 2023. Note: Comparisons are made with the quarter before the start of recession: 1979 Q4 (1980s), 1990 Q2 (1990s), 2008 Q1 (financial crisis), and 2019 Q4 (the pandemic); and 14 quarters later 1983 Q2 (1980s), 1993 Q4 (1990s), 2011 Q3 (financial crisis), and 2023 Q2 (the pandemic)

1.29 We now go on to look at consumer spending and investment in more detail and then consider prospects for growth. We start by reflecting on what has happened to real household disposable incomes, which to a large extent determine consumer spending.

Real household incomes have held up more than expected

1.30 In the autumn of 2022, forecasters were expecting real disposable household incomes to fall and savings to be squeezed as households attempted to maintain spending. However, real household disposable incomes held up better than expected. First, inflation slowed as fuel prices and wholesale

energy prices have fallen. Second, wage growth continued to be strong as the labour market proved more resilient with unemployment below forecasts. Third, there has been substantial support from the Government helping reduce energy bills and supporting low-income households. As shown in Figure 1.8, real household incomes have grown over the last year. But consumer spending has not increased in line with incomes. Instead of being squeezed, the savings ratio has increased. Households may have found higher interest rates more attractive for savings, especially if they were on fixed rate mortgages and had not yet had to renew them. With the real value of savings also eroded by inflation, some households may have sought to save more.





Source: LPC estimates using ONS data. Real disposable household income (NRJR), household spending (ABJR), and household savings ratio (NRJS), quarterly, seasonally adjusted, UK, Q2 2001-Q2 2023.

1.31 That weakness in consumer spending can be seen in Figure 1.9 when looking at the gross value added of selected service industries. Unlike the economy as a whole (and all other services), consumerfacing services (including retail, hospitality, leisure and transport) have not recovered the level of output prior to the pandemic. It is still over 4 per cent below its output at the end of 2019. Consumer-facing services are those sectors of the economy that are more likely to employ minimum wage workers and be most affected by changes in the minimum wage.

1.32 Figure 1.9 also shows that wholesale and retail recovered quickly during the pandemic as many consumers switched from eating and entertaining out (hospitality and leisure) to eating and entertainment at home (retail). However, as restrictions from the pandemic eased, retail sales fell back as consumers spent more on hospitality and leisure. Over the last year, there has been little change in the output of consumer-facing services.



Figure 1.9: Gross value added, by selected sector, UK, 2020-2023

Source: LPC estimates using ONS data. Monthly chained volume indices for real gross value added (ECY2), consumer-facing services and all other services (both from Figure 4 in GDP monthly estimate, UK: August 2023), wholesale and retail (ECYD), and hospitality (ECYH), seasonally adjusted, monthly, UK, February 2020-August 2023.

Note: Consumer-facing services refer to retail trade, food and beverage serving activities, travel and transport, and entertainment and recreation (Standard Industrial Classification 2007 codes: 45, 47, 49.1, 49.2, 55, 56, 68.1, 68.2, 75, 79, 92, 93, 94, 96 and 97). All other services refer to all services (ECYC) except consumer-facing services.

Consumer confidence picked up as inflation slowed

1.33 Although consumer spending has been weak, interest rates have increased and retail sales have fallen, consumer confidence has been boosted as inflation has slowed and real incomes have been supported. Figure 1.10 shows that consumer confidence has recovered considerably from the depths it plumbed in the autumn of 2022. That said, the measures shown – the Deloitte consumer tracker, and the GfK consumer confidence – are both below their pre-pandemic levels.



Figure 1.10: Consumer confidence, UK, 2008-2023

Source: GfK and Deloitte. GfK consumer confidence index, monthly, UK, February 2008-October 2023; and Deloitte consumer tracker, quarterly, UK, September 2011-September 2023. Notes:

GfK's consumer confidence index is derived from five measures: your personal financial position over the last year and over the next twelve months; the general economic situation over the last year and over the next twelve months, and whether it is the right time for people to make major purchases.

Deloitte's overall confidence index is the aggregate of six individual measures: levels of disposable income, levels of debt, job security, job opportunities and career progression, children's education and welfare, and general health and wellbeing.

Consumer spending is expected to remain weak as rising interest rates take effect

1.34 The consumer spending outlook is expected to remain weak despite inflation waning. While nominal wage growth remains strong, there are signs that the labour market is loosening with job growth weakening, vacancies falling and unemployment starting to rise (see Chapter 2 for more detail). Government measures that helped support households with their energy bills and low-income families with the higher costs of living are being withdrawn.

1.35 As we noted earlier in our discussion of inflation prospects, the Bank of England has increased interest rates to tackle inflation. Higher interest rates by adding to mortgage costs are expected to reduce non-housing consumer spending. These effects, however, operate with a time lag as around 80 per cent of those with mortgages are on fixed rates for a period of time, usually two or five years (BoEmay23). The impact will be felt when these mortgages become due for renewal. The cost of loans and credit to consumers has also increased and that should also reduce demand. In contrast, savings rates have responded more slowly.

1.36 Although the stock of savings is greater than the stock of mortgages, and thus would be expected to boost incomes, there may still be overall negative effects on consumption. The large increase in savings during the pandemic was largely skewed towards the top end of the household income distribution. These households are less likely to spend additional income than low-income households. The impact on the marginal propensity to consume is also less for an increase in income than it is for a reduction in income. Further, increasing interest rates is likely to dampen demand for housing and reduce upward pressure on house prices. That is likely to lead to less equity and reduce the ability to get loans.

1.37 The Bank of England (2023c) is projecting that household spending will grow by 0.5 per cent in 2023 rising to 0.75 per cent in 2024. That is much lower than the average of 3.25 per cent between 1998 and the financial crisis or the 2 per cent average between end of the financial crisis (2010) and the onset of the pandemic (2019).

1.38 We next consider what has happened to investment and discuss its outlook, including the effects of interest rate rises.

Business investment and government investment have contributed significantly to the recovery

1.39 As we noted earlier, investment has been a positive factor on the growth of the economy. That was despite weak economic growth, weak consumer demand and increased cost and availability of credit. Business investment, government investment and investment in dwellings and other, have all contributed to the strong rebound in total investment after the pandemic. Business investment was 8.6 per cent higher in the second quarter of 2023 than in the fourth quarter of 2019, government investment was 20.6 per cent higher, while investment in dwellings and other has been more sluggish (1.3 per cent).

The outlook for investment however looks uncertain

1.40 The outlook for investment however looks uncertain. Future investment depends on affordability – profits and cost of finance – and state of demand and the economic outlook. Many cost pressures have eased and that should enable margins to be restored to some extent. But firms are facing higher financing costs (as interest rates rise and credit becomes more difficult to access), and the economic outlook in the UK looks weak.

Profit share has picked up but the rate of return remains muted

1.41 Official data suggest that profits, as measured by gross operating surplus, have picked up since the first quarter of 2022. As shown in Figure 1.11, the profit share over the last year has been slightly higher than for much of the previous two decades. This pick-up in profit may provide some resource to finance future investment. In contrast, an alternative official measure of profitability – the net rate of return on capital employed has remained flat at around 10 per cent.



Figure 1.11: Profit share, UK, 1958-2023

Source: LPC estimates using ONS data. Private non-financial corporations gross operating surplus (CAER) and total gross operating surplus of corporations (CGBZ) minus alignment adjustment (DMUQ) as a share of gross domestic product at current prices (YBHA), seasonally adjusted, quarterly, 02 1958-02 2023; and private non-financial corporations net rate of return (LRWW), seasonally adjusted, quarterly, 01 1997-01 2023.

Credit conditions have worsened

1.42 Credit conditions have worsened, making it harder for firms to invest and take on new orders. The cost of credit has increased sharply with interest rates rising to tackle inflation (the Bank of England base rate has increased from 0.1 per cent in December 2021 to 5.25 per cent in August 2023). In addition to increased costs of credit, its availability – according to the Bank of England's Agents (Bank of England, 2023f) as shown in Figure 1.12 – has tightened. Since the spring of 2022, credit availability has become harder for all sizes of firm, but for small firms this worsening in credit conditions has been evident since the start of 2021. Higher interest rates also make it more expensive to refinance existing debt.


Figure 1.12: Bank of England Agents' scores for credit availability, by size of firm, 2015-2023

Source: Bank of England (2023f) Agents' scores. Credit availability: small (up to 50 employees); medium (51-250 employees); and large firms (more than 250 employees), monthly (eight times a year since 2016), May 2015-August 2023.

Note: The Agents' scores are based on businesses' perception of the supply of credit over the latest three months relative to normal for firms in the size bracket. Consideration is given to the availability of all forms of debt instruments that carry an obligation to repay the principal and interest.

SMEs and those in low-paying industries are more concerned by debt than other firms

1.43 The worsening credit conditions have been reflected in greater concerns about debt. Figure 1.13, using data from the ONS' Business Insights and Conditions Survey (BICS), shows that small and micro firms are generally less confident about meeting their debt obligations than larger firms. For all firms, these concerns were heightened during the pandemic but fell away as lockdown restrictions eased. Since the economy re-opened, the tightening of credit availability has been reflected in increased concerns about meeting debt obligations. For all sizes of firm, debt concerns appear to have weakened in 2023.



Figure 1.13: Share of firms with low or no confidence of meeting debt obligations by firm size, 2021-2023

Source: LPC estimates using ONS BICS data Waves 27-91, UK, April 2021-September 2023.

1.44 Debt concerns are higher in the low-paying sectors than elsewhere in the economy. The share of firms in low-paying sectors reporting low or no confidence in meeting current debt obligations has fallen from 10 per cent in the autumn of 2022 to 6.4 per cent in August 2023. For firms not in the low-paying sectors, there does not appear to have been much change since the series started in March 2021, with around 3-4 per cent reporting concerns.

Despite a rise in insolvencies, fears of insolvency appear to be easing

1.45 After the loosening of the pandemic restrictions in the first quarter of 2021, the number of total company insolvencies in the UK increased gradually from 2,549 in that first quarter to 6,762 in the second quarter of 2023. They then fell back in the third quarter of 2023 to 6,369. Despite this increase, Figure 1.14 shows that fear of insolvencies has fallen for firms across the economy, including in the low-paying sectors. It also shows that firms in low-paying sectors are likely to report higher risks of insolvency than firms in the rest of the economy.



Figure 1.14: Firms reporting a moderate or severe risk of insolvency

Source: LPC estimates using ONS SRS BICS micro data (see Appendix 3 for details), UK, November 2020-August 2023.

Business confidence has recovered as cost burdens have eased

1.46 Business confidence had weakened as inflation took hold in 2021 and 2022. The CBI and FSB business confidence indexes, as shown in Figure 1.15, show that the easing in cost pressures and the ending of heightened uncertainty about the economic framework last autumn, has led to a pick-up in business confidence. The CBI index is back close to pre-pandemic levels, whereas the index for small businesses remains below.



Figure 1.15: Business confidence, 2005-2023

Source: CBI and FSB. CBI business optimism index net balance, quarterly, UK, Q3 2005-Q3 2023; and FSB small business index, quarterly, UK, Q1 2010-Q2 2023.

Investment intentions remain positive despite worsening credit conditions

1.47 The tightening in credit conditions does not seem to be affecting investment intentions. According to the Bank's agents (2023f), as shown in Figure 1.16, investment intentions have been positive since the pandemic restrictions started to be eased in the spring of 2021. They have fallen from their peak in early 2022 but remain in line with the intentions recorded pre-pandemic.



Figure 1.16: Investment intentions and profit margins

Source: Bank of England (2023f) Agents' scores. Investment intentions and profit margins, monthly (eight times a year since 2016), August 2015-August 2023.

Notes: The Agents' scores are based on businesses' perception of investment intentions over the latest three months relative to normal. Profit margins reflect pre-tax operating profit as a proportion of turnover/revenue. The score covers all sectors and is the level of margins relative to normal. The definition of investment intentions and profit margins changes in October 2017. The Bank constructed a back-series for both measures. The old scores have been used from May 2015-October 2017.

1.48 While investment intentions remain resilient, there are some concerning headwinds that might affect its prospects. As with households, increased interest rates will make loans more expensive and will reduce the value of assets and thus the collateral on which firms can borrow. Housing investment will also be affected. The demand for housing may fall as mortgages become more expensive. Future house prices will be reduced and that will provide a lower return to property developers. The Bank of England (2023c) projected that business investment is likely to slow from over 10 per cent in 2022 to 1.8 per cent in 2023 and then fall by 2 per cent in 2024. It also projects a steep decline in housing investment falling by nearly 6 per cent in 2023 and just over 6 per cent in 2024.

1.49 Increased interest rates also have implications for the exchange rate and government spending (and borrowing). The recent increases in interest rates have occurred across the globe leaving the UK's interest rate relative to the rest of the world little changed. It has therefore not had much impact on trade. Interest rates have however had a major impact on the cost of borrowing for the UK Government. This has led to a higher proportion of the budget being spent on interest rate payments. Another consequence of more persistent inflation than expected, has been lower real public spending in 2023 than planned. Given that taxes as a share of GDP are already at record highs and the Government has committed to debt falling as a share of GDP, there will likely be less money available for public services going forwards. Further, the Government has already announced major changes to its investment programme.

1.50 UK suffered the worst recession among G7 countries but grew fastest in 2021 and 2022. The outlook suggests that will not be the case in 2023 or 2024

1.51 International comparisons show that the UK suffered the worst pandemic recession among G7 countries and only Germany has experienced a slower recovery. Overall, the UK is forecast to grow at around 0.5 per cent in both 2023 and 2024. This is lower than pre-pandemic growth and far lower than the 2.5 to 3.0 per cent norm before the financial crisis. The UK is expected to have some of the weakest growth in the G7 in the next year or so.



Figure 1.17: International comparisons of actual and forecast GDP growth, 2019-2024

Source: LPC calculations based on OECD data. OECD gross domestic product – expenditure approach (VIXOBSA) volume index (2015=100), quarterly, seasonally adjusted, 2019 Q4-2023 Q2; and forecasts of GDP growth for 2023 and 2024 from the International Monetary Fund, World Economic Outlook Database, October 2023.

Stakeholders highlighted the resilience of the economy beyond (low) expectations

1.52 Stakeholders submitted evidence to us as they responded to our consultations in early summer 2023. Some of their responses may therefore not reflect recent data and business sentiment.

1.53 The Trades Union Congress (TUC) argued business had been resilient in the face of recent challenges. It noted that despite inflation, "profitability has remained strong and the value of corporate dividends rose on the year. So while cost pressures are real, there is no evidence that higher NMW rises cannot be afforded." It shared data on increasing profitability and dividends, arguing the NMW "has acted as a counterweight to the tendency of businesses to increase shareholder dividends while holding back wages, and over the period ahead it is important that this approach continues." UNISON, too, argued the corporate sector was performing strongly, highlighting a number of measures, including the 10.4 per cent increase in operating surpluses in 2022; an 8 per cent jump in dividend payments; and large increases in executive pay. It argued that since 2010, operating surpluses and dividends have grown faster than minimum wage rates (an annual average of 3.7 and 6.8 per cent, compared with 4 per cent for the NLW).

1.54 The CBI agreed the economy had been more resilient than expected, noting that consumer demand had supported growth despite high inflation and rising interest rates. Job creation and retention

have also remained strong – with employment rising, unemployment below forecasts and inactivity close to its pre-pandemic low. The British Retail Consortium (BRC) told us demand had held up better than expected, with a plateau rather than an outright decline. Make UK told us their sector had stabilised in 2023 after a decline in 2022, with performance stable between first and second quarters of 2023, the first time stable performance over two quarters had been observed since 2018.

1.55 Other employer representatives were less positive. The Federation of Small Businesses (FSB) described businesses as facing "the worst economic circumstances in decades". At the heart of this were high inflation, high debt levels (limiting access to finance) and large rises in input costs (with utilities the leading factor). Its survey confidence measure had fallen to close to an all-time low (in the fourth quarter of 2022). However, that measure showed greater confidence in the first two quarters of 2023. The British Chambers of Commerce (BCC) told us their surveys revealed a picture of weak investment and stagnant sales, with small, consumer-facing businesses worst hit, especially in retail and hospitality. The National Hair & Beauty Federation (NHBF) echoed this, talking of a "cost of doing business" crisis: "Many well-established businesses report that this is the worst time in their 15-20 year career." The National Farmers' Union (NFU) told us rising input costs and tightening incomes were depressing confidence.

1.56 Looking to the future, the CBI forecast growth for 2024, driven by an expected rebound in consumer confidence and household expenditure, "chiming with the belief that lower energy prices and broader inflation have peaked". It expected investment to pick up, but to continue to underperform international competitors, and highlighted persistent inflation – and consequent interest rate rises – as a key downside risk. The BCC forecast 0.3 per cent growth in 2023, foreseeing an economy that remained weak but would not shrink. Make UK expected stability to continue into 2024, with margins expected to finally return to growth by the third quarter of 2023. UNISON acknowledged 2023 growth would likely be weak, but in 2024 was expected "to run approximately in line with the average GDP growth rate between 2016 and 2022, when the minimum wage has been on the path toward two-thirds of average earnings."

In summary, with inflation more persistent and interest rates higher than since the financial crisis, the economic outlook appears weak

1.57 In summary, bringing the forecasts for inflation and economic growth together. As shown in Table 1.2, forecasters expect inflation to slow further over 2024 but to remain above the Bank of England's target of 2 per cent. Firms and households face continued squeeze. Interest rates are 5.15 percentage points higher than at the end of 2021. However, with more people using fixed-term mortgages to finance their home purchases, it may take longer for increasing interest rates to have the desired effect of dampening demand. Many of those on short-term fixed are likely to have needed to remortgage on worse terms than their existing deals. But those on longer-term deals may only be affected over time thus delaying the adverse impact on demand.

1.58 Strong earnings growth will help to boost real incomes but that will be dampened by the freeze in tax thresholds. With pay demands continuing to be above pre-pandemic levels, there is also a concern that inflation will become more persistent and may not fall back as sharply as forecast. Rising interest rates and uncertainty about the economic outlook both in the UK and globally will dampen business investment, which has been weak since 2016.

1.59 Public investment and trade are unlikely to provide much of a boost going forwards. The Government has announced major changes to its commitments on transport infrastructure and net zero. The adverse terms of trade shock from leaving the EU have largely unwound but there are likely to be some impacts when new border controls are implemented in the new year.

1.60 The UK economy grew by 0.6 per cent over the year to the second quarter of 2023. As shown in Table 1.2, the forecasters expect growth to remain weak in 2024. The Bank of England (2023c) forecast GDP to grow by just 0.5 per cent in 2024, while the IMF (2023a) and OECD (2023c) expect the UK economy to remain weak in 2024 and they are both more optimistic than the Bank of England. The most recent forecast we had was from the HM Treasury panel (2023e), which had a median forecast for GDP growth in 2024 of 0.4 per cent. All of these forecasters expect inflation to continue to slow in 2024.

	Date of GDP		OP	CPI inflation		
Forecaster	forecast					
		2023	2024	2023 Q4	2024 Q4	
Bank of England	3 August	0.5	0.5	5.0	2.5	
OECD	19 September	0.3	0.8	7.2	2.9	
IMF	11 October	0.5	0.6	5.2	2.4	
HM Treasury panel (median)	18 October	0.4	0.4	4.6	2.6	
HM Treasury panel (range)	18 October	0.2 to 0.6	-0.5 to 1.9	2.5 to 5.2	0.7 to 4.0	

Table 1.2: GDP and CPI inflation forecasts, 2023-2024

Source: HM Treasury (2023e), Bank of England (2023c), IMF (2023a) and OECD (2023c): Forecasts of GDP growth (ABMI) and CPI (D7G7), quarterly, UK, 2023-2024.

Note: All forecasts for GDP are for the calendar year and those for CPI inflation are for the fourth quarter except OECD, which is for the calendar year.

Conclusion

1.61 Inflation has slowed but it has been more persistent than had been previously forecast. The Bank has addressed this by increasing interest rates. Inflation is expected to slow further to around 2.5 per cent at the end of 2024.

1.62 The UK economy had recovered to its pre-pandemic level of GDP by the end of 2021. However, since then economic growth has been weak as inflation affected real incomes. The increase in interest rates is likely to adversely affect growth. Firms, households and the Government will be affected. Growth is likely to be around 0.5 per cent in 2024.

1.63 In the next chapter, we now go on to outline what has happened in the UK labour market and consider the prospects for employment, unemployment and wages.

Chapter 2

The Labour Market

Key findings

- Our main source of data on the labour market is the Labour Force Survey (LFS), a survey of households. It provides estimates of employment, hours worked, unemployment and inactivity. However, falling response rates have made the data less reliable and LFS estimates of recent employment growth diverge from those provided by alternative data sources.
- There has been a large increase in the number of non-EU persons with work and student visas and their dependents who are eligible to work in the UK. It is likely that the LFS survey data underestimates the number in the labour market.
- Employee jobs data, a survey of firms, shows increasing employment in low-paying sector jobs but at a lower rate of growth when compared with other sectors.
- There has been a softening in labour demand as the number of job vacancies dropped month on month through 2023. However, levels remain historically high and many sectors are still struggling to recruit.
- Inactivity rose following the pandemic, though there are variations by characteristics. Long term sickness continues to increase to new record highs.
- Unemployment has picked up only slightly, despite the large fall in vacancies, and remains low historically. The share of firms thinking of making redundancies has risen, especially within larger firms, but redundancy levels remain low historically.
- Nominal wage growth remains high despite a loosening labour market as high inflation fuels wage demands.

2.1 This chapter looks at the main changes to the labour market in the year to September 2023, during which time the post-pandemic boom in employment came to a halt. Firms faced challenges as input prices rose and we saw aggregate demand for labour fall, although vacancies remained high historically. Despite this loosening in the labour market nominal pay growth increased, in response to persistent high rates of price. Average wages fell in real terms.

2.2 We examine what has happened to employment, unemployment, inactivity, vacancies and redundancies. We look at movements in pay in the latest period both in terms of pay settlements and earnings growth, nominal and real. We also consider how these key labour market indicators may change looking ahead in the short term.

2.3 As outlined in Chapter One the economic background has largely been one of limited output growth accompanied by rising prices. Inflation, driven initially by energy costs has remained stubbornly

high, well above target. Despite nominal wages growing at their fastest rate in years their value has fallen in real terms for most workers. Rising interest rates have further increased the cost pressures on households. Yet despite subdued output growth the labour market remains resilient with robust demand for labour and strong nominal wage growth.

LFS data issues

2.4 The Labour Force Survey (LFS) is a household survey and the primary source for the Office for National Statistics (ONS) headline measures of employment, unemployment and inactivity. It is also used for a multitude of additional analyses due to its breadth of characteristic information.

2.5 Estimating the key labour market indicators of employment, unemployment and inactivity have proved much more difficult in 2023. Concerns centre around two issues with the LFS: Firstly response rates have fallen sharply in recent times; secondly there are questions over the population figures that LFS survey data is weighted to.

2.6 During the pandemic the ONS boosted the sample size of the LFS alongside other measures to mitigate a fall in response rates. However, despite this, response rates have continued to fall and had dropped to 15 per cent in 2023 Q2, despite being 40 per cent as recently as 2019. ONS removed the Covid sample boost in July 2023, reverting to pre-pandemic sample sizes which will likely further impact on the attained sample (those households completing the survey). These issues made the LFS less reliable and its estimates of labour market indicators increasingly diverged from those of other sources.

2.7 Figure 2.1 shows how growth in employee numbers estimated from the LFS compares with estimates from HMRC Pay As You Earn Real Time Information (PAYE RTI) and from Workforce Jobs (Employee jobs) series. These three data sources show very similar growth in employee numbers in the years leading up to the pandemic. In 2020 Employee jobs and PAYE RTI data saw employee numbers fall by 1.5 per cent and 3.0 per cent respectively while LFS employee levels barely dropped. Then across 2021 and 2022 both PAYE RTI and Employee jobs indicate a much stronger recovery compared with LFS estimates. That growth continued through 2023 albeit at a slower rate while LFS employee numbers were barely higher in July 2023 than 12 months previous.

2.8 Reduced response rates and smaller sample sizes can result in non-response bias – where the characteristics of those not responding differ from those who do. This can have implications when looking at data for specific subsets of workers e.g. by region or by nationality. Reduced survey samples also lead to greater volatility in the form of larger confidence intervals around survey estimates.



Figure 2.1: Growth in LFS employees, Employee jobs and PAYE RTI, UK, 2017-2023

Source: LPC analysis using ONS data: 16+ employees (MGRN), Workforce jobs employee jobs (JOBS02) and PAYE RTI payrolled employees, monthly, seasonally adjusted, UK, Aug 2017 (Sep for employee jobs) -Aug 2023 (Jun for employee jobs, Sep for PAYE).

2.9 This uncertainty in the LFS can also be seen in Figure 2.2 when we compare changes in LFS employee number numbers by nationality to those seen in PAYE RTI data from 2019 Q4 to the same quarter in 2022. Both data sources observed the largest growth in employees from non-EU born workers - LFS figures were 525,000 higher while PAYE RTI recorded an additional 700,000 employees. PAYE RTI showed around 60,000 more UK born employees than LFS whilst also recording 35,000 fewer EU born employees than LFS. The net result was 200,000 fewer employees in the LFS data than from PAYE RTI.



Figure 2.2: Change in LFS employees and PAYE RTI by nationality, 2019 Q4 – 2022 Q4

Source: LPC analysis using ONS LFS 16+ employees (MGRN) and PAYE RTI payrolled employees, monthly, seasonally adjusted, UK, 2019 Q4 – 2022 Q4.

2.10 ONS acknowledged problems affecting the reliability of LFS employment estimates. Alternative data sources are not subject to similar problems – PAYE RTI is administrative data and Workforce Jobs is a combination of business surveys. Currently these sources are thought to provide more robust estimates than the LFS. ONS acknowledged in the summer 2023 that there were issues with the LFS, reflecting concerns voiced by interested parties across various platforms, see Box 2.1.

Box 2.1: ONS actions on the Labour Force Survey

It was hoped a planned October reweighting of the LFS would help address one of the data issues – that the LFS was not being weighted up accurately to reflect changes to the UK population. However, this was cancelled on 27 September 2023. ONS advised that the weightings would be updated alongside the introduction of the Transformed Labour Force Survey (TLFS), the successor to the LFS in March 2024. On 13 October 2023 it was announced that the scheduled 17 October labour market overview would be pushed back a week to allow ONS additional time to produce the best possible estimates of the labour market using the best available data sources. PAYE RTI data, vacancies and earnings data were published as scheduled on 17 October.

On 24 October 2023 the delayed Labour market overview was published – it contained an alternative series of estimates of UK employment, unemployment and inactivity as experimental statistics derived using growth rates from PAYE RTI data alongside Claimant Count information from May-July 2023 onwards. Unadjusted June to August LFS data was not published.

https://www.ons.gov.uk/releases/impactofreweightingonlabourforcesurveykeyindicators2023

Growth in PAYE RTI employee numbers since pandemic fastest for 16-17 year olds but signs of a recent slow down

2.11 Given the concerns with the LFS we use the more robust administrative PAYE RTI data to examine changes to employment over the last year. Unfortunately, PAYE RTI data only allows us to look at employee numbers, not total employment. The LFS showed self-employment numbers were little changed in the year to July 2023 but remained substantially below pre-pandemic levels.

2.12 PAYE RTI also doesn't provide a similar breadth of characteristics as the LFS and so we focus here on age, geography and sector. Total PAYE RTI employment was around 30.1 million in September 2023, 1.1 million (3.8 per cent) above pre-pandemic levels and 370,000 (one per cent) higher September 2022. Levels however appear to have stagnated in the months leading up to September 2023.

2.13 Starting with age, Figure 2.3 compares the change in the number of PAYE RTI employees aged 16-17, 18-24 and 25+ years. Employees aged 25 and over saw very little pandemic impact at an aggregate level and have shown consistent employment growth across the last two years. PAYE RTI employees were up 400,000 in September 2023 on a year previous.

2.14 Workers aged 16-17 have seen the greatest volatility in their employment levels. They saw a sharp fall across the early stages of the pandemic in 2020 before rebounding strongly in 2021. Despite a drop in PAYE RTI employee numbers of around 30,000 in the year to September 2023, growth in employee numbers is substantially above pre-pandemic levels, especially when compared to other workers. 18-24 year old employee numbers entered the pandemic on a downward trajectory. This age group then took longer to recover their pandemic employment losses. However, levels have remained

stable across the last twelve months at around 3.5 million. Younger workers are discussed in greater detail in Chapter 5.





Source. Li o analysis using filvino data. LATE fill paytoned employees, montiny, seasonally adjusted, OK, Sep 2014-Sep 2023.

2.15 Employee numbers in all nations and regions are above pre-pandemic levels with Northern Ireland and London well ahead, but Scotland lagging behind.

2.16 Looking at changes in employee numbers in the year to September 2023 we have seen similar rates of growth of around one per cent across all regions and nations. The differential impacts of the pandemic however left some areas performing better than others. Employment was less affected in Northern Ireland and continued to grow faster than other regions and nations. London saw the deepest fall in employee numbers but recovered strongly through 2021 and 2022.

2.17 Scotland continues to see weaker growth relative to other regions and nations. It entered the pandemic with slow growth and recovered equally slowly. In the last year in Scotland PAYE RTI employees grew by only 0.7 per cent - Yorkshire and the Humber being the only other area with a similar low rate of growth. Cumulatively the number of employees in Scotland is less than three per cent higher than it was in January 2019, significantly lower than all other nations and regions and the UK as a whole at 4.4 per cent.



Figure 2.4: PAYE RTI employees by nation and region, UK, 2017-2023

The recovery varies by sector

2.18 During the pandemic and the subsequent period of recovery sectors were impacted very differently. Lockdown and related restrictions on mobility severely affected the ability of some sectors to operate – especially the low-paying hospitality and leisure sectors, while some workers e.g. those in health and social work continued to work albeit in very different and difficult circumstances.

2.19 After losing more than 350,000 employees in the year following the onset of the pandemic it took another year for the hospitality sector to recover those workers after the sector re-opened. The last year can be neatly divided into two – from September 2022 to April 2023 70,000 employees were gained only for a similar number to then be lost in the subsequent period to September 2023. We discuss hospitality in more detail in Chapters 4 and 5.

2.20 Employees in the wholesale and retail sector has been in slow decline for a number of years. The post pandemic recovery temporarily halted this, but the trend returned with 50,000 fewer employees in September 2023 compared with February 2022. The leisure sector, like hospitality, was severely affected by the pandemic and didn't recover those employees lost until December 2022. However, unlike hospitality it has continued to grow steadily over the last year.



Figure 2.5: PAYE RTI employees by industry, UK, 2017-2023

Source: LPC analysis using HMRC data: PAYE RTI payrolled employees, monthly, seasonally adjusted, UK, Sep 2017-Sep 2023.

Vacancy demand for workers has softened

2.21 As the economy recovered from the pandemic vacancies levels increased sharply, peaking at 1.3 million in April 2022, more than 30 per cent higher than pre-pandemic levels. The reversal of the pandemic position where firms restricted hiring and workers restricted searching likely explains this increase in vacancies.

2.22 In the 18 months to September 2023 ONS vacancy levels have fallen month-on-month as employers scaled back hiring intentions. The number of vacancies fell below one million for the first time in two years in August 2023 and stood at 988,000 the following month. Vacancy rates have also fallen over this period. Despite this prolonged period of falling job vacancies, overall levels remain high historically and are still 120,000 or 14 per cent above the January 2019 pre-Covid high. Rates also remain higher than pre-pandemic.

2.23 Figure 2.6 highlights the softening in vacancy data across three sources of vacancies. More timely weekly and daily data from Adzuna and Indeed respectively up to October 2023 show that despite levels declining the rate of decline has eased somewhat in later data.

2.24 The October 2023 KPMG and REC UK Report on Jobs reported a softer decline in permanent hirings with firms reluctant to take on new staff due to ongoing economic uncertainty. They reported that it "feels like a market that is finding the bottom of a year-long slowdown". They suggested a more positive outlook from employers, stating "data does suggest the possibility of a turnaround in hiring over the next few months."



Figure 2.6: Change in vacancies since February 2020

Source: LPC analysis using Indeed weekly job postings tracker, Adzuna weekly online job ads, ONS single month vacancy estimates (X06), Feb 2020-Oct 2023.

2.25 Whilst we have seen vacancies fall month on month in the 18 months to August 2023 there are still around one million across the UK. This figure remains higher than pre-pandemic vacancy levels and suggests a softening in demand rather than a more dramatic contraction.

Recruitment pressures ease but not for all

2.26 The position however remains uneven across sectors. Low-paying sectors were particularly impacted by the pandemic. While the share of firms reporting worker shortages has eased for low-paying sector firms in the last year, it remains higher than for other firms as shown in Figure 2.7.



Figure 2.7: Worker shortages by low-paying and non-low paying sectors, BICS, UK, 2021-2023

Source: LPC analysis of BICS data using ONS' Secure Research Service (see Appendix 3 for details), UK, Oct 2021-Jul 2023.

2.27 The Bank of England's Decision Maker Panel (Bank of England, 2023d), a survey of over 2,000 UK businesses with 10 or more employees, also shows an easing of recruitment difficulties. Figure 2.8 shows an increasing share of firms stating recruitment is easier than normal or about normal. 6 in 10 firms however are still finding it harder than normal to recruit.



Figure 2.8: Ease of hiring new employees compared to normal, DMP, UK, 2021-2023

Source: LPC analysis using Bank of England Decision Maker Panel data – August 2023, UK, September 2023.

2.28 Figure 2.9 illustrates how the proportion of firms with staff shortages in October 2023 has fallen back from the sector high point over the previous two years. It also highlights sectoral differences with some continuing to have large proportions of firms with vacancies. For example, hospitality and Health and Social Care, who despite having very different pandemic employment responses as discussed

earlier in this chapter, continue to have large proportions of firms with worker shortages. Other sectors such as Leisure have seen a sharp fall in the share of employers with worker shortages.



Figure 2.9: Worker shortages by sector, BICS, UK, 2021-2023

Source: LPC analysis using ONS BICS data, UK, Nov 2021-Oct 2023.

2.29 We heard a lot from stakeholders in spring/summer 2023 about the impacts of vacancies. The CBI argued that labour market pressures were a drag on growth: "The tightness in the labour market and the inability to fill vacancies is severely hampering firms' ability to operate at their full capacity, let alone grow." The BCC told us skills shortages meant firms had reduced their output, and existing staff had been pushed harder than normal.

2.30 The Food and Drink Federation (FDF) described the labour market as very tight, with vacancy rates of twice the wider sectoral rate holding back growth: "businesses are managing to just about fill current orders and that's through overtime." They described various factors behind workforce issues: an ageing workforce, lack of migrant workers to fill entry-level roles, competition from other sectors with better hours and greater flexibility and geographical location.

2.31 Make UK told us vacancy rates had fallen sharply from mid-2022 but were higher than prepandemic: "a lack of the right technical skills is the most prominent barrier to recruitment and followed by an insufficient number of applications ... we've gone from talking about not having enough people with the right skills to just having not having enough people." Manufacturing NI described the local labour market as "white hot ... I've been saying to employers for the last 18 months, assume from this day forward you will never be able to recruit anyone ever again." These high levels of demand reflect the high growth in PAYE RTI employee numbers in Northern Ireland we reported earlier.

2.32 Some employers however commented that in their sectors they were seeing signs of a loosening labour market. The British Retail Consortium (BRC) stated that "vacancies in the retail sector [are] 7.9% below pre-pandemic levels. This suggests a loosening labour market where retail businesses are having less difficulty in filling a range of roles though there remains some areas of recruitment need." REC also thought labour shortages were easing, with their index showing "the steepest increase in labour supply for nearly two-and-a-half years." They attributed this to "redundancies linked to economic

uncertainty, company restructuring efforts, and workers being more willing to look for new roles for higher pay".

Increasing workers from overseas have helped reduce vacancies in some key areas

2.33 Workers from outside the UK have and continue to play an important role in our labour market. We discussed earlier in this chapter that we have seen a rise in non-EU workers in recent years. This is partly in response to Government's attempts to alleviate skilled worker shortages, offsetting falls in inflows from the EU. The resulting increase in the supply of labour may have helped to reduce aggregate firm vacancies.

2.34 Changes to migration policy post Brexit, Russia's invasion of Ukraine and the treatment of Hong Kong residents have led to the creation of a series of new UK visa categories for work, study and humanitarian reasons. Previous Tier 2 worker visas have been replaced with targeted skilled worker visas whilst previous Tier 5 routes have been replaced by a series of equivalent temporary worker visas. Salary thresholds of £26,200 make it more difficult financially though for most low-paying sectors to recruit foreign workers and help explain the increased staffing pressures felt by these sectors. Firms can though recruit individuals on student visas, those on graduate visas or spouses of those on skilled worker visas, all of whom are allowed to work in any job in the UK.

2.35 In the year to June 2023 there were 321,000 main applicant work visas granted, up 45 per cent on the previous year. Of these around 210,000 were sponsored work visas, the main route for skilled workers. These included 69,000 Skilled Worker visas and 121,000 Health and Care Worker visas (up 74,000 or 157 per cent on the previous year). Care workers and home carers became eligible for the Skilled Worker – Health and Care visa route in February 2022 following a recommendation from the Migration Advisory Committee (2021) in their 2021 Report. Figure 2.10 highlights how these skilled worker visas have increased in numbers in recent years.





Source: Entry clearance visa applications and outcomes – Vis_D02, Jun 2019-Jun 2023.

2.36 Temporary worker visas are for shorter-term work that tends not to lead to settlement. Seasonal worker visas have increased rapidly in number in the last few years. They have been used mainly in the agricultural sector to plug specific gaps – gaps that largely arose following the end of freedom of movement for EU workers. They now form the largest component of all temporary worker visas as shown in Figure 2.11.

Figure 2.11: 'Temporary Worker' visas granted to main applicants, year ending June 2019 - June 2023



Source: Entry clearance visa applicationns and outcomes – Vis_D02, Jun 2019-Jun 2023.

2.37 One other connected group that may be helping to ease recruitment issues are the dependents of those working and studying in the UK. These individuals are allowed under immigration rules to carry out almost any job role, unlike the main work visa holder. In the year to June 2023 there were 218,000 work category dependent visas granted. This was double the number in the year to June 2022 which in turn was double those in the year to June 2021. The majority of these dependents (138,000) are from the Skilled Worker – Health and Care visa route. In addition, there were over 150,000 dependents of

those on study visas in the year to June 2023. A conundrum for government is how to balance the impact of the visa system on net migration whilst addressing key labour shortages. It has already announced that dependents of those on student visas will be restricted from January 2024.

2.38 Stakeholders had a range of views on the role and importance of migrant workers. The BCC reported SMEs were not accessing migrant workers through the visa system: "Only 9% of SMEs surveyed had used the system in the last three years, with many citing the cost and complexity as barriers." The NHBF stated that Brexit had been a significant factor in the sector's skills crisis, and they had lobbied the Migration Advisory Committee to ask for senior roles to be added to the shortage occupations list.

2.39 On our London visit, the director of a group of nurseries told us recruitment had become so difficult they were now recruiting from abroad and despite the associated Home Office fees "this had been a saviour for us". Sponsoring costs were around "£750 to get the license then to recruit every staff member for a three-year period for a three-year sponsorship will cost you in the region of £1,300" – figures significantly lower than the expectations of other small businesses in the meeting. Center Parcs noted that "we didn't employ very large numbers of EU migrants … but in the communities where we operate, they did. And now that that labour market has gone exactly the labour pool has shrunk. So we're all fighting for exactly the same people."

Inactivity appears on a downwards trajectory

2.40 During and then after the pandemic we saw inactivity (those individuals neither working nor actively seeking employment) levels and rates increase. This followed a steady decade long reduction fuelled by increasing levels of female participation in the workplace. For most of the last twelve months we have seen a return to falling inactivity as figures dropped by 350,000 from August 2022 to May 2023. In the most recent data to July 2023 we have seen an uptick in inactivity although this coincides with the period that the Labour Force Survey (LFS), the sole source of inactivity, became less reliable.





Source: LPC analysis of ONS 16-64 inactivity levels (LF2M) and rates (LF2S), monthly, seasonally adjusted, UK, Jul 2008-Jul 2023.

2.41 Figure 2.13 shows the change in total levels of inactivity since February 2020 by age and gender. The majority of the increase seen up to a year ago was among men. While this remains true in aggregate terms, male inactivity fell sharply by 300,000 between August 2022 and May 2023 (subsequent increases up to July 2023 are likely distorted by the large fall in LFS responses at that time). All age groups saw a reduction in levels of inactivity. Total female inactivity reduced marginally by around 50,000 in the same period.



Figure 2.13: Net change in inactivity levels since February 2020 by age and gender, UK, 2020-2023

Source: LPC analysis of ONS LFS inactivity data: monthly, seasonally adjusted, UK, Feb 2020-Jul 2023.

2.42 Figure 2.14 examines the change in the various reasons for being inactive by gender since February 2020. The recent sharp total fall observed in male inactivity appears to be a result of a large drop in those stating they are inactive students (though they may still be inactive for another reason). Those inactive for other reasons returned close to pre-pandemic levels with one notable exception – long-term sickness where despite some fluctuation levels have remained well above February 2020.

2.43 Females have seen a gradual reduction in of overall levels inactivity with fewer women stating they are inactive as a result of looking after family/home. However, there has been a sharp increase in inactive females stating long-term sick as the reason with around 200,000 more in the twelve months from June 2022.



Figure 2.14: Change in inactivity since February 2020 by reason and gender, UK

Source: LPC analysis of ONS LFS inactivity data: monthly, seasonally adjusted, UK, Feb 2020-Jul 2023.

2.44 The increases in those stating long-term sick as the reason for inactivity are a real concern although LFS data issues make it difficult to know exactly how reliable the estimates are. We do know that sickness in the UK is increasing. In 2023 there were both record numbers on NHS waiting lists and on Universal Credit with a health condition. Reducing current levels of long-term sickness is one key to increasing the supply of labour and helping to take advantage of high levels of vacancies that continue to remain in the UK economy.

Softening demand has had little impact on redundancies and unemployment

Redundancy rates are increasing but from a low base

2.45 The uncertain economic outlook and recent softening in vacancy data has not resulted in large increases in redundancies. Fig 2.15 shows Insolvency Service HR1 potential redundancy notifications alongside BICS data showing the share of firms stating they expect to make redundancies in the next 3 months. Firms are required to submit an HR1 if they are planning on making 20 or more redundancies. The data suggests while there has been a slight increase into 2023 on both measures, firms at the aggregate level do not appear to be planning on making large scale redundancies.



Figure 2.15: HR1 potential redundancy notifications and BICS planned redundancies, UK, 2019-2023

Source: LPC estimates using ONS HR1 notifications, weekly, not seasonally adjusted, GB, May 2019-Sep 2023 and ONS BICS data, fortnightly, UK, Dec 2020-Sep 2023.

2.46 Figure 2.16 shows forecast redundancy data by size of firm. Each category of firm size has seen an increase in the share saying they are likely to make redundancies but it is more pronounced for larger firms. The proportion of the largest firms (250+ employees) stating they are likely to make redundancies in the next three months has almost doubled from just over three per cent in September 2022 to six per cent in September 2023 - although both BICS and HR1 data look at redundancy intentions these do not always result in actual redundancies. ONS outturn data of those actually made redundant shows a slight uptick as rates increased from 2.3 per cent in July 2022 to 3.6 per cent in July 2023, however these recent figures are in line with pre-pandemic rates and remain low historically.





Source: LPC estimates using ONS BICS data, fortnightly, not seasonally adjusted, UK, Waves 20-90 (Dec 2020-Sep 2023).

Unemployment has begun to pick up slowly

2.47 We have seen demand for labour softening somewhat in the form of vacancies across 2023. Here we look at the impact that this easing had on unemployment.

2.48 After the pandemic spike (although this was not as high as initially forecast) in unemployment it fell quickly, helped by record vacancy levels. In August 2022 unemployment derived from the LFS was at a record low of 1.2 million or 3.5 per cent. It has since picked up, albeit slowly, and stood at 4.3 per cent in July 2023. Again, the same LFS issues already highlighted make the latest data points less reliable. Unemployment has increased most for younger workers aged 18-24 – a 150,000 rise which has seen their rate increase from 7.5 per cent to 11.5 per cent. We discuss this more in Chapter 5 on young people.



Figure 2.17: Unemployment level and rate, UK, 2008-2023

2.49 The relationship between job vacancies and unemployment can be shown using the Beveridge curve. High demand for workers in the form of vacancies usually correlates with lower unemployment. Conversely in periods of downturn and uncertainty we see firms cut recruitment. As this demand for labour falls, we tend to see rising unemployment. Figure 2.18 shows we now appear to be moving from the former to the latter, albeit slowly and the extent to which the curve will shift to the right is uncertain. The Bank of England forecast unemployment will continue to rise but they only expect it to reach 4.5 per cent by 2024 Q4 suggesting the labour market will remain fairly resilient in the near term.

Source: LPC estimates using ONS 16+ unemployment levels (MGSC) and rates (MGSX), monthly, seasonally adjusted, UK, Apr 2008-Jul 2023.



Figure 2.18: Beveridge Curve: vacancy and unemployment rates, UK, 2001-2023

Source: LPC estimates using ONS unemployment (MGSC), vacancies (AP2Y) and 16+ employment (MGRZ) data, quarterly, seasonally adjusted, UK, Jan 2008-Aug 2023.

Pay growth remains high despite a loosening labour market

2.50 Demand for labour in the form of higher vacancies increased as the UK emerged from the pandemic and the economy fully reopened. Firms found that to attract and retain staff in a competitive labour market they needed to offer higher pay. Despite the cost of living placing additional upwards pressure on pay, KPMG and REC (2023) pointed to an easing of pay growth in their October 2023 Report on jobs with the rate of wage inflation at two and a half year lows for both permanent starting salaries and temporary staff wages.

2.51 Figure 2.19 illustrates how both Average Weekly Earnings (AWE) and the PAYE RTI median of nominal pay growth picked up strongly in the first half of 2023. AWE total pay increased to 8.5 per cent in the year to July before dropping slightly to 8.1 per cent in August. PAYE RTI median of pay growth rose to similar levels, reaching 8.2 per cent in June. However, since then it has fallen rapidly, dropping to 6.0 per cent by September. As pay pressures continue to ease and wage growth drops, October forecasts from HM Treasury (2023e) panel and the August Bank of England forecasts (2023c) are for AWE to fall towards 6 per cent by the end of 2023 and then drop further to 3.5 per cent by the end of 2024.



Figure 2.19: Average Weekly Earnings (AWE) total pay growth, PAYE RTI median of monthly pay growth and forecasts of AWE total pay growth, 2015-2024

Source: LPC estimates using ONS AWE total (KAC3), PAYE RTI median of pay growth data, monthly, seasonally adjusted, UK, Dec 2015-Sep 2023 and HMT panel forecasts (Oct 2023) and BoE forecasts (Aug 2023).

2.52 The immediate post-pandemic period of increased labour demand coincided with supply chain disruptions and rising energy costs. Higher inflation resulted in increased wage demands from workers and trade unions in an attempt to prevent real-terms pay cuts. We heard from a number of stakeholders how firms attempted to mitigate the impacts of inflation on their employees, including one-off non-consolidated cost of living payments and multiple pay awards within the year.

2.53 Strong recent pay growth can be clearly seen in pay settlement data. Figure 2.20 shows median pay settlements using XpertHR and Incomes Data Research (IDR) data rose to 6% in the first half of 2023, the highest level of nominal pay award since data began being collected in 2004. Labour Research Department (LRD) records trade union negotiated settlements and show slightly higher levels of pay awards at around 7 per cent. In the same period CPI inflation rose sharply to a record high of 11.1% in October 2022. It has fallen consistently through 2023, reaching 6.7 per cent in August 2023 and was expected to fall further throughout the second half of the year though remaining above its two per cent target. Forecasts for 2024 pay settlements, while lower than 2023 remain high with a modal pay award of 5-6 per cent.



Figure 2.20: Pay settlements, UK, 2005-2023

Source: LPC estimates using median of pay awards in last three months from IDR, LRD and XpertHR; and CPI inflation (D7G7), monthly, seasonally adjusted, UK, Sep 2005-Sep 2023.

Higher wages failed to keep with up prices until recently

2.54 The strong nominal pay growth in 2023 has struggled to maintain the real value of earnings. Average real total pay (accounting for inflation) which peaked at £527 per week in March 2022 dropped to £504 in December 2022/January 2023. Average real regular pay also fell from its peak of £491 per week in April 2021 to £472 in March 2023. Falling inflation across 2023 meant a return to real wage increases for the first time in almost two years in both AWE total pay (from February 2023) and regular pay (from April 2023).

2.55 Falling real pay growth is not the norm however. Real wages grew steadily for decades until the global financial crisis (GFC) in 2008, shown in Figure 2.21. Following six years of negative growth pay once again increased in real terms from 2014. It is only in this recent post-pandemic/cost of living crisis period that we saw a return to negative real pay growth.



Figure 2.21: Real Average Weekly Earnings total and regular pay, GB, 2001-2023

Source: LPC estimates using BoE Millennium of Macroeconomic data for the UK 1963-1999, ONS total pay (KAB9) and CPI (D7G7), annual, seasonally adjusted, GB, 1963-2022.

Conclusions

2.56 The labour market has remained remarkably resilient. Employment looks to have grown although data issues with the Labour Force Survey have made it difficult to accurately estimate the jobs recovery seen in alternative data sources. We have seen a loosening in demand as vacancies continue to drop though levels remain above pre-pandemic. But the position is uneven across sectors and firms from low-paying sectors, particularly impacted by the pandemic continue to face higher rates of staff shortages than firms from higher paying sectors. Unemployment and redundancies both picked up slightly yet remain low historically.

2.57 One worrying aspect of the labour market in recent years has been the increase in levels of inactivity. Encouragingly we have seen overall levels drop but there are very different gender patterns of inactivity. Most reasons for inactivity have fallen but long-term sickness continues to increase to new record highs and remains a concern.

2.58 Pay growth remains high despite a loosening labour market as record high inflation fuelled wage demands. After almost two years there was finally a return to real wage growth as inflation started to fall back in 2023. HMT panel forecasts are for pay growth to drop sharply by the end of 2024 as inflation heads back towards target. However, modal pay settlements are forecast to remain elevated at 5-6 per cent.

2.59 The weak economic outlook as discussed in Chapter one is likely to impact the labour market across 2024. Continuing uncertainty for firms is forecast to result in stagnating aggregate employment levels while unemployment is expected to pick up slightly.

Chapter 3 Who are minimum wage workers?

Key findings

- Minimum wage coverage has fallen between 2019 and 2023 from 2 million to less than 1.6 million.
 We have though seen an increase in coverage rates for workers aged 23-24 who became entitled to the National Living Wage in 2021.
- Despite a drop in their coverage women remain more likely than men to be minimum wage workers, making up 58 per cent all minimum wage jobs.
- Levels of minimum wage workers remain highest in retail and hospitality. While generally we have seen coverage fall in low-paying occupations, between 2022 and 2023 coverage rates increased in both retail and social care. They also increased in non-low pay occupations.
- Workers are more likely to be paid the minimum wage if they are employed by small and micro firms than larger firms.
- The rising minimum wage has helped to sharply reduce low hourly pay in recent years. But this does
 not necessarily translate into reducing the incidence of low weekly pay as weekly pay is affected
 more by the number of hours worked than the hourly rate of pay.
- We heard lots this year from stakeholders about the impacts of rising living costs and the hardship borne by low-paid workers despite the NLW's increase. Unions told us about the use of unsecured borrowing to pay bills and the high levels of in work poverty while workers highlighted the growing use of food banks.
- Stakeholders highlighted a range of issues that impacted on job mobility. They included childcare, a lack of public transport, Universal Credit, reduced employment rights for new starters and lack of progression opportunities as leading factors. Workers told us of the fear of the unknown when considering moving jobs, saying "the grass isn't always greener".

3.1 In this chapter we look in more detail at who minimum wage workers are. We look at how many workers are paid the minimum wage, their characteristics and changes since 2019. These topics are also covered in more detail for each rate population in Chapters 4, 5 and 6. We then look at the differences between low hourly and low weekly pay and their relationship with hours worked. We finish by looking at the experience of low-paid workers, using examples heard directly from workers on our visits and from stakeholder evidence.

Minimum wage coverage fell slightly in 2023

3.2 National Minimum Wage (NMW) rates are dependent on age or if you are an apprentice. We refer to workers paid the statutory minimum as being 'covered' by the minimum wage. Our strict definition of coverage is those jobs paid within 5 pence of the NMW rates and jobs paid less than the minimum wage, which we refer to as underpayment. Coverage refers only to jobs done by employees, as self-employed workers are not eligible for the minimum wage. We measure coverage in terms of jobs rather than workers, as one worker could be working multiple jobs at different wages.

3.3 In 2023 coverage fell slightly, despite large increases in all the NMW rates. This is likely explained by the tight labour market, as discussed in Chapter 2 and Chapter 4, with firms competing to both recruit and retain staff. Total coverage dropped by 33,000 from 1.59 million in 2022 to 1.56 million in 2023 (5.3 per cent of employee jobs). This is some 400,000 lower than before the pandemic in 2019, as shown in Figure 3.1.





Source: LPC analysis of ASHE, low-pay weights, chain-linked, UK, 2013-2023. Grey bars/dotted lines indicate the period of the pandemic.

3.4 The majority of the fall is among older workers aged 25 and over where coverage is down 390,000, the rate fell from 6.6 per cent to 4.8 per cent for this group. 18-20 year olds saw the largest drop in the coverage rate, down from 12 per cent to 8.4 per cent. 23-24 year olds on the other hand saw coverage increase, likely a result of becoming eligible for the NLW in 2021. The small decrease between 2022 and 2023 was mostly from those workers aged 23 and over entitled to the highest minimum wage rate, the National Living Wage (NLW), where coverage fell by 32,000. We discuss coverage for NLW workers in more detail in Chapter 4, while coverage for younger workers and apprentices is examined in Chapters 5 and 6 respectively.

	2019 2		202	22	2023	
Minimum wage	Covered	Coverage	Covered	Coverage	Covered	Coverage
population	(thousands)	rate	(thousands)	rate	(thousands)	rate
		(per cent)		(per cent)		(per cent)
AR ^a	31	16.4	33	15.2	26	13.1
16-17	36	12.3	28	8.5	35	10.2
18-20	116	12.0	85	9.5	77	8.4
21-22 ^b	98	10.9	84	10.0	91	11.0
23-24°	57	5.2	102	9.3	90	8.0
25+ ^d	1,649	6.6	1,260	4.9	1,240	4.8
Total	1,987	7.0	1,592	5.5	1,559	5.3

Table 3.1: Number and per cent of employee jobs covered by the minimum wage, by rate population, UK, 2019, 2022 and 2023

Source: LPC analysis of ASHE, low-pay weights, UK, 2019-2023 chain-linked. Notes:

a. AR stands for Apprentice Rate.

b. 21-22 became a new rate in 2021. Prior to this they were part of the 21-24 Year Old Rate.

c. 23-24 year olds became entitled to the NLW in 2021. Prior to this they were part of the 21-24 Year Old Rate.

d. Row shows figures for 25+ only. NLW was 25+ from introduction in 2016 until addition of 23-24 year olds in 2021. NLW coverage for 2022 and 2023 can be calculated by summing 23-24 and 25+ figures.

e. Figures are chain-linked.

f. Figures may not sum due to rounding.

Adjusting for inflation, the share of jobs paid just above the NLW has increased since 2022

3.5 As well as looking at jobs covered by the minimum wage rates we are also interested in those paid just above the statutory minima and how this has changed over time. We hear from stakeholders and from employers that many firms don't want to be seen as a minimum wage employer, choosing to pay close to but above the NLW. Some firms do this to maintain pay differentials either within their firm or between their firm and other firms. Another reason that firms might pay slightly above the minimum wage is to reduce risk of non-compliance. A quarter of employers affected by the National Minimum Wage reported doing this (CIPD, 2023a).

3.6 The share of jobs paid close to the NLW has increased slightly. Figure 3.2 shows that in 2023 there were 11 per cent of jobs paid within 50 pence of the NLW when adjusting for inflation. This is up slightly on 2022 figures. When we extend the pay gap up to £1 above the NLW we find 17 per cent of jobs. If we adjust for inflation, this proportion is greater than at any point since the NLW was introduced, suggesting a compression of the (real) pay distribution following recent large NLW rises. We look at this in more detail in Chapter 4.



Figure 3.2: Per cent of jobs within 50p or £1 of the adult NMW/NLW, 2012-2023, UK

Source: LPC analysis of ASHE, UK, low-pay weights, 2012-2023. NLW eligible population refers to workers aged 25 and over before 2021 and 23 and over from 2021, due to NLW eligibility change, excludes first year apprentices. Figures are chain-linked to adjust for methodology change in 2021.

Characteristics of minimum wage workers

Coverage is higher for women, younger workers and older workers

3.7 Despite coverage falling sharply since 2019 women remain much more likely to undertake minimum wage roles than men. They represent 58 per cent of all minimum wage jobs, despite making up less than half of the workforce. The female coverage rate (the share of minimum wage jobs relative to all jobs) is 6.2 per cent for compared to 4.5 per cent for men.

3.8 Coverage varies greatly by age. While the vast majority of minimum wage jobs (1.2 million or around 80 per cent) are done by workers aged 21-59 it is younger and older workers who are more likely to be paid the minimum wage. Around one in ten jobs of those under 21 (both male and female) are minimum wage jobs. Women aged 60 and over and men 65 and over also have higher rates of coverage. While the drop in coverage was small in 2023 it is notable that 26,000 of the 33,000 reduction was among women, most of whom were aged under 30.

	Number of jobs covered (thousands)					
	2019		2022		2023	
Age group	Female	Male	Female	Male	Female	Male
Under 21	94	86	79	66	71	64
21-29	224	176	186	172	178	178
30-39	258	157	183	124	182	124
40-49	254	129	177	119	172	103
50-59	267	117	179	98	182	100
60-64	92	48	81	46	78	48
65+	46	38	46	36	42	36
Total	1,236	751	931	661	905	654

Table 3.2: Number and per cent of employee jobs covered, by age group and gender,
UK, 2019, 2022 and 2023

	Coverage rate (per cent)						
	2019		2022		2023		
Age group	Female	Male	Female	Male	Female	Male	
Under 21	13.1	12.8	10.9	10.3	10.0	9.5	
21-29	8.5	6.6	7.1	6.4	6.7	6.4	
30-39	7.9	4.6	5.4	3.4	5.3	3.4	
40-49	7.6	4.0	5.3	3.6	5.2	3.2	
50-59	8.4	4.1	5.7	3.3	5.9	3.4	
60-64	10.9	5.9	8.7	4.9	8.3	4.9	
65+	12.9	9.6	11.3	7.9	9.8	7.6	
Total	8.5	5.3	6.4	4.5	6.2	4.5	

Source: LPC analysis of ASHE, low-pay weights, UK, 2019-2023 chain-linked. Does not include employee jobs with missing gender or age data.

3.9 There are other characteristics, both personal and job related, that result in workers being more likely to be employed in minimum wage roles. Figure 3.3 shows how part-time jobs (12 per cent) are four times more likely to pay the minimum wage than full-time jobs (2.9 per cent). Workers with temporary jobs, those working multiple jobs and those paid an hourly rate are also more likely to be minimum wage workers than comparators in permanent roles, with one job and who are salaried.

3.10 Around half of all minimum wage jobs in 2023 were in small and micro sized firms yet fewer than one quarter of all employee jobs are found in small and micro firms. The coverage rate in the smallest micro firms (fewer than 10 employees) is 16 per cent of jobs and in small firms (10-49 employees) is 8.6 per cent.

3.11 The vast majority of minimum wage workers (1.4 million) work in the private sector, where 7.1 per cent of employee jobs are minimum wage. Some publicly funded sectors, such as childcare and social care, contain large numbers of minimum wage workers. Workers in these sectors are often employed by private and third sector organisations, who rely on public funding. We discuss social care in more detail in Chapter 8.
Figure 3.3: Per cent of employee jobs covered by the relevant NMW/NLW rate, by personal and job characteristics, UK, 2019 and 2023



Source: LPC analysis of ASHE, low-pay weights, chain-linked, UK, 2019-2023.

3.12 Figure 3.3 uses data from the Annual Survey of Hours and Earnings (ASHE), our main source of pay data but one which has limited characteristic information. The Labour Force Survey (LFS) contains a much broader range of characteristics but is less accurate than ASHE at measuring pay as many responders don't answer the pay question or round their answer. However, we can estimate minimum wage coverage of main jobs from the LFS using an imputation methodology to estimate hourly pay for workers who do not have a stated hourly pay rate. This methodology tends to produce higher rates of coverage and is more volatile, but it is helpful in assessing relative differences both within and across characteristics and for looking at changes over time.

3.13 The following analysis uses LFS data to estimate coverage rates over time across a number of additional characteristics. As highlighted in Chapter 2 there are concerns over the reliability of LFS data since the pandemic and particularly in the most recent period. This is most relevant when looking at smaller subsets of the population as we do here and so we suggest caution when trying to interpret changes.

3.14 Figure 3.4 shows how minimum wage coverage for all workers has changed by ethnicity. After observing a sharp fall in the coverage rate for Bangladeshi workers across the pandemic period, more recent data shows their rate of coverage increasing again to over 15 per cent. Pakistani workers have the next highest rate with around one in ten workers covered by the minimum wage. Remaining ethnicities are closely grouped with similar coverage rates.



Figure 3.4: Total coverage by ethnicity, 2016-2023, UK

Source: LPC estimates using LFS microdata, imputed wage, quarterly, income weights, rolling four quarter average, not seasonally adjusted, UK, 2015 Q4-2023 Q2.

3.15 There appears to have been convergence in rates of coverage between those born in the UK and those born outside the UK since the pandemic. Figure 3.5 shows how coverage has fallen for non-UK workers from over 10 per cent in 2020 to around 6 per cent in the year to 2023 quarter two. There is some uncertainty over the reliability of data since the pandemic – non response bias resulted in the Labour Force Survey undercounting non UK born workers relative to administrative data and could be causing the drop in coverage rates observed. The UK born coverage rate has also fallen, but to a lesser extent and is in line with the overall reduction in minimum wage coverage we have seen in recent years.



Figure 3.5: Total coverage by country of birth, 2016-2023, UK

Source: LPC estimates using LFS microdata, imputed wage, quarterly, income weights, rolling four quarter average, not seasonally adjusted, UK, 2015 Q4-2023 Q2.

3.16 We saw a sharp drop in the coverage rate for workers without qualifications from 25 per cent pre-pandemic to 18 per cent over the pandemic period. Coverage has remained at this lower rate in the

last couple of years. This fall mirrors a reduction in workers without qualifications among covered workers. They now only make up around 10 per cent of coverage compared with around 15 per cent less than 5 years earlier – as overall levels of those with no qualifications fall.

3.17 Coverage for workers with a disability in Figure 3.6 shows a similar story with rates falling from around 12 per cent in the pre-pandemic period to around 9 per cent by 2022. However, those workers without a disability have seen similar falls. As a result, those with a disability remain around 50 per cent more likely to be employed in minimum wage roles than their counterparts. It is also worth noting the significant compositional change observed with large increases in the number of workers reporting a disability, especially since the pandemic.





Source: LPC estimates using LFS microdata, imputed wage, quarterly, income weights, rolling four quarter average, not seasonally adjusted, UK, 2015 Q4-2023 Q2.

Note: Disability coverage figures use the LFS Discurr variable. This is different to analysis elsewhere in the report using the DISEA variable.

Box 3.1: New techniques for identifying the characteristics of minimum wage workers

Understanding the characteristics of minimum wage workers is an important part of understanding the impact of NLW changes. In this chapter we focus on single characteristics, such as age and gender. However, in reality a combination of multiple characteristics and circumstances – many of which we can't see in the data – determine who is likely to be earning the minimum wage at a given time.

In 2023, we commissioned London Economics to explore whether machine learning techniques could help us to identify the most important combinations of characteristics found among minimum wage workers. They also looked at whether we could use this knowledge to identify 'potential' minimum wage workers – those who are not currently working but would likely be in a minimum wage job if they were.

This research echoed what we see from looking at single characteristics: qualification, age and gender tend to be the personal characteristics that best predict whether someone is likely to be a minimum wage worker. But it also found that minimum wage employment is more about the jobs people are in than who the worker is. Personal characteristics alone – at least those available in our data sources – were not good predictors of whether someone was paid the minimum wage, even when combined.

Coverage is down in low-paying occupations

3.18 Minimum wage employment is concentrated in a number of occupation groups that we call low-paying, based on both the number and share of minimum wage jobs. Retail and hospitality continue to be the two low-paying occupations with most minimum wage workers, each with over 250,000. Appendix 3 details our full list of low-paying occupations.

3.19 The coverage rate is down across low-paying sectors since 2019 but has remained flat in nonlow paying sectors. However, having fallen from 2019-2022, between 2022 and 2023 we saw increases in coverage rates for both retail and social care, up from 12.8 per cent to 14.3 per cent and 7.3 per cent to 9.3 per cent respectively.

3.20 An extra 25,000 jobs in non-low paying occupations were covered by the minimum wage between 2022 and 2023. This resulted in their coverage rate increasing from 1.5 per cent to 1.6 per cent. As the National Living Wage (NLW) rises to reach the government's target of two-thirds of median earnings we expect to see more jobs from outside our traditional low-paying occupations to be covered by the minimum wage. We discuss this in more detail in our upcoming report (Low Pay Commission, forthcoming) on the minimum wage beyond 2024.

	2019		202	22	2023		
Minimum wage	Covered	Coverage	Covered	Coverage	Covered	Coverage rate	
population	(thousands)	rate	(thousands)	rate	(thousands)		
		(per cent)		(per cent)		(per cent)	
Retail	352	16.7	257	12.8	260	14.3	
Hospitality	338	23.8	248	20.4	252	19.1	
Cleaning	266	29.3	208	23.9	172	20.6	
Social care	104	13.1	57	7.3	68	9.3	
Other low-paying	641	11.5	546	10.1	504	9.7	
Non-low paying	287	1.6	277	1.5	302	1.6	
Total	1,987	7.0	1,592	5.5	1,559	5.3	

Table 3.3: Number and per cent of employee jobs covered, by low-paying occupation,
UK, 2019, 2022 and 2023

Source: LPC analysis of ASHE, low-pay weights, UK, 2019-2023. Does not include employee jobs with missing occupation data. Figures may not sum due to rounding. Figures are chain-linked.

Minimum wage workers are more likely to live in cities outside of London

3.21 Figure 3.7 maps the proportion of jobs in each local authority covered by the minimum wage in April 2023 on the left and on the right shows the proportion of resident workers in each local authority covered by the minimum wage. So the left is workplace based, describing the jobs in an area and the right is residence based, describing the people who live in an area.

3.22 Coverage rates on a workplace basis are highest across much of Lincolnshire, parts of the Midlands and the North West and London, and a number of coastal areas, particularly in the East and South East of England. Coverage is lowest in large parts of Scotland, along the M4 corridor in the South of England and most major cities.

3.23 Many areas that have high rates of coverage on a workplace basis have lower rates when we actually look at the workers that live there. We see this in many coastal areas: they tend to have large shares of low-paid jobs but lower rats of coverage for those workers living there. Very few areas have higher coverage rates by residence than workplace.

Figure 3.7: Local Authority NLW coverage on workplace [LHS] and residence basis [RHS], 2023, UK



Source: LPC estimates of ASHE, SOC20 low pay weights, UK, 2023. Note: coverage data for Northern Ireland is not available by local authority and does not differ on a work or home basis.

Half of minimum wage workers drive to work but the share is falling

3.24 We have heard lots in recent years about the impact of transport on low-paid workers. We look now at how methods of transport used by workers have changed in recent years and supplement this with evidence from workers and stakeholders, detailing how the cost and availability of transport hampers low-paid workers.

3.25 Figure 3.8 shows how the share of total coverage by how they travel to work has changed in the last few years. Prior to the pandemic in 2019 around three in five minimum wage workers used the car to travel to work - that has now fallen to below half. One in four now walk to work, up from one in five. While the share taking the bus has remained the same, more are now using bicycles for work.



Figure 3.8: Share of minimum wage coverage by mode of transport, 2015-2022, UK

Source: LPC estimates using LFS microdata, imputed wage, quarterly, income weights, rolling four quarter average, not seasonally adjusted, UK, 2015 Q4-2022 Q4.

Note: Data excludes those working outside the UK. 'Other' way of travelling not shown.

3.26 We can compare this to the rest of the working population by looking at coverage rates within each mode of transport. Figure 3.9 shows that while almost half of minimum wage workers use their car for work, the coverage rate for those driving to work has fallen to around five per cent, as minimum wage workers make up a small share of all employees. Coverage rates remain highest for those who walk or take the bus to work. We have also seen an increase in the coverage rate for those cycling to work to around eight per cent, its highest rate since 2016.



Figure 3.9: Coverage rate by mode of transport, 2015-2022

Source: LPC estimates using LFS microdata, imputed wage, quarterly, income weights, rolling four quarter average, not seasonally adjusted, UK, 2015 Q4-2022 Q4.

Transport limits low-paid workers' opportunities

3.27 We have heard lots from stakeholders about the importance of transport. This is the case not just for workers on low pay but also for employers as they seek to attract staff. During a meeting with stakeholders REC shared the following example: "One member based in the South West offered a graduate programme to 10 candidates. On the first day of the programme only one of the individuals turned up. That individual had ridden a bike and taken two buses to make it to the remote working site. The other 9 were not able to practically get to the site to start work."

3.28 A retail worker in Edinburgh told us they had turned down a promotion opportunity as they would have had to travel further, so it wasn't viable despite the increase in pay. On the Edinburgh visit, the SWC summarised: "women in [rural] areas didn't want to do that work for that price [the NLW], because when you offset ... the cost of everything, they were getting paid less money. So that's why there's this huge gap now in getting workers in – because of the money they would have to pay out on childcare and on travelling to these areas and food actually outweighs what they would be getting paid." The SWC also told us women were less likely to own their own car, used public transport more and often preferred to work locally given caring responsibilities.

3.29 On our London visit, Travelodge told us that cost and availability of transport was "huge for us" when recruiting, particularly in rural areas where buses don't run late, a particular issue with nighttime working in hospitality. A hospitality worker in Belfast described the same problem, with many night workers not finishing until 3 or 4am, long after bus services had ceased. This was compounded by a fall in the number of regulated taxis and the removal of special taxis for night workers and women. Unregulated taxis charged more and were associated with "a nasty underbelly of harassment".

3.30 Where public transport is available, it may not be affordable. A retail worker in Edinburgh complained that "Every year for the last three years fares have increased. [It costs] £6.40 for a return ticket on a 12-minute bus journey." Youth Employment UK told us that availability and affordability was a big problem for young people, especially as their confidence and willingness to travel beyond their immediate location had decreased. They reported a discussion with young people in Wolverhampton, who didn't feel like opportunities in Birmingham (a 15-20 minute train ride away) were for them: "they thought of it as a different world".

3.31 Rising fuel costs were a central concern. On the Birmingham visit, Center Parcs noted the cost of living crisis was felt particularly acutely in all communities where they don't have the same level of access to public transportation. "I've heard stories from members of staff who, on a full weekly pay cycle at the end of that period don't have sufficient money to pay for the fuel in their car to get to work to earn the money to put more fuel in the car." The Local Government Association (LGA) noted that the increase in fuel prices had left many workers out of pocket, as fuel could only be reimbursed at the HMRC rate of 45p per mile, which had not kept up with its increasing cost. Retail workers in Edinburgh told us fuel costs were prohibitive: "I'm spending £60-£100 on fuel [for a 15 minute drive to work] and having to skip meals"; "I spend £65 on fuel per week travelling to work."

The links between the minimum wage, low hourly pay and low weekly pay

Recent minimum wage increases sharply reduced those on low hourly pay, but with less impact for low weekly pay

3.32 Low pay is defined by the OECD as less than two-thirds of median full-time earnings for workers aged 21 and over and ONS follow this definition when measuring the incidence of low pay on an hourly or weekly basis. The Government's target is for the NLW to reach two-thirds of median hourly pay (for all workers) by 2024, effectively ending low hourly pay for those workers entitled. Figure 3.10 shows how the move towards this target has swiftly reduced the share of workers with low hourly pay, falling from nine per cent in 2022 to below four per cent in 2023.





Source: LPC estimates of ASHE, SOC20 low-pay weights, 2011-2023. Figures before 2020 use SOC10 weights and are chain-linked so they are on consistent basis with later figures. Both hourly pay and weekly pay measures exclude overtime. 'All worker' measures are for those aged 16+. OECD definition is based on full-time workers aged 21 and over.

3.33 While the share of low weekly paid workers has fallen more slowly than low hourly paid workers, this does not mean that the NLW hasn't led to strong weekly pay growth for those workers. Figure 3.11 shows that hourly and weekly pay growth was highest for those on low hourly rates of pay. Hourly pay growth of 9.6 per cent and 9.2 per cent for jobs in the first and second hourly pay deciles respectively has translated to similar levels of weekly pay growth of 8.9 per cent and 9.2 per cent. This suggests that workers on low hourly pay have not seen a dramatic reduction in their working hours in response to a rising minimum wage.





Source: LPC estimates of ASHE, SOC20 low-pay weights, 2022-2023.

Weekly pay	Hourly Pay Decile									
decile	1	2	3	4	5	6	7	8	9	10
1	3.82	2.27	1.33	0.68	0.48	0.30	0.34	0.26	0.21	0.18
2	2.78	2.45	1.77	1.07	0.74	0.41	0.27	0.22	0.27	0.13
3	2.36	3.14	2.15	0.92	0.46	0.36	0.27	0.16	0.11	0.10
4	0.57	1.39	3.08	3.23	0.76	0.32	0.24	0.23	0.12	0.06
5	0.21	0.49	0.99	2.56	4.06	0.96	0.29	0.22	0.17	0.05
6	0.10	0.19	0.39	0.96	2.19	4.54	1.06	0.29	0.22	0.07
7	0.05	0.09	0.20	0.37	0.85	2.14	4.75	1.15	0.29	0.10
8	0.02	0.03	0.07	0.16	0.31	0.67	2.15	5.22	1.18	0.20
9	0.00	0.02	0.03	0.05	0.12	0.25	0.54	2.03	6.21	0.75
10	0.00	0.00	0.00	0.01	0.02	0.05	0.10	0.22	1.23	8.37

Table 3.4: Per cent of employee jobs by hourly and weekly pay decile, UK, 2023

Source: LPC analysis of ASHE, SOC20 standard weights, 2023, UK. Both hourly pay and weekly pay measures exclude overtime. Note: Figures shown are per cent of overall total (100). Each row and column decile sums to 10, although figures shown here may not sum exactly due to rounding. **3.34** The relationship between hourly and weekly pay is shown in Table 3.4. While workers who are lowest paid on an hourly basis tend to be low weekly paid, the relationship is weaker than at the top end of the distribution as weekly pay is dependent on the hours individuals work. Only 38 per cent of workers in the bottom decile of hourly pay are found in the lowest weekly pay decile while 84 per cent of those in the top decile of hourly pay are also in the top decile of weekly pay.

3.35 The prevalence of part-time work in the UK means there is greater variation in hours worked for low paid weekly workers. Higher paid hourly workers can be low weekly paid if they work few hours - 13 per cent of workers in the bottom weekly pay decile earn more than the median hourly pay rate. A rising minimum wage has little impact upon these jobs and as such less of an impact on low weekly pay.

Hourly low pay has fallen sharply for women and younger workers but remains higher for these groups on a weekly pay basis

3.36 The incidence of low hourly and weekly pay has always been much higher for younger people starting out in work relative to their older counterparts – both measures were over 70 per cent in 2013. While around two-thirds remain low weekly-paid the share that are low hourly-paid has fallen sharply. In 2023 it fell to 36 per cent from 45 per cent a year previous. This is in response to both increasing youth minimum wages and spillovers from the NLW down to younger workers. We discuss pay and employment of young people in greater detail in Chapter 5.





Source: LPC estimates of ASHE, SOC20 low-pay weights, 2011-2023, UK. Figures before 2020 use SOC10 weights and are chain-linked so they are on consistent basis with later figures. Both hourly pay and weekly pay measures exclude overtime. Low hourly and low weekly pay measures are defined relative to median earnings for all ages population.

3.37 Women have traditionally been more likely to be low hourly and weekly-paid compared to men. This is partly as women are more likely to be in part-time work (which tend to be lower-paid jobs) than men. Figure 3.13 shows how shares of low hourly pay have converged in recent years. In 2023 the

differential was virtually eradicated as the proportion of women low hourly-paid fell from 10 per cent to 4 per cent. While the share of men low weekly-paid has remained constant at around 15 per cent in recent years, for women this has fallen gradually to one in three in 2023.





Source: LPC estimates of ASHE, SOC20 low-pay weights, 2011-2023, UK. Figures before 2020 use SOC10 weights and are chain-linked so they are on consistent basis with later figures. Both hourly pay and weekly pay measures exclude overtime. Low hourly and low weekly pay measures are defined relative to median earnings for entire population.

Experiences of minimum wage workers

3.38 To understand what it is like to be a minimum wage worker, we complement our analysis by gathering evidence from workers and worker representatives. The following section summarizes that evidence.

Employment conditions and quality of work

3.39 The Trades Union Congress (TUC) argued that quality of work had deteriorated since 2008, with the last 15 years characterised by the rise of insecure work and intensification. They used LFS data to show around one in nine workers were in insecure employment. They noted a sharp divide between professional occupations and others; one in four of those in elementary occupations and one in five in process or plant operative roles are insecurely employed.

3.40 In a similar vein, UNISON argued that insecure work allowed employers to circumvent the minimum wage. They credited the LPC with improving hourly pay, but thought progress when looking at wider definitions of low income was "more muted". They linked this to the prevalence of insecure work and argue that employers have moved to a variety of models of casual or insecure work, and that these are systematically associated with low incomes and poverty. More broadly, UNISON's submission pointed to a range of sources (the Resolution Foundation, the Living Wage Foundation, the Joseph Rowntree Foundation and the Child Poverty Action Group) to show that low pay and poverty remain

widespread for UK workers. They noted that large proportions of the UK workforce are still low-paid by different definitions, including below the Real Living Wage.

Several respondents highlighted workers' struggle to get adequate hours of work

3.41 Unite told us of hospitality workers having to take multiple jobs to get full-time hours, juggling their availability between venues: "You've got to be willing to move around." UNISON'S survey of care workers found that although work was typically full time (35 hours per week) a quarter of respondents had had to get by at some point on ten hours or less in a week, forcing them to cut back on spending, take on debt or draw on savings. More than three quarters of respondents stated they would take more hours if available.

3.42 In retail, Usdaw reported that labour market tightness was not forcing employers to increase contracted hours, and it remained difficult for workers to switch to a contract reflecting their normal hours. This left a situation where people who find it difficult to take on shifts were disadvantaged. They were also sceptical of employer claims that minimum contract lengths decreased flexibility. Usdaw had negotiated provisions to allow seven-hour contracts – but this needed the clear willingness of the worker, and their reps made sure that those on fewer than 16 hours (Usdaw standard contract minimum requirement) were doing so willingly.

3.43 Retail workers in Belfast told us it was still routine for supermarkets to offer short-hours contracts only. In one supermarket, they reported, "you only get a full-time job if you're one of the dotcom drivers." Workers came in on short hours contracts which are then flexed up, with a constant struggle to get overtime: "I'll do the hours to get money coming in". Changes in one employer to a minimum 16-hour contract had been "fantastic." Usdaw's submission quoted one worker's response to their cost of living survey: "I had to battle my management to get just a three hour increase on my contractual hours. Three! Yet they are always asking me to do overtime! I need financial security, I was already scraping by before inflation. This is a joke".

3.44 The Recruitment & Employment Confederation (REC) told us that temporary work had increased slightly, but to some extent this benefited workers. A survey of over 150 agency staff in childcare found that flexibility (for 27.40 per cent of respondents) and pay (54.79 per cent) compared to permanent roles were the two biggest factors as to why people chose to work via agency. Furthermore, 40 per cent of the respondents said they would be unable to take on a permanent, full-time position, due to other commitments such as childcare, if agency work was not available in the sector.

Notice of shifts continued to be an issue for some workers

3.45 Among hospitality workers we spoke to on our Birmingham visit, one worker usually had a week's notice for a rota, but it could be as short notice as a day. She had experienced cancelled shifts at late notice, including on the same day, but not too often: "it's definitely happened a good five to ten times in the years I've worked here". Another had his rotas month by month. Another had a worse experience "We have to wait for our rotas on a Sunday night and sometimes we have to actually remind our manager … so you could be sat on a Sunday night waiting, potentially in on the Monday afternoon and you wouldn't know. And then … If for whatever reason their numbers drop, I've turned up to work and been told 'Oh you might as well go home'."

3.46 In retail, Usdaw members we spoke to in Belfast told us notice of shifts was usually good – with a range of rolling periods around four weeks. However, in one employer, the notice period was only two days. Workers still reported being asked to cut shifts short, or being brought in for shifts that weren't needed: "they'll ring people up and say, don't bother coming in, there's no shift for you."

Many respondents opposed the use of zero-hours contracts, although some highlighted the flexibility they offer

3.47 Unite described increasing use of zero-hours contracts in several sectors and called for a ban. They argued these were associated with "bad jobs and economic insecurity" and "[left] workers with little or no guaranteed work, no way of planning their finances and at the mercy of unscrupulous employers." Unite survey evidence showed "87 per cent of workers with zero-hours contracts want to be employed on different contracts." They call for minimum contracts of at least 16 hours, as well as the implementation of the LPC's previously recommended measures on one-sided flexibility.

3.48 Both the TUC and Usdaw noted failure to take action on the LPC's 2018 recommendations on one-sided flexibility. The TUC noted Government failure to bring forward Taylor Review measures or an Employment Bill and made recommendations including restrictions on zero-hours contracts, greater union access to workplaces and the introduction of sectoral fair pay agreements. Usdaw told us that despite the LPC's recommendations, "workers are still waiting for important steps to be taken on one-sided flexibility."

3.49 Christians Against Poverty (CAP) argued that zero-hours contracts threatened workers' financial wellbeing: "CAP has been seeing an increase in the number of clients on insecure zero-hour contracts, which then makes their Universal Credit payments unstable. This causes significant challenges for the individual's financial situation and reduces their capacity to budget and save effectively." CAP noted that these individuals' income is not guaranteed "as they can be sent home early or have to wait on site without receiving pay for this time."

3.50 The Homecare Association (HCA) told us that commissioning practices dictated that zero-hours or guaranteed hours arrangements continued to be common in the homecare sector. Skills for Care found that 46 per cent of the workforce in England were on zero-hours contracts in 2020/21 workforce estimates (a decrease of six percentage points since 2012/13).

3.51 A cleaning company in Wales told us their staff had voted for zero-hours rather than fixed hours contracts as they valued the flexibility. With fixed hours, the company might choose when staff worked. "We don't have a problem with recruitment. Looking after staff is important. Our wages are higher than elsewhere, and our terms and conditions are good." The Chartered Institute of Payroll Professionals (CIPP) thought flexibility had overtaken pay as the key driver of worker decisions about whether to take on a given role.

3.52 On our Belfast visit, we spoke to classroom assistants on temporary contracts that were also for term-time only (39 weeks/year) – which meant no work, and no pay, at Christmas and Easter. "We do want to have another child, but if I'm constantly on temporary contracts, I can't get maternity leave ... So what stability am I giving my family?" GMB Union's submission picked up this issue, arguing such contracts led to hardship, with "staff nominally receiving above NMW hourly rates on paper - but actually taking home lower levels of gross pay." They shared evidence on average pay for teaching

assistants (£14,050 in 2022); one in three school support staff in London had considered using a food bank. They noted that schools were currently struggling to recruit these staff and called for the reinstitution of the School Support Staff Negotiating Body.

3.53 Respondents discussed the effects of insecure work on workers. The TUC described insecure work as a quality-of-life issue. "The prospect of having work offered or cancelled at short notice makes it hard to budget household bills or plan a private life." It also "distorts power in the workplace" and disincentivises workers from speaking out about pay or conditions. The Scottish Women's Convention (SWC), in a meeting on the Edinburgh visit, echoed this: "There's that fundamental power dynamic that exists ... if your employer has given you a morning off to take your kid to the GP and they turn round and don't pay you for it – or if they're not willing to give you the hours later on - you don't want to challenge it because they've done a favour for you." One hospitality worker in Birmingham complained to us: "I'm still on a zero hour contract. I've been one of the longest workers at my place and I still seem to get treated like I've just walked through the door."

3.54 A submission from the mental health charity Mind explored these effects. In a March survey of 638 people with mental health conditions and experiencing in-work poverty, "respondents on lower wages were consistently more likely to: work night shifts; have used a gig economy platform in the last 12 months; have several jobs; and work over 48 hours per week on average excluding break times." All of this had a "a negative impact on their mental health (70 per cent, 57 per cent and 50 per cent respectively)".

Low-paid workers continued to complain of abuse in the workplace

3.55 Usdaw shared results from a 2022 survey of nearly 8,000 members, finding that more than seven in ten respondents reported verbal abuse, 49 per cent received threats of violence and 8 per cent had been physically assaulted. Retail workers we met in Belfast echoed this, telling us of security budget cuts by supermarkets among other things. One attendee shared a story of a time when senior management visited a store and he was asked to "get onto the camera, to make it look like I was security guard." "When there's a holiday where the security has to get double time, they cut it." A worker in one retailer told us her employer employed no security guards at all – only providing headsets to staff ("basically just for appearances – staff can only talk to one another"). "I've been hit on the head, I've been threatened to be stabbed … it's just constant and [my employer] do nothing about it." The submission by the End Child Poverty Coalition quoted a 20 year old retail worker: "I work late nights, weekends, bank holidays, Christmas Eve and Boxing Day for no extra pay and I deal with customers on a daily basis who are not very kind. It can be emotionally taxing."

3.56 A hospitality worker we met in Belfast made it clear security was an issue in that sector as well. With fewer staff, there were more fights as more customers were let in without checks. The increase in homelessness was also a problem, especially for coffee shops. We heard baristas were required to enforce customer-only toilet access, dealing with needles and mental health issues with little support from police or public services. The worker argued these issues were important factors in the sector's ongoing staff shortages.

Progression and training for low-paid workers

3.57 Unite told us that low-paying sectors offered little scope for progression: "It remains the case that employees in the accommodation sector barely earn more in their thirties and forties than they do in their twenties." They quoted one officer in hospitality: "I have noticed an apathy among low paid workers that this is their 'lot' so to speak, no chance of progression or development will keep them at this level throughout life." The End Child Poverty Coalition told us about the perception of limited opportunities for progression for young people from low-income backgrounds. They quoted one young hospitality worker's view that progression was restricted to full-time employees only, which penalised young workers combining work with studies. Retail workers in Belfast told us that the removal of assistant managerial roles had squeezed the opportunities for progression rates off the minimum wage are actually higher than pre-pandemic, with around half of workers paid the NLW in 2022 were no longer paid it in 2023. However, we don't know to what extent this is due to workers moving out of sectors like hospitality.

3.58 The SWC told us there were few training opportunities for low paid women: "There's a lack of opportunity for career development as people are forced to work long hours with no opportunities for professional development and further/higher education to pull themselves out of the cycle." Retail workers in Belfast told us training had shifted online and was often a tick-box exercise. All agreed that "doing the training online doesn't reflect doing the job in person." "What you do on a computer, a monkey can do." Care workers on the Greater Manchester visit were also concerned about the quality of online training compared to in-person, noting that if people were doing the training in their own time they were keen to click through it and finish it as soon as possible. They shared an example of a young worker who had double dosed a client because he hadn't been trained properly. "The employer says, 'Oh, you can do it at work' – well, quite often you can't do it, because you're busy doing the job, you don't have access to a computer, so people have to do it in their own time."

3.59 Classroom assistants we met on the Belfast visit told us training was minimal and unsatisfactory: "we're just expected to learn as we do. You learn as you work. Every child is different, always a situation you haven't dealt with before. Can suck, you feel really unprepared." They received child protection training at the start of the year but little else, and felt they got less training (and generally less favourable treatment) than teachers, with no opportunities to progress: "I'd like new skills, want to better myself for students."

3.60 Aberdeen City Council told us: "in general opportunities have probably reduced in recent years with a trend for organisations to flatten their structures and remove layers of managers and supervisors." REC argued the inflexibility of the Apprenticeship Levy was to blame for a lack of training and progression among temporary workers.

In-work poverty and the cost of living

3.61 A large volume of evidence this year centred around the impact of rising living costs and the hardship borne by low-paid workers despite the NLW's increase. UNISON shared evidence from three separate surveys of public service workers and care workers across the UK between June 2022 and March 2023. These record the sacrifices individuals are making to deal with the rising cost of living and the impact on mental health: in autumn 2022, 17 per cent of respondents had skipped meals and 20 per

cent had asked for a loan from family or friends. Usdaw's May 2023 cost of living survey found that 64 per cent of respondents had relied on unsecured borrowing to pay bills and nearly all of those had struggled to keep up with repayments. 46 per cent had worried about food bills, 15 per cent had used food banks and 42 per cent had missed meals in the last year to pay bills. "Workers have been facing a perfect storm of price rises across a range of essential goods categories, including food and fuel, which is affecting every household up and down the country." Stories shared in their survey included people stealing baby milk, not turning heating on and living in freezing houses. In Belfast, we heard that supermarkets had introduced "payday pantries," providing food to their workers in the run-up to payday when people have no money left.

3.62 A care worker on the Greater Manchester visit told us: "Most of my colleagues are using food banks." This wasn't a new problem – one worker thought that prior to the pandemic around a quarter were already using food banks – but it had got worse: "I've had people crying on the phone to me, that they can't feed their children. I've actually taken food out of my own cupboards and taken it round."

3.63 CAP noted that most of the financial support provided by Government during the first phase of the cost-of-living crisis had now ceased. They described increases in emergency food shops and crisis aid as "shooting up ... even after emergency support, people will be pulled back into financial difficulties due to insufficient incomes." Similarly, Community argued that the Government's track record of supporting incomes during the pandemic had not continued post pandemic and current support for households' finances was inadequate.

3.64 Lloyds Banking Group, on the Edinburgh visit told us: "the financial well-being of lower-paid workers has come to the forefront in a way it hasn't before." Through their surveys in Q4 2020 only 4 per cent of their workforce struggled to manage financially and in "Q4 in 2022 13 per cent say they were finding it difficult to manage financially."

3.65 Unite told us that rates of in-work poverty undermined the NLW and noted these had been increasing in recent years despite progress with the minimum wage. "Unite fears poverty will continue to increase to unprecedented levels without a significant policy to raise the lowest pay levels and end pay stagnation." The Women's Budget Group (WBG) cited Joseph Rowntree Foundation findings that 61 per cent of working-age adults in poverty live in a household where at least one adult is in work. They argued that addressing this needed Government to look beyond employment alone, at high living costs and social security.

3.66 CAP told us the cost-of-living crisis would soon become a debt crisis, citing several sources predicting an increase in rates of debt and financial difficulties experienced by the UK population. They noted that "54 per cent [of] CAP clients waited at least a year and 23 per cent waited 3 or more years before seeking debt help". They therefore expected the number of people seeking debt advice to increase in the near future, at a time when the charity and debt-advice sector was seeing reductions in its own income. "This landscape of increasing needs and demand on services alongside the reduction in funding means that within the next year the sector will be greatly challenged."

3.67 The submission from Mind noted the links between low pay and mental health: "The typical income for people with common mental health conditions is £8,400 less than for the rest of the population. People with mental health problems are also more likely to be in "insecure jobs" and in "high-turnover, low-paid and often part-time or temporary work." They argued low pay affects workers'

mental health: "last year, we noted that 43 per cent of workers earning less than the real Living Wage said the pay they received negatively impacted their levels of anxiety. This has since increased to 69 per cent of workers."

Universal Credit and other in-work benefits

3.68 We heard a variety of issues related to the benefits system. Usdaw told us: "Universal Credit is not working for low paid workers. The rate is too low, the interaction with wages disincentivises people." GMB Union argued Universal Credit contributed to in-work poverty, as the taper rate effectively penalised workers who would like to move onto better hours: "More claimants are becoming trapped ... as precarious forms work like zero-hour contracts continue to increase." WBG argued cuts and changes to benefits had contributed to poverty for women, children and those in low-paid work. They picked out the two-child limit; UC's less generous work allowance and taper rate compared with tax credits; cuts to housing benefit; and the failure to retain the pandemic-era £20 uplift. This last measure "was a major factor behind a temporarily reduced poverty rate in 2020/21, including for larger families" and shows "how financial support can make a real and direct difference."

Respondents picked out a number of issues created by the design of Universal Credit which created problems for low-paid workers.

3.69 The interaction between the work allowance and taper rate reduced the incentive to do more hours, especially when workers incurred additional costs for the extra shift (i.e. childcare or travel costs). Usdaw argued this meant workers with caring responsibilities didn't get the opportunity to take on extra roles, harming progression and amounting to indirect sexual discrimination. In the words of one retail worker in Belfast: "It doesn't pay [to do more hours], you can earn so much but after that they take 50p out of the pound."

3.70 The backwards-looking calculation meant that taking on extra hours or receiving bonuses could mean payments fluctuating in subsequent periods. On the Edinburgh visit, the SWC told us that some women accepted cash in hand payments to avoid extra hours affecting benefit calculations: "they might take a lower rate of pay so that's not affected and they can keep themselves out of having to use food banks ... if you're on benefits and you rely on benefits to top up any wage that you're getting, there's a real risk that these women can be getting abused and being paid lower than the minimum wage." Usdaw told us some retailers offered money on discount cards instead of bonuses (Usdaw had concerns over the tax implications of this). On the London visit, Fullers told us they had had workers turn down tip payouts from TRONC because of benefits concerns.

3.71 The monthly reference period caused problems for workers on four-weekly pay. Usdaw told us over two-thirds of their members were on four-weekly pay (and another cohort are on fortnightly) – so at some point in the year would be paid twice within the reference period, affecting the calculation of their benefits for the subsequent period.

3.72 Universal Credit was also raised as a barrier to job mobility. SWC told us that worries about loss of benefits prevented women from seeking better paid work: "It is simply easier for women to remain in low-paid work, than to go through the time-consuming and stressful experience of changing benefits." Their submission quoted a young woman in low-paid work: "You don't want to go to the job centre and beg and plead for money... you feel like a scrounger."

3.73 It remained relatively common to hear from both employers and workers about the threshold of 16 hours and its influence on workers' decisions – although this often reflected an outdated understanding of the policy. In Edinburgh, a convenience retailer told us about a manager working 16 hours a week and asking for fewer hours when the NLW increases "otherwise she will be worse off financially." Also in Edinburgh, a hotel operator told us they had a high share of workers on 16 hour contracts and linked this to benefits policy: "I don't understand the 16 hours mark. I think it should be based on a weekly income." On the London visit, Travelodge told us the 16-hour rule is "still present in people's minds" and led to fears and anxieties about taking on extra shifts and bonuses.

3.74 CAP noted that people they interact with often didn't know what benefits they are entitled to. They had recently launched a benefit calculator to help individuals identify their entitlements. In six months, this had identified £32.5m of increased entitlements, "which means that more than 5,500 users have identified an increased entitlement to social security, of just under £500 a month (on average)." This highlighted "the need for the government and employers to increase the awareness of the financial support people may be entitled to."

3.75 UKHospitality told us they would like the LPC to consider the effect of the frozen income tax thresholds for low-paid earners and the interaction with Universal Credit. "Rightly, there is a sharp focus on the living standards of lower-paid workers but we feel that policy responses should be broader than just increasing employers' wage costs in the hope that they can be passed on in higher prices."

Other issues

3.76 CAP described sick pay as "the starkest challenge for workers" who they supported. They called for a review of statutory sick pay "to ensure that all who experience ill health are able to access a financial safety net when they are unable to work." Care workers in Oldham told us that statutory sick pay meant workers might come in even if they are sick, putting clients in danger. "I've had colleagues say to me, 'If I caught Covid, I'd have to come in with it, because I wouldn't be able to afford to pay my rent [if I didn't come in].'"

3.77 Make UK shared evidence on rising sickness absence, with the rate in 2022 increasing for the first time in almost a decade, and a growing proportion of workers leaving manufacturing jobs due to physical or mental ill health. They told us around half of manufacturers paid above statutory sick pay to all of their employees, typically for up to 200 days and often at 100 per cent of salary. 44 per cent of manufacturers had increased their investment in health and wellbeing services offered to staff in the last 12 months. The increased investment in health and wellbeing support had led to improved productivity, an increase in staff retention rates and lower levels of sickness absence.

3.78 Workers and unions continued to share evidence on sleep-in shifts in the care sector. In Oldham, workers reported rates varying between "£60-something" per night and £89 per night. In addition they were paid their hourly wage for time awake and working (although not for time when they couldn't get back to sleep after being woken up). One worker described this as an important top up to his wage: "This is the money I live off, really – I do two of those a week. If it wasn't for that, I'd really be struggling financially." The work was also exhausting and could be stressful: "If there's anything that happens, I'm on my own to sort it out, at two or three in the morning." Workers thought the pay didn't compare well to other types of shift work.

3.79 UNISON again argued overnight shifts should be counted as working time and paid at the NMW: "It is imperative that the Low Pay Commission now adds its voice to the need for adequately funded legislative reform on the issue of sleep-in shifts as loudly and forcibly as possible." Professor Deidre McCann of Durham Law School, Durham University called on us to recommend the Government enacts legislative reforms that extends the minimum wage to cover all working hours including sleep in shifts.

Workers' experience of the labour market

Workers' views on job mobility

3.80 A large number of respondents engaged with the questions we asked this year about job mobility. Most identified a range of factors that prevented mobility. The results of a survey of workers by Unite was typical, identifying childcare, lack of public transport, Universal Credit and lack of progression opportunities as leading factors. Southampton City Council told us skills, experience and training were the main barriers to moving jobs, while Aberdeen City Council listed the loss of benefits packages and the ability to work flexibly, loss of continuity of service, which affects terms and conditions, and lack of training or experience.

3.81 Several respondents spoke about the fact that full employment rights only accrue after two years in post. Unite summarised: "If [workers] are in a low paid job but have agreed hours and over two years' service, they are more likely stay in the job rather than risk moving to insecure work with zero hours and no employment rights." A hospitality worker in Birmingham told us: "I think it's all down to that zero hour contract rule, 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." An HR professional we met on the Wales visit told us: "The one area that is abused is that there is no protection from unfair dismissal for those employed less than two years".

3.82 More generally, respondents told us that fear of the unknown made moving job feel insecure for low-paid workers. The same hospitality worker in Birmingham summarised: "Me leaving and going somewhere else, you'd have to start a new reputation. You've got to work your way up again, hope that you get a good, decent amount of hours, hope that you get paid the right amount." Another worker thought: "It's also starting all over again. You don't know what job, what employment you're going to. You don't know these people." Others raised the converse problem that they didn't expect pay or conditions to be better elsewhere. One retail worker in Edinburgh told us: "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."

3.83 Among the retail workers we spoke to in Belfast, many had long experience with their employer (25 or 30 years in some cases) and felt they were unlikely to move on: "I've been there that long, the grass isn't always greener..." "At my age, 63 – for me to go out and start looking for another job, who's going to employ me? Literally no one."

3.84 The most comprehensive and detailed response we received on this subject came from Christians Against Poverty, who shared insights from their experience running "Job Clubs" helping individuals into work. They raised several barriers not covered elsewhere:

- The costs of getting into a new sector: "getting new training, accreditation, passing entry exams, obtaining security clearance, and purchasing a uniform."
- The costs of applications and interviews: the cost of interview clothes and travel, and taking time off. They also raised digital literacy as a barrier for online interviews.
- State of mind: workers need confidence, a sense of security and resilience to undertake job applications. CAP note that "mental load" ("exhaustion from their current job, financial pressures they may be under and other life responsibilities") can amplify these barriers.
- Availability: "Sometimes there are simply no better paid roles available".
- Risk appetite may be lower among those with dependents.
- Contacts and connections: who you know affects whether you apply, the support you get and how you're treated at interview.
- "The hidden cost of work experience" which may only be accessible if you have a financial buffer.
- Time commitments. The time required for applications and interviews "can be a challenge for people doing multiple jobs, long hours, or with other responsibilities."
- Remote interviews. The post-pandemic turn to remote interviews had some benefits (reducing financial and logistical burden) but brings new challenges. CAP highlight "the persistent digital exclusion faced by people in financial difficulty." Specific barriers include digital literacy, challenges of completing interviews on old or small devices and the cost of broadband. Lack of a suitable private location for the interview can also be a problem.
- Uncertainty over hours and the paucity of full-time roles may be exacerbating recruitment problems.

Caring responsibilities are a further barrier

3.85 A further barrier raised by respondents was caring responsibilities and the flexibility needed to accommodate them. The SWC told us: "If a woman has found a job which is easy to get to and provides a reasonable level of flexibility to account for childcare commitments, they are unlikely to leave this for another workplace which may not provide the same benefits." A retail worker in Edinburgh told us: "I'm a part time carer for my son, gran (who lives half an hour's drive away) and uncle with dementia. It's not viable to get another job because of these responsibilities – in my current job I'm able to work 31 hours a week."

3.86 Linked to this were points around the cost of childcare. REC noted it currently costs an average of £7,000 a year for a part-time nursery place, a prohibitively high cost for many parents or guardians which forced them to make a choice between working or caring for their children. They told us the cost-of-living crisis meant more parents, usually women, were stepping back from the workplace to limit their childcare costs.

3.87 The WBG argued that the cost of childcare kept people in in-work poverty (or out of work). They drew together a range of evidence showing how availability and cost limited low-paid workers' options. The soaring cost of childcare (up £2000 per year since 2010) meant low-paid workers either could not work or worked limited hours. They cited survey evidence from Pregnant Then Screwed that "76 per cent of mothers who pay for childcare say it no longer makes financial sense for them to work." They welcomed the Government's planned expansion of free childcare but noted the workforce barriers to delivering this and the role of low pay. They highlighted that lack of available social care had similar effects, which again fell disproportionately on women. The SWC thought childcare costs could be

contributing to recruitment difficulties, with the average price of a part-time childminder £6,547 per year in 2023. The End Child Poverty Coalition also shared examples of the prohibitive costs of childcare for young parents.

3.88 The Early Years Alliance (EYA) told us the most effective recruiting tool they had in early years was offering free childcare sessions to their staff: "this has had the biggest impact and it's the one thing that large retailers or supermarkets cannot compete with". Among the classroom assistants we spoke to in Belfast, several attendees had their own childcare responsibilities: "I got into it because of the hours, and I had children." "Hours fitting in with childcare is main reason I'm in this sector."

3.89 The British Chambers of Commerce (BCC) shared evidence from their Workplace Equity Campaign that "two-thirds (67%) of female respondents who have had childcare responsibilities in the last 10 years felt they missed out on career progression as a result", compared with 35 per cent of male respondents.

Employers' views on job mobility

3.90 Several employer representatives shared evidence on barriers to recruitment and retention in their sectors. The EEA's survey of workers found that low pay was the leading cause (raised by 86% of respondents), followed by lack of flexibility (56.1%); poor treatment of staff (46.7%) and poor employment practices (45.6%). In care, the HCA told us inadequate pay was the leading barrier, cited by 42% of providers. Others raised unsocial hours, lack of childcare, zero-hours contracts and issues around benefit entitlement. Care England agreed the biggest challenge was pay, but perception was also problematic, with social care perceived as the poor relation to the NHS. In childcare, both the EYA and the National Day Nurseries Association (NDNA) thought stress, alongside low pay, was a leading factor in low retention rates. The EYA told us low pay meant early years workers felt "underpaid and undervalued." A March 2023 survey [n=1910] found 98 per cent of respondents listing pay as a work-related cause of stress. They cited Social Mobility Commission evidence on turnover among early years staff "due to low pay, a lack of training and career structure and excessive overtime." They argued that forthcoming policy changes (expansion of free entitlement and ratio changes) would exacerbate this.

3.91 Make UK survey data found that the main reason for staff leaving manufacturers was to seek pay and progression opportunities elsewhere. They hoped that the improved access to childcare provision announced at the Spring Budget would help manufacturers to improve retention across the workforce.

Conclusion

3.92 Despite a series of relatively high minimum wage increases in April 2023 coverage fell slightly from 1.59 million to 1.56 million. This reduction was concentrated among women, who continue to make up the majority of low-paid workers. Coverage in 2023 is 400,000 lower than pre-pandemic levels back in 2019.

3.93 Certain groups also remain more likely to be minimum wage workers: part-time jobs are four times more likely to be low-paid than full-time jobs; jobs in micro firms have a much higher share of minimum wage jobs than larger firms; and hourly-paid roles are more likely than salaried jobs.

3.94 The rising minimum wage has helped to sharply reduce low hourly pay in recent years. However, this hasn't resulted in reducing the incidence of low weekly pay as this is effected more by the number of hours worked than the hourly rate of pay. We have seen a gradual reduction in the proportion of low weekly-paid women but no change for men.

3.95 Despite falling levels of coverage evidence from stakeholders and low-paid workers highlighted a range of concerns around the experiences of those undertaking minimum wage work. Issues including employment conditions and quality of work, progression and training, in work poverty and the cost of living, and job mobility illustrate the precarious nature of low-paid work.

3.96 On the impacts of rising living costs we were told by Unions about the use of unsecured borrowing to pay bills and the high levels of in work poverty while workers highlighted the growing use of food banks.

3.97 Unions highlighted a range of issues that impacted on job mobility for low-paid workers. They included childcare, a lack of public transport, Universal Credit, reduced employment rights for new starters and lack of progression opportunities as leading factors. Workers told us of the fear of the unknown when considering moving jobs, saying "the grass isn't always greener".

Chapter 4 The National Living Wage

Key findings

- The National Living Wage (NLW) has increased relative to median pay. Between April 2022 and April 2023, the NLW rose from 62.8 to 64.2 per cent of median hourly pay for workers aged 23 and over. This moved the NLW closer to the government set target of two-thirds of median pay by October 2024.
- Coverage, the share of jobs paid at or below the NLW, has remained at a similar level to 2022 and is lower than it was in 2019. In 2023, 4.9 per cent of eligible jobs were paid at or below the NLW, compared to 5.1 per cent in 2022 and 6.6 per cent in 2019. There are two main reasons that coverage has remained flat, despite the minimum wage rising relative to median pay. First, the NLW raises pay for workers paid above the NLW as well as those on it in order to maintain pay differentials. This makes it less likely workers will fall onto the NLW. Second, employers have increased pay in response to recent labour shortages in some low-paying sectors.
- Fewer employers report reducing differentials between NLW workers and other pay grades than in 2019 – Employers worry that maintaining differentials between the lowest paid jobs and those just above raises the cost of the NLW, but allowing differentials to fall lowers the incentive to progress up the job ladder. In a 2023 survey of firms, 17 per cent of firms said they responded to the latest NLW rise by reducing differentials. In 2019, the figure was 20 per cent. Having already reduced differentials between 2015 and 2019, firms now have less opportunity to reduce them further.
- A greater share of workers progressed off the minimum wage in 2022-2023 than in previous years. The share of workers progressing off the NLW in 2022-2023 was the highest it has been since 2012. In 2022-23, 49 per cent of NLW workers (who stayed in work) progressed off the minimum, and 19 per cent progressed into work paying £1 or more above the NLW. This is likely due to a combination of some NMW workers taking advantage of the plentiful job vacancies and finding better paid work and their current employers raising pay both to hold on to staff and in response to the cost of living crisis.
- Weak employment and hours growth in low-paid industries likely reflects employers' struggle to recruit and the aftereffects of recent shocks. Employee numbers and average hours have grown more slowly in low-paying industries than in other industries since 2019 and econometric analysis suggests that employment rates have fallen for groups more likely to be paid the NLW (such as workers without degrees). While the NLW may have a role in these trends, they are more likely driven by recent labour shortages linked to the pandemic and EU exit. If minimum wage rises had reduced employment, we might have expected unemployment (people out of work and looking for work) to rise. Instead, employment rates have fallen amongst people without degrees as fewer

people looking for work, often due to ill health. There are still signs that firms want to hire more workers in low-paying sectors: vacancies are high, firms report worker shortages, and workers are more likely to progress off the minimum wage than they were before the pandemic.

We know less about the impacts of the NLW on employment and hours this year, due to issues with key data sources. In chapter 2, we documented recent issues with the Labour Force Survey (LFS). Where available, administrative data shows a more positive picture for the low-paid labour market than the LFS. This suggests that issues with the LFS may have disproportionately affected estimates of employment in low-paid jobs. When analysing employment rates, we can only use the LFS, and we do not know to what extent issues with the LFS could be biasing our results.

Introduction

4.1 This chapter summarises the evidence on the impacts of the 2023 National Living Wage (NLW) rise on pay and employment. We first discuss how the NLW affected the pay distribution. We then explore how pay, hours and employment has changed across different industries, firms, personal characteristics, and areas. We compare outcomes for the groups of jobs and workers where minimum wage work is most common with outcomes for better paid groups of jobs and workers. Finally, we will summarise the internal and external research on the pay and employment impacts of the NLW.

How has the 2023 NLW rise changed the distribution of pay?

The NLW is the highest it has ever been relative to median wages, and yet fewer people are paid it now than in 2019.

4.2 'Coverage' and 'bite' are key measures for assessing minimum wages. 'Coverage' refers to all jobs paid up to 5 pence above the minimum wage.¹ The 'coverage rate' refers to the share of jobs covered. The 'bite' is the minimum wage as a per cent of median hourly pay. Figure 4.1 shows how these measures have developed since minimum wage was introduced. It shows that up to 2016 the bite and coverage rate of the minimum wage tended to move together, as the minimum wage rose relative to median pay, more people started to be paid it. In 2016, when the NLW was introduced, the bite and coverage of the minimum wage both jumped.²

4.3 The bite and coverage of the minimum wage have decoupled in the last 7 years. Since 2016, the Low Pay Commission (LPC) has had a target to raise the minimum wage to given percentages of median pay (60 per cent in 2020 and two-thirds in 2024). The bite of the minimum wage increased

¹ We include workers paid up to 5 pence above the minimum wage as covered, as there is some imprecision in our measure of hourly pay. We also include workers paid below the minimum wage as covered. Our measure of coverage only includes employee jobs as self-employed workers are not eligible for the minimum wage and there is no good source of pay data for workers with 'worker' status.

² Part of the jump in the coverage rate in 2016 is due to the change in the time of the year the NLW is introduced. Pre-NLW, the new minimum wage rate came into force from October each year. The NLW came into force in April 2016 and all following upratings occurred in April. We estimate coverage and bite of the minimum wage using data from April each year and we know from other data sources that coverage is highest at the point in the year just after the minimum wage uprating. This switch from October to April upratings therefore likely contributed to part of the jump in coverage in 2016.

dramatically over this period, but coverage remained flat in 2016-2019 and then actually fell from 2019 to 2022. This is surprising as we might expect more jobs to fall on to the minimum wage as it rises.

4.4 The NLW continued to rise relative to median pay in 2023. An NLW worker received a 10 per cent increase in pay (a 1 per cent in real terms), whereas the median worker only received a 7 per cent increase in pay (a 2 per cent fall in real terms). Despite this rise in bite, the coverage rate fell slightly from 4.9 per cent to 4.8 per cent. There are three key factors that explain why coverage rate has fallen since 2019: the 'spillover' effects of the NLW, labour shortages and firms responding to the cost of living with pay increases targeted at lower paid workers. However, a potential fourth is that around a quarter of employers affected by the NLW choose to pay above it to avoid inadvertent non-compliance or underpayment. We will explain these in the following sections.





Source: LPC analysis of ASHE, UK, 1999-2023, 25+, excludes first year apprentices from 2013 onwards. Apprentices cannot be identified before then, so Apprentices aged 25 and over are included pre-2015. There is increased uncertainty around coverage rate figures in 2020 and 2021 due to pandemic related data issues.

The latest NLW increase has increased pay for workers paid above the minimum

4.5 Pay growth between April 2022 and April 2023 has been strong for workers paid the minimum as well as those paid just above it. Figure 4.2 shows that pay growth was strongest at the bottom of the pay distribution and became gradually weaker for better paid workers. It also shows that pay growth for low-paid terms for only the bottom fifth of jobs. The NLW is one factor driving this strong pay growth for low-paid workers.



Figure 4.2: Per cent growth in hourly pay percentiles and NLW, UK, 23+, 2022-2023

Source: LPC analysis of ASHE, standard weights, UK, 2022-2023, excludes first year apprentices. Real terms growth is calculated by deflating pay by relevant April CPI index.

4.6 There is a large body of research which shows that minimum wage increases drive up pay for workers paid above the minimum (Giupponi et al, 2022, Cengiz et al, 2021, Avram and Harkness, 2019). We refer to these effects as 'spillover effects.' Firms want to maintain pay differentials within their firm or between their firm and competing firms. This means they often respond to minimum wage increases by increasing pay for workers near the minimum as well as those directly on the minimum. We can see this in the data. Figure 3.2 showed that broader measures of coverage (such as the share of workers paid 50 pence or £1 more than the NLW) has not fallen. Part of the reason coverage has remained low, is that firms respond to NLW rises by raising pay for those paid above it as well as those on it. However, employers tell us maintaining pay differentials is challenging.

Did the 2023 NLW rise reduce pay differentials?

Fewer employers report reducing differentials this year than in previous years

4.7 Maintaining differentials is perceived by many employers as the largest challenge raised by the NLW. Make UK told us "the biggest challenge that we consistently hear from our employers is being able to maintain pay differentials." Following a rise in the NLW, employers are faced with the choice of letting the differentials between their lowest paid staff and better paid staff shrink or absorbing the additional cost of offering a similar pay increase for better paid staff.

4.8 Impacts on staff motivation were at the forefront of employers' minds. A leisure provider on our Oldham visit told us: "We've got some really good, skilled staff... but they're now being paid the same as a cleaner... People are saying, 'why do all this training?'". The British Retail Consortium (BRC) told us: "Retail colleagues have perceived fewer progression opportunities and a growing proportion are less inclined to apply for promotions given the compressed pay increase." On the Birmingham visit, Avara Foods told us maintaining differentials was "painful but essential ... we have a lot of roles that are

between £11.00 and £12.00 an hour \dots If you start crunching those grades then, then what's the incentive to move up the skill level?"

4.9 There is good evidence that the NLW reduced pay differentials in its first phase (2016-2020). During this period, a significant minority of employers reported that they responded to the NLW by reducing differentials and/or reducing the number of pay grades. Figure 4.3 shows that in 2019, around 21 per cent of employers said they had reduced pay differentials in response to the NLW. Giupponi et al. (forthcoming) and Low Pay Commission (forthcoming) also found evidence using official data that differentials in large firms affected by the NLW fell in real terms and in percentage terms between 2015 and 2019.

4.10 This year, fewer firms reported reducing differentials than in previous years. The Federation of Small Businesses (FSB) told us that not many small businesses had narrowed differentials. 31 per cent said the difference in pay between better-paid staff and NLW workers had stayed the same; 27 per cent that it increased (versus 21 per cent last year); 17 per cent that it decreased (10 per cent last year). Manufacturing NI told us that as most of its members were SMEs, so workplace dynamic tends to mean they have to maintain differentials. Figure 4.3 also shows fewer employers reduced differentials in response to this year's minimum wage rise than in 2019. This may be due to other pressures on pay for low-paid workers, such as labour shortages. It also becomes harder for firms to reduce differentials over time, previous NLW rises may have already shrunk their differentials to a minimum viable level.



Figure 4.3: How employers report changing pay differentials in response to the NLW?

Source: LPC analysis of CIPD employment outlook survey, 2019 and 2023. Weighted mean of all respondents, including those unaffected by NLW.

Question: How have the salary levels in your organisation changed for staff earning above the National Living Wage (NLW) following the increase in the NLW rate in April 2023 (for those age 23 or over to £10.42)? [2019 question had equivalent figures for 2019.] Options:

- a. We have reduced the pay differentials between those affected by the NLW and their supervisors/managers
- b. We have maintained the pay differentials between those affected by the NLW and their supervisors/managers
- c. We have increased the pay differentials between those affected by the NLW and their supervisors/managers
- d. Not applicable the National Living Wage hasn't had an impact on these staff members

4.11 Nevertheless, some employers told us they had reduced differentials in response to the recent NLW rise. One large hospitality business told us that there was now only a 26 pence differential between a team member and a senior team member, while the gap to shop manager had also narrowed, with impacts on recruitment, retention and encouraging staff to take on additional responsibilities.

4.12 Public sector employers reported particular difficulties maintaining differentials. The Local Government Association (LGA) summarised: "Delivering an appropriate pay rise for the whole pay spine that raises the bottom pay point above the NLW and maintains appropriate differentials is currently unaffordable for most councils without extra funding from central government or the prospect of job losses or service reductions."

Low-paid workers are also aware of narrowing differentials

4.13 Worker representatives recognised issues around differentials but tended to take a different perspective. Unite's survey of its officers "raised concerns that low wages for those who are above NMW were causing resentment towards NMW earners with differential decreases because employers are very reluctant to apply a similar increase to those above." UNISON acknowledged shrinking differentials can reduce morale, with those just above the bottom feeling unrewarded for additional experience. They argued the solution was not to stop pushing pay up at the bottom, but to think about how to broaden the gains from the minimum wage to those above it. GMB Union argued employers used the NMW as cover to suppress pay elsewhere: "too often, employers cite increase in NMW rates to justify not awarding increases to employees in other grades which often it can well afford to pay." On the Edinburgh visit, Union of Shop, Distributive and Allied Workers (Usdaw) members argued that narrowing differentials should not influence the LPC's recommendations: "It is for us to negotiate with employers to maintain the differentials. The important part is giving people a minimum rate of pay they can live on." Other pressures on pay, such as labour shortages, might make it easier for workers to negotiate pay settlements that maintain differentials within firms.

Workers are still succeeding in progressing off the minimum wage despite low differentials

4.14 Despite concerns about differentials, our analysis suggests that NLW workers are more likely to progress off the minimum now than before the pandemic. Figure 4.4 shows that of the NLW workers in 2022, who were still employees in 2023, approximately half were no longer paid the NLW in 2023. This same figure for 2018 to 2019 is only 40 per cent. Workers are also more likely to progress into work paid at least £1 an hour more (in real terms). This contrasts with some of the testimony we have heard from businesses, who told us that the reduction in differentials will make it hard for workers to progress. High progression rates off the minimum wage help explain why coverage has remained low. Labour shortages in some low-paid sectors have likely helped workers progress off the minimum wage. Firms have had to raise pay off the minimum to attract workers.



Figure 4.4: 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. Data on minimum wage coverage in 2020 and 2021 are less reliable due to pandemic related data issues, so those years are dotted. More reliable data points are shown by the solid points.

Competition between firms for staff has driven up pay, taking some workers off the minimum

4.15 Labour shortages and the resultant competition for staff are another reason that the share of workers paid the NLW has fallen recently. As discussed in Chapter 2, while vacancies have fallen from their peak last year, they remain elevated above pre-pandemic level in sectors such as Hospitality, Leisure and Social Care. "The British Chambers of Commerce (BCC) told us that large numbers of businesses reporting recruitment difficulties remained near record highs, with 74% of respondents overall, and 85% of larger firms, experiencing skills shortages. "Competition for staff continues to ramp up wage costs" for both recruitment and retention. In Scotland, one hotelier told us that the "labour market is incredibly tight, businesses are having to step up in terms of pay rates" and that pay rates around £12-£13 are becoming the norm. This competition for workers helps explain why the coverage rate fell from 2019 to 2022 and has remained low and more workers are moving off the minimum into better pay. Firms have had to pay above the minimum wage rate to attract and retain workers.

4.16 There is evidence of job shortages in low-paid jobs driving up pay growth in other countries too. Adrjan and Lydon (2023) show that there has been stronger growth in vacancy postings and advertised pay for low-paid jobs across the US and selection of European countries. Some of these countries (such as France and Germany) have seen strong growth in their minimum wages, but some have not (US). Autor et al. (2023) show that across US states, those with a tighter labour market saw stronger pay growth. This supports the case for job shortages driving strong pay for low-paid workers in the UK.

4.17 A third reason for coverage remaining low is that some employers tell us they have targeted their pay awards at the lowest paid to try and help with the cost of living. Incomes Data Research survey employers' pay awards annually. In 2023, it found that 22 per cent of employers offered a one-off

payment to staff, and 88 per cent of these firms said it was due to the rise in cost of living. For instance, a large hospitality firm provided a £1,000 one-off payment to some support staff. One-off payments should be excluded from our measure of hourly pay, but some employers may have included these one-off payments in their regular pay data submissions. On top of one off payments, 7 per cent of firms offered a consolidated flat-cash pay rise in their pay award, for example one hospitality chain offered all their salaried staff £1,500 increase in pay (Incomes Data Research, 2023b). A pay award in flat cash terms means greater percentage increases in pay for low-paid workers. High inflation and flat cash pay awards are further reasons that the coverage rate has remained low, despite big increases in the NLW.

4.18 In the following sections we explore the pay, hours, and employment impacts of the NLW on groups of workers and jobs more likely to be paid the NLW. We use four lenses: first, we compare low-paying industries with other industries. Second, we compare outcomes in small businesses relative to outcomes for larger businesses. Small and micro businesses are much more likely to pay the minimum wage. Third, we look at outcomes for workers by their personal characteristics, comparing outcomes for groups of workers more likely to be paid the minimum to workers less likely to be paid the minimum wage. Finally, we compare outcomes in low-paying areas to better paying areas.

How has the latest NLW rise affected low-paying industries?

Hourly pay has continued to grow faster in low-paying industries than elsewhere

4.19 NLW jobs are concentrated in certain industries. We group the industries where minimum wage workers are most likely to work into a set of 'low-paying industries', such as Retail, Hospitality and Cleaning and Maintenance. Around 71 per cent of NLW jobs are in low-paying industries. About 12 per cent of jobs in low-paying industries are paid the minimum wage compared to 2 per cent in other industries. There is a detailed breakdown of low-paying industries in Appendix 3.

4.20 Hourly pay has grown faster in low-paying industries than in other industries. Median hourly pay grew by 8 per cent in low-paying industries and 6 per cent in other industries between 2022 and 2023. This will partly be due to the NLW, as more workers are paid at or near the NLW in low-paying industries, it has a bigger positive effect on pay here. Other factors also play a role, such as job shortages in certain low-paying industries. Despite, stronger than average pay growth in low-paying industries, median pay grew slower than the NLW, so the 'bite' of the NLW increased in low-paying industries.

4.21 While overall bite has increased and coverage has stayed roughly flat, there is a varied picture across low-paying industries. Figure 4.5 shows how bite and coverage has changed between 2022 and 2023. Some low-paying industries, such as Transport, saw coverage and bite both decline last year. This suggests transport firms needed to raise pay above the NLW to attract workers. In contrast, both coverage and bite increased in social care. Despite high vacancy rates in social care, social care employers told us that it is difficult to increase pay above the minimum given the current level of public funding for the sector. For instance, in a 2022 survey run by Care England 81 per cent of providers reported that local authority fee increases did not cover the costs of care. We discuss the social care sector in more detail in Chapters 7 and 8.



Figure 4.5: Bite and coverage rate in low-paying industries, UK, 23+, 2022-23

Source: LPC analysis of ASHE, standard weights (bite) and low-pay weights (coverage), UK, workers aged 23+, excludes first-year apprentices.

4.22 Employee numbers have grown slower in low-paying industries than other industries recently, but measuring the exact difference is challenging. Figure 4.6 shows how the number of employees in low-paying industries and other industries have changed over time. It shows two different data sources: the Labour Force Survey (LFS) and the administrative PAYE data. Both sources show that employment has grown slower in low-paying industries than in other industries, however, the size of the gap differs between the two sources. Given the recent issues with the LFS (discussed in Chapter 2) we have put more weight on the PAYE figures. These show that the number of employees in low-paying industries grew 1.0 per cent since 2022 (1.5 per cent since 2019), in other industries the number of employees grew 2.5 per cent since 2022 (6.0 per cent since 2019).



Figure 4.6: Employees by industry, UK, 23+, 2022-23

Source: LPC analysis of LFS, standard weights, 23+ and ad hoc RTI data provided to LPC by HMRC in October. Please note that these figures may not match published figures for the same breakdown in HMRC tables as these figures are the data as it stood in October and the HMRC tables are revised with more recent data.

4.23 While the NLW has risen considerably relative to median wages, and employment in low-paying industries has fallen relative to other industries, the NLW is unlikely to be the cause. Some firms in low-paying sectors do report that the NLW is a constraint on hiring, but we've heard from more firms who are struggling to recruit. Chapter 2 showed that many more employers in low paying industries face worker shortages than those in other industries. With firms struggling to recruit it is unsurprising that employment growth has been muted in these industries. While vacancy levels have come down from historic peaks in low paying sectors, they are still higher than pre-pandemic levels.

4.24 Other factors have also affected employment in low paying industries. The two major economic shocks the UK has experienced since 2019 (the Covid-19 pandemic and exiting the EU) both disproportionately affected low-paying industries (Joyce and Xu, 2020, Sumption et al., 2022, and Low Pay Commission, 2022c). Figure 4.6 shows that the big drop in employment in low-paying industries occurred in 2020 when these shocks hit, which suggests they are at least part of the explanation. Low-paying and consumer facing sectors were the most affected by pandemic restrictions.

4.25 Covid-19 and the UK exiting the EU help explain help explain why firms report worker shortages in low-paying industries (see Figure 2.7). Last year, aggregate vacancies hit record levels and were particularly high in some low-paying sectors. For example, The Recruitment & Employment Confederation (REC) told us that "From April 2022 to April 2023, there was a 323 per cent increase in the number of postings for kitchen and catering assistants, 319 per cent increase for nursery nurses and nursing assistants, and a 208 per cent increase for elementary storage occupations." They have come off that peak but remain above their pre-pandemic level. High vacancies suggest a labour shortage. Exiting the EU could help explain this, as it restricted the access of some sectors to workers. Covid-19 could also help explain this. Barrerro, Bloom and Davis (2022) argue in the US that workers have been

hesitant to return to sectors which require interpersonal interaction with the public, due to Covid-19 concerns. A similar response in the UK could help explain the slow employee growth and heightened vacancies in low-paying industries since 2019.

4.26 The long-run decline in high-street retail is another potential driver of the shift away from employment in low-paying industries. Shifts in consumer spending patterns have reduced employment in retail in the UK as well as elsewhere (Dorfman, 2022 and Low Pay Commission, 2022c). The BRC found more retailers reducing shop floor staff this year (39 per cent) than last year (23 per cent). However, it said "with the ongoing transformation of the industry, it is difficult to attribute shifts in the labour market to a single factor, such as the cost of the NLW." The NLW is at most one driver of the relative decline in low-paying industry jobs.

A minority of employers in low-paying industries report reducing hours in response to the NLW

4.27 Reducing contracted hours or using contracts with flexible hours week-to-week could help firms reduce their wage bill by reducing the overall number of staff hours. A small share of employers report reducing hours in response to the latest NLW rise. The Chartered Institute of Personnel and Development (CIPD) surveyed employers affected by the latest NLW rise: 10 per cent of employers reported reducing hours in response and 7 per cent said they increased the share of workforce on atypical employment contracts (e.g. zero hour contracts). This is similar to the share who said they reduced employment, but much lower than the shares reporting increasing prices or reducing profits that we discuss in Chapter 7.

4.28 Reducing hours is a particular risk in low-paying industries where short or zero-hours contracts are common. The BRC thought survey data "suggests there is a greater skew towards the usage of shorter contracts," although noted that short-hours contracts had long been the sectoral norm. Whitbread Plc noted they did not use zero-hours contracts, but stated that "increases to the NLW have necessitated a further focus on delivering productivity and flexibility which could result in stagnant or reduced earning potential for our Team Members," an apparent reference to reductions in working hours. The Equestrian Employers Association (EEA) found a quarter of its members were advertising jobs at fewer hours in response to the NLW. A written submission from one hospitality employer stated: "Over the summer I expect to have to reduce staff hours in order to balance the staffing with the reduced turnover / increased running costs. Any additional pressure next year is going to mean further reductions and even redundancies."

Average hours have fallen in hospitality but not necessarily due to the NLW

4.29 Our analysis also shows a reduction in hours in low paying industries, especially hospitality, in the last year. Figure 4.7 shows the change in hours in all low-paying industries and hospitality. The left hand side uses employer reported data from the ASHE. The right hand side uses worker reported data from the LFS. Both show a slight reduction in hours in low-paying industries in the last year and a more substantial reduction in hours in the hospitality industry. In both cases, the reduction is greater according to the LFS measure. The NLW is one potential cause of this reduction in hours, some hospitality employers have said they have reduced hours due to NLW rises. However, other hospitality employers told us they reduced hours as they struggled to find enough workers willing to work unsociable hours. Hospitality Ulster told us that some bars and restaurants have reduced opening hours (many closing on

Mondays and Tuesdays). Some reduced hours in response to demand but others due to labour shortage. While reduced hours in hospitality is a concerning sign, it is not clear that the NLW has caused it and the reductions in hours in other low-paying sectors is modest.





Source: (LHS) LPC analysis of ASHE, UK, standard weights, 23+, total weekly hours per job including overtime, excludes first year apprentices. These figures are not chain-linked. (RHS) LPC analysis of LFS, UK, standard weights, 23-64, total weekly actual hours worked in all jobs by employees. Figures refer to April/Q2 of each year. Hospitality is a sub-category of low-paying industries.

There is little evidence to suggest the recent rises in the NLW have increased precarious work in low-paying industries

4.30 Alongside reducing hours, employers could also respond to NLW increases by using more precarious forms of work. Precarious work is a broad concept, different workers face precarity in different ways. We focus on three measures: zero-hours contracts (workers with no guaranteed hours in their contracts), involuntary temporary work (workers who would like a permanent job but are in temporary work) and underemployed workers (workers who would like to work more hours.)

4.31 There is little quantitative data to suggest that the latest NLW increases have increased precarious work. Figure 4.8 shows the share of workers in three different types of precarious work. In aggregate (shown in the solid lines) on each of the three measures, the current share of workers in precarious work is at a similar level to 2019.

4.32 Precarious work remains more common in low-paying industries, but we similarly see little evidence to suggest recent NLW increases have increased its incidence. Underemployment rates and involuntary temporary works are also unchanged since 2019 in low-paying industries. This suggests that the reduction in hours in hospitality and other low-paying sectors is likely to be more due to labour shortages than NLW effects. If firms had reduced hours in response to the NLW, we might expect the share of workers reporting that they'd like to work more hours would increase, but we have not seen this.

4.33 The share of workers on zero-hours contracts across the economy is similar to pre-pandemic level. The share of workers on zero-hours contracts in low-paying industries has increased from 4.1 per cent in 2019 to 5.6 per cent in 2023. However, this is mainly due to a reduction in the number of workers not on zero-hours contracts in low-paying industries (according to the LFS data). This reduces the denominator in the share calculation and so increases the share of workers in low-paying industries on zero-hours contracts. The number of workers in low-paying industries on zero-hours contracts has not increased dramatically. Current evidence does not suggest recent rises have increased zero-hours contracts usage, but more evidence is needed to confirm this.





Source: LPC analysis of LFS, standard weights, UK, 2014-2023, figures are not seasonally adjusted. There was a methodology change in the zero-hours contracts measure in 2020 02.

How has the NLW affected pay and employment in small firms?

A greater share of workers are paid the NLW in small and micro firms

4.34 If the NLW reduced employment, we might expect it to hit small employers first. Small businesses are more likely to pay the minimum wage. Figure 4.9 shows that in 2023, 15 per cent of jobs in micro businesses were paid the NLW. Only 5 per cent of jobs in large businesses paid the NLW. Since 2019, coverage has fallen for large firms but remained high for small and micro firms. This suggests that larger firms have been able to raise their wages above the NLW in response to labour shortages, but smaller firms have not been able to.


Figure 4.9: Share of jobs paid at or below the National Living Wage, by employer size, private sector, aged 25+, UK, 2012-2023

Source: LPC analysis of ASHE, 25+, 2012-2023, UK, Figures are chain-linked to reflect a methodology change in 2021. There is increased uncertainty over our estimates of coverage in 2020 and 2021 due to pandemic related data issues. Note: Employer sizes used in this analysis refer to following thresholds: micro businesses have 1-9 employees; small businesses have 10-49 employees; medium businesses have 50-249 employees; large businesses have 250+ employees.

Smaller employers are more likely to report reducing employment due to the NLW

4.35 In employer surveys, small employers are more likely to say they have responded to the NLW by reducing employment or hours. A quarter of businesses said they reduced employment in response to the NLW in the FSB survey of small businesses, compared with 15 per cent in the CBI survey of large businesses. While reducing employment is a minority response in both surveys, these surveys do suggest that the employment risk is higher for workers in small firms.

Employee numbers have actually grown fastest in small firms since 2019

4.36 However, small businesses have seen the strongest growth in employees since 2019. Figure 4.10 shows that there are now 5 per cent more employees in small businesses than there were in 2019, whereas there are now fewer employees in large firms than there were in 2019. This is counter to what we would expect based on stakeholder evidence.

4.37 This does not rule out a negative employment effect for small businesses. Other factors could hide any minimum wage effects in the aggregate figures. Employment losses in small firms affected by the NLW, could be masked by increases in employment in other small firms. There is some evidence that the pandemic has shifted employment towards small, new firms. Decker and Haltiwanger (2023) show that in the US, the pandemic has led to an increase in business formation and a linked increase in small business employment. Bahaj et al (2023) shows a similar increase in business formation in the UK, which is likely to also lead to a shift to employment in small firms. The aggregate data paint a positive picture for employment in small firms, but we would need more detailed data to understand what role the NLW was playing in this.



Figure 4.10: Private sector employees index (2019=100), by firm size, UK, 2012-2023

Source: LPC analysis of Business Population Estimates 2023, Table 28.

How has employment changed for workers likely to be paid the minimum wage?

4.38 Another way to explore the relationship between minimum wage and employment is to track employment rates for the groups of workers most likely to be paid the minimum wage. In Chapter 3, we discussed which personal characteristics are a good predictor of being a minimum wage worker. Table 4.1 shows how employment rates have changed over time for different groups of workers. If the NLW reduced employment, we might expect to see employment rates grow more slowly or fall for workers in groups more likely to be paid the minimum wage.

Employment rates have grown relatively strongly for women and people with a disability

4.39 For many groups of workers with relatively high coverage rates, employment rates have performed relatively well in the last four years. For instance, employment rates increased by 0.4 percentage points for women in the last four years, whereas they declined for men by 1.0 percentage point in the same period.

4.40 For some groups of workers, changes in the composition of the group are important for explaining changing employment rates. Employment rates increased by 1.3 percentage points for people with disabilities and increased by 1.1 percentage points for workers without disabilities. One reason for this is an increase in people reporting a disability. Data from the LFS suggests that in 2023, 24 per cent of 23-64 year olds reported a disability, in comparison to 19 per cent in 2019. Disability has particularly increased amongst younger people, who other things equal are more likely to be employed. These changes make it harder to isolate the impacts of the NLW on these groups.

Table 4.1: Employment rates and Coverage Rates, by personal characteristics, aged	
23-64, UK, 2019-2023	

Characteristic	Minimum wage coverage rateª		Employment rates ^b					Change in employment rate	
	2019 (ASHE)	2019 Q2 (LFS)	2019 02	2020 02	2021 02	2022 02	2023 02	2019 02-2023 02	2022 02-2023 02
Men	4.8		85.0	84.5	83.5	83.8	84.0	-1.0	0.2
Women	8.3		75.4	75.4	75.5	75.5	75.8	0.4	0.3
No disability		7.6	86.5	86.4	86.4	86.9	87.7	1.1	0.7
Disability ^c		11.7	54.2	54.5	54.8	55.2	55.6	1.3	0.3
White		8.5	81.4	80.7	80.3	80.4	80.7	-0.6	0.4
Ethnic minority		9.8	72.5	75.8	75.0	75.6	75.7	3.2	0.2
UK-born		7.9	80.6	80.2	79.7	79.7	79.8	-0.7	0.1
Non-UK born		10.1	78.5	79.2	78.9	79.3	80.3	1.8	1.0
Degree		2.5	87.3	87.0	87.1	87.5	87.8	0.5	0.3
No degree		11.7	76.2	75.6	74.5	74.1	73.9	-2.2	-0.2
23-24 ^d	5.2		75.9	76.2	77.3	78.2	78.1	2.2	0.0
25-29	7.4		83.8	84.1	83.7	83.7	83.9	0.2	0.2
30-64	6.3		79.8	79.5	79.0	79.1	79.4	-0.5	0.3
Total	6.6	8.6	80.1	79.9	79.5	79.6	79.9	-0.3	0.3

Source: (ASHE coverage rates) LPC analysis of ASHE, low-pay weights, ages 23+, UK, 2019. These figures are chain-linked to account for the change in ASHE methodology in 2021.

(LFS coverage rates) LPC analysis of LFS, income weights, ONS imputation method, ages 25+, UK, average of four quarters to 2019 02. (Employment rates) LPC analysis of LFS, standard weights, ages 23-64, UK, 2019 02-2023 02.

- a. We use ASHE data where it is available to estimate coverage rates. For characteristics not available in ASHE, we use the LFS to estimate coverage rates. This is a less reliable measure and tends to be higher overall, so the LFS and ASHE figures are not comparable.
- b. There is additional uncertainty around these results currently, as they rely on the LFS, which has had issues capturing a representative snapshot of the country since the pandemic (see Chapter 2 and paragraph 4.22).
- c. We use different definitions of disability in this analysis. We use the DISCURR variable in the LFS for the coverage analysis, whereas for the employment analysis we use the DISEA variable.
- d. Coverage rates were low for 23-24 year olds in 2019 when they were on the 21-24 rate. However, in 2021 they were made eligible for the adult (NLW) rate and coverage rates jumped to 12 percent. See Figure 10.1.

Employment rates have fallen for workers qualified below degree level

4.41 Employment rates have fallen considerably since 2019 for workers without a degree level qualification. This is concerning as an individual's level of education is one of the best predictors of whether they are a minimum wage worker. (London Economics, 2023, Cengiz et al, 2021). Employment fell for less qualified workers between 2019 and 2021 and have not recovered since then. Employment rates are now more than 2.2 percentage points lower for workers without a degree whereas 0.5

percentage points higher for workers with a degree.³ This is a reversal of previous trends; between the second quarter of 2016 and the second quarter of 2019, employment rates grew by 1.7 percentage points for workers without a degree. There are a range of factors that could have caused this reversal, including the NLW, the pandemic and changes to tax and benefit policy.

4.42 Our view is that it is more likely that the pandemic is the main driver in this reduction of employment rates for workers without degrees. There are several reasons for this. First, workers without degrees became inactive rather than unemployed, meaning they were not actively seeking jobs (see Figure 4.11). The pandemic is more likely to have discouraged or prevented people from looking for jobs than the NLW. Indeed, a rising NLW may encourage more people to seek work. Second, vacancies in low-paying industries were heightened during the pandemic, again suggesting jobs were available (Joyce et al., 2022). Third, employment amongst workers without a degree 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.





Source: LPC analysis of LFS, standard weights, ages 23-64, UK, 2019 02 – 2023 02. Note: there was a minor change to the qualification variable in 2022 01.

Employee numbers have grown evenly across high and low-paying areas

4.43 The NLW continues to drive up pay in the lower-paying areas of the country. We showed in chapter 3 that minimum wage workers are distributed unevenly across the country. This means that the lower-paying parts of the country experience the pay effects of the NLW more acutely. It also means that they are more at risk if there are negative employment effects.

³ The composition of workers with a degree is changing over time and part of this fall in employment is due to workers without a degree becoming older. If we control for a range of individual characteristics (age, age squared, disability status, ethnicity, country of birth), we still find that employment rates have fallen for non-graduates relative to graduates.

4.44 Administrative data does not suggest that the latest NLW rise has reduced employment in lower-paying areas of the country. The left-hand side of Figure 4.12 shows the percentage growth in employees in local authorities based on the share of workers paid the minimum wage in that authority. If the latest rise in the NLW reduced employment, we might expect slower employee growth in the authorities with higher coverage rates but we do not see this. We similarly see no relationship between NLW coverage and employee growth in local authorities over the period 2019 to 2023.

4.45 Data from the LFS shows a different picture. The chart on the right-hand side of Figure 4.12 shows that based on the LFS, employee numbers have grown more slowly in local authorities with higher coverage. This contrasts with the results from the administrative data. However, the LFS data also shows much more volatility in employee growth than administrative data because of sampling variability.

4.46 As we have discussed previously, since the pandemic the LFS has had to move to telephone interviews and has struggled to maintain a reasonable sample size and may not have captured recent changes in the working population. We therefore put more weight on the administrative data, which, based on the analysis below, does not suggest the recent NLW rise reduced employment.





Source: LPC analysis of ASHE, low-pay weights, UK, all ages, excludes first year apprentices. LPC analysis of RTI employees data all ages, LFS employees data, standard weights, UK, 16+. Northern Ireland (NI) is included as a single local authority as we don't have detailed data for NI. Excludes Isles of Scilly and City of London. Note the different y-axes for the two graphs.

Does econometric analysis show that the NLW reduced employment?

4.47 In addition to the descriptive analysis and stakeholder evidence, we also use internal and external econometric research to test the employment effects of the NLW. Econometric approaches can allow us to make more careful comparisons and control for these potentially confounding factors.

They also allow us to gauge the uncertainty around our estimates, subject to the assumptions they rely on.

4.48 In the first stage of the NLW, econometric analyses tended to find no effect of the NLW on employment. We found little evidence to suggest the NLW was reducing employment for all affected workers, although there was some evidence it reduced employment for some subgroups of workers, such as women working part-time. We produced a detailed summary of the evidence up until 2020 in our 2022 NLW Review (Low Pay Commission, 2022a).

4.49 We have carried out two internal econometric analyses of the impacts of the NLW since 2019. We replicated Butcher and Dickens (2023) with data up until the second quarter of 2023 (Butcher and Dickens, forthcoming). This divides the country into 320 different age-gender-region cells. We calculate a measure of exposure to the minimum wage for each cell (either the bite or the coverage rate). We then compare how outcomes (such as employment) change over time across the different cells. Our outcome measures are from the LFS. If the NLW reduced employment, we would expect employment to grow more slowly in cells more exposed to the minimum wage (e.g. women aged 60-64 in the West Midlands) relative to cells less exposed to the minimum wage (e.g. men aged 30-34 in London). We refer to this analysis as the 'grouping analysis'.

4.50 We also replicated Giupponi et al. (2022) with data from 2019 to 2023. This study tries to isolate the effect of the minimum wage by comparing how the pay distribution changes in low-paying areas relative to better paying areas. Workers in low-paying areas such as Newquay are more likely to be affected by the minimum wage than workers in better paying areas such as Reading. If the NLW reduced employment, we would expect to see lower employment at wage levels close to the minimum wage in low-paying areas, but not to see similar falls in employment for comparable workers in better paying areas. This study uses this comparison to test whether the NLW reduced employment. We refer to this analysis as the 'bunching analysis' (Low Pay Commission Research, forthcoming).

4.51 We find strong pay effects using both approaches. In the grouping analysis, we found that pay grew more strongly for age-gender-region cells with higher bite. We find strong effects on introduction of the NLW on pay in 2016 and in 2020, 2021, and 2022. In 2023, we found a positive but not significant effect on pay. In the bunching analysis, we found evidence that the NLW had spillover effects on pay up to at least £1 above the incoming minimum wage from 2019 to 2023. These results support our descriptive analysis. They suggest the NLW is still increasing pay for those on the NLW and those above it, although there is slightly weaker evidence of the NLW impacting pay in the most recent year. This may be due to other factors driving up pay for those on low pay.

4.52 Both studies suggest that employment has fallen for minimum wage workers (relative to betterpaid workers since 2019). 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.

4.53 Other contextual factors suggest that the pandemic is more likely to be driving these results. Vacancies in low-paying sectors remained heightened, which you might not expect if the NLW reduced hiring activity. In the areas where employment did fall according to the bunching analysis, it was replaced by inactivity (people not seeking work) rather than unemployment. The measured effects are stronger in men rather than women, but women are more likely to be paid the minimum wage. These

factors gave us more confidence that the NLW was not the key driver of these results, but we cannot rule out the NLW playing some role.

4.54 There is also additional uncertainty over the results of both studies as they rely on the LFS. As discussed in Chapter 2, the LFS has become less reliable over the last four years. The sample size has fallen, and it is possible that recent data does not reflect a representative sample (after weighting) of the UK population. We showed in 4.22 and 4.44 that since 2019 the number of employees in low-paid areas and low-paying industries have grown more slowly in the LFS than in administrative data. These differences may explain our econometric results. Some of the measured employment effect could be due to be issues with the LFS. We plan to carry out more analysis using administrative data to complement our existing analysis.

Conclusions

4.55 The NLW has continued to increase relative to median pay. It has reduced hourly pay inequality and increased pay for workers both paid on the minimum wage and other workers paid near the minimum wage.

4.56 Labour shortages have also pushed up pay growth for low-paid workers. Vacancies are still high in most low-paying sectors and some firms told us they needed to raise pay above the minimum to attract and retain workers. This helps explains why, despite the large increase in the NLW, the share of workers paid the minimum wage has remained flat and a greater share of workers are progressing off the minimum wage than in 2019.

4.57 Weak employment and hours growth for low-paid workers likely reflects employers struggle to recruit and the after-effects of recent shocks. Employee numbers and average hours have grown more slowly in low-paying industries than in other industries since 2019 and econometric analysis suggests that employment rates have fallen for some groups more likely to be paid the NLW (such as workers without degrees). While the NLW may have a role in these trends, they are more likely driven by recent labour shortages linked to the pandemic and EU exit. High vacancies in low-paying sectors, worker shortages and workers able to leave the minimum wage for better pay more easily than before the pandemic are not consistent with demand constrained by the minimum wage.

4.58 Employers still rarely report reducing hours and employment in response to the NLW. They are more likely to report using other margins to absorb the additional costs of the NLW. Alternative channels that firms use to absorb the costs include: increasing prices, reducing profits and attempting to increase productivity. We discuss these in Chapter 7.

Chapter 5

Youth rates

Key findings

- Demand for young workers remains strong. More 16-20 year olds are in employment than before the pandemic, with some employers telling us they are recruiting younger workers due to labour shortages. However, the spike in employment for the youngest workers has passed its peak.
- Pay growth is highest for young workers. 18-20 year olds saw the largest increases in median hourly pay of any group in 2023. Over the period from 2016-2023, median pay for 16-20 year olds grew faster than their minimum wages and median pay of older workers. At the same time, youth minimum wages (for those under 21) have fallen behind the minimum wages of older workers, leading to a widening gap between the rates.
- The share of eligible jobs paid the youth rates remains below 2019 levels for 16-20 year olds.
 Stakeholders link this to the need to pay above the minimum to attract workers. This indicates that pay pressures from market conditions are reaching some of the lowest-paid workers and pushing up pay growth more than the minimum wage rates.
- Low-paying sectors have driven employment growth for young workers. Hospitality has been
 particularly important, overtaking retail as the largest employer of young workers. Low-paying
 sectors have also seen use of the youth rates of the minimum wage decline faster than other
 sectors.
- Employment has weakened for 21-22 year olds, but pay growth has been strong. Falling employment has been associated with rising levels of inactivity, rather than unemployment. Pay growth is close to that of 18-20 year olds and higher than for older workers. Along with continued reports of labour shortages, this strong pay growth suggests that lower employment is not due to a lack of demand for these workers.
- The impact of 21-22 year olds becoming entitled to the NLW is likely to be small. This is both because the 21-22 Year Old Rate is infrequently used and because the cost saving from using the rate is currently small relative to the NLW. However, more 21-22 year olds are likely to be affected by the move to the NLW than the number of 23-24 year olds affected when they became entitled to the NLW in 2021.

5.1 The young people who will be entering – or continuing – in the labour market in 2024 have experienced huge disruption at a key transition period in their lives. Many took exams or left education during the pandemic, and there remains uncertainty over the impact this will have on their future careers.

5.2 Despite this backdrop, young people's pay and employment continued to perform strongly in 2023. As with the adult labour market, we have seen some softening compared to 2022. However, stakeholders continued to report high levels of demand for young workers and expect this to last into 2024.

5.3 This chapter looks at the youth labour market and use of the youth minimum wage rates in more detail. Our remit this year required different decisions for 21-22 year olds (whether they should become entitled to the NLW) and 16-20 year olds (the uplift to their age-related minimum wage rates), so we consider these two groups separately. The Apprentice Rate – which also affects the youth labour market and has been aligned to the 16-17 Year Old Rate since April 2022 – is discussed in the following chapter (Chapter 6).

5.4 We begin by looking at headline employment and pay data for 16-20 year olds. We then break this down, focussing particularly on the sectors where young people are often employed. The issues with the Labour Force Survey (LFS) discussed in Chapter 2 particularly limit employment analysis for young people, where sample sizes were already small and there has been considerable divergence in estimates of employee numbers compared to other sources (see Figure 2.1). While we continue to use some LFS data, we gratefully received additional data from HMRC, which helped to plug the gaps in our understanding of the state of the youth labour market. We are also able to understand the health of the youth labour market through changes in pay and use of the minimum wage. Finally, we turn to 21-22 year olds and lay out the evidence on pay and employment underlying our recommendation that they become entitled to the NLW in April 2024.

Employment is above pre-pandemic levels for 16-20 year olds

5.5 In August 2023, there were nearly 100,000 more employees aged under-21 than in August 2019⁴. This is a small figure in terms of the total UK workforce, but large in terms of the under-21 workforce of 1.5-1.7 million. The bulk of this additional employment came from those under 18⁵, where employee numbers peaked more than 20 per cent above 2019 levels following the pandemic (see Figure 5.1). Although they have since fallen, they remain well above pre-pandemic norms. The number of 18-20 year old employees was slower to recover but is now comfortably above 2019 levels.

⁴ HMRC PAYE data provided to the LPC in September 2023, not seasonally adjusted. This may differ from revised figures published later.

⁵ HMRC PAYE data does not separate 16 and 17 year olds from younger workers, however we expect those under school-leaving age (and therefore not eligible for the 16-17 Year Old Rate) to make up only a small part of this group.



Figure 5.1: Employee numbers compared to August 2019, by age, 2015-2023

Source: HMRC PAYE data, August 2015-August 2023, seasonally adjusted. Under-21 and 23+ populations. Data for 18-20 and 23+ groups is as provided to LPC in September 2023 and data for under-18s is from data published in October 2023. These may differ from revised figures published later.

5.6 For a fuller picture of how young people are faring, we would usually look at employment numbers in the context of detailed population data, using the LFS. However, shrinking sample sizes and differences in population estimates are a particular problem for the youth rate populations, which are already small. We examine the divergence between the LFS and administrative data in Appendix 3. HMRC data does not give us the same level of detail, and we cannot use it to calculate employment rates⁶. But looking at the projected change in the youth population over the same period, shown in Figure 5.2, provides context. These projections give a broad indication that some – but not all - of the growth in employee numbers since 2019 was likely offset by population growth. However, these projections are annual and based on past population estimates, so are not directly comparable to the employee numbers.

5.7 Stakeholder evidence also told a story of a strong labour market for young people. The Prince's Trust argued the labour market for young people was currently strong and the TUC noted that youth employment rates had recovered strongly. Among employers, the NFU thought the tight labour market would protect the position of young workers: "it is likely that employment prospects for young people and other workers will remain positive" On our visit to Edinburgh, representatives from UKHospitality reported that recruitment difficulties meant more employers were recruiting 16-18 year olds.

⁶ There are differences between the employee population captured by the PAYE data and the definition of the employed as used in the Labour Force Survey and internationally, e.g. the PAYE data does not include the self-employed. See Appendix 3 for further information.





Source: LPC analysis of HMRC PAYE data, under-20 population, August 2018-August 2023; ONS mid-year population estimates, 2019; and ONS 2020-based population projections: year ending June 2022 estimated international migration variant edition, UK, 2020-2023. PAYE data for 18-20 and 23+ groups is as provided to LPC in September 2023 and data for under-18s is from data published in October 2023. These may differ from revised figures published later.

Note: PAYE data is indexed to August 2019.

Some young people are not benefitting from the employment opportunities available

5.8 Another important indicator for the youth labour market is the share of the population not in any kind of education, employment or training (NEET). As this data also comes from the LFS, we have less confidence in 2023 figures than in previous years. However, while the estimated share of 16-17 year olds who were NEET was still below pre-pandemic as of Q2 2023, at an annual average of 3.6 per cent of the population, the share of NEET 18-20 year olds saw an uptick in the first half of 2023, reaching an annual average of 12.5 per cent (compared to 11.1 per cent for the year to Q2 2019). This was due to increases in both unemployment and inactivity for those outside education. If this is accurate, it may suggest that while there are opportunities available for this age group, some are finding themselves distanced from the labour market.

5.9 In their evidence to us, Youth Employment UK described a "participation crisis" among young people, with many out of work and education despite high vacancy levels. They related this to the poor quality of work opportunities and rates of pay available, but also noted that young people's confidence and wellbeing was at a low. This was only partly due to the pandemic: Youth Employment UK noted that as more young people experience the world virtually, they have less real world experience, which can contribute to them feeling unprepared for the labour market or not feeling like opportunities are for them.

5.10 Our own analysis of the LFS showed that over the pandemic, an increasing share of young people reported that they had never had a job (Figure 5.3). This guickly normalised for 16-17 year olds, but remained elevated over 2022 and 2023 for 18-20 year olds (who would have been aged 16-19 during the lockdowns). This suggests that some young people are still feeling the effects of missed early work experiences due to the pandemic.





5.11 The Prince's Trust also noted that inactivity due to long-term sickness had been rising for young people and linked this to mental health. They cite research done in collaboration with the Learning and Work Institute (July 2022) which, "found the proportion of out of work young people reporting a mental health problem increased from 11% in 2011 to 30% in 2022." From the same research: "When polled about their barriers to employment, the most common response, cited by 39% of respondents, was mental health problems or disability." This had partly been exacerbated by the pandemic, but "our Youth Index reveals that more than half of young people think the cost-of-living crisis will have a worse impact on their life than the pandemic. A third of young people said that worrying about money has made their mental health worse, rising to 39 per cent among NEET young people and 45 per cent among those from poorer backgrounds."

Many young people are in insecure work

5.12 There were increases in indicators of insecure work for 16-20 year olds in 2022 and early 2023, including zero-hours and non-permanent contracts⁷. While this looked to be normalising over the first half of 2023, the data is volatile and so more time will be needed to identify the latest trends. These types of contract are generally more widespread among young people, and several organisations raised concerns about their prevalence. The Prince's Trust highlighted research from Lancaster University's

⁷ In 2022, an average of 29 per cent of employed 16-17 year olds were on a non-permanent contract, an increase of 6 percentage points on the 2019 average, while 18-20 year olds saw a smaller increase of 3 percentage points (to 22 per cent) over the same period. There is a break in the data series on zero-hours contracts from Q1 2020, which makes comparison with pre-pandemic difficult, but we see an increase in the share of workers on zero-hours contracts of around 4 percentage points between Q2 2020 and Q2 2023 for 16-17 year olds, and 2 percentage points for 18-20 year olds. (Source: LFS, population weights, not seasonally adjusted, 2019-2023, 16-20 population).

Work Foundation (May 2022), which found that 16-24 year olds were two and a half times more likely to be in 'severely insecure' work than 25-65 year olds. Although some young people value the flexibility, "young people's overrepresentation in insecure work may be creating financial challenges... It is therefore important that measures designed to increase participation also have a focus on supporting young people into roles with security and opportunities for progression so that they can thrive." Usdaw echoed this point that young workers "are more likely to be in insecure forms of work, work less hours and have a weaker employment rights framework."

5.13 Youth Employment UK argued that low pay often went hand in hand with poor conditions, such as lack of training and development and irregular hours: "Young people have told us that they equate minimum wage jobs with being 'bad jobs.'" Our conversations with young workers themselves suggested that it was hard to generalise about whether flexible contracts were preferred or not. We spoke to young leisure workers who liked the flexibility of a casual contract: "At college or at uni, you haven't got the time to do a proper full-time contract." One had left a job in a different leisure company that paid better but offered less flexibility: "I preferred it here, because it's casual and I was contracted there." On the other hand, a different young worker in the same setting had left jobs with better hourly pay for a permanent job in the leisure centre because she wanted "a proper contract". She talked about her pay – and whether it was enough – in monthly terms and wasn't sure what her hourly rate was. She tried to top up her total pay by doing extras where she could.

5.14 Another potential indicator of insecurity is time-related underemployment: whether a worker would like to work more hours at their current rate of pay. LFS data shows that the share of workers reporting that they are underemployed is also consistently higher for young workers, but since the pandemic has been lower than any time since the financial crisis. The first half of 2023 saw this trend begin to turn, but levels remained low by historical standards. This gives us reassurance that young people are mostly able to work the number of hours they would like.

High demand for young workers has seen sustained pay growth, which has outpaced the minimum wage

5.15 Pay growth has been strong in the economy overall since the pandemic, but it has been particularly strong for young workers. In 2023, 18-20 year olds saw the strongest growth in median hourly pay of any group (Figure 5.4, left-hand side). Wage growth was a little lower for 16-17 year olds, but this followed very high growth in wages in previous years. Even within the current NLW population, younger workers seem to have seen particularly high pay growth: Figure 5.4 shows that wages for 23-24 year olds have grown more than a percentage point faster than the average for those aged 25+, indicating the strength of the youth labour market overall. This is also likely to be a function of the strength of pay growth in low-paying sectors (discussed in Chapter 4), where younger workers are more likely to work.



Figure 5.4: Growth in median hourly wages, 2022-2023 (LHS) and cumulative growth in median and minimum wages, 2016-2023 (RHS)

Source: LPC analysis of ASHE, standard weights, UK, 2016-2023. 16+ population, excluding those eligible for the Apprentice Rate. Estimates are chain-linked to adjust for a methodology change in 2021, see Appendix 3 for details.

5.16 The large minimum wage increases we recommended in 2023 saw the minimum wage gain some ground against the median. However, as shown on the right-hand side of Figure 5.4, median wages for 16-20 year olds have overall grown faster than minimum wages since 2016 – and faster than median wages for older groups (we discuss the changes for 21-24 year olds later in this chapter and in Chapter 10). Figure 5.5 shows that the increasing gap in growth between median and minimum wages has been a post-pandemic phenomenon, with minimum wage rises falling behind median wage growth after 2019.

Figure 5.5: Cumulative growth in median and minimum wages, 2016-2023, 16-17 year olds (LHS) and 18-20 year olds (RHS)



Source: LPC historic minimum wage data and LPC analysis of ASHE, standard weights, UK, 2016-2023. 16-20 population, excluding those eligible for the Apprentice Rate.

5.17 Median pay growing faster than the minimum wage leads the bite of the minimum wage to fall, and 2022 saw the lowest bites in more than 15 years for the 16-17 and 18-20 minimum wage rates. The bite of both rates increased slightly following the large uprating in 2023, but remain low historically. Coverage of the rates (the share of workers paid at or below the minimum wage) also fell sharply following the pandemic (Figure 5.6). This demonstrates that pay increases driven by labour market conditions were reaching some of those in the lowest-paid jobs, and having more influence than minimum wages. Coverage fell further for 18-20 year olds in 2023. It increased slightly for 16-17 year olds, but remains below 2019 levels.





Source: LPC analysis of ASHE, low pay weights, UK, 2016-2023. 16+ population, excluding those eligible for the Apprentice Rate. Estimates are not chain-linked to account for the methodology change in 2021. Dashed lines indicate period affected by the pandemic.

5.18 Figure 5.4 (right-hand side) also highlights that minimum wages for 16-20 year olds have grown more slowly than those for older workers. This has led to a growing gap between their minimum wage rates and the adult rate, as shown in Figure 5.7. In cash terms, the gap between the youth rates has also increased. This means there can be large wage jumps when young minimum wage workers cross an age threshold. Several stakeholders commented on the size of the gap: UNISON noted the increasing differential between the NLW and other rates: "Cost savings to an employer have surged beyond £5 an hour for apprentices and 16-17-year-old, and are now almost £3 an hour for an 18-20-year-old." On the Birmingham visit, one large hospitality employer told us they use NMW age rates but "regret" this decision, in part because the differential between the NLW and the rates below it has grown. The Greater Manchester Chamber of Commerce also noted that many employers were surprised at the size of the difference between the youth and apprentice rates and the adult rate.



Figure 5.7: Minimum wages for 16-20 year olds as a share of the adult rate, 1999-2023

Source: LPC historic minimum wage data.

Low-paying sectors are leading employment growth and falling coverage

5.19 Data from HMRC suggests that young people's employment growth since 2019 has been concentrated in low-paying sectors, in contrast with the faster growth in other sectors that we saw for older workers in Chapter 4⁸. For 16-20 year olds, these low-paying sectors make up the bulk of their employment, particularly hospitality and retail.

5.20 Hospitality has become a particularly important employer for young people since the pandemic and has overtaken retail as the largest employer of workers aged under 23. This is due to both growth in hospitality employment and the broader decline in retail employment noted in Chapters 2 and 4. Similarly to older workers, we have seen a reduction in the average hours worked by under-23s in hospitality, but this is likely a compositional effect, with increasing employment of the youngest workers who are working short hours alongside full-time education. The reduction in average hours is more than made up for by increased employment, with total hours worked by under-23s in hospitality around 6 per cent higher in the year to June 2023 than in 2019⁹. Hospitality is typically the sector with the highest share of young workers paid at the minimum wage, but we have also seen this change since the pandemic: coverage of the youth rates has fallen across low-paying sectors, but particularly sharply in hospitality, as shown in Figure 5.8.

5.21 This suggests that factors other than the minimum wage are driving pay increases, even in the lowest-paid industries, which matches what we heard from stakeholders. On our Edinburgh visit, UKHospitality told us that recruitment difficulties meant hospitality employers were no longer paying the youth or apprentice rates. This was echoed by the BCC, who told us, "Given the difficulties in attracting

⁸ Source: HMRC PAYE data, UK, January 2019-August 2023. Under 23 population. Data provided to LPC in September 2023.

⁹ Source: LPC analysis of LFS, population weights, UK, Q1 2019 – Q2 2023 (4-quarter averages). 16-22 population.

and retaining staff, many of our members tell us they are paying the same pay rate for the job, regardless of age."





Source: LPC analysis of ASHE, low pay weights, 2016-2023. 16-20 population, excluding those eligible for the Apprentice Rate. For a definition of low-paying industries, see Appendix 3.

5.22 We have also seen falls in coverage among other groups of employers that are more likely to use the rates. Coverage for 16-20 year olds fell across all firm sizes, but the largest falls were among small and micro businesses, where use of the youth rates is more common. These businesses may have been particularly struggling to recruit young workers as larger firms already offering higher pay increasingly looked to recruit young people: median pay in large firms is more than £2 higher for 16-20 year olds than it is in small firms.

5.23 A similar story of 'catch-up' emerges from the regional data: Northern Ireland continues to have the highest coverage of the youth rates of any region, but it has fallen by nearly 8 percentage points since 2019. Meanwhile, London – the region with the lowest use of the youth rates – was the only area to see a (small) increase in coverage between 2019 and 2023.

While use of the youth rates is low, a large share of young people are paid below the NLW

5.24 Even outside the context of labour shortages, stakeholders frequently tell us that the youth rates are rarely used. This year, manufacturing representatives FDF and Make UK told us that use of the rates was minimal, the latter stating: "There is low awareness among employers...of the youth rates as the ... NLW rates are usually regarded as the base rate for all workers." Within retail, the BRC told us that "The vast majority (94%) of retailers pay all colleagues the NLW or above, regardless of age. Retailers take the view that colleagues doing the same work should be paid the same amount." However, they noted that a larger share (around 20 per cent) of smaller retailers' workforce was paid below the adult

rate. ACS thought use of the age rates was "quite low" as it was difficult to argue paying less for performing the same role, but there was some use of youth rates to mitigate costs.

5.25 Unite told us that "Many companies are prepared to abolish youth rates because it aids recruitment, retention, motivation and productivity." Similarly, the Prince's Trust told us many of their employer partners paid the NLW or above to all their workers from the age of 18 (although the Trust didn't require this).

5.26 Other sector representatives paint a different picture. UKH stated that while the sector broadly paid according to skills and experience rather than age, around 60 per cent of firms surveyed made use of some or all the age rates. NHBF told us that their members made full use of youth rates, although their survey findings gave a different picture (7 per cent paid the 18-20 rate, 16 per cent the 21-22 rate and 1 per cent the 16-17 rate). The BBCo told us that use of the youth rates was widespread, but also unfair and a hinderance to recruitment. The EEA found that 42.3 per cent of survey respondents said they used the youth rates; around a quarter did not employ young people; and another quarter paid above the NMW.

5.27 The data on pay demonstrates that there is some nuance to use of the youth rates. While fewer than one in ten 16-20 year olds are paid at the minimum wage rates, many are paid between their own rate and the rates above (Figure 5.9). In some cases, this may reflect employers choosing to pay above the minimum wage rates to avoid the risk of non-compliance (as noted in Chapter 4, a CIPD survey found that around a quarter of employers affected by the NLW reporting doing this). However, of those paid between their own rate and the NLW, the majority are paid more than 50 pence above their age-related rate, suggesting that other factors – such as competition between employers, or concerns over fairness – also play a role.



Figure 5.9: Coverage of own minimum wage rates and higher rates, 16-20 year olds, 2019, 2022 and 2023

Source: LPC analysis of ASHE, low pay weights, UK, 2019-2023. 16-20 population, excluding those eligible for the Apprentice Rate. Estimates are not chain-linked to account for the methodology change in 2021. The share shown 'at' their own rate includes those paid below the minimum wage.

5.28 Nearly three quarters of 16-17 year olds are 'effectively covered' by the youth rates – that is, they are paid below the NLW, so their employers are still making use of the existence of reduced rates. The share is lower for 18-20 year olds, at just under 40 per cent, but still represents a sizeable portion of young workers and more than might be expected given stakeholder feedback. Along with coverage of the age-related rates, the share paid below the NLW has declined since 2019, despite large increases to the rate.

21-22 year olds have seen high pay growth, despite falls in employment

5.29 The picture for 21-22 year olds in the labour market is more mixed than for younger workers. Pay growth has been strong for 21-22 year olds, as seen in Figure 5.4. However, the employment picture is less positive. Our 2022 Report (Low Pay Commission, 2022c) described a healthy recovery from the pandemic for 21-22 year olds: while increased enrolment in education had increased inactivity overall, employment rates for those both inside and outside full-time education had surpassed 2019 rates by Q2 2022. Yet the additional data we have this year from HMRC (Figure 5.10) shows that employee numbers fell between early 2022 and August 2023. This may be partly – but not entirely – explained by a fall in the population of 21-22 year olds (although as discussed above, the population projections used are not directly comparable with the employee numbers).





Source: HMRC PAYE data, August 2018-August 2023, seasonally adjusted. 21-24 population. Data is as provided to LPC in September 2023 and may differ from revised figures published later. population estimates/projections from mid-year population estimates 2019 and ONS 2020-based population projections: year ending June 2022 estimated international migration variant edition, UK, 2020-2023. Note: Population figures are projections based on past data, so may not reflect the outturn. They are only available on an annual basis.

5.30 The LFS suggests that unemployment has changed very little for 21-22 year olds, but that inactivity has increased. Increases in education enrolment contribute to this, but the bulk of the change is among those not in full-time education. Compared to those who were inactive shortly before the pandemic, those inactive post- pandemic are more likely to hold a degree-level qualification. This suggests that some of the increase in inactivity comes from a delayed transition into work following

graduation. As discussed earlier in this chapter, some of this group will also have missed out on important early work opportunities during the pandemic.

5.31 Despite this potentially concerning employment picture, wage growth for 21-22 year olds is very strong (Figure 5.4), only a little behind that for 18-20 year olds. The overall picture of employment for under 23s being driven by employment in low-paying sectors also suggests that these effects are unrelated to the minimum wage. And indeed coverage in low-paying sectors for 21-22 year olds remains below 2019, but has increased in other sectors.

5.32 We are also reassured by the fact that employment has remained above pre-pandemic levels for 23-24 year olds following the change in the NLW age threshold in April 2021. This is supported by econometric evidence: we have extended research carried out by London Economics (London Economics, 2022) to use data up to the 2022-23 financial year and continue to find no evidence of employment effects. This research uses LFS data and so there may be quality concerns, however these are somewhat mitigated by looking for effects over the full financial year, rather than in individual quarters. Using ASHE data, the original research found that some groups of 23-24 year olds were working fewer hours (relative to 26 year olds) following the change. However our update suggests that this was no longer the case by April 2022 (Salman, forthcoming).

While there are more risks for 21-22 year olds than 23-24 year olds, the impact of removing the rate is likely to be small





Source: LPC analysis of ASHE, low pay weights (coverage) and standard weights (bite), UK, 2019-2023. 21-24 population, excluding those eligible for the Apprentice Rate. Bite uses chain-linked figures to account for the change in methodology in 2021. Coverage is not chain-linked. See Appendix 3 for a discussion of chain-linking.

5.33 More 21-22 year olds will be affected by the move onto the NLW than 23-24 year olds were in 2021. Figure 5.11 shows that both coverage of their current minimum wage and bite of the NLW are higher for 21-22 year olds than they were for 23-24 year olds in 2019 (we use this year to compare as it

was unaffected by the pandemic, although bite and coverage were similar for 23-24 year olds across 2019 and 2020). The bite of the NLW is particularly high for 21-22 year olds, at around 90 per cent.

5.34 However, the longer lead-in time, with the 21-22 Year Old Rate now brought very close to the NLW, means that there is also relatively little difference between the bite of the NMW and NLW (as shown in Figure 5.11). The difference between coverage of the NMW and 'effective coverage' (the share paid below the NLW) has also decreased as the rates have moved closer together. More than 85 per cent of 21-22 year olds were already paid at or above the NLW in April 2023 (see Figure 5.12), up from 80 per cent in 2019. Although this leaves around one in seven paid below the NLW, the small gap between the rates (currently 24p) means that the direct cost saving for employers from using the rate is low (around £10/week for a full-time worker).

5.35 Much of the stakeholder feedback reflected this: REC told us that they didn't anticipate a big impact: "Age-differentiated rates above age 21 are not widely used, so we anticipate that the macro impact of any change would be small." ACS told us more than half of retailers said that reducing the age to 21 would not increase their wage bill. Make UK found 70 per cent of manufacturers expected the change to affect less than 5 per cent of their workforce. One large hospitality employer commented that "there's a financial impact to it clearly, but it's not hugely significant ... it's not a concern to us."



Figure 5.12: Coverage of age-related minimum wage and NLW, 21-22 year olds, 2019 and 2023

Source: LPC analysis of ASHE, low pay weights, UK, 2019 and 2023. 21-22 population, excluding first year apprentices. Figures are not chain-linked to account for the methodology change in 2021.

...but will be concentrated in certain types of employer

5.36 The EEA suggested the costs would have more of an impact. Over half (56.2%) of employers responding to an EEA survey said the change would have a "huge financial impact" on their business. This would come partly through having to increase wages for other more experienced workers. The NHBF asked us to delay the NLW age change "to 2025 or even 2026 to give businesses an opportunity to recover and adapt following the previous change in the threshold from 25 to 23." While a BCC survey

found that only 14 per cent of respondents would be directly affected, they noted the differential impacts of the change by sector, particularly on hospitality.

5.37 Coverage of 21-22 year olds is also higher in small and micro firms, with coverage increasing in micro firms between 2019 and 2023 (while it decreased across all other firm sizes). These firms are therefore more likely to feel the impact of the change, although total costs will be limited by their low number of employees.

Stakeholders broadly support removing the 21-22 Year Old rate

5.38 The NHBF was the only employer representative to ask us to delay the change to the age threshold. The FSB and BCC both broadly supported the extension to 21-22s. The BCC told us the change would "reflect the reality of pay structures," maintain living standards and simplify the rates structure. The FDF also supported lowering the age threshold: "As has been the case in previous years, food and drink manufacturers generally pay based on skill/job band and not age."

5.39 The TUC argued there was no reason not to lower the NLW age threshold. "There is no evidence that paying the full rate to this group would damage their employment prospects." In the survey carried out by Organise, 83 per cent of people believed under 23s should be paid the same rate as over 23s for the same job and only 6 per cent of respondents thought different rates should continue. The Prince's Trust told us the intention to lower the age threshold was welcome but "attention must now turn to lifting pay for those aged 18-21."

Worker and youth representatives argued for large increases or the removal of the other youth rates

5.40 UNISON's submission argued youth rates were "fundamentally unfair and discriminatory" and cited research by IDR, the Young Women's Trust and the TUC on use of the youth rates and (from the TUC) the "minimum wage penalty" that under-21s face: "an average of £2,800 in lost in wages for every worker under-21 paid less than the full minimum wage." UNISON recommended we restore the real value of the youth rates; increases "should at least build in the 12.4% - 17.8% uplift needed in 2024 to restore their value of over a decade ago, in recognition that young workers have taken a bigger hit to their earnings than any other group." The TUC argued that, as the youth labour market was strong, "This opportunity should be used to make large increases with a view to equalising rates as soon as possible."

5.41 Unite argued the youth rates encouraged substitution of younger workers for older ones. In hospitality, the effect of age differentials in NMW has seen employers moving to recruit younger and less experienced workers." Community quoted one respondent to their survey: "Often, I've found employers paying the minimum wage will only hire younger staff as they can pay them less, with the view that by the time they cross the next minimum age bracket they've either stepped up into supervisory roles above those wages or left/been pushed out." Some young (18-20 year old) leisure workers we spoke to thought it was reasonable for 16 and 17 year olds to have lower wages as they hadn't yet developed the skills needed for work. But they also thought that the adult rate should start at the age of 18 and that it wasn't right for younger workers to be paid less when they were taking on equal responsibility with older workers. As one worker put it: "Would you jump in a pool – and put your life at risk – for seven quid an hour?"

5.42 Usdaw argued that "young workers are experiencing the same overwhelming financial pressures and cost challenges as other workers." They suggested that "Youth rates serve no useful, practical purpose" and should be abolished. Unite called for the LPC to remove the youth rates: "Paying workers substantially less for the exact same job based entirely on their age is neither fair nor justifiable. Recent data from Understanding Society shows being young and on low incomes were significant predictors of food insecurity." Unite argued the LPC could be bolder and move young people onto £15 per hour. UNISON'S position was that "Using the youth rates is such a flagrant unfairness … that those employers are poor employers."

5.43 Youth Employment UK told us: "Young people see their colleagues earning more than them. That's demotivating, particularly with the issues they're facing with self-esteem." They also see that pay isn't related to effort – they can be trying hard and someone who does less is earning more just because they're older. They stated that the NLW should apply from age 18 and rates should rise with inflation: "The cost of living and rising inflation has meant being paid fairly is even more of a priority for young people looking for work." Young workers we spoke to in Wales understood the principle for lower pay rates for younger workers, but thought they resulted in many people remaining on the minimum wage and not progressing despite having experience.

5.44 GMB Union thought there was no compelling evidence for the continued existence of youth rates. "Short of full equalisation with the over-23 rate, the under-18 and 18-20 rates should be significantly increased in 2024." They noted that "Discrimination against workers on the grounds of age – a protected characteristic – is only permissible under the Equality Act when it can be shown to be a proportionate means of realising a legitimate aim." They disputed that the youth rates achieve this.

5.45 Likewise, the Intergenerational Foundation (IF) argued it was unjust to be paid less for doing the same work based on age and advocated abolishing the rates. They stated that 79% of employers surveyed would support equal pay for workers regardless of age: "There is little evidence to suggest that there would be any significant increase in youth unemployment ... IF believes that it would be advisable to employ other policy mechanisms to safeguard against rising youth unemployment instead of wage discrimination based on age." Mind also argued the age rates should be scrapped.

The views of employers were more mixed

5.46 Some employer groups advocated closing the gap between the youth rates and the NMW. The BCC told us they would like to see the gap between the youth rates and the adult rate closed. Another employer in the hospitality sector encouraged us to make this differential part of our thinking on the post-2024 NLW. "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 that are agreed to push it along a bit." On the Greater Manchester visit, one leisure trust wanted to move all workers onto the adult rates. They estimated the cost in the "tens of thousands," which they recognised was not large but was something they had "not felt able to do ... in amongst other pressures."

5.47 Others argued the gap should be maintained. UKH told us: "We support the existence of youth rates and would like the existing differential to the NLW rate maintained. Hospitality businesses make more use of the 18-20 rate than the 16-17 rate and believe that a person aged 21+ will make a more significant contribution to the business." Manufacturing NI argued "If you want to get people into

manufacturing, [the youth rates] are definitely needed ... It could be a year before [young workers] begin to even approach, covering their cost." Employers were more willing to take risks on young people than over-21s. One employer reported "If we don't get these people, by 16, by the time they turn 21, they're useless to us, because the cost of those people outweighs the potential benefit of them." On the Edinburgh visit, NFU Scotland told us they would like age banding to come in to the Scottish Agriculture Wages Order (which currently requires all agricultural workers, except apprentices, to be paid at the same rate), to introduce and train younger workers. "It gives you opportunity to spend extra on training; with promotion and pay rise as reward for that."

5.48 REC argued that sectors that employ young people have been hit hardest and suggested that after a large rise in the NMW in 2022, a more cautious rise this year would help to spread the impact of higher taxes, input costs and a hefty wage bill rise, especially for smaller businesses.

Conclusion

5.49 While data issues have limited our analysis of the youth labour market, healthy employee numbers and high pay growth give us confidence that 16-20 year olds remain in a strong labour market position. While this is likely to have passed its peak, minimum wages are yet to catch up with the growth in median wages over the period. At the same time, the gap between the youth and adult rates has widened considerably. The evidence, including close to 15-year lows in the value of youth rates relative to median pay and below pre-pandemic coverage rates suggests scope for significant increases to the youth rates. We discuss the data on apprenticeships – which have important interactions with the youth labour market – in the next chapter.

5.50 The employment picture is less positive for 21-22 year olds, with increased inactivity since the pandemic. However, pay growth for this group remains very strong, and – along with continued reports of labour shortages in key low-paying sectors – indicates that falls in employment are unlikely to be due to lack of demand in minimum wage jobs. Stakeholders support moving 21-22 year olds to the NLW, and the impact of such a move is likely to be small.

Chapter 6 Apprenticeships

Key findings

We have seen robust growth in apprentice pay, especially for the 16-18 age group. Bite and coverage of the Apprentice Rate have fallen for those youngest age groups – and remain low for older apprentices. However, there continues to be a high level of underpayment.

Employers in some sectors told us they were struggling to attract candidates into low-paying apprenticeships; elsewhere we heard that cost of living issues had changed young people's calculations over the value of an apprenticeship, with current earnings taking priority.

Total apprenticeship starts have been stable in all nations in the past year, but the decline of intermediate apprenticeships in England has continued.

In England, almost half of apprentices do not complete their course. The Apprentice Rate may play a role in these decisions, but the evidence does not suggest it is a leading cause.

In many sectors, we hear the Apprentice Rate is seldom used but there remain areas where it is important for employers. And employers may still effectively use the rate by paying apprentices less than the relevant age rate.

Introduction

6.1 The Apprentice Rate of the National Minimum Wage (NMW) is the final rate on which we make a recommendation. It applies to all apprentices aged 16-18 and to apprentices aged 19 and over during the first year of their apprenticeship. After the first year, these apprentices are eligible for the appropriate NMW rate for their age.

6.2 Responsibility for education policy is devolved, meaning apprenticeship policy is different across the four nations of the UK. The large majority of UK apprentices are based in England, where there have been substantial reforms since 2017. These include the introduction of the Apprenticeship Levy for large employers (with a payroll over £3m); changes to the funding regime for smaller employers, and changes to the way apprenticeships are designed and structured, with the roll-out of 'standards'. This has had a knock-on effect on the composition of apprenticeship starts, which we discuss later in the chapter.

6.3 This year, our work on apprentices is divided into two parts. This chapter looks at the evidence used to make a recommendation for the Apprentice Rate to apply from April 2024. Concurrently, we looked at whether there is still a rationale for the distinct treatment of apprentices under the NMW. Our

report to the Government on the framework for minimum wages beyond 2024 (Low Pay Commission, forthcoming) sets out our thinking on this.

6.4 In recent years we have recommended substantial increases in the Apprentice Rate. The increase of 11.9 per cent in April 2021 brought it into line with the 16-17 Year Old Rate, fulfilling a commitment we had made in our previous review of the rate in 2020. That change followed widespread feedback that the level of the Apprentice Rate was too low, with negative consequences for both apprentices and the functioning of the apprenticeship programme (Low Pay Commission, 2020). It reflected Commissioners' judgement that there was scope to increase the rate significantly without damaging apprentices' employment prospects. Our recommendations last year maintained the alignment with the 16-17 Year Old Rate. Last year we noted that: "we have not seen evidence of negative effects on starts or an increase in underpayment following on from alignment. Although the overall picture on apprenticeships is challenging, a large majority of stakeholders continue to tell us that the Apprentice Rate is not an important driver of their decision-making when it comes to apprenticeships."

6.5 This chapter looks at our recommendation for April 2024, using data available up until late October 2023 when we submitted our recommendations to Government. This does not include the latest Apprenticeship Evaluation Survey (AEvS), which we received after evidence had been collected to inform these recommendations. Our analysis of AEvS is included in our post-2024 report, which was submitted to the Government in December 2023. In this chapter, we rely on the Annual Survey of Hours and Earnings (ASHE) as well as other sources on apprenticeship starts, vacancies and completion rates.

Apprentice pay

6.6 We start by looking at apprentice pay. ASHE is a less reliable source of pay for apprentices than non-apprentices as not all apprentices are correctly captured as such in the data (see Appendix 3 for a more detailed discussion of our data sources). Nevertheless, it is useful in assessing the direction of travel for apprentice pay. When using ASHE, we typically focus on individual age groups within the apprentice population. This avoids some of the compositional issues that come from undercounting certain groups of apprentices, although it restricts us to small samples and so pay figures can be volatile.

6.7 Between April 2022 and April 2023, overall growth in median pay for apprentices was 8.1 per cent, a figure in line with rates seen for other groups of young workers. Median pay for apprentices varies substantially, increasing with age and apprenticeship tenure. The group with the lowest median pay, 16-18 year olds in their first year, saw the strongest pay growth of nearly 27 per cent. Even bearing in mind the caveats noted earlier around volatile pay data, this comfortably outstrips the 9.7 per cent increase in the Apprentice Rate. This pattern of stronger growth for the youngest first year apprentices also holds if we strip out the additional volatility of the pandemic years and look at total growth since 2019 (Figure 6.1).



Figure 6.1: Growth in apprentice median pay, by age and year of apprenticeship, 2019-2023

Source: LPC analysis of ASHE, standard weights, UK, 2018-2023. 16+ population eligible for the Apprentice Rate.

6.8 Strong pay growth may reflect the increased demand for younger workers we discussed in Chapter 5, with employers forced to offer more to recruit young apprentices in light of higher-paying outside options. It may also reflect compositional changes in the apprentice population, with the shift away from the lowest-level apprenticeships pushing average pay up¹⁰. Although the influence of this is likely to be stronger for the 19-24 group. We will go on to look at both these possibilities later in the chapter. Figure 6.1 also shows strong pay growth for other groups eligible for the Apprentice Rate, although more in line with the growth seen across the youth populations (see Chapter 5).

6.9 Figure 6.2 looks at median apprentice pay in more detail (LHS) and compares it to the agerelated minimum wage rates for non-apprentices (RHS). In 2019¹¹, average apprentice pay was typically close to – or a little below – the relevant non-apprentice age rate. Apprentices aged 23+, whose median pay was well above the NLW, were the exception. By 2023, the 'average' apprentice was paid at least 20 pence above the relevant non-apprentice age rate across all groups, although the difference remains greatest for the oldest apprentices. 2023 is the first year where median pay for 18 year old apprentices

¹⁰ Apprenticeships are offered at a range of levels. They begin at Level 2 ("intermediate") in the English, Welsh and Northern Irish qualification frameworks or Level 5 in the Scottish Credit and Qualifications framework (SCQF). This is equivalent to a GCSE grade 4/C or above. An 'advanced apprenticeship' is a Level 3 (SCQF Level 6), equivalent to A level. A 'higher apprenticeship' covers Levels 4-7 (SCQF Levels 7-11) and includes degree and master's level apprenticeships. Data on apprenticeship level is not collected in ASHE.

¹¹ In this chapter, as in others, we use 2019 as a benchmark as it reflects the last data from the pre-pandemic period.

has been above the 18-20 Year Old Rate¹². We look further at the distribution of apprentice pay relative to the other minimum wage rates in Figure 6.2 below.





Source: LPC analysis of ASHE, standard weights, UK, 2019 and 2023. 16+ population eligible for the Apprentice rate. Difference from minimum wage (RHS) is calculated as group median minus age-related minimum wage, i.e. negative values indicate that the median is below the age-related minimum wage.

Note: The 23+ median is compared to the NLW in both 2019 and 2023. In 2023, the apprentice minimum wage and the agerelated minimum wage for 16-17 year olds were the same.

6.10 A related consequence of strong pay growth is that the bite of the Apprentice Rate (i.e. the Apprentice Rate as a percentage of the median wage) for 16-18 year olds in their first year has fallen, after increasing since 2017. The latest bite of 77.5 per cent remains high in absolute terms, but is lower than it has been since 2015 - and lower than the bite of the 21-22 Year Old Rate (currently the highest bite of any of the rates). For apprentices aged 19 and over who are eligible for the rate, the bite continues to be lower than for any other group.

¹² Based on ASHE data since 2013, when apprentice status was first collected in ASHE.

Figure 6.3: Bite of the Apprentice Rate by age and year of apprenticeship compared to the bite of age-related minimum wages for 16-17 and 21-22 year old non-apprentices, 2013-2023



Source: LPC analysis of ASHE, standard weights, UK, 2013-2023. 16+ population.

Note: Bite for 21-22 'non-apprentices' includes apprentices in year 2+ of their apprenticeship who are not eligible for the Apprentice Rate.

6.11 We have also seen coverage of the Apprentice Rate (the share of apprentices paid less than 5 pence above the rate) fall significantly for 16-18 year olds in their first year, from 35 to around 21 per cent of apprenticeships (Figure 6.4). Coverage for other groups remains similar to 2019 levels. This indicates that while pay on the whole has been growing independently of the minimum wage, the Apprentice Rate remains the standard for a core of the lowest-paying apprenticeships.



Figure 6.4: Apprentice coverage by age and year of apprenticeship, 2019-2023

Source: ASHE, low pay weights, UK, 2019-2023. 16+ population eligible for the Apprentice Rate. Shaded bars indicate values that have been suppressed due to low sample sizes.

6.12 We have long had concerns over high levels of underpayment of the Apprentice Rate, although measured underpayment in ASHE has fallen in 2023. ASHE data suggests that more than a quarter of apprentices covered by the Apprentice Rate are underpaid, a total of just under 4 per cent of apprentices (down from 5 per cent in 2022). As they are more likely to be covered, underpayment tends to be concentrated among younger apprentices, although underpayment as a share of coverage is similar across groups. ASHE is based on hours and earnings data received from employers, so may also miss some underpayment due to non-payment of training hours. Our analysis of the Apprentice Evaluation Survey will allow us to look further into underpayment of apprentices.

6.13 Our usual coverage measure, as shown in Figure 6.4, looks at the share of apprentices paid within 5 pence of the Apprentice Rate. This is useful for understanding what share of apprenticeships are directly impacted by the rate set. It is also useful to expand this definition and look at the share of apprentices who are paid below the NMW rate for their age. It is not only employers who pay at or very close to the rate who 'use' it – any employer applying a discount to the age-relevant NMW rate is making use of the ability to treat apprentices distinctly.

6.14 Focusing on this measure of 'effective coverage' Figure 6.5 shows that a significant share of apprentices – including older apprentices – are paid below their age-related NMW rate. More than two fifths of 18 year old apprentices in their first year and more than a third of 19-20 year old apprentices are paid less than the 18-20 Year Old Rate. Even for the 23+ age group, nearly one in five first year apprentices are paid below what they would be entitled to if they weren't an apprentice (the NLW). These shares have fallen in the past year but remain substantial.



Figure 6.5: Coverage and effective coverage of the Apprentice Rate (AR), by age and year of apprenticeship, 2022-2023

Source: ASHE, low pay weights, UK, 2022-2023. 16+ population eligible for the Apprentice Rate. Note: the age rate is equal to the Apprentice Rate for the 16-17 group and equal to the NLW for the 23+ group, so these groups have only three possible categories.

Apprenticeship starts

6.15 Our remit from the Government asks us to make recommendations on the Apprentice Rate on the same basis as other NMW youth rates: to increase the rate as high as possible without damaging employment. Apprenticeship starts are our main indicator of trends in apprentice employment.

6.16 Recent reforms to the apprenticeship system in England – where the majority of apprentices are based – have seen the composition of the apprenticeship system shift. There are now fewer Level 2 (intermediate) apprenticeships and more at Levels 4 and above (higher). Starts among apprentices aged under 19 have declined gradually while those among their older counterparts have remained more robust. In the employer base, small and medium enterprises are less likely to take on apprentices than larger companies that pay the apprentice levy.

6.17 These trends have persisted into 2022/23. Overall starts for the 2022/23 academic year are stable but based on the data available to date (September 2023), we expect Level 2 starts to come in at a record low (Figure 6.6). The number of vacancies advertised on the Department for Education's Find an Apprenticeship service – which tends to be used for lower-level apprenticeships – has been similarly stable but has not regained the highest levels of the post-Covid period.



Figure 6.6: Apprenticeship starts by level (LHS) and age (RHS), England, 2017/18-2022/23

Source: DfE Apprenticeship and Traineeship statistics (September 2023 edition), England, 2017/18 academic year-2022/23 academic year. Forecasts are based on 2022/23 starts reported to date, scaled up by the ratio between starts reported at the same point and final data for full year starts in 2019/20.



Figure 6.7: Vacancies advertised on Find an Apprenticeship site, England, 2020-2023

Source: DfE Apprenticeship and Traineeship statistics (September 2023 edition), England, August 2021-June 2023. Not all apprentice vacancies are advertised on the Find and Apprenticeship site and lower-level apprenticeships tend to be over-represented.

6.18 Numbers of starts have likewise been roughly stable in other parts of the UK. In Scotland, as in England, the proportion of under-19s and intermediate-equivalent apprenticeships have fallen over time – although older apprentices (25+) do not dominate starts to the same extent as they do south of the border. Scotland also saw a particularly sharp dip in starts during the pandemic.

Figure 6.8: Modern apprenticeship starts, by level (LHS) and age (RHS), Scotland, 2019-2023



Source: Skills Development Scotland, Modern Apprenticeship statistics (May 2023 edition), 2014/15-2022/23. Note: Data for Scotland are organised by financial year (April to March).

6.19 Only Northern Ireland bucks the trend of older learners dominating numbers, with younger learners and lower qualification levels predominating. This is a consequence of funding policy – and

something that may begin to change in the future as funding rules are amended to enable a greater breadth of starts in priority sectors.



Figure 6.9: Apprenticeship starts by level (LHS) and age (RHS), Northern Ireland, 2017-2022

Source: Northern Ireland Department for the Economy statistics, ApprenticeshipsNI bulletin, Higher Level Apprenticeship bulletin and Higher Level Apprenticeship statistical fact sheet, academic years 2017/18-2021/22.

6.20 The pattern of starts in Wales is most similar to England, although they have not seen the same increase in higher level starts. Older learners represent the dominant portion of starts, which have been stable over the past year, but declining over the past 5 years.



Figure 6.10: Apprenticeship starts by level (LHS) and age (RHS), Wales, 2017-2023

Source: StatsWales, Apprenticeship learning programmes started by quarter (August 2023 edition), academic years 2017/18 Q1-2022/23 Q2. Rolling 4-quarter average.

6.21 Achievement rates tell us how many apprentices gain a qualification from their apprenticeship. In England, nearly half of apprentices fail to complete their course. The total achievement rate for apprenticeships in England was 53.4 per cent for 2021/22 (a fall of just over 4 percentage points on the previous two years). In comparison, in Scotland, the rate for Q1 2021/22 was 73 per cent. 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 percentage points less likely to complete their course than those from the least deprived. Note that as at October 2023, we do not have data available for the 2022/23 year, the first full year since the Apprentice rate has been aligned with the 16-17 Year Old Rate.



Figure 6.11: Achievement rates by level (LHS) and IMD quintile (RHS), England, 2019-2022

Source: DfE Apprenticeship and Traineeship statistics (September 2023 edition), England, 2019/20 academic year-2021/22 academic year.

6.22 The reasons for apprentices dropping out are varied. The 2021 Apprentice Evaluation Survey is still our best source of evidence on this question. (The 2023 survey will update this question, but this data will not be available to us until it is published in Spring 2024). It found that, while pay was a factor for a substantial minority, it was not the most common reason for dropping out. "The salary was too low or you were struggling to get by financially" was either a key or partial reason for one in five non-completers. This figure was notably higher (37 per cent) for those aged under 19 years. Four in ten non-completers 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: a lack of time for learning and training, training not being as good as hoped and the apprenticeship being badly run or poorly organised.

Stakeholder views

Evidence on the state of the labour market for apprentices

Starts are still in the doldrums - but explanations differ

6.23 Respondents reflected on the declining number of apprentice starts, which depending on the sector were driven either by low supply (of potential apprentices) or low demand (from employers). The British Retail Consortium (BRC) told us that only a fifth of retailers reported employing apprentices: "The vast majority of respondents are subject to the Apprenticeship Levy ... However, many retailers report that they encounter significant challenges in spending significant parts of their levy due to the associated requirements." On the Birmingham visit, an official at the West Midlands Combined Authority (WMCA) told us that even today he came across businesses who simply treated the levy as a tax and didn't spend from their accounts: "I find it quite shocking." The Association of Convenience Stores (ACS) also thought demand was low in their sector, as the sector's reliance on part-time work made it difficult to structure suitable training and development requirements.

6.24 In hair and beauty, the National Hair and Beauty Federation (NHBF) noted the long-term decline in numbers of apprentices, although acknowledged a slight uplift in 2021/22. The decline was driven by "the shift to self-employment, lower levels of funding and young people staying on in education." The British Beauty Council (BBCo) told us young people were switching out of apprenticeships into college courses, with numbers of young people taking GCSE and A-level equivalent qualifications in hair and beauty rising from 65,000 in 2018 to 80,000 in 2021/22. NHBF surveys found that in January 2023 around 50 per cent of businesses were considering letting apprentices go because of cost pressures. They quoted one member: "Apprenticeships will be a thing of the past given the increase in pay and no government incentive." Counting time spent delivering on-the-job training, they estimated an additional cost of £6,100 per apprentice: "apprentices take two to three years to start covering the cost of a full-time minimum wage employee."

6.25 Make UK noted that the total number of apprenticeship starts in engineering and manufacturing was around 30% lower than in 2017, a decline they put down to Government policy. They told us the outlook for apprentice recruitment was relatively strong compared with the last two years. In care, the Homecare Association (HCA) thought contributing factors to the decline in numbers included the transition from frameworks to standards, and the changes to apprenticeship funding through the apprenticeship levy. The Recruitment and Employment Confederation (REC) noted that since the levy's introduction, starts had fallen significantly and were yet to return. Flexi-job apprenticeships appeared to have increased starts slightly, but these were limited to project-based sectors such as construction. The National Day Nurseries Association (NDNA) told us fewer young people were doing level 3 childcare qualifications partly because of the requirement to have GCSE maths and English. The Food and Drink Federation (FDF) agreed that maths and English requirements were a barrier to upskilling more employees – particularly older workers or those educated abroad.

Some groups told us employers struggled to attract apprentices

6.26 The British Chambers of Commerce (BCC) told us it was difficult for employers to attract apprentices: "30% of employers ... plan to recruit and train apprentices over the next 12 months.
However, many firms report difficulty in attracting candidates for their apprenticeship vacancies." The FDF told us firms were sourcing apprentices internally because they couldn't find candidates externally. This improved skills within the business and encouraged retention but did not resolve labour needs. An official at the WMCA thought lots of small businesses "just don't know how to find people," giving the example of a local business offering a brass polishing apprenticeship; qualified apprentices could earn £45k but the employer struggled to find candidates.

6.27 The National Farmers' Union (NFU) told us that, from anecdotal feedback, "factors other than pay such as limited available standards, patchy training provision, rural location of vacancies and poor transport connectivity may have more impact on apprenticeship start numbers." than the NMW. They also mention "difficulties covering work when apprentices are undertaking the 20% off job training required." The FDF also told us about geographical gaps in the provision of specialist food and drink apprenticeship standards in England. For example, there is currently no food and drink apprenticeship provision in the North East, parts of the South West and the South East of England.

6.28 REC complained about the levy's inflexibility when it came to temporary workers, for whom lack of access to skills training was a key barrier to progression. Apprenticeships can only be delivered via a stable employer with an ongoing commitment of one year; in consequence, temporary workers and recruiters cannot access the training their wages are being levied to pay for. "Of the one million temporary workers working in the UK on any given day, around 960,000 are ineligible for Apprenticeship Levy funding. This is because just 2% of temporary assignments last for 12 months or more." The current design, they argued, was hampering essential in-work progression.

6.29 Both the Early Years Alliance (EYA) and the NDNA described a retention crisis in the sector, with qualified apprentices seeking to move into schools after completing their training. The EYA told us: "you're investing in people and you're expected to say, 'Yes, this is a poorly paid job. Yes, this is highly stressed. Yes, people leave because they're undervalued. So let me tell you where you can get a better deal.'"

Low-paying apprenticeships are less attractive in the current economic climate

6.30 Youth Employment UK told us young people were hearing more about apprenticeships than ever before and that work on parity of esteem had been successful. But there were important barriers, especially at level 2: apprenticeships could be hard to find and young people were put off when they saw the initial pay. They told us young people compared apprenticeships to alternative jobs, where they might be able to earn the NLW or more, rather than alternative education opportunities: "They know that if they go to Aldi, that's £11," so it feels like paying to do an apprenticeship.

6.31 Youth Employment UK argued pay was one of the most important factors in incentivising choices for young people and, as such, apprenticeships were not seen as a viable option for many young people. Particularly in the current cost-of-living crisis, the immediate payoff of a higher wage was more important than the longer-term payoff of career development. They summarised the choice faced by young people: "It's not a contention about who deserves to be paid more – 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."

6.32 The Prince's Trust told us the government should consider the impact of child benefit rules for apprentices still living with their parents: "With current rules meaning that a young person choosing to start an apprenticeship is no longer treated as being in full time education, this means that parents cannot claim child benefit for them – whereas if they remain in other forms of education, they can do so up to the age of 19. As such, parents who rely on this payment may be less supportive of apprenticeship routes in comparison to other education opportunities." The BBCo echoed this point: the current system "unfairly penalises low-income households who are more likely to rely on Child Benefit to pay rent / mortgages, utility bills, feed their families etc. At present, it is likely that children from poorer backgrounds would be encouraged into approved education (including A levels, NVQs and other vocational qualifications up to level 3 and traineeships) that means the family still qualify for Child Benefit ... or indeed finding better paid work."

Evidence on the Apprentice Rate

Groups representing or working with young people recommended removing the rate

6.33 Several respondents argued there were negative impacts from the current level of the Apprentice Rate. Youth Employment UK told us young people thought the rate implied apprentices were less valued than other employees and reduced their motivation to undertake an apprenticeship. The National Society of Apprentices (NSoA) also argued the rate discouraged people from taking apprenticeships: "[It] remains a barrier to participation and a brake on the social mobility potential of the apprenticeship system." The Prince's Trust told us that increases to the rate had been welcome, "but while it remains well below the NLW, it will continue to be a barrier to entry. Low pay rates for apprentices – and often just the perception of low pay – can act as a barrier for those from disadvantaged backgrounds who cannot rely on family support ... As the cost-of-living limits household finances, the number of families able to act as safety nets for young people pursuing this route will likely decline." They argued a low rate made young people more likely to take jobs that have lower returns or skill development in the long term. On our visit to Edinburgh, the Scottish Women's Convention (SWC) told us the low rate put women off from joining technology sectors. "Especially if you do have a young family... it's not going to put you in a position where you can do one of these jobs."

6.34 The NSoA argued recent increases had failed to match rising living costs. The NSoA told us that low pay had an overall negative effect: "Apprentices consistently identify low pay as having a negative impact on their learning, ability complete their apprenticeships and their mental health." They argued the gap between the rate and the living wage effectively meant apprentices were paying more (per year) for their training than they would for an undergraduate degree.

A small number of industries continue to use the Apprentice Rate

6.35 Hair and beauty, childcare, leisure and local government were the main sectors where we heard the Apprentice Rate was used. At oral evidence, the NHBF told us the rate was commonly used, with most apprentices starting on it. They argued higher wages for apprentices were challenging because "the lack of enforcement around informal and unregistered businesses" meant hairdressers did not compete on a level playing field with other sectors.

6.36 In childcare, the EYA told us the rate was used, but they were concerned about its effects: "We see more and more apprentices struggling". The NDNA agreed that nurseries tended to use the rate,

noting the difficulty in training apprentices against a backdrop of staff shortages. In leisure, Community Leisure UK (CLUK) told us that some members paid apprentices at the rate – predominantly school leavers, with some moving to the NLW in their second year.

6.37 The Local Government Association (LGA) told us some local authorities paid the rate, with estimates varying from 18 to 50 per cent of local authorities and maintained schools using the rate. They thought this was more likely to be for younger or lower level apprentices.

In other areas, the rate is rarely used

6.38 Employer groups in several sectors told us use of the rate was low to non-existent. The NFU pointed to previous survey results, which showed that only 2 per cent of members used the rate. Skills for Care told us there was little difference in hourly pay between care worker apprentices and non-apprentices, with no difference in median pay between them (based on data from March 2022). REC noted the shift towards higher level apprenticeships meant there were now fewer of the level 2 apprentices who tended to be paid the rate. Make UK told us use was low: "manufacturers do not use the apprentice rate to set wages for their apprentices. Instead, firms seek to set competitive wages for apprentices which are comparable to permanent staff." At oral evidence, however, they did argue that employers would like to maintain some flexibility over apprentices' starting pay via a separate rate.

6.39 On the Birmingham visit, the WMCA told us that employers who were still using the Apprentice Rate were doing so because it's "the path of least resistance." They thought there had been a realisation that NLW was the standard to attract people; alternative pre-employment schemes could offer £20k annual salaries [roughly equivalent to the NLW], in a cost-of-living crisis, this trumped the long-term career outcomes resulting from apprenticeships.

6.40 Unison told us that separate rates for apprentices existed in some parts of public services, although they may not be set at the statutory minimum: "the youth rates are hardly utilised, though the apprentice rate is adopted by many of the bargaining groups as a separate rate outside the pay scale". Unison FOI requests have found that in 2019 "almost two out of every three [NHS] trusts paid more than the then prevailing apprentice minimum wage" – and the direction of travel since then had been for pay to be set based on job evaluation rather than the statutory minimum.

6.41 Unison also argued that the Apprentice Rate had little influence on actual pay rates, citing a 2022 report from Incomes Data Research (IDR) into apprentice pay, where the median wage of first year apprentices at level 2 was £7.65 per hour. They quoted IDR's conclusions that "the statutory minimum rate for apprentices has little influence on actual pay rates ... Just one participant in our survey pays an hourly rate equal to the current statutory minimum rate of £4.81 for apprentices." To the same end, they also cited previously submitted research (2018) which suggests "apprentice wage rates [are] a fairly ineffective instrument for influencing employers' offer of apprentices themselves, they argued, NMW rates could have a substantial effect on behaviour in "dissuading people from low-income backgrounds from undertaking apprenticeships to begin with."

Conclusion

6.42 Since the Apprentice Rate was aligned with the 16-17 Year Old Rate in April 2022, we have seen apprenticeship starts across the UK broadly continue along their previous trajectory. Employers and their representatives are generally downbeat about the apprenticeship system, but there is little suggestion that the NMW, or pay in general, is a large factor in their decisions over apprentice recruitment or completions. Both worker and employer representatives continue to argue there is scope for the Apprentice Rate to increase.

6.43 Although we have not had access to our preferred source of pay data, analysis of ASHE suggests that pay outcomes for apprentices are broadly in line with the labour market for young workers, although coverage is typically higher. The youngest apprentices most exposed to the rate have seen their coverage and bite fall in the past year. The evidence continues to justify the recommendation of alignment with the 16-17 Year Old Rate we made in 2020.

6.44 We stated in last year's report that we would look at whether there was a need for a separate Apprentice Rate in the long term. Our advice on that question is set out in our report to the Government on the post-2024 approach to the minimum wage (Low Pay Commission, forthcoming), where we consider the rates for young people and apprentices in the round. In the nearer term, our recommendations maintain the current policy of alignment.

Chapter 7

Employer responses to the minimum wage

Key findings

- Previous chapters have examined the impacts of rate changes on employment, hours, and pay, finding little evidence of negative impacts on jobs or hours. This raises the question as to how employers respond to increases in the rates. This Chapter draws on stakeholder and other evidence to answer this question.
- Employers' most common reported response to the NLW is to absorb the additional costs and accept lower profits as a result. After this, raising prices is the most common response, cited by between a quarter and a half of employers effected by the NLW. However, this doesn't tell us about the extent of the price rises. When we look at changes in prices of goods and services affected by the NLW, we find little difference to those not affected by it. Our view is that the overall impact of the NLW on CPI inflation is marginal. This is in part because the NLW makes up a comparatively small share of the total wage bill for the UK economy.
- Some employers report trying to raise productivity in response to the NLW. However, we have found no evidence based on official data that the NLW has increased productivity in low-paying industries and regions of the country.
- Other employers, particularly smaller employers, continue to say the NLW is reducing their levels of investment. However, other factors are also at work here including the state of the economy, interest rates, banks' approaches to lending and policies such as the super-deduction.
- Employers in the predominantly publicly-funded sectors of childcare and social care tell us they are
 most concerned about funding. They believe that funding provided by the Government is below the
 cost of providing a decent service. This contributes to low pay, which in turn contributes to
 recruitment difficulties in the sector, which some describe as a "crisis".

7.1 The evidence we provided in the previous three chapters suggests that employment effects of the minimum wage 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 in surveys of employers is simply to absorb increases via reduced profits. The next is to pass NLW increases on via higher 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 pay differentials, as discussed in Chapter 4. A less common response is for employers to 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.

7.2 Figure 7.1 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 (Draca, Machin and Van Reenen, 2011), and a more recent study which found that the announcement of the NLW reduced stock values (a proxy for future profits) for affected firms (Bell and Machin, 2018). However, some companies can absorb the whole cost into profits, while others only absorb some of the cost.

7.3 The prevalence of employers reporting that they had raised 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 7.1: Responses to NLW increases among surveyed employers, CBI (left panel), FSB (centre panel), CIPD (right panel), 2021-2023

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

Notes:

Charts show most common responses rather than all responses.

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.

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?'

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.

Does the NLW affect prices?

A growing share of employers say they are passing NLW costs on through price rises

7.4 The frequency of employers reporting price increases as a response to the rising NLW has grown. The British Chambers of Commerce (BCC) told us the main response to NLW rises from firms was price increases. Among FSB members, pass-through to prices was the second most common response among those affected, with 60 per cent raising prices (compared with 58 per cent last year). The CIPD survey found that raising prices was the second most common response to managing increases overall, cited by 29 per cent of respondents.

7.5 In the British Retail Consortium's (BRC) survey, 58 per cent of respondents said they had raised prices, compared with 18 per cent in 2021/22. It noted that "High competition, especially in the grocery sector, and increasingly more price sensitive households should help retailers to resist dramatic increases in price levels," but that there are limits to the ability to absorb these costs. The CBI argued the pass-through of NLW increases to food prices (which affect the poorest the most) "demonstrates most clearly the inadequacy of a wages policy as a response to concerns about living standards in recent years."

7.6 Many firms acknowledged that price rises were not purely a result of the NLW, with increases in the price of energy and other inputs playing an important role. The Association of Convenience Stores (ACS) told us convenience retailers had attempted to shield customers from increased prices, but rising energy, food and labour costs had resulted in some pass-through, mainly from independent retailers. A leisure trust told us, "It's not just wages" and highlighted the rising cost of inputs such as pool chemicals. One caterer we met in Birmingham explained that "[the NLW]'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".

Though some employers say they cannot pass through costs into prices

7.7 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 also the case for agriculture, where most producers are price-takers, dependent on what retailers are willing to pay. The National Farmers' Union (NFU) offered apple production as an example: "production costs have increased by around 23% but [the] price paid by supermarkets [...] had only increased by 0.8% despite retail prices paid by the consumer increasing by up to 46%."

7.8 In hospitality, 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." As Center Parcs told us on the Birmingham visit: "there is a natural tipping point where if you try to pass on all the wage inflation, energy inflation, general inflation

to your supply chain, people will stop buying ... if the holiday becomes so expensive, you will price yourself out of the market." Restaurant owners in Birmingham estimated their costs were up 40 per cent, but their prices only by 5 per cent. A coffee shop we met on the London visit had raised online prices by 25 per cent: "the first thing that happens if you raise your price is customers look sideways and, because of the competition, very quickly and very likely they'll move where offers are."

7.9 Elsewhere, the National Hair & Beauty Federation (NHBF) thought cost increases were slowing: "Business owners know that they can only put up prices so far before clients choose to return less frequently." A range of hospitality employers told us there were limits to what they could do on prices: The Chartered Institute of Payroll Professionals (CIPP) noted: "Most businesses cannot justify increasing customer prices by the same amount to account for the rise in pay and all add-on costs."

7.10 The Food and Drink Federation (FDF) told us "Food and drink manufacturers can find themselves squeezed in the middle, unable to pass cost increases from growers, labour providers and logistics companies onto customers in the retail and hospitality sectors." Manufacturing NI told us pass-through had grown more difficult: At first "things were just so bad across every industry that your customer ... was willing to pay whatever it would be." But since March that had changed. The ACS told us small retailers were facing seven or eight price increases per year from suppliers, instead of one or two as previously.

7.11 For some small businesses, late payments exacerbated this problem. A small brewery we met with on the London visit noted that average payment time was 60 days: "it's killing us and killing cash flow ... how can we pass along prices to suppliers who aren't paying us anyway?".

Analysis of price data shows minimal impact of the NMW/NLW on inflation

7.12 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 distribution¹³ and non-wage costs, the total wage 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 the CPI inflation rate by up to 0.3 percentage points.

7.13 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, as discussed above, other price increases – particularly food and energy – have been more of a concern for some businesses. In Chapter 1 (Figure 1.3), we showed that firms were more likely to report energy costs as a reason for raising prices than wage costs. This was especially the case

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.

for firms in low-paying sectors where over 30 per cent reported that energy costs were driving decisions on whether to raise prices compared with around 20 per cent for the cost of labour.

7.14 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 7.2 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.

Figure 7.2: Annual inflation of food and non-food items, by exposure to the minimum wage



Source: LPC analysis of ONS price microdata, CPI weights. 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?

7.15 Employers we meet are generally aware of the need to increase productivity, but can struggle to translate this into concrete action. A higher minimum wage increases labour costs, this could incentivise firms to invest in training and equipment to improve the productivity of their workers. Some firms do tell us they have responded to the rising NLW by increasing investment and improving productivity. Figure 7.3 shows that some employers are attempting to improve productivity by investing in training, equipment, automation or new products and services. There is also some academic evidence that in certain contexts higher minimum wages can raise productivity (Coviello, Deseranno, Persico, 2022 and Riley and Rosazza-Bondibene, 2015).



Figure 7.3 Actions taken to improve productivity in response to NLW increases, 2023

Source: CIPDa (2023). 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.

7.16 However, some employers tell us that NLW increases limit the budget for investment, rather than increasing investment. The CBI argued that increases this year had left businesses "with no other option but to cut back on investment." As seen in Figure 7.3, there is a distinction between small and large businesses. CIPD's survey showed 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. This pattern is also seen in investment in skills, with only 8 per cent of SMEs investing in additional training compared with nearly one in five large firms.

7.17 We have heard a similar message from other stakeholders: FSB members, who tend to be small or micro businesses, are more likely to say they have cut investment in response to the NLW. FDF talked about "huge growth" in automation, but thought SMEs were struggling because of "tight profit margins and really short-term contracts with retailers ... it's quite difficult to make those longer-term investments." In addition to this, the costs of borrowing to investment have risen as interest rates have risen.

7.18 Based on official data, we have found no evidence that the NLW has increased productivity (Latimer, 2022). We compared productivity growth between 2015 and 2019 in different industry-regions (e.g. hospitality in the South West) with different levels of exposure to the minimum wage. If the introduction of the NLW in 2016 had increased productivity, we would expect productivity to grow faster in industry-regions with more minimum wage workers, but we did not observe this. This suggests that overall the NLW did not improve productivity, although there is some uncertainty around our estimates. This could be the balance of positive effects on productivity for the firms who respond by increasing investment, and negative effects on productivity for firms who reduce investment in response to the NLW.

7.19 Other factors beyond the minimum wage are more influential on investment. The CBI predicted: "investment will fall briefly until the winter, hit by weak domestic and global activity, high costs and tighter financial conditions." Make UK thought that given the likely outlook for interest rates and demand, "anecdotally, businesses are shying away from the kind of larger projects of expansion and then focusing on the smaller areas where they can train more incremental improvements in productivity."

7.20 On the Edinburgh visit, NFU Scotland argued that without support from the Government or higher retail prices investment in automation would not happen: "Why would we invest in a sector that's losing money? We've got to make money in the short term in order to invest." Similarly, on the Birmingham visit, Avara Foods said access to finance was a key issue: "Fundamentally we need to automate ... the challenge in a low margin sector is to do so fast enough to adapt to rapidly increasing pay levels. Banks lend on a multiple of EBITDA [earnings before interest, taxes, depreciation and amortisation]. If your EBITDA is low you cannot invest fast enough to mitigate the impact of pay inflation." Care England told us the lack of confidence in future funding deterred investment in its sector.

7.21 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." Its focus instead, was on "ensuring our teams are well trained to be able to deliver that experience or ... to work more productively."

7.22 From a workers' perspective, productivity improvements can translate into an intensification of work. Figure 7.3 shows that some employers have tried to improve productivity by increasing the pace of work, requiring additional tasks from staff and requiring more flexibility from staff. 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. In hospitality, we hear that some settings have adapted to lower staff numbers and workers report being expected to cover more tables: "The hours are quite long and since the pandemic I found that the covers that I was expected to have, normally I'd look after 10 people, then it went up to like 12, 15, 18." Another worker told us: "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."

7.23 Unite's submission quoted one regional officer in the food and drink sector: "...With each increase [in NMW] less staff are recruited leading to additional pressures at work i.e. more work being undertaken by the smaller workforce." Another officer was quoted: "Roles that have been traditional day shifts are being changed to longer shifts with split unpaid breaks or we are seeing more 24 hour, seven days a week, three shift patterns being introduced to cover those industries that have traditionally worked weekdays and normal daytime 8 to 4, 9 to 5 hours."

7.24 Retail workers report similar pressures, with a widespread shift to supermarket workers being multi-skilled and able to cover several departments and tasks. In Belfast, Usdaw workers spoke about the expectations that came with role changes. In one retailer, cleaning staff had been removed, so staff were "expected to do cleaning, cash, bring in deliveries, all of that on top of normal role." In big stores, staff were trained up in different depts so they could be moved around: "after my shift, I jump on the tills or stack shelves". Usdaw members we met in Edinburgh told us that as pay had increased,

additional targets were set which were intentionally difficult to achieve. "In [the] distribution centre - in 2021 there was a pay rise but they increased the performance target in a way you can't achieve, so no one actually gets the full amount...They give you £35 extra a week if you achieve a target, but no one is achieving it because it's unachievable.... if a lot of orders come in, the time to do those orders goes down."

7.25 Among employers, the British Retail Consortium (BRC) recognised that work intensification was increasing. In comparison with the findings on investment, two-thirds of their survey respondents expected to increase productivity "by working harder in the future" (the second most common response) and 30 per cent stated they had already done so. The CIPP told us that some payroll professionals thought that since the pandemic, employers had raised expectations of low-paid workers without additional recognition. Community Leisure UK (CLUK) told us average workforces were now only two-thirds their pre-Covid levels. This had offered some efficiencies but also placed strains on staff: "It's actually kind of becoming a skeleton workforce." The Equestrian Employers Association (EEA) found that 17.6 per cent of survey respondents had placed higher expectations on staff to justify the NLW increase.

7.26 Aberdeen City Council's submission told us council workers had been asked to work more flexibly, as budget pressures had meant reductions in the workforce. "This can have a certain bearing on the workloads of remaining employees including lower paid staff, but with careful service redesign helping to ensure no staff are overloaded."

7.27 This evidence suggests that improved productivity is not necessarily a benefit for all: some employers may have reduced job quality in the search of higher productivity.

Publicly-funded sectors

7.28 Employers in publicly-funded sectors have fewer options for absorbing the costs of the NLW. While firms in business or consumer-funded sectors can respond to the NLW by raising prices, firms in publicly-funded sectors often have to accept the price offered to them by the Government. In both childcare and social care employers tell us that the current funding settlement is not sufficient.

7.29 There has been little sign this year of the pressures on these sectors decreasing. Many of these impacts are felt most deeply within local government. The Local Government Association (LGA) told us local authorities would struggle to meet the anticipated pay bill from the NLW reaching its target: "Without additional funding, many councils will only be able to meet this challenge by reducing services to the public and/or jobs... It is not in the best interests of the wider economy for [the NLW] to result in reduced public services and local investment if local government employers are not appropriately funded to meet the additional costs that result."

Social care

7.30 Employer representatives continue to tell us there is a significant funding gap for the social care sector. As the Institute for Government has set out, "average fees simply do not meet operating costs." (Institute for Government, 2023). Despite a 9.5 per cent real-terms increase in spending in 2023/24, the sector continues to struggle after a decade of spending restraint. This funding squeeze affects the rates paid for care – the Homecare Association (HCA) in 2021 found that only 13 per cent of commissioning

bodies were paying above their calculated fair costs. Employer representatives have consistently shared their calculations for the fair cost of good quality care and argued that the Government should use these. It also affects the way care is commissioned. The HCA again told us public organisations frequently purchased homecare by the minute and for contact time only, not covering workers' travel or waiting time. This was exacerbated in turn by the practice of dispersing work across a large number of providers based on the lowest price – using care workers' time inefficiently and negatively affecting productivity.

7.31 In Manchester, we spoke to care workers who were paid per call. They told us the practice led to workers trying to cram in as many visits as possible: "You're racking up the calls to get decent pay, but your clients are suffering." Visits were often scheduled back-to-back without accounting for travel time: "There's no breaks, you're expected to eat and drink while you drive ... This means that people either 'call clip', which means that people aren't getting the care that they require ... or... you stay, you do the visit, you travel, you do the next one – and again, you're working for free, you're subsidising that employer." We discuss underpayment in social care in greater depth in Chapter 8.

7.32 Commissioning rates and practices directly affect pay, employment conditions and quality of work in the care sector. Unsurprisingly, the sector continues to face very significant recruitment and retention problems. Care England summarised the root causes as "the lower pay rates compared to other sectors, catalysed by sub optimal Local Authority fee rates, flexible hours and better working conditions in other sectors, public perception of care and the disparity with the NHS." The HCA found inadequate pay was cited by 42 per cent of providers as the biggest barrier to recruitment and retention. Others included unsocial hours, lack of childcare and zero-hours contracts. Citing Skills for Care figures, UNISON noted that almost a quarter of jobs were on zero-hours contracts and 80 per cent of employers stated low wages were "the biggest barrier to recruiting and retaining staff."

7.33 Employers compared the treatment of the care workforce with the NHS. Care England told us social care was perceived as "the poor relation" to the NHS; unlike the NHS, the sector did not have clear pay scales through which the workforce can progress. Its Sector Pulse Check 2022 report found that 50 per cent of providers said aligning terms and conditions to the NHS would have a positive impact on the recruitment and retention of social care staff. Care England highlighted that the rising NLW made it difficult to maintain differentials and reward experience: Skills for Care found that care workers with five or more years' experience are paid on average 7 pence per hour more than those with less than a year's experience. The HCA noted that the £500 million allocated in 2021 for workforce reform, including development of a knowledge and skills framework and career pathways, had now been scaled back to £250 million.

7.34 GMB Union described the sector as "at risk of collapse" and chiefly held together by "the dedication of immensely skilled care worker professionals" who "are expected to survive on a whisker above the statutory minimum." They described the ongoing hardship these workers face, citing Health Foundation evidence that over a quarter lived "in or on the brink of poverty." Meanwhile, care workers in Oldham told us their colleagues were "leaving in droves" and that "we're on a precipice." One told us this level of churn was affecting the quality of the service: "The high turnover of staff has a big impact on the people I support…it can lead to some challenging behaviours… those people are suffering because of the low wage care workers are receiving."

7.35 Employers agreed the delivery of services was under threat. As the 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 reported 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."

Childcare

7.36 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 providers 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).

7.37 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 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.

7.38 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.

7.39 The net result of this is "less reliable, flexible childcare for parents and less consistent, lower quality early education for children" (NDNA). EYA told us the funding crisis was causing providers to close or consolidate – it had cut delivery from 132 settings four years ago to 56 and now to 42. 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 would purchase extra hours or pay for extra services such as after school care.

Conclusion

7.40 Employers have responded to the rising NLW in a number of ways. Many continue to absorb the rises through reduced profits. During the recent period of high inflation, more employers have reported passing on NLW increases to prices. However, the picture on prices is muddled by large

increases in the cost of other inputs – particularly food and energy – and our assessment is that NLW increases have a minimal impact on inflation overall. While some employers have moved to improve productivity to pay for NLW increases, evidence of aggregate productivity improvements remains elusive. At the same time, some workers report that their work has intensified, which may equate to productivity improvements at the cost of job quality.

7.41 Some employers are more able to adapt than others. Small businesses can face additional barriers, including in access to finance. These may limit their options for positive responses, and instead see them cutting investment or relying on work intensification. Publicly funded sectors are also struggling: without adequate increases in funding, NLW increases add to their already strained financial situation. Nevertheless, employers in these sectors recognise that continued low pay is not sustainable, contributing to a crisis of recruitment and retention.

Chapter 8

Compliance and enforcement and the accommodation offset

Key findings

- Our best estimate of underpayment using a survey of employers (ASHE) shows a slight annual reduction to 365,000 underpaid workers in April 2023. An alternative measure using less robust pay data via a survey of individuals (LFS) shows a considerable increase in estimates of the number of underpaid workers.
- We continue to hear of significant non-compliance issues in social care. Lack of payment for travel time is a consistent theme and worker testimony suggests this causes workers stress and hardship. UNISON reports that employers don't keep records, and yet there doesn't seem to be any punishment for employers who breach these rules. UNISON also find higher arrears in the cases it took forward through tribunals than found by HMRC. It also worries that fewer than 1 per cent of care employers have been investigated by HMRC.
- Workers arriving on social care visas are at risk of exploitation. They worry that they may lose their visa or face a fee if they take action or change employer. Similarly, workers on seasonal visas in agriculture are at risk. Enforcement action often takes place after the worker has left the country.
- In retail and hospitality we heard of increasing "short-term" non-compliance, whereby workers would be underpaid for overtime for example, but have this corrected in the next pay packet.
 Workers worry that these corrections only occur if they chase their employer.
- Employers still feel that NMW rules could be clearer and associated guidance improved. Common issues included confusion around the relationship between basic pay and overtime and performance payments, operation of the Accommodation Offset and interactions between the NMW and rules for seasonal workers (e.g. the 32 hour minimum working week).
- Employers believe that the enforcement approach is too adversarial. They argue this leaves little room for informed discussion so employers and enforcement bodies can learn from one another. They also believe the system does not adequately distinguish between accidental and deliberate non-compliance. Though worker representatives are clear that there should be no distinction. Employers have responsibilities to fulfil and the impact on the worker is the same if these are not fulfilled whether by accident or not.

Headline underpayment levels have fallen but increased as a share of coverage since 2019

8.1 Each year we hear evidence from workers, employers, and other interested parties about compliance and enforcement of minimum wage rules. We discuss these issues and assess the current state of play in detail in our standalone reports on compliance and enforcement of the National Minimum Wage.

8.2 As we head towards 25 years of the minimum wage and the Government's target of two-thirds of median earnings for the National Living Wage (NLW), which have helped push up wages for the lowest earners, it is important to acknowledge that there are still large numbers of workers that are not receiving the pay that they are entitled to.

8.3 Table 8.1 compares pre-pandemic underpayment by age in 2019 with the latest data in 2022 and 2023 using the Annual Survey of Hours and Earnings (ASHE), our best source of pay information. It shows that total levels of underpayment reduced from 428,000 in 2019 to 365,000 in 2023 and were 23,000 lower than in 2022. The fall is mostly among those aged 25 and over, where underpayment has fallen by 52,000 across the period. As discussed earlier in Chapter 3 coverage has also fallen sharply from 1.96 million to 1.56 million during this time.

	Underpayment			Coverage			Underpayment as a share of		
								coverage	
MW	2019	2022	2023	2019	2022	2023	2019	2022	2023
rate	Thousands			Thousands			Per cent		
AR	9	10	7	31	33	26	29.7	31.1	28.3
16-17	3	4	4	36	28	35	9.4	14.2	10.4
18-20	19	16	14	116	85	77	16.3	19.0	18.0
21-22 ^b	20	26	26	98	84	91	20.9	30.9	28.3
23-24°	12	30	22	57	102	90	21.6	29.2	24.6
25+ ^d	364	302	293	1649	1260	1240	21.1	23.9	23.6
Total	428	388	365	1987	1592	1559	21.5	24.4	23.4

Table 8.1: Number and per cent of employee jobs paid below the minimum wage, by rate population, UK, 2019, 2022 and 2023

Source: LPC analysis of ASHE, low-pay weights, chain linked, UK, 2019-2023.

a. Underpayment is measured as anyone paid below the rate for the relevant minimum wage population.

b. 21-22 became a new rate in 2021. Prior to this they were part of the 21-24 Year Old Rate.

c. 23-24 year olds became entitled to the NLW in 2021. Prior to this they were part of the 21-24 Year Old Rate.

Row shows figures for 25+ only. NLW was 25+ from introduction in 2016 until addition of 23-24 year olds in 2021. 2022 and 2023 NLW underpayment can be calculated by summing 23-24 and 25+ figures.

e. Figures may not sum due to rounding.

8.4 Measuring underpayment using Labour Force Survey (LFS) data allows us to track underpayment from quarter to quarter, which is more frequent than the annual estimates from ASHE. However, this is an imperfect measure of pay compared with ASHE and usually shows higher levels of underpayment and coverage because of error and rounding in individuals' responses to the survey question on pay. LFS estimates of underpayment are far lower in years where the NLW is a round

number e.g. the second quarter of 2016 (£7.20), the second quarter of 2017 (£7.50) and the second quarter of 2022 (£9.50).

8.5 Figure 8.1 highlights the frictional nature of underpayment using the LFS. Underpayment is at its highest immediately following an uprating in the second quarter of each year, reducing in subsequent quarters. After dropping to around 650,000 in the second quarter of 2022 underpayment appears to have jumped steeply to 1.2 million in the second quarter of 2023. Except for 2020, when the data was affected by the pandemic, this is the highest estimate of underpayment using LFS that we have seen, except for in 2020 when the data was affected by the pandemic. The large NLW increase from £9.50 to £10.42 in April 2023 may have resulted in large numbers of individuals surveyed not being fully aware of the extent of the increase in their hourly rate of pay. However, this uprating also involved a shift from a round number rate to a non-round number – which likely increased the error in responses.



Figure 8.1: LFS underpayment totals by rate population, UK, 2016-2023

8.6 We can also look at the share of workers underpaid relative to all those covered by the minimum wage. Figure 8.2 compares this measure using both ASHE and LFS data. Excluding the pandemic period, around 1 in 5 of jobs covered are typically underpaid according to ASHE. In 2023 the share was 23.4 per cent, down slightly from 24.4 per cent in 2022. LFS data shows a higher share of underpayment although this proportion fluctuates over time. In 2023 it increased to over 50 per cent of coverage, a substantial increase from 36 per cent in 2022. Though again this likely reflects the shift from the round number £9.50, through the £10 barrier to £10.42, which many workers may round down when asked a survey question about their pay. We will explore this in more detail in our 2024 Report on non-compliance.

Source: LPC estimates using Labour Force Survey, income weights, quarterly, not seasonally adjusted, UK, 2016 02-2023 02.



Figure 8.2: LFS and ASHE underpayment as a share of coverage, UK, 2016-2023

Source: LPC estimates using ASHE and LFS. Notes:

- a. ASHE, SOC2020 weights, 16 and over, UK, 2016-2023. Figures before 2020 use SOC10 weights and are chain-linked so they are on consistent basis with later figures.
- b. LFS, income weights, quarterly, not seasonally adjusted, 16 and over, UK, 2016 02-2022 03.

Social care

8.7 We continued to hear that underpayment was prevalent in social care. UNISON shared findings from a February 2023 survey of homecare workers [n=310] that only a quarter were paid for their travel time and 18 per cent had travel time included on their payslips. Its submission included testimony from workers on the high levels of stress, financial hardship and cutting appointments short this caused. They hoped this would "stir the Low Pay Commission to call for more forceful action on this issue" and argued "it is primarily being left to low-paid care workers … to address the systemic and endemic problems of non-compliance."

8.8 UNISON highlighted three areas where the enforcement system was failing care workers. First, lack of action on record-keeping ("there has still not been one single care employer referred to the Crown Prosecution Service for prosecution for failing to keep sufficient records in the last decade.") Second, the average arrears per worker from HMRC cases, which "pales into insignificance when compared to the average amount of arrears that Unison secures when we take forward tribunal cases on the issue." It argued this suggests "either HMRC inspectors struggle to decipher the pay records of many care employers ... or that they are willing to let care employers off with hardly any punishment." Third, the inadequate reach of investigations: "Less than 1% of care employers have been subject to an investigation by HMRC each year on average over the last 5 years despite widespread non-compliance with the minimum wage across the care sector." It described this as "completely unsatisfactory."

8.9 On our Oldham visit, we heard from UNISON members that "The people who are brought in on the health and social care visa are horrendously exploited." These migrant workers were tied into contracts they were afraid to leave in case they lost their visa or because they would have to pay fees to the employer if they leave; many lived on site, had money deducted for accommodation and were on call nearly continuously. UNISON reps told us they were unable to report this on the workers' behalf or

verify non-compliance because people were so fearful of being seen as troublemakers and therefore unwilling to share information about their contracts or payslips.

8.10 The GMB Union's response similarly argued that social care relies on structural underpayment of care workers. It noted the prevalence of "time and task" commissioning models, where care workers are often not paid separately for their travel time: "If this model was implemented to the letter the care system would collapse, so instead it relies on effectively underpaying a predominantly female workforce already on low hourly wages as the care they need to provide means working beyond the hours modelled in the commissioning process."

8.11 The Homecare Association (HCA) agreed that commissioning practices increased the risk of underpayment in social care. Its response to our consultation stated "Compliance with the minimum wage is particularly challenging for those businesses reliant on funding from public bodies such as local authorities or Clinical Commissioning Groups. Public organisations frequently purchase homecare by the minute for contact time only, at fee rates below the cost of good quality care. Many councils do not include extra money to cover costs of travel or waiting time between clients, which counts as working time." It suggested that alongside engaging with providers, HMRC should highlight systematic compliance risks in the social care sector, including commissioning practices.

Issues with payslips and record-keeping

8.12 UNISON told us again of the challenges created by rules around record-keeping. "The difficulty we face in legally assessing cases is the records – employers simply don't keep them." Some workers keep records, but many are just too busy with jobs and family obligations. UNISON described the Government's proposal (DBT 2023d) to reduce the record-keeping required from employers as "disastrous" for its members as it would make it very difficult for them to challenge illegal practices. The Trades Union Congress (TUC) also argued that Government decisions over retention of EU law were in fact weakening standards and undermining the NMW. It recommended the Government set explicit record-keeping standards.

8.13 On the Oldham visit, a UNISON official noted that "there are a number of fundamental issues with payslips and one is that the vast majority now are electronic, so quite often people haven't got the facilities to be able to access them to scrutinise them; the second one – they should be clear and transparent and understandable, but quite often there's all sorts of payments, additions, subtractions... it's incredibly difficult to say, 'how many hours have I worked? What have I got paid? What is my hourly rate?" Separately, Union of Shop, Distributive and Allied Workers (Usdaw) thought that access to digital payslips had become "a bigger issue than it was", and one exacerbated by cuts to the union learning centres which assisted workers with digital access.

Other sectors

8.14 In agriculture, Focus on Labour Exploitation (FLEX) argued that workers on restrictive work visas may have limited options to withdraw their labour if they are restricted to "working for their visa sponsor or restricted to work where they are placed by their visa sponsor or only have a very short visa which cannot be renewed, or are permitted to change sponsor but there is a large cost to this". These restrictions make finding alternative work difficult in practice. This may result in the only option being available to the worker "is to continue in their employment to make what money they can in the time

available. This lack of opportunity to freely change jobs increases the power discrepancy between employer and employee and significantly impacts the worker's ability to challenge poor employment conditions including underpayment."

8.15 FLEX cited data highlighted in the ICIBI's 2022 Inspection report (ICIBI, 2022), where in approximately two-fifths (42 per cent) of the 25 compliance check visits to farms between February 2021 and February 2022 Home Office compliance officers identified significant welfare issues. Further the ICIBI report stated that by the time reports were fed back to scheme operators, the workers that had raised the complaints had often left the UK. On the Edinburgh visit, the Scottish Agricultural Wages Board (SAWB) told us that lack of contract and lack of timesheets were the biggest issues when it came to non-compliance.

8.16 Usdaw told us there were lots of non-compliance issues in retail. Labour shortages increased the risk of unpaid working time. "Short-term compliance" issues (where workers aren't paid for all of their hours, with mistakes corrected in the next payslip) continued to occur, and had a significant impact on lives of members. They thought this was a consequence of pressure on budgets – managers "forget" to put overtime through the system: "It's not okay, people are relying on that money coming in". It predicted that "as more companies outsource payroll – we'll see more issues about short-term compliance."

8.17 Hospitality workers on the Birmingham visit had also experienced the same short-term compliance issues. One noted that extra shifts would often be missing from his pay; once prompted this would be resolved but he felt "If I never told you, would you remember?". Another's experience was similar: "I work out what I get for the month....and the right amount would never come in. Then I'd have to message my manager and be like I was supposed to get this much and then it would be like, OK, I'll send it, you know, and I'm like, yeah, but I shouldn't have to do that."

8.18 In the equestrian sector, the Equestrian Employers Association (EEA) told us non-compliance was rife across all disciplines and all sizes of firm. A survey in March 2023 found that nearly half of respondents were not being paid in line with NMW legislation. Failings often related to non-payment of overtime or false self-employment. Around 42 per cent of grooms in non-racing did not have an employment contract. EEA told us they were working closely with HMRC to highlight issues: "we realise that probably employers do know they're not being compliant and they want to do something about it. They don't know how, but they don't want to ask."

8.19 The Recruitment & Employment Confederation (REC) told us that since the IR35 changes the number of umbrella companies and intermediaries had increased, creating problems for workers, by making unclear and ambiguous deductions from workers' wages that may impact on NMW: "[bringing] umbrella companies within scope of wider employment legislation or creating umbrella specific regulation would be a key step forward in addressing these problems."

8.20 The TUC argued the recent Seafarers Wages Act made inadequate provision for enforcement in the maritime sector, given the Maritime and Coastguard Agency's lack of employment law expertise and the inherent conflict of interest in asking ports to police shipping companies. In addition, they argued legislation did not go far enough in the groups it classifies as seafarers (i.e. those working on offshore wind are still excluded).

8.21 The TUC called attention to risk of underpayment of hourly-paid staff in further education and higher education, given the amount of additional non-contact time and activity staff have to undertake.

Awareness, guidance and naming rounds

8.22 Among workers, on the Edinburgh visit the Scottish Women's Convention (SWC) argued that many younger workers did not know their rights over pay. Citizens Advice bureaux were really important especially to younger women, "to get those rights and know what benefits [they are entitled to] and know what they can do. It's Important they have that advocacy." On the Wales visit, we met one young hospitality worker who said she was receiving a pay rate less than the 18-20 Year Old Rate to which she was entitled, but was not aware what this rate was. She said she would not feel comfortable having a discussion with her boss about pay but when advised that legally she should be receiving at least £7.49 she replied, "maybe we'll have a talk after this call".

8.23 Several groups complained that NMW guidance was complex, and that it left uncertainty in some key areas. UKHospitality (UKH) told us it was complicated, especially for smaller businesses, to understand the law and they would welcome more guidance from HMRC: "Although the NMW/NLW has been in place for more than 20 years, it remains ... a complex area of labour law and we would support continuing efforts by HMRC (perhaps through ACAS) to provide guidance and education support." The National Farmers' Union (NFU) agreed that implementation was often challenging and guidance could be improved. Common issues included confusion around "the relationship between basic pay and overtime and productivity payments", operation of the Accommodation Offset and interactions between the NMW and rules for seasonal workers (e.g. the 32 hour minimum working week). The NFU recommended three steps: "greater use of worked examples ... in various scenarios"; inclusion of "scenarios specific to agriculture and horticulture including the application of the accommodation offset"; and "A suite of frequently asked questions to help better understanding of the rules." The Association of Labour Providers (ALP) also thought that DBT's Calculating the Minimum Wage guidance had been made less accessible and was inadequate in supporting industry in correct and consistent application of the law. It argued the guidance should be combined with the NMW Manual used by industry and HMRC alike. The TUC repeated previous calls for guidance to be provided "in sectors such as arts and entertainment and the gig economy."

8.24 The REC told us that NMW guidance did not reflect the complexities of agency work, which was subject to different regulations but was not clearly distinguished in NMW legislation. Because of this, they argued, confusion around the law or understanding correct practice when it comes to temporary workers can lead to accidental non-compliance by employers.

8.25 Usdaw told us that naming rounds were effective but needed to be more frequent: "Going forward, HMRC must redouble their efforts, working closely with trade unions, to improve awareness of the National Minimum Wage amongst employers and workers." REC's view was contrary: their submission pointed out that several employers had been named multiple times but with no impact on their practices: "For these employers, the name and shame list is no longer performing the "shaming"" function it was designed to."

Views on enforcement

HMRC's approach with employers

8.26 Various employer groups argued for a change in HMRC's approach to enforcement. The British Retail Consortium (BRC) told us retailers wanted pragmatism and engagement: "Having the ability to engage constructively ... to ensure compliance without that resulting in naming and shaming would enable businesses to navigate the regulatory environment." They wanted more assistance to mitigate against unintentional breaches, more consistency and greater understanding of "the nature of retailing." At oral evidence, they told us that HMRC "see themselves as beyond direct engagement" and complained there was no scope for "proper advisory conversations ... it turns into quite an adversarial process". The Federation of Small Businesses (FSB), too, called for reform to move to a less adversarial approach, a change in approach to naming and shaming and more latitude for "instances of genuine error". The ALP wanted more formal collaboration between HMRC and trade associations, with regular meetings to raise and address policy matters and update guidance. In ALP's view, this should include "technical exemptions in specific situations where the literal application of NMW legislation has perverse and/or unintended consequence that imposes burdens on business and has a neutral or negative impact on low-paid workers."

8.27 On the Birmingham visit, a large hospitality operator spoke about their experience of an HMRC investigation: "the black and white rigid binary nature of some of this stuff isn't necessarily helpful. ... there's room for some better collaboration around that." It drew a comparison between changes in approach on NMW issues and the introduction of tipping legislation: "industry has had lots of input into how that might work and some of the issues around it. If I was to wind back a few years, when it became clear there were potential minimum wage issues around uniform et cetera, I think a more collaborative approach [would have been desirable]."

8.28 Picking up on this theme, the REC told us the lack of distinction between accidental and intentional non-compliance was problematic, while the Association of Convenience Stores (ACS) thought the priority for any single enforcement body should be addressing the unfair 'technical breaches' experienced by many employers.

8.29 Some worker representatives took issue with this position. Usdaw told us it had limited sympathy for employers' mistakes: "It's about responsibility – if you outsource functions, workers expect to be paid what they are owed in the right timeframe". It noted the difficulty in drawing a distinction between large and small employers, given the impact on the worker was still the same. "If you employ people, it's your responsibility to comply." GMB union also argued that accidental breaches should not be treated differently: "any breach ... whether intentional or in error, can have devastating impacts on an employee's life outside of work." It did not believe "minimum wage compliance and enforcement will become any more effective by unequally distributing focus and resources to one type of breach over another. Instead, proper resourcing is needed for both enforcement and education for employers"

8.30 The NFU expressed its support for HMRC's compliance work: "In the past HMRC has taken a supportive and educational approach to promoting compliance and continuation of such an approach will be welcome." The Food and Drink Federation (FDF) was also encouraged by the Government's approach to enforcement, citing greater leniency for unintentional non-compliance, more regard to how

salary sacrifice schemes are used, improved guidance for companies and the increase to the threshold for naming. On the Birmingham visit, the group of restaurant owners we met were aware of HMRC enforcement and thought its activity had succeeded in driving changes in the sector. They told us some business owners wouldn't disclose an investigation because they were embarrassed – but more often networks would share and support when problems were identified.

8.31 On the Birmingham visit we met with Professor Monder Ram of the Centre for Research into Ethnic Minority Entrepreneurship (CREME), and discussed the support available for small businesses, including in complying with the NMW. Some firms "have set their face against compliance" and take the attitude "it's no one else's business what I pay". There was also a feeling from business owners that "there's so much other stuff we do that's not factored into the wage". We heard the regime to implement and monitor working practices needed strengthening, "but not only to enforce compliance – there's potential for an enabling role as well." This was seen as a missed opportunity, with a need for an entity to explore alternative models and incentivise good behaviour.

Enforcement resource and governance

8.32 Unions told us they should have a more central role in the enforcement body's governance, strategy and activity. The TUC argued: "trade unions have a unique understanding of workplace issues and commonplace issues of non-compliance. Given our everyday presence in workplaces, unions are able to spot breaches of the minimum wage and other enforcement issues. This first-hand knowledge should be utilised to shape enforcement strategies."

8.33 Various respondents argued more resource should be given to enforcement. Unite the Union told us that "Long-term, sustained funding would allow enforcement bodies to recruit and train proper workplace inspectors, inspect more workplaces, and prosecute unscrupulous employers." FLEX cited Resolution Foundation evidence that the UK has few labour inspectors: "Compared to other OECD countries UK ranks 27th in terms of number of labour inspectors per 10,000 employed people." The TUC also made reference to the UK's performance against International Labour Organisation's one in 10,000 standard. Unite thought unions should be represented on enforcement bodies: "this would also restore the ability for workers to report concerns about compliance with NLW and NMW directly to other stakeholders ... and, as such, disrupt exploitative practices." GMB Union told us enforcement should work more closely with unions, "including a widely trusted third-party complaints system and providing unions with more information about non-compliance in the sectors they represent workers in."

8.34 Few respondents made mention of the proposed single enforcement body (SEB). REC told us they were "very keen that the eventual creation of the SEB does not fall by the wayside. A properly resourced SEB will be able to operate effectively in the recruitment sector and across the UK labour market and will provide some much-needed clarity for workers as to how they can enforce their rights." The ALP also called for such a body to be put in place, referencing an April 2023 recommendation from the Business, Energy and Industrial Strategy Committee that "The enforcement of labour market rules is under-resourced. The creation of the planned single enforcement body would clarify rights of redress for those most in need, but it must be resourced to at least the level of what is deemed appropriate by the International Labour Organisation."

8.35 The ALP told us we should recommend the National Audit Office review of HMRC's NMW activity to improve outcomes, impact and value for money. In addition, it recommended the LPC should

work with HMRC, the Director of Labour Market Enforcement (DLME) and appropriate experts to develop key performance indicators against which to measure HMRC's NMW enforcement performance.

Complaints system

8.36 Unite officials told us the biggest problem in compliance was making a complaint. Because there was no process to raise collective grievances, you had to persuade a worker or group to do this themselves: "People start taking a step back, thinking 'can I really do this?'" Complaints tended to come post-employment: "someone's put up with being underpaid for two or three years" and then leaves their job. Salaried workers were particularly prone to underpayment. The official was, however, positive about HMRC: "when you identify a problem, they deal with it."

8.37 UNISON were more critical, arguing the process for complaints was not satisfactory: "The role of HMRC is crucial, yet what we see is that when members go to HMRC they can wait a couple of years for a response." Responses were then often lacking in detail, with no way of questioning HMRC's findings and no appeals process. It argued HMRC were very reliant on what the employer tells them and less open to listening to union members. It gave an example of a case involving a teaching assistant in a school who raised a dispute over holiday pay/term-time only pay. They were issued with a new contract after they went to HMRC, which HMRC accepted at face value. UNISON told us, that the investigator acknowledged that the employer did not have adequate records but had not taken any action in response.

Accommodation Offset

8.38 Last year, we reviewed the Accommodation Offset and made a number of recommendations. The Accommodation Offset allows employers who provide housing for workers to pay a lower rate than the minimum wage. In 2023, employers providing accommodation could deduct £9.10 per day worked from a worker's minimum wage entitlement.

Our 2022 recommendations on the Accommodation Offset

We will not recommend a significant increase in the value of the Accommodation Offset as a proportion of the NLW until we have some assurance that there are robust minimum quality standards in place for accommodation and that these are enforced.

We recommend a minimum hours requirement before accommodation costs can be deducted, for workers at risk of no or very low pay as a result of accommodation charges.

We recommend that seafarers be exempt from the Accommodation Offset while on board ship.

We recommend that BEIS and the Home Office work together to address the interactions between the Accommodation Offset and the minimum hourly rates set for seasonal worker visas in agriculture.

8.39 We have not yet had a formal response from the Government to these, although changes in 2023 to the seasonal worker visa indirectly address two of our recommendations. Firstly, the Government changed the conditions of the visa so that workers entering via this route were guaranteed a minimum of 32 hours each week. In effect, this would remove the need for an additional minimum hours requirement connected to the Accommodation Offset, for those workers on the visa. We note

that this does not apply to every worker affected by the offset. For example, agriculture workers not employed via a seasonal worker visa, or workers in other sectors in employer-provided accommodation are still at risk of very low earnings if they find their working hours fall but their accommodation charge remains constant.

8.40 Secondly, the Government in 2023 ceased to require a different hourly rate, higher than the NLW, to be paid to agriculture workers on a seasonal visa. The pay floor for these workers was once again set by the NMW, as it was before 2022. This makes the question of interactions between the offset and the sectoral rate irrelevant. If the policy were to change in the future, and the Government were to reintroduce a separate hourly rate for the sector, we would see this issue recur.

8.41 The Government has not responded to our recommendation on removing the Accommodation Offset for seafarers. Nor has there been progress towards robust minimum quality standards. This latter point has direct implications for our recommendations on the offset. In the following sections, we discuss stakeholder evidence we received on the Accommodation Offset.

Level of the offset

8.42 On the level of the offset, UKH noted familiar concerns that the offset was not high enough to reflect the quality of the accommodation provided by hospitality businesses: "It is ... providing a deterrent to invest in further staff accommodation." The NFU shared "universal feedback" from its members that the offset did not cover the costs of provision, but also recognised that market forces pushed employers to provide accommodation to a high standard, driven by competition between growers for returnee workers and by ethical trading standards that bind businesses.

8.43 The UKH argued that the offset needed "to pick up the pace," with the value of staff accommodation becoming more apparent, not only in city centres but also rural and coastal areas. Three quarters of UKH members said it was too low. UKH said it would like to see some "urgency on the accommodation offset. The pressure on accommodation and the cost of accommodation for workers is becoming quite acute". The British Beer & Pub Association (BBPA) thought the offset needed to increase faster to fully reflect both the costs to employers and benefits to workers. The NFU thought "an increase to a rate equal to an hour's wage is reasonable … This would help reduce the burden on employers and contribute towards the maintenance and improvement of worker accommodation."

8.44 The TUC argued that employers should bear as much of the cost of accommodation as possible: "Employers gain significant benefit from the provision of accommodation, which gives them immediate access to their workforce on site. This arrangement also pushes down absences and labour turnover, as it is harder for a worker leave a job if it also means leaving their accommodation." In addition, "Where the job is only possible while living in tied accommodation, the offset should not be used at all"

Quality of accommodation

8.45 The SAWB told us that accommodation provided on farms was often of poor quality, with employers filling static caravans which were not designed as permanent residences to their maximum capacity. It had conducted its own survey of employers, employees and labour providers and found 13 per cent were not satisfied with the current standard of accommodation. It told us there were no specific standards for the accommodation provided and no checks for the standard of accommodation.

Only one council carried out inspections to register sites – and only on a planning basis, not on standard of accommodation. There were only one or two Gangmasters and Labour Abuse Authority (GLAA) agents for the whole of Scotland.

8.46 FLEX told us workers on the Seasonal Worker Visa were often accommodated in shared caravans and complain of poor conditions. It referenced the 2022 report by the Independent Chief Inspector of Borders and Immigration, which "described 8 of the 19 Home Office reports which the inquiry had sight of including complaints from workers of damp, poor-quality and unsafe accommodation".

8.47 EEA's survey of workers found that, of those who did have workplace accommodation provided, around 32 per cent said that it was of a great standard, 49 per cent said it was of a good standard, and 19 per cent said it was of a poor standard. Around 52 per cent of employers felt that having an accommodation standard and enforcement regime in place would be a positive thing.

8.48 In response to our 2022 recommendation on quality standards, the NFU told us it could not comment on any quality regime without details: "Any additional ... regime requires careful consideration in order to ensure that it will not duplicate existing schemes nor place an additional and disproportionate burden on businesses." It reported the NFU itself was looking at introducing minimum standards, but we have not had any further update. The ALP supported our recommendation, and told us it had done significant work on this issue over many years.

8.49 UKH believed "there should be a process established to set minimum accommodation standards and have graded offset levels." It would like to work on an accommodation standard and take that forward more quickly and told us that 83 per cent of businesses would welcome an accommodation standard.

8.50 The TUC supported our recommendation on quality: "Ultimately, employers should not get away with providing substandard accommodation, and should not be able to use the offset when the supplied accommodation is mandatory."

Minimum hours requirements

8.51 In response to our recommendation on a minimum hours threshold below which the offset should not apply, the NFU noted the seasonal workers scheme already set a minimum hours requirement. This was not without problems: "agriculture is inherently uncertain, and it is not possible to guarantee on a week-by-week basis that work will always be available". It argued it was important an appropriate reference period was identified. The ALP supported this recommendation although it noted that it was not straightforward to implement. The NFU Scotland also made reference to the 32 hours per week guaranteed for seasonal workers under Home Office regulations; before that, it thought employers had generally taken a pragmatic approach and wouldn't charge rent if people weren't working.

8.52 The Scottish Rural Industry Engagement Team – a part of the Scottish Government – noted some problems with the existing 32 hour working week threshold. There was no clarity from Defra over whether illness or holiday counted towards the 32 hours, or what happened if workers turned down work (e.g. because of the weather).

Compliance issues

8.53 The ALP again complained about a lack of clarity over the application of the offset to utility charges, and inconsistencies between guidance on GOV.UK and the NMW manual. It told us the current application was determined by case law and was not clear in government guidance.

Conclusion

8.54 Our primary analysis suggests a marginal decline in underpayment, with the number of underpaid workers dropping in April 2023. However, the Labour Force Survey (LFS) found a rise in underpayment, exemplifying the difficulty of accurately measuring compliance.

8.55 In the social care sector, non-compliance appears persistent, particularly regarding unpaid travel time, causing considerable stress and hardship to workers. Testimonies from UNISON highlight a lack of record-keeping among employers and a lack of punitive measures for rule breaches. Furthermore, UNISON's tribunal cases reveal higher arrears than those found by HM Revenue and Customs (HMRC), alongside the fact that less than 1% of care employers undergo HMRC investigations.

8.56 The chapter also sheds light on the vulnerabilities of workers on social care and seasonal agricultural visas, who fear repercussions on their visa status or additional fees if they challenge exploitative practices. In sectors like retail and hospitality, a new trend of "short-term" non-compliance is emerging, where workers are temporarily underpaid, often for overtime, with corrections made in subsequent pay packets. However, this relies on workers actively pursuing their due wages.

8.57 Employers express a need for clearer National Minimum Wage (NMW) rules and better guidance, particularly concerning the calculation of basic pay, overtime, and the Accommodation Offset. They perceive the enforcement approach as overly adversarial, lacking constructive dialogue between employers and enforcement bodies. This stance contrasts with worker representatives who argue for no differentiation between accidental and deliberate non-compliance, emphasizing the employers' duty to fulfil their responsibilities regardless of intent.

8.58 Lastly, the chapter touches upon the Accommodation Offset, where employers advocate for a higher offset level, while worker representatives argue for employers to bear most accommodation costs, especially considering the benefits they derive. Accompanying these discussions are concerns about the quality of the provided accommodations, highlighting a broader issue of worker welfare in the context of employer-provided housing.

Chapter 8: Compliance and enforcement and the accommodation offset

Chapter 9 The Path of the National Living Wage

Key findings

- This chapter explains how we plot the path to the National Living Wage (NLW) target of two-thirds of the median hourly earnings of those aged 21 and over by October 2024. By aiming for October of each year, rather than April when the rates are introduced, we seek to ensure that the target is met on average over the minimum wage year. We take the median hourly rate from the Annual Survey of Hours and Earnings (ASHE) in April each year as our baseline. We then project forward using a combination of the Office for National Statistics (ONS) Average Weekly Earnings series and earnings forecasts from the Bank of England and HM Treasury's panel of independent forecasters.
- Predicting this rate is difficult. Both the forecasts and measures of pay we rely on to estimate the required rate have been subject to greater uncertainty and variability than in previous years.
 Increases in both measured wage growth and in the forecasts of wage growth over 2023 caused a sharp upward revision to our estimate of the rate needed to hit the target.
- It is important to remember that the LPC's recommendations are not purely formulaic. The uncertainties in predicting the target rate means that judgement is required. Commissioners' recommendations also need to work for the economy and labour market. This too entails the use of judgement. We discuss our rationale for the specific NLW recommendation in the next chapter.
- Stakeholder views on the on-course rate to 2024 were based on an estimate of £11.16, which was made in the spring of 2023. This estimate has been revised as pay and forecasts of pay growth rose by more than expected over 2023. There was considerable support for the on-course rate among both trade unions and some employer organisations recognising difficulties workers faced with the cost of living but many trade unions also called for higher rates. With a few exceptions, employer representatives did not argue against the NLW reaching the two-thirds target in 2024. Many noted the projected increase was approximately in line with inflation expectations, which made it easier to accept. Worker representatives argued for a steep increase to counteract real-terms losses in recent years, with unions coalescing around the figure of £15 per hour. Most respondents favoured going ahead with the extension of the NLW to 21 and 22 year olds, noting this would have a small impact on most employers.

9.1 Our remit for the National Living Wage (NLW) is to make recommendations that achieve a target of two-thirds of median hourly earnings by 2024. We previously recommended (Low Pay Commission, 2019a) lowering the age of eligibility for the NLW from 25 years to 21 years. The Government agreed and tasked us with achieving this by 2024. The age was lowered to 23 in April 2021 – with the second stage to age 21 to be implemented in April 2024.

9.2 From the day it comes into effect the NLW is fixed for 12 months, but median earnings continue to grow as workers receive pay rises and/or move to better-paying jobs. This means the bite (the value of the NLW relative to median earnings) peaks when a new rate is implemented (on 1 April), but then falls throughout the year (as median earnings grow and the minimum wage stays fixed) and is at its lowest on 31 March. By targeting October (the mid-year point) rather than April, the average bite of the NLW over the NLW year (1 April to 31 March) should be roughly equal to the target value of two-thirds.

9.3 To hit the target we need to estimate what median earnings will be in October 2024. That projection depends on two main elements: the baseline (that is, our best estimate of the current median); and wage growth between the baseline and the target date. We estimate our baseline from the latest Annual Survey of Hours and Earnings (ASHE), the best measure of hourly earnings available. Our baseline is the median of gross hourly earnings, excluding overtime and premia (for example, for shifts and unsocial hours) for those in the relevant age group. This has been those aged 23 and over for the upratings since April 2021, but will be for those aged 21 and over in 2024. In April 2023, the latest ASHE data available, we estimate the median for those aged 21 and over to be £15.98 an hour. For those aged 23 and over, it was £16.24 an hour.

9.4 From our baseline in April 2023, we then project forward to the target date in two sequential periods: first, from April to August 2023 using alternative sources of actual wage data and second, forecast wage growth from August 2023 to October 2024. During the first of these two periods we use the growth in Average Weekly Earnings (AWE) as a proxy for growth in the ASHE estimates of hourly pay. AWE is timelier and, in normal economic times, tends to move in line with ASHE. However, unlike our baseline median, it covers all employees on the payroll irrespective of age and only covers Great Britain. We average the level over 12 months to remove some of the volatility around the timing of bonuses).

9.5 However, AWE is only a proxy and subject to its own issues. The minutes for the September Bank of England Monetary Policy Committee said "The recent path of the AWE is, however, difficult to reconcile with other indicators of pay growth. Most of these have tended to be more stable at rates of growth that are elevated but not quite as high as the AWE series." (Bank of England, 2023g.)

9.6 For the second part of our projection, we use forecasts of AWE wage growth to project median pay estimates forward from the latest available wage growth data (August 2023) until the end of the path (in this case, October 2024 or the fourth quarter of 2024). We combine forecasts from the monthly HM Treasury panel of independent forecasters with those from the most recent Bank of England Monetary Policy Report. The Office for Budget Responsibility (OBR) produce forecasts to coincide with fiscal events and so timely OBR forecasts are not available to us at the time we calculate the path.

9.7 The HM Treasury panel includes around 20 forecasters of average wage growth. These include City forecasters (including Citigroup, HSBC, NatWest Markets, UBS, and Ernst and Young ITEM club), business representatives (including the CBI and British Chambers of Commerce (BCC)), and other academic and think tank organisations (including the National Institute for Economic and Social Research (NIESR), the Centre for Economics and Business Research (CEBR), and Oxford Economics). HM Treasury publishes forecasts from this panel regularly with short-term forecasts (for the current year and the next year) published monthly and medium-term forecasts (for the next five years) published each quarter. We then add forecasts from the Bank of England, which are updated quarterly.

9.8 The panel forecasts average weekly wage growth in the year to the fourth quarter. Again, this is a proxy – there is no forecast produced for median hourly pay. However, this forecast (which includes bonuses) is consistent with the AWE measure we use in the model. We use the median of those forecasts made in the last three months. The median of average wage forecasts available in October for 2023 was 6.6 per cent, slowing to 3.5 per cent in 2024. However, the range of forecasts was historically wide – ranging from 4.4 to 7.7 per cent in 2023 and 2.1 per cent to 5.8 per cent in 2024.

9.9 As shown in Figure 9.1, using the three stages discussed above, we project median hourly earnings for those aged 21 and over to increase from £15.98 an hour in April 2023 to £16.93 in April 2024 and to £17.22 in October 2024. The assumed earnings growth for those aged 21 and over is the same as that for all ages (as the projected data is not disaggregated by age – even though wage growth may differ across age groups).



Figure 9.1: Projection of the median hourly earnings, 2022-2024

Source: LPC projections using ONS data (ASHE and AWE) and forecasts from the HM Treasury (2023e) panel of independent forecasters and the Bank of England (2023c).

Note: Actual median wages are estimated from ASHE for April 2022 and April 2023. Projected wages use AWE wage growth (April-August 2023) and forecasts (August 2023-October 2024). For more information on projection methodology see Appendix 3.

9.10 Having projected the median for those aged 21 and over, we just need to calculate two-thirds of it to arrive at a central estimate of our target. However, as we noted earlier there is much uncertainty about these projections, with all three elements – the benchmark, actual wage growth and wage forecasts – all subject to revisions and with questions about reliability.

Sources of uncertainty in estimating the on-course rate

9.11 As we noted earlier, we estimate our baseline from the latest ASHE. It is, as with all surveys, subject to measurement error and sample response bias. The ASHE is derived from a 1 per cent sample of employees recorded in the HMRC Pay-As-You-Earn system. It is a random sample, but previous analysis has suggested that there might be non-response bias. Forth et al (2022) estimated that ONS only received responses for around two-thirds of their targeted sample between 2009 and 2019. We also know that the response rates fell during the pandemic and have not yet returned to these previous levels. ONS uses weights and imputation in an attempt to correct for this. More recent evidence (Stokes et al, 2022) has suggested that it may under-sample employees in small firms. As small firms pay less on average that may lead to an upward bias in estimates of the median. On the other hand, there is also evidence that it under-samples those at the top of the earnings distribution. This may offset the under-sampling of small firms.

9.12 As we discussed in Chapter 2, there was some divergence between various measures of wage growth. Official wage growth measured using the Average Weekly Earnings (AWE) shows higher wage growth in the year to August than other measures. The Bank of England (2023g) has commented in the minutes of its Monetary Policy Committee on why it thinks AWE may currently be overestimating wage growth. Other sources, such as the HMRC Real Time Information have suggested weakening pay growth through the summer with RTI median pay growing by 5.8 per cent in September 2023 and the median of RTI pay growth at 6.0 per cent, compared with 8.1 per cent in headline AWE growth. Thus, there is some uncertainty about wage growth since April.

9.13 To explore this uncertainty, we looked at the sensitivity of our central estimate to different assumptions about wage growth from April 2023 onwards. For example, using the growth in the RTI median rather than smoothed AWE would reduce our projection of median pay by 6 pence in October 2024 from £17.22 to £17.16. Using the growth in headline AWE total pay instead of smoothed AWE would increase it by 6 pence to £7.28. Therefore, slightly different assumptions about pay over the spring to summer of 2023 can change the NLW target rate by up to 4 pence.

9.14 There is also uncertainty around the forecasts. These are shown in Table 9.1. In our model, the median of forecast wage growth is 6.6 per cent in 2023, and 3.5 per cent in 2024. Even though the Bank of England's forecast was the same for 2024 (at 3.5 per cent), it was lower for 2023 at 6.0 per cent. The range and the interquartile range of the forecasts for average wage growth in the HM Treasury panel are considerably wider than before the pandemic. So there is greater uncertainty about wage growth in the next year than in previous years.

9.15 We also looked at the sensitivity of the projections to different forecasts. Using the Bank of England forecast for 2023 or the lower quartile of the HM Treasury just for 2023 would lower our estimates of the median by 4-7 pence, while using the upper quartile would raise it by two pence. If we just looked at the sensitivities of the forecasts for 2024, the HM Treasury lower quartile would reduce the target by 6 pence compared with an 11 pence increase for the upper quartile. Using the Bank of England's forecast in 2024 would make no difference as it is the same as the median from the HM Treasury panel.

HM Treasury panel and Bank of England (average wage forecasts)	HM Treasury and Bank forecasts (autumn 2018)		HM Treasury and Bank forecasts (autumn 2019)		HM Treasury and Bank forecasts (autumn 2023)	
	2018	2019	2019	2020	2023	2024
Median	2.7	3.0	3.6	3.2	6.6	3.5
Mean	2.7	2.9	3.1	2.9	6.4	3.6
Minimum	2.4	2.0	2.9	2.6	4.9	2.1
Maximum	2.9	3.3	3.8	4.1	7.7	5.8
Range	0.5	1.3	0.9	1.5	2.8	3.7
Lower quartile	2.6	2.8	3.4	3.1	5.5	3.0
Upper quartile	2.7	3.1	3.7	3.5	6.9	4.3
Interquartile range	0.1	0.3	0.3	0.4	1.4	1.3
Bank of England (only)	2.5	3.3	3.0	3.3	6.0	3.5

Table 9.1: Wage growth forecasts, 2023-2024

Source: LPC analysis using forecasts from the HM Treasury panel of independent forecasters (2018, 2019b, and 2023c) and the Bank of England (2018, 2019 and 2023c). For more information on projection methodology see Appendix 3.

9.16 Reflecting the uncertainty around the forecasts, we have calculated a range for our target rate in 2024 using two methods. The first, a wider range, allows for the forecast wage growth to be ± 1 percentage point higher or lower in each year. This is greater than the usual difference between the forecast and outcome (around 0.5 per cent pre-pandemic) but uncertainty has greatly increased since the pandemic and that has been exacerbated in recent years with the inflation outlook unclear. This creates a range for the NLW target which spans from £11.32 to £11.65 in 2024. An alternative using the interquartile range for the wage forecasts in each of the years produces a narrower range – from £11.39 to £11.56.

The path of the NLW has responded to changing economic circumstances

9.17 Changes in the economy affect earnings growth, and in turn, the target. Table 9.2 sets out how the path of the NLW has changed over time. It also shows that the 2024 target fell with the onset of the pandemic and collapsing economic growth ((as wage growth slowed and wage forecasts were revised down). It then grew again as the economy rebounded, and, with the tight post-pandemic labour market and higher inflation, wage growth and wage growth forecasts pushed the central estimate of the target above its starting point of £10.69 to £11.48, within a range of £11.32 to £11.65. At this point it is important to remember that the LPC's recommendations are not purely formulaic. This wide range around the central estimate shows how difficult predicting the rate required is, leaving an important role for Commissioners' judgment. We discuss the rationale for our NLW recommendation in the next chapter.
	Pre-	LPC	LPC	LPC	LPC	LPC
	pandemic	(2020	(2021	(2022	consultation	(2023
	(February	Report –	Report –	Report –	(March	Report –
	2020)	October	October	October	2023)	October
		2020)	2021)	2022)		2023)
2019	8.21	8.21	8.21	8.21	8.21	8.21
2020	8.72	8.72	8.72	8.72	8.72	8.72
2021	9.22	9.06	8.91	8.91	8.91	8.91
2022	9.75	9.50	9.58	9.50	9.50	9.50
2023	10.21	9.99	10.18	10.42	10.42	10.42
2024	10.69	10.32	10.70	11.08	11.16	11.48

Table 9.2: Evolution of the projected path of the NLW, 2020-2023

Source: LPC projections using ONS data (ASHE and AWE) and forecasts from the HM Treasury panel of independent forecasters, February 2020-October 2023 and the Bank of England, Monetary Policy Reports February 2020-August 2023. For more information on projection methodology see Appendix 3.

Note: The figures in bold burgundy are the rates of the NLW at the time of the projection. The figures in bold black are the rates for the target NLW in 2024.

9.18 We've just shown how slightly different assumptions about pay lead to different NLW target rates. Figure 9.2 highlights the sharp changes in the target since our spring report (LPC, 2023a). In the spring we expected the NLW rate needed to hit the target in 2024 to be around £11.16, but within a range of £10.90 to £11.43. Since then, both measured pay and forecasts of pay have driven our estimate of the target NLW rate upwards. Measures of weekly pay continued to strengthen over the summer. While some of this was driven by one-off factors, such as lump sum payments and bonuses, underlying pay growth strengthened too. Though HMRC's more timely wage data shows slightly weaker growth than the official headline data. Alongside that strengthening wage growth, forecasts of wage growth also increased steadily throughout 2023. This combination raised the target to £11.24 in August, within a range of £10.97 to £11.57.

9.19 We then had a very sharp increase in September 2023. This was driven by two factors: new Annual Survey of Hours and Earnings data for April 2023 and a sharp jump in forecast wage growth. First, the Annual Survey of Hours and Earnings showed median hourly pay grew by 7.1 per cent, more than anticipated in the year to April 2023. Second, there was a sharp jump in forecast wage growth, particularly for 2023 but also for 2024. In addition, AWE wage growth also continued to strengthen in July and August, and there were further upward revisions to growth forecasts in October. This combination of higher than expected wage growth and forecasts themselves also rising put upward pressure on the rate needed to hit the target.

9.20 Figure 9.2 also shows how the range between our low estimate and our high estimate of the NLW target in 2024 narrows over time as we get closer to the target. In early 2020, with four years to go, the range was around \pm 55-59 pence. It then falls by around \pm 10 pence each year when we receive the median from the ASHE data. By October 2023, with just a year to go, this range had fallen to \pm 16-17 pence.



Figure 9.2: Change in our central projection of the NLW in 2024, January 2020-October 2023

Source: LPC projections using ONS data (ASHE and AWE) and forecasts from the HM Treasury panel of independent forecasters and the Bank of England. Median of hourly earnings for those aged 21 over, ASHE, annual, UK, April 2019-April 2023; Average weekly earnings total pay (KAB9), monthly, GB, January 2018-August 2023; Median of average wage growth forecasts from HM Treasury panel of independent forecasters, January 2020-October 2023, and Bank of England, November 2019-August 2023.

Stakeholder views on the 2024 rate for the NLW

9.21 As part of our consultation, we sought stakeholders' views on the NLW target of reaching twothirds of median earnings by 2024. Our main consultation was carried out in March to June of 2023 and was based on a projected on-course NLW rate of £11.16 in 2024 within a range of £10.95 to £11.43. This was higher than the projection set out in our 2022 Report (£11.08) but much lower than our current projection. Much of the evidence gathered from stakeholders in the spring and summer of 2023 was thus prior to those latest projections.

There was greater acceptance of the projected 2024 NLW rate than in previous years

9.22 Relatively few groups argued against hitting the target. Several employer groups recommended caution, with some suggesting extending the deadline for the two-thirds target: The British Retail Consortium (BRC) told us that "retailers would caution against accelerating the rate of NLW at pace ... There is a strong case to adopt a longer timescale to raise the NLW in line with other policy initiatives to support productivity growth and in work progression." The Recruitment & Employment Confederation (REC) stated the LPC should act "cautiously" and recommend a lower than 9.7 per cent increase, to reflect the inflation outlook and low growth. Whitbread Plc, the hotel and restaurant company, argued the LPC should "consider the level of increase in the NLW in 2024 in the broader context of higher

costs and inflationary pressures for many businesses." The National Famers' Union (NFU) also suggested a delay: "Economic conditions are challenging for farmers and growers and careful consideration needs to be given as to whether it is appropriate ... to take a more phased approach over an extended time period until such time as the economy has stabilised." The Federation of Small Businesses (FSB) called for an increase towards the bottom of the projected range; they argued £11.16 would risk employment effects given the risk of a recession next year.

9.23 Against this, a range of respondents supported the on-course rate, emphasising the importance of (at least) keeping pace with inflation. UNISON, the public service union, noted the LPC "has largely held its nerve" despite "dire predictions" following Brexit and the pandemic. "It should continue to adhere to the target rate when low-paid workers need it most, as the inflationary surge continues to sweep the global economy." The Women's Budget Group (WBG) argued that increases needed to keep pace with inflation: "it is important that any future increase is at least in step with inflation in order to ensure NLW workers do not continue to experience a pay cut in real terms." Its position was echoed by the Intergenerational Foundation and Youth Employment UK. Usdaw, the trade union covering shop workers, noted that inflation had consistently exceeded forecasts: it "would be very difficult to stomach a real terms cut." The Scottish Women's Convention (SWC) recommended an NLW set at the highest projection of £11.43: "Wages do not reflect the level of inflation. People will have to choose between food and heat/electricity. The impact of this will be catastrophic; these are not luxuries, they are necessities."

9.24 The British Chambers of Commerce (BCC) stated they supported reaching the two-thirds target. The British Beauty Council supported the projected NLW, but called for business support from the Government. The Early Years Alliance (EYA) supported the increase as providing higher pay for the sector ("Any efforts to improve [early years workers'] salaries would be welcomed by the sector now more than ever"), but saw adequate Government funding as a necessary precondition.

9.25 Turning to manufacturing, the Food and Drink Federation (FDF) told us "[the on-course rate] feels like it's the right thing to do in a cost of living crisis that's impacting the lowest paid," although they suggested that if inflation fell significantly (which they recognised was unlikely), there should be flexibility to look again between now and October. Make UK's position was similar: the on-course rate would be "a sustainable rise" and "more closely aligned with manufacturers current pay settlements" but a fall in inflation would change this. Manufacturing NI thought the logic of an increase around inflation would be accepted: "[The on-course rate is] in and around where inflation is likely to be at that point in time ... when there's a direct link through lived experiences, I think it's a lot easier, frankly." The Federation of Wholesale Distributors told us that their members were happy to pay their staff higher rates, but some had expressed concerns about the sustainability of wage increases.

Many worker representatives supported increases higher than the on-course rate

9.26 Many worker representatives argued for an NLW of £15 per hour. GMB, a general trade union, argued the NMW "was initially set too low and, like average wages, it has struggled to keep up with the cost of living with below-inflation uplifts in both 2022 and 2023." It argued that inflation had led to "the steepest real-terms cuts in living memory" and has "wiped out" real-terms gains from the 2023 increase. We present our analysis of the real terms value of the NLW in Chapter 10. This shows it fell in real terms in 2022, but recovered slightly in 2023. Unite the Union stated that a £15 rate "would benefit the economy as well as improving the living standards of low paid workers," citing research from

Landman Economics (2022) submitted last year. "It's the same debate as when the NMW came in ... f15 will sit well at a point that will not change the landscape too much." Usdaw argued NMW rates should be as high as possible to reflect the increased cost of living, especially for low-paid workers. "[The LPC] should recommend the highest possible increase to the minimum wage, one that is both above the level of inflation and certain to meet the threshold of two-thirds of median earnings." Organise, an organisation supporting campaigns for better pay and conditions at work, told us that 94 per cent of respondents to its survey thought f11.16 was not enough to live on for those aged 23 and over. Around 82 per cent of respondents thought the NLW should be at least f13 per hour in 2024, while 54 per cent of those polled say it should be f15 per hour or more.

Stakeholders generally agreed the NLW age threshold should reduce to 21

9.27 The Trades Union Congress (TUC) argued there was no reason not to lower the NLW age threshold. "There is no evidence that paying the full rate to this group would damage their employment prospects." The FSB and BCC both broadly supported the extension to 21 and 22 year olds. The BCC told us the change would "reflect the reality of pay structures," maintain living standards and simplify the rates structure. Its survey found 14 per cent of respondents would be directly affected. It noted the differential impacts of the change by sector, particularly on hospitality. The FDF also supported lowering the age threshold: "As has been the case in previous years, food and drink manufacturers generally pay based on skill/job band and not age." In the survey carried out by Organise, 83 per cent of people believed that those aged under 23 should be paid the same rate as those aged 23 and over for the same job and only 6 per cent of respondents thought different rates should continue. The Prince's Trust told us the intention to lower the age threshold was welcome but "attention must now turn to lifting pay for those aged 18-21."

9.28 REC told us they didn't anticipate a big impact: "Age-differentiated rates above age 21 are not widely used, so we anticipate that the macro impact of any change would be small.....[though]... removing the incentives to businesses to hire young people by keeping their wages lower may negatively impact the ability of younger workers to find roles." The Association of Convenience Stores (ACS) told us more than half of retailers said that reducing the age to 21 would not increase their wage bill. Make UK found 70 per cent of manufacturers expected the change to affect less than 5 per cent of their workforce. One large hospitality employer told us "there's a financial impact to it clearly, but it's not hugely significant ... it's not a concern to us." On our Oldham visit, one leisure trust estimated the cost in the "tens of thousands," which they recognised was not large but was something they had "not felt able to do ... in amongst other pressures."

But some sectors called for a delay or flagged larger impacts

9.29 Only the National Hair & Beauty Federation (NHBF) asked us to delay the NLW age change "to 2025 or even 2026 to give businesses an opportunity to recover and adapt following the previous change in the threshold from 25 to 23." The Equestrian Employers Association (EEA) did not argue for a delay, but did expect a significant impact for their sector. Over half (56 per cent) of employers surveyed said the change would have a huge financial impact on their business; 34 per cent said they would need to pay more experienced staff a higher wage; and 33 per cent said that they would need to reduce working hours as they would not be able to afford the higher wage bill.

Conclusion

9.30 The value of the NLW target in 2024 has ebbed and flowed with economic conditions. The target is relative to median earnings, and the expected value of those earnings varies as economic prospects change. As the pandemic took hold, the economy closed down and workers were furloughed, our central projection fell from £10.69 to £10.32. Then, as the economy recovered and the labour market tightened it surpassed these figures to reach a range of £11.32 to £11.65 with a central estimate of £11.48.

9.31 We are conscious that this range has risen since we published our projections in the spring, and the central estimate is slightly above the top of the range we published then. This reflects the strengthening in both measured pay and forecasts of pay since that point. These forecasts are subject to greater uncertainty than usual and as we considered our recommendations the level of uncertainty was increasing.

9.32 Our recommendations are not purely formulaic. Predicting the rate is difficult, and navigating this requires judgement. Commissioners' recommendations also need to work for the economy and labour market. This too requires judgement. In the next Chapter we discuss our recommendations.

Chapter 10 Recommendations

Key findings

- In determining our recommendations on the National Living Wage (NLW) the arguments were finely balanced. The UK economy had not grown in 18 months and forecasts for future growth remained weak. However, the labour market still appeared resilient, with high vacancy levels in many low-paying sectors and strong pay growth. Weighing up all the evidence available, the Commissioners reached consensus that the NLW should increase by 9.8 per cent to £11.44, reaching the Government's target of two-thirds of median wages.
- In making our recommendations on youth rates, Commissioners were conscious that the gap between the youth rates and the NLW had widened in recent years. To address this, Commissioners recommended faster increases for the youth rates. Our current thinking is that we should move towards an adult rate that begins at age 18, but we will have more to say about how we might approach this and the associated evidence base in our advice to the Government on the post-2024 minimum wage framework.
- We recently brought the Apprentice Rate in line with that for 16-17 year olds. We see no reason to separate them at this stage, so we recommend an increase of £1.12 or 21.2 per cent to £6.40. However, as with the youth rates we are considering the long-term need for a separate rate for apprentices as part of our advice on the post-2024 framework.
- It is hard to predict if the large increases in the National Minimum Wage rates will lead to more workers being paid the rates. Given the large increases, we may expect more jobs to be caught by the rates. Using the historical relationship between bite and coverage to predict the future suggests coverage increasing from around 1.6 million to 2 million jobs. However, we have not seen increases in coverage following recent upratings. If recent labour shortages in low-paying sectors continue, firms may still pay above the rates to attract and retain workers.
- Based on current inflation forecasts, we expect that the recommended National Minimum Wage rates for 2024 will be the highest rate in real terms for all age groups. Households with minimum wage workers are also likely to see real terms increases in their overall incomes (after tax and benefits). However, changes to taxes and benefits mean that many NLW households (if not all) are likely to see slower growth in their incomes than their earnings.

10.1 This chapter sets out how we have met our remit and the rates we have recommended for each of the National Minimum Wages, including the National Living Wage. We also set out the rationale for these recommendations and how this relates to the evidence in the rest of this report. We also describe some of the likely impacts of the new rates on household incomes, coverage and bite.

10.2 We submitted our recommendations to the Government on Friday 20 October 2023 and the Government announced its acceptance of them on Tuesday 21 November, the day before the Autumn Statement.

Our recommendations

10.3 Our remit from the Government is to recommend the rate of the NLW consistent with reaching the target of two-thirds of median earnings for all workers aged 21 and over by 2024. The remit asks us to "advise on any emerging risks and – if the economic evidence warrants it – recommend that the Government reviews its target or timeframe". The aim of this "emergency brake" is to ensure the lowest paid continue to see pay rises without significant risks to their employment prospects. For the other rates of the NMW, our remit is to recommend as high a rate as possible without damaging employment.

10.4 There has been a high degree of political and economic uncertainty in recent years. This has made assessing and forecasting the performance of the economy, and therefore our task, very difficult. Commissioners are pleased that we have continued to achieve consensus.

10.5 This year the uncertainty has been compounded by additional concerns about the reliability of official data sources, including the well-publicised problems with the Labour Force Survey (LFS) – the UK's key data source on the labour market (see Chapter 2 for more details).

10.6 Our recommendations attempt to steer a path through this uncertainty in order to achieve the Government target of two-thirds of the median wage for those aged 21 and over. If our recommendations are accepted this is likely to position the UK at the forefront of comparable economies.

The National Living Wage

10.7 In determining our recommendations on the NLW the arguments were finely balanced.

10.8 The economy has barely grown for around 18 months, and this weak growth is expected to continue throughout 2024. Inflation and rising interest rates have suppressed consumer spending and real wages have barely risen for 15 years.

10.9 Small and medium-sized businesses are reporting the greatest concerns. They are more worried than other businesses about their financial resilience and becoming insolvent. Small businesses in particular face progressively more difficult choices in how they respond to each year's minimum wage uprating. Firms in low-paying sectors are more worried about reduced consumer demand, costs of energy, and the cost of labour than firms in other sectors.

10.10 As last year, businesses felt pressured to pass NLW increases onto consumers. More are worried this year that they are reaching a limit in what they can pass through without undermining demand. And there remain large low-paying sectors – social care and childcare in particular – where employers' ability to pass costs on is highly constrained. The pressure from the rising NLW on pay structures continues to be a prime source of concern and a challenge for affordability: employers face a choice between allowing differentials to narrow or large across-the-board pay increases.

10.11 However, the overall labour market appears resilient. Despite falling slowly since spring 2022, the vacancy rate is still above pre-pandemic norms and employers still complain of staff shortages. The headline figures from the LFS are likely understating the labour market's current performance.

10.12 The low-paying end of the labour market also appears robust. As the NLW moves up the pay scale we expected coverage (the number of jobs paid at or below the rate) to rise. Instead, it fell for the second year in a row. We also still see more NLW workers moving off the wage floor into better pay than before the pandemic – suggesting outside options for low-paid workers.

10.13 These findings are consistent with a more competitive low-paid labour market. Employers need to pay above the minimum to attract and retain workers. If the NLW were too high, we would expect to see reductions in hours of work and jobs in the low-paid labour market. The available evidence does not show these effects.

10.14 From worker representatives we hear that the large increase in the NLW this April did not keep pace with the cost of living and was not enough to avoid growing hardship. We hear accounts of food bank usage and evidence on rising indebtedness, as targeted support introduced last year began to fall away. Workers in low-paying industries continue to tell us they struggle to secure sufficient regular hours; for many, the unpredictability of their working time exacerbates their financial challenges.

10.15 We are conscious that the rate necessary to meet the target has risen since we published our projections in the spring, and is slightly above the top of the range we published then. This reflects the strengthening in both measured pay and forecasts of pay since that point. These forecasts, as noted above, are subject to greater uncertainty than usual and as we considered our recommendations the level of uncertainty was increasing.

10.16 For these reasons, we recommend a rate of £11.44 that should apply to those aged 21 and over. This rate is slightly different to the central estimate described in Chapter 9. However, that chapter also made clear the uncertainty around the central estimate and how slight changes in assumptions about wage growth change the NLW target. But most importantly that chapter also made clear that our recommendations are not purely formulaic. Navigating the uncertainty around rate forecasts requires judgement. Commissioners' recommendations also need to work for the economy and the labour market, which also requires judgement. We expect our recommendation to meet the Government's target of two-thirds of median earnings for those aged 21 and over by 2024. We also believe this substantial increase will restore the real value that has been eroded through the recent cost of living crisis. Our judgement is that this increase will not significantly risk employment prospects.

10.17 Lowering the age of eligibility to the NLW to 21 will complete a recommendation we first made in 2019. Workers aged 21 and 22 will see their wage floor increase by 12.4 per cent as they move from the temporary rate for 21-22 year olds to the NLW.

Youth rates of the National Minimum Wage

10.18 In making our recommendations on youth rates, Commissioners were conscious that the gap between the youth rates and the NLW had widened in recent years. There was a consensus that this should be addressed.

10.19 16-17 year olds saw a significant boost to their employment in the aftermath of the pandemic. Some of that has now unwound, but their employment remains above pre-pandemic levels. Rapid growth in median pay relative to their minimum wage means the bite of the minimum wage has fallen. Coverage is up a little for this group in 2023, but still below pre-pandemic levels. For this group we recommend an increase of £1.12 or 21.2 per cent to £6.40.

10.20 A range of data sources for 18-20 year olds suggest employment is above pre-pandemic levels (albeit not to the same extent as for 16-17 year olds) and there has been a slight rise in unemployment and inactivity. This may be affected by LFS issues as this group saw the strongest median pay growth of any age group and their coverage fell again, making it the lowest of the youth populations. More than 60 per cent are paid at the NLW or above (in 2019 it was 55 per cent). For this group we recommend an increase of £1.11 or 14.8 per cent to £8.60.

10.21 Commissioners recognise that these are ambitious increases for young people, which carry some risks. But as noted above, the youth labour market appears strong and without a substantial increase the wage floor for young people risks being cut adrift from prevailing wage rates in the labour market.

10.22 We are currently reviewing the broader framework for minimum wages to inform the Government's decisions after 2024. Our current thinking is that we should move towards an adult rate that begins at age 18, but we will have more to say about how we might approach this and the associated evidence base in our advice to Government on the post-2024 minimum wage framework.

Apprentices

10.23 We recently brought the Apprentice Rate in line with that for 16-17 year olds. We see no reason to separate them at this stage so we recommend an increase of £1.12 or 21.2 per cent to £6.40. However, as with the youth rates we are considering the long-term need for a separate rate for apprentices as part of our advice on the post 2024 framework.

Accommodation Offset

10.24 In last year's report we reviewed the offset, noting that "The value of the offset as a proportion of the NLW will not increase significantly until we have some assurance that there are robust minimum standards in place for accommodation quality and that these are enforced." We are waiting for the next steps following the Department for Levelling Up, Housing and Communities' consultation on the Decent Homes Standard for the private rented sector. So, in the meantime, we recommend increasing the offset in line with the NLW, i.e. 9.8 per cent to £9.99.

10.25 Our remit requires us to recommend minimum wage rates that apply across the whole economy. But we're mindful that there may be particular pressures in some areas, such as social care, childcare and some small businesses. Government may wish to consider how these sectors can be supported in its wider economic policy framework.

10.26 These recommendations show the value of the Commission's independence and social partnership model in managing economic uncertainty. We are grateful to the employers, workers, their representatives and other experts who gave us invaluable evidence and testimony over the year.

Implications of the rates

10.27 In this section we look at how our recommended rates might change the value of the minimum wage relative to prices and median pay for the different rate populations. We also investigate how many workers might be paid the minimum wage next year and how the changes will affect the post-tax and benefit income for workers.

What will the bite of the minimum wage be next year?

10.28 The ratio between the minimum wage and the median wage is termed the bite (or the Kaitz index). It is a widely used measure of how high the wage floor is and is used in the Government's target for the NLW.

10.29 In Table 10.1 we project the bite of the different minimum wage rates in April 2024. To do this, we need to make a projection of what will happen to median pay for each of the rate populations. We assume that median wages will grow for each group in line with our projection of median hourly pay explained in Chapter 9. These forecasts use a combination of outturn Average Weekly Earnings data and forecasts to predict growth in the minimum wage.

10.30 Based on our projections, the bite of each minimum wage will grow next year. For each rate we recommended pay increases of 10 to 21 percent, much faster than our projections for the increase in median pay (6 per cent). The NLW will grow from 65.2 per cent of median pay in April 2023 to 67.6 per cent of median pay in April 2024. As wages continue to grow over the year, we expect it will fall back to approximately two-thirds by October 2024 in line with the Government's target. The remaining youth rates and the Apprentice Rate will see large increases (of 6 to 9 percentage points) in their bite, based on these projections.

10.31 These projections are likely to overstate the bite of the youth rates and Apprenticeship rate. They assume that median pay grows by 6 per cent for every rate population. This is a reasonable assumption for the adult population (those aged 21 and over) but is likely an underestimate of median pay growth for younger workers and apprentices. In recent years, median pay has grown faster for young workers than older workers (see Chapter 5). It is likely that median pay will again grow faster for young workers and apprentices; however, we currently do not produce (or know of any other organisation that produces) an age-specific median wage forecast.

Table 10.1: Median hourly pay and bite projections, by rate populations, UK, 2023-
2024

	A	April 2023		April 2024		
National Minimum Wage Rate	Rate	Median	Bite	Rate	Median	Bite
NLW (21+) ^a	£10.42	£15.98	65.2	£11.44	£16.93	67.6
18-20	£7.49	£10.61	70.6	£8.60	£11.24	76.5
16-17	£5.28	£8.09	65.2	£6.40	£8.57	74.7
Apprenticeship rate	£5.28	£9.15	57.7	£6.40	£9.69	66.0

Source: LPC analysis of ASHE, standard weights, UK, Average Weekly Earnings and HMT panel of forecasts. Notes:

- a. The table here groups the 21-22 population with the 23+ population. To simplify the presentation we calculate the bite for the NLW based on the whole 21+ population in both 2023 and 2024, even though the 21-22 year olds actually had a separate rate in 2023.
- b. This table shows projected medians and bite values for April 2024. The target for the NLW to hit two-thirds of median earnings refers to October 2024. We expect the bite of the NLW to fall back between April 2024 and October 2024 as median pay grows and the NLW rate stays unchanged.
- c. This table shows our central projections of the median in April 2024. As discussed in Chapter 9 there is significant uncertainty around this projection.

How will the number of jobs paid the National Minimum Wage change over the next year?

10.32 Another key metric we use to track the impacts of the minimum wage is the share of workers paid at or below the rate. We define jobs paid up to 5 pence above the rate as coverage. Table 10.2 shows the number of jobs paid the National Minimum Wage in April 2023 and projections for how many jobs will be paid the minimum wage in April 2024.

10.33 We use two methods to forecast coverage. The first method provides an upper estimate. Using this method, we assume that in the absence of the minimum wage rise, all workers' pay grows in line with our projections of median pay (5.9 per cent). We then count how many jobs would be paid less than 5 pence more than the incoming rate. This method projects that the share of jobs paid the minimum wage will double from 5 per cent to 10 per cent.

10.34 This method requires two strong assumptions, which have been incorrect in recent years. Firstly, it assumes there are no 'spillover' effects of the minimum wage rises. This means that workers already paid at or above the new minimum wage (after experiencing average pay growth) won't see additional pay increases as a consequence of the minimum wage rise. Secondly, it assumes that in the absence of a minimum wage rise, pay growth would be even across the distribution.

10.35 Our second method provides a more realistic projection of coverage next year. This projection uses our bite projections for April 2024 and then applies the historical relationship between the growth in bite and growth in coverage to predict coverage. This approach does not require strong assumptions about the distribution of pay growth. It allows for spillover effects and uneven pay growth across the distribution. However, it does assume that the link between bite and coverage is the same now as it has been on average from 1999 to 2023. Recent data suggests that this relationship might have changed (see Chapter 4).

10.36 Recent experience suggests an increase in bite may not lead to an increase in coverage at all. Chapter 4 showed that, until recently, bite and coverage had moved together over the lifetime of the NMW. But, despite persistent increases in the bite of the NLW since 2016, the coverage rate remained flat up until 2019 and then fell from 2019. There are two likely reasons for this. First, the spillover effects of the NLW appear to be stronger now than in previous years. We discussed why this might be the case in Chapter 4. Second, there is good evidence that labour shortages have driven up pay growth for low-paid jobs since 2019. If we continue to see these two trends, then we might expect the share of jobs covered to remain broadly flat despite the large, recommended increases in rates for 2024.

	April 2023		April 2024:	Method 1	April 2024: Method 2		
National	Number of			Number of		Number of	
Minimum	Percent of	jobs	Percent of	jobs	Percent of	jobs	
Wage Rate	jobs	('000s)	jobs	('000s)	jobs	('000s)	
NLW (21+)*	5.1	1,420	10.0	2,773	6.4	1,768	
18-20	8.4	77	13.7	126	12.0	111	
16-17	10.2	35	19.8	67	16.1	55	
Apprenticeship	13.1	26	21.0	42	15.5	31	
Total	5.3	1,559	10.3	3,018	6.7	1,965	

Table 10.2: Projections for the number and jobs covered, UK, by NMW rate

Source: LPC analysis of ASHE, UK, 2023. For more detail on projection method 2, see Low Pay Commission (2022b) Chapter 10. This year we have updated our youth rates projections to use data on bite and coverage for each rate population between 2013 and 2023. Notes:

a. We count workers aged 21-22 paid below the NLW in 2023 as covered in this analysis. This is a simplification as 21-22 year olds had a separate NMW rate in 2022. We discuss 21-22 year olds in more detail below.

b. This analysis assumes the total number of jobs remains the same between April 2023 and April 2024. It uses estimated job counts from ASHE, which may differ from other sources. Appendix 3 discusses our data sources in detail.

How will coverage change for 21-22 year olds?

10.37 Two changes will affect the minimum wage coverage of 21-22 year olds in 2024. As well as the large increase in their wage floor, they will no longer have a separate minimum wage rate. Chapter 5 highlighted that some employers already treat the NLW as the floor for all of their employees aged 21 and over. Currently, 8 per cent of jobs done by 21-22 year olds are paid either at the NLW or between the 21-22 Year Old Rate and the NLW. These jobs currently don't count as 'covered' for 21-22 year olds, but will from April 2024. Even in the scenario where there is no change in NLW coverage, this would 'mechanically' increase coverage for 21-22 year olds from 11 to 19 per cent.

10.38 There are a number of other benchmarks that might indicate the total impact of the change in eligibility on 21-22 year old workers. Using Method 1 above, we would see a much larger change, as this assumes the increase in the NLW would capture more 21-22 year olds who are currently paid above the adult minimum. This could take coverage to just over 30 per cent, or nearly 1 in 3 jobs. However, for the reasons explained above, this estimate is likely too high.

10.39 We can also refer to past experience: 21-22 year olds were entitled to the adult rate of the minimum wage from October 2010 until the NLW was introduced in April 2016. Over this period, coverage ranged between 16 and 19 per cent. However, the bite of the adult rate is now much higher, so we might expect coverage to rise above this. Figure 10.1 shows that when 23-24 year olds were moved onto the NLW in 2021, coverage more than doubled, and was higher than pre-NLW coverage. This is complicated by the fact that the change was made during the pandemic, and 2022 and 2023 saw coverage for 23-24 year olds fall back to its pre-NLW range. It therefore seems reasonable to expect something similar for 21-22 year olds, with coverage settling back to previous levels over time.



Figure 10.1: Minimum wage coverage by age, 21+, 2011-2023

Source: LPC analysis of ASHE, low pay weights, UK, 2011-2023. 21+ population, excluding first year apprentices. Figures are not adjusted for the methodology change in 2021 (see Appendix 3). Based on available forecasts, we expect all the 2024 NMW rates to reach their highest ever value in real terms.

10.40 The effective value of an increase in the NLW to workers depends on how fast it increases relative to prices. As of August 2023, the Bank of England forecast that prices would increase by 3.3 per cent in the year to the second quarter of 2024. We have recommended percentage increases in the NMW rates from 9.8 per cent to 21.2 per cent. These far outstrip the expected 3.3 per cent inflation. We therefore expect each of the rates to grow in real terms (adjusted for inflation), as shown in Table 10.3. We also expect each of the rates to reach an all-time high in real terms in 2024.

Table 10.3: Projected value of the NMW/NLW for different rate populations, cash and	
real terms	

	Cash terms			Real terms (2023 Q2 prices)			
Rate	2023 Q2 2024 Q2		Percent increase	2023 Q2	2024 Q2	Percent increase	
23+	£10.42	£11.44	9.8	£10.42	£11.07	6.3	
21-22	£10.18	£11.44	12.4	£10.18	£11.07	8.8	
18-20	£7.49	£8.60	14.8	£7.49	£8.33	11.2	
16-17	£5.28	£6.40	21.2	£5.28	£6.20	17.3	
Apprenticeship Rate	£5.28	£6.40	21.2	£5.28	£6.20	17.3	

Source: LPC projections based on outturn CPI data (as of October 2023) and Bank of England (August 2023) modal forecasts for CPI.

10.41 Higher than expected inflation could reduce the growth of the NMW rates in real terms. There is uncertainty around inflation forecasts and the Bank of England have said there are more upside risks to their inflation forecast than downside risks. However, inflation would have to be much higher than expected (above 9.8 percent) to result in any rate declining in real terms.

How will household incomes change for NLW workers between 2023 and 2024?

10.42 NLW workers are likely to see slower growth in their household incomes than their earnings from work. Table 10.4 sets out the earnings and household incomes for two example households with one full-time NLW worker.¹⁴ For both example households, their take-home income grows slower between 2023/24 and 2024/25 than their earnings. Their earnings grow in line with the NLW (9.8 percent), but their incomes grow by 7.6 per cent and 6.9 per cent respectively.

10.43 One reason for slower growth in household incomes than earnings is that benefits have grown slower than the NLW. Most state benefits were uprated by 6.7 per cent between 2023/24 and 2024/25 (in line with the September 2023 inflation rate). Since both example households receive Universal Credit, the benefits component of their income will grow more slowly than their earnings and drag down the average growth in their income. Not all NLW workers receive benefits, so this dynamic will not affect all workers. Some NLW workers also receive benefits which have been uprated by more than inflation (for example housing benefit in some areas) so they may see faster household income growth.

10.44 A second reason is that personal tax thresholds have been frozen. This means that both example households pay tax on a greater share of their earnings in 2024/25 than 2023/24. In 2023/24, for both example households around 34 per cent of their earnings were taxable, whereas in 2024/25 around 40 per cent of their earnings will be taxable. The rate of National Insurance they pay has decreased, so this will counteract some of the increase in tax, but not all of it (IFS, 2023). This tax threshold effect will only affect NLW workers working more than 21 hours a week, NLW workers who work less than 21 hours a week will still fall below the Income Tax and National Insurance thresholds.

10.45 Household incomes are still likely to grow faster than inflation for most households with NLW workers. Based on current forecasts, as shown in Table 10.3, the NLW will increase by 6.3 per cent in real terms between the second quarter of 2023 and the second quarter of 2024. This means that even with the dampening effects of slower growth in benefits and frozen tax thresholds NLW households are likely to see their incomes rise. Both example households in Table 10.4 would experience real-terms increases in their take-home income. This does not mean that all households with NLW workers will see real-terms increase in their incomes, individual experiences will depend on hours worked, the number of people working in the household, and benefit eligibility amongst other things.

¹⁴ This analysis was carried out on by HM Treasury accounting for other policy changes announced in the Autumn Statement. It therefore differs from the rest of the report which is only based on information available before the Retreat in October.

Table 10.4: Household incomes for two examples households with a NLW worker, 2023/24-2024/25

25+ worker, 35 hour week on NLW		2023/24	2024/25	Increase (pounds)	Increase (per cent)
Pre-tax hourly rate	£	10.42	11.44	1.02	9.79
Annual pay	£	19,016.50	20,878.00	1,861.50	9.79
Tax threshold	£	12,570.00	12,570.00	0.00	0.00
Taxable pay annual	£	6,446.50	8,308.00	1,861.50	28.88
Weekly pay before tax/NICs/UC	£	364.70	400.40	35.70	9.79
Single, working on NLW, no children Weekly household income after tax and benefits Post-tax/benefit change Post-tax/benefit change After-tax and benefit hourly rate	f f % f	327.70 -37.00 -10.14 9.36	352.69 -47.71 -11.91 10.08	24.99 0.71	7.63
Couple, one working on NLW, 2 children Weekly household income after tax and benefits Post-tax/benefit change Post-tax/benefit change	f f %	537.15 172.45 47.29	574.37 173.97 43.45	37.21	6.93
After-tax and benefit hourly rate	⁷⁰ £	47.29	43.45	1.06	6.93
Arter-tax and benefit floury rate		10.00	10.41	1.00	0.33

Source: LPC estimates using HM Treasury data, December 2023. Notes:

a. Estimates that the household is in receipt of Universal Credit with no housing costs.

b. Estimates exclude Council Tax Support.

c. "Average hourly rate" refers to the hourly rate when working 35 hours. This rate decreases as hours worked increases.

d. The 2023/24 scenarios are based on current policy as of Autumn Statement 2023 and therefore uses the NICs contribution rate of 10% announced at AS23.

e. Estimates assume the couple in the examples are of the same age. Families with 2 children are assumed to be 5 and 14. Child benefit is included in the calculations for families with children. It assumes the couple is married.

f. Figures don't account for one-off cost of living payments in 2023/24.

g. After-tax and benefit hourly rate is weekly household income after tax and benefits divided by hours worked.

Conclusion

10.46 In determining our recommendations on the NLW the arguments were finely balanced. The UK economy had not grown in 18 months and forecasts for future growth remain weak. However, the labour market still appeared resilient, with strong pay growth and high vacancy levels in many low-paying sectors. Weighing up all the evidence available, the Commissioners reached consensus that the recommended increase in the NLW will reach the Government's target of two-thirds of median wages.

10.47 In making our recommendations on youth rates, Commissioners were conscious that the gap between the youth rates and the NLW had widened in recent years. To address this, Commissioners recommended faster increases for the youth rates and for apprentices. Our current thinking is that we should move towards an adult rate that begins at age 18, and consider the long-term need for a separate

rate for apprentices. We will have more to say about how we might approach this and the associated evidence base in our advice to Government on the Post 2024 minimum wage framework.

10.48 Our recommended rates are intended to reach the Government's target, boost the relative pay of younger workers, and more than restore the real value of the minimum wage rates that had been eroded in the cost of living crisis.

Appendix 1 Consultation respondents

A1.1 We are grateful to all those people and organisations that contributed to the preparation of this report. We would like to thank, in particular those who provided evidence, either written or oral, and those who organised or participated in Low Pay Commission visits and meetings. All such individuals and organisations are listed below, unless they expressed a wish to remain unacknowledged.

Aberdeen City Council

AC Hulme & Sons

Anti Trafficking and Labour Exploitation Unit

Association of Convenience Stores

Association of Labour Providers

Avara Foods

Bangladeshi Caterers Association UK

BDO

British Beauty Council

British Beer & Pub Association

British Chambers of Commerce

British Printing Industries Federation

British Retail Consortium

British Universities Finance Directors Group (BUFDG)

Burnley, Pendle & Rossendale Council for Voluntary Service

Care England

CBI

CBI Sharing Economy Council Center Parcs Centre for Research into Ethnic Minority Entrepreneurship Chartered Institute of Personnel and Development (CIPD) **Christians Against Poverty** Community Leisure UK Community Trade Union **Construction Employers Federation** Cornwall Council Department for the Economy NI, Apprenticeships Delivery and Performance Branch Early Years Alliance Edinburgh Dog and Cat Home Effective HRM Ltd Equestrian Employers Association Federation of Small Businesses Federation of Wholesale Distributors Fisherton Mill Focus on Labour Exploitation (FLEX) Food and Drink Federation **Future Directions CIC** GMB Union Good Life Sorted Greater Birmingham Chambers of Commerce Greater Manchester Chamber of Commerce Greater Manchester Combined Authority HM Government

- Homecare Association
- Horticulture Trades Association
- Hospitality Ulster
- Incomes Data Research
- Institute for Fiscal Studies
- Intergenerational Foundation
- Irish Congress of Trade Unions
- Joseph Rowntree Foundation
- Labour Research Department
- Living Wage Foundation
- Lloyds Banking Group
- Local Government Association
- Make UK
- Manufacturing NI
- Mind
- Nannies and Au Pairs Branch of the Independent Workers' Union of Great Britain (IWGB)
- Nanny Solidarity Network
- National Care Association
- National Day Nurseries Association
- National Farmers' Union
- National Hair & Beauty Federation
- National Institute of Economic and Social Research
- National Society of Apprentices
- National Union of Rail, Maritime and Transport Workers
- NFU Cymru

NFU Scotland
NHS Fleet Solutions c/o Northumbria Healthcare NHS Foundation Trust
Nicola Alison
Oldham Community Leisure Limited
Organise
Professor Deirdre McCann, Durham Law School, Durham University
Recruitment & Employment Confederation
Resolution Foundation
Rhondda Cynon Taf Council Tourism Hub
Rodeo
Royal Mencap Society
Scottish Agriculture Wages Board
Scottish Grocers' Federation
Scottish Women's Convention
Skills for Care
South Western Ambulance Service NHS Foundation Trust
Southampton City Council
Sparkle Cleaning Services
Taskrabbit
Tesco Plc
The Chartered Institute of Payroll Professionals (CIPP)
The End Child Poverty Coalition
The Place Hotel
The Prince's Trust
The Trees Swindon Old Town Ltd
Trades Union Congress

UKHospitality

Union of Shop, Distributive and Allied Workers

UNISON

Unite the Union

Upwork

Wage and Employment Dynamics Strategic Impact Project (wagedynamics.com)

West Midlands Combined Authority

Whitbread Plc

Women's Budget Group

XpertHR

Youth Employment UK

Appendix 2 Research evidence

A2.1 Our ability to assess the impact of recent increases in the minimum wage on earnings, employment, and hours, continues to be affected by the pandemic and its consequences. First, the quality of the main data sources on pay and employment worsened with reduced sample sizes and changes to collection methods (moving away from face-to-face interviews). This was of such concern that the Labour Force Survey (LFS) data were not released in the third quarter of 2023. Second, policies to control the pandemic, such as furlough, made estimates of earnings and employment more difficult. Third, it is almost impossible to separate effects of minimum wage increases from those of the pandemic as many of the locked down or affected sectors were ones with more minimum wage workers. Over time, these concerns should have dissipated as the economy recovered. That is the case to some extent with our main source of earnings data – the Annual Survey of Hours and Earnings (ASHE) – which has seen a rebound in survey response rates albeit still below those pre-pandemic. It is not in others. Our main source of employment information – the LFS – has continued to experience falls in response rates. This was of such concern that it was announced that the LFS data for the third quarter of 2023 would not be released as expected in November.

A2.2 However, new data sources, such as HMRC Real Time Information and the Business Insights and Conditions Survey from the Office for National Statistics (ONS), have provided new information and useful insights. They have also been more timely than many of the traditional sources of information.

A2.3 For this report, we commissioned five external research projects, which were less affected by the issues highlighted above: the National Institute for Economic and Social Research (NIESR) exploring pay-setting among employers in low-paying sectors; London Economics identifying minimum wage workers using machine learning techniques; YouGov utilising its worker panel to examine barriers to mobility for minimum wage workers; Frontier Economics looked at minimum wages and monopsony in the UK labour market; and London School of Economics using pre-pandemic data to investigate the impact of minimum wages on alternative work arrangements. In addition, we have also undertaken some econometric analysis in-house to look at the initial impact of the most recent uprating in April 2023. The data sources, methodology and key findings of these five projects are summarised in Table A2.1.

A2.4 We also recently commissioned two other projects, which we will not cover in detail. First, Sheffield Hallam University were asked to look at the experiences of apprentices. This report will form part of the evidence base for our analysis on the future of the National Minimum Wage. It will be published in the spring alongside the post-2024 Report (Low Pay Commission, forthcoming), when the Government responds to its recommendations. Second, the Institute for Fiscal Studies (IFS) will identify minimum wage firms and the impact on firms' contractual arrangements. It will report on this in the autumn of 2024 for our next report.

Commissioned research

A2.5 We start by summarising some qualitative research that looked at how employers set pay in low-paying sectors, and whether that has been affected by the pandemic, the UK leaving the EU, and the cost of living crisis. We then go on to look at research using innovative methods to identify minimum wage workers before reviewing research that investigated barriers to labour market mobility for low-paid workers. Following that, we look at the research fundings from the study assessing how the minimum wage interacts with monopsony in the labour market. We conclude with research that investigated the impact of minimum wages on alternative work arrangements.

Pay-setting in low-paying sectors

A2.6 National Institute of Economic and Social Research (2023) explored employer pay-setting in lowpaying sectors, and how that had been influenced by the changing economy in the context of the pandemic, leaving the EU and the cost of living crisis. It built on previous qualitative projects that we had commissioned, including Adăscăliței, Crockett, Heyes, Newsome and Yates (2019), Hudson-Sharp, Manzoni, Rolfe and Runge (2019), Dickinson, Hogarth, and Rubio (2020), and Incomes Data Research (2020, 2021 and 2022). They conducted 41 in-depth semi-structured interviews between April and July 2023 with employers across the UK in 4 low-paying sectors: agriculture, cleaning, hospitality, and retail. The interviews covered the business (its characteristics and workforce); pay-setting and the use of the National Minimum Wage; changes in pay-setting practices in light of the UK leaving the EU, the pandemic and the inflationary environment; and the impacts of future increases in the minimum wage. The researchers also held a workshop to invite comments on the initial themes emerging from the analysis.

A2.7 They found that employer pay-setting behaviours varied by employer size and sectors, with smaller employers in particular having more informal and relatively unstructured pay-setting processes. Some employers interviewed reported paying employees above the NLW rates, with key reasons for that being staff recruitment and retention, and a desire to make employees feel valued. Some employers reported not using the NMW youth rates, due to concerns around fairness. Others chose not to use the NMW youth rates or specifically target younger workers in their recruitment as they felt that younger workers were not as productive as more senior workers and required more training. Those employers specified that they would not employ apprentices due to the extra responsibilities this would put on the staff in charge of training them.

A2.8 The strategies that employers mentioned they use to absorb the NLW/NMW increases included increasing prices, reducing their workforce size, reducing pay rises or staff hours, finding efficiencies to reduce overheads, and using their own time or money to cover the gaps. Employers in small and medium-sized firms reported finding it harder to absorb the annual increases in the NMW/NLW rates. Smaller firms were more likely to use short-term strategies or invest their own time and money, while some larger businesses spoke about more long-term solutions such as investing to improve productivity.

A2.9 Employers described increasing challenges they experienced in the contexts of rising prices, the effects of the COVID-19 pandemic and Brexit. Some of those challenges included staff shortages, complications of supply chains, increasing costs and bureaucracy of exporting goods to Europe, operational difficulties, increasing costs of operating and changes to customer spending habits.

A2.10 Employers found contextual challenges hard to disentangle. They instead reported it was the high rates of increase to the NMW/NLW, alongside compounding contextual impacts, that had made pay-setting and employment more challenging of late. Some employers reported having already recovered or found strategies to offset contextual challenges, while others, particularly small employers, raised concerns about their ability to absorb NMW/NLW increases in this context, and subsequently concerns for the future of their businesses.

A2.11 In conclusion, the research built on previous studies to provide further insights into how employers in these four low-paying sectors set pay. It also highlighted the challenges that employers, particularly small businesses, face in relation to NMW/NLW increases, with some questioning their future viability. We now turn our attention to identifying minimum wage workers.

Identifying minimum wage workers using machine learning

A2.12 London Economics (2023) adopted a new approach to identify which types of workers were more likely to be minimum wage workers and how they differed. The findings help policymakers better understand how changes in the minimum wage may affect different types of workers. While there are many ways to conduct such analyses, the researchers adopted machine-learning classification methods to provide an objective characterisation of groups within the labour force and among minimum wage workers. These methods have not been widely used in minimum wage research, and thus offer novel insights into the low-paid labour market and allow groups affected by the minimum wage to be more precisely defined.

A2.13 Two types of machine learning methods are used: supervised tree-based classification methods; and Latent Dirichlet Allocation (LDA). The first – supervised tree-based classification methods – uses characteristics to predict a specific outcome ('supervised'). In this case whether a worker is a minimum wage worker. The tree-based methods (such as decision tree, random forest, and boosted gradient trees) split the sample into different groups that share characteristics (for example, 'workers under the age of 25 working in manufacturing and health services'). These groups are formed to separate those who are minimum wage workers from those who are not as much as possible using different combinations of characteristics. This provides an understanding of which characteristics are most important in predicting whether a worker is a minimum wage worker or not. A single decision tree splits the sample by different characteristics to form one set of groups. Ensemble methods (such as random forest and boosted gradient trees) combine multiple decision trees to form more robust conclusions.

A2.14 The second – LDA – uses groups formed without predicting a particular outcome ('unsupervised'). The groups are formed by characteristics that often appear together (for example, working in elementary occupations being strongly correlated with having limited qualifications). The Latent Dirichlet Allocation is a 'probabilistic' model, so it estimates the probability that each worker is a member of each group based on their characteristics.

A2.15 The analysis used information from the Quarterly Labour Force Survey (QLFS) from 2013 to 2022, excluding quarters when hourly pay information may have been distorted by the furlough scheme. It collects information on a wide range of personal characteristics, which the researchers need to best utilise their machine learning methods.

A2.16 They found that the decision tree analysis identified fifteen groups of workers, using a combination of characteristics. The concentration of minimum wage workers within each of these groups ranged from a low of 4 per cent to 52 per cent. That group of workers with the highest concentration were workers aged 21 and over, working in sales and elementary administrative/service occupations, in the accommodation and food, education, and arts industries. They found that occupation followed by industry were the most important characteristics in predicting a minimum wage worker in the decision tree. Random forests and gradient boosted trees were used to test the robustness of those findings. Similar conclusions were found: occupation was by far the most important characteristic that predicts whether a worker is a minimum wage worker, followed by industry and highest educational qualification achieved.

A2.17 They also tested tree-based models excluding job characteristics (such as occupation and industry). This would be an important extension, as it would allow us to predict potential minimum wage workers amongst the unemployed or inactive. However – as might be expected given the importance of job characteristics in the initial analysis – they found that those models did not perform as well. This suggests that personal characteristics alone – at least those that can be measured in the available data – are not the key predictors of whether a worker is a minimum wage worker.

A2.18 They evaluated these tree-based methods for precision (the proportion of the identified group that are minimum wage workers) and recall (the proportion of all minimum wage workers that are included in the identified group). Based on precision and recall, they found that the predictions using the decision tree and random forest models did not perform better than those based on traditional regression models. However, the gradient boosted trees performed better than those alternatives.

A2.19 The Latent Dirichlet Allocation identified ten groups of workers based on clusters of characteristics. Although this method does not identify groups based on whether they are minimum wage workers or not, the Latent Dirichlet Allocation identifies three clusters of characteristics that have a much higher concentration of minimum wage workers than the other seven. These were: older workers with lower-level qualifications in elementary occupations; workers in education and health and social work activities with vocational backgrounds who are disproportionately likely to be from ethnic minority backgrounds; and younger workers with Level 3 academic qualifications (e.g., A Level) as their highest qualification working in sales and elementary occupations. Given the probabilistic nature of the Latent Dirichlet Allocation, these clusters should not be interpreted as mutually exclusive groups of workers but of combinations of characteristics.

A2.20 The Latent Dirichlet Allocation does not explicitly predict whether workers are minimum wage workers, so the evaluation of the Latent Dirichlet Allocation was primarily conducted by testing how much the groups change when small changes were made. A range of robustness checks were implemented which suggested that the characteristics of the groups identified were generally robust to changes in how the Latent Dirichlet Allocation was modelled.

A2.21 They concluded by noting some of the limitations and caveats when implementing machinelearning classification. First, the interpretation of the results of machine-learning classification can often be complex. Second, the models predict outcomes or identify correlations between characteristics but do not necessarily provide causal links between those characteristics and whether a worker is a minimum wage worker. Third, the conclusions made from the models are limited by the information available from the data and is sensitive to measurement error. The original research proposal had sought to use the identified minimum wage groups to assess the impact of recent increases in the minimum wage. Initial testing suggested that the techniques trialled would not offer a substantial improvement over traditional regression, given the data sources available. But their work will be a foundation for future researchers to explore other machine learning techniques and/or datasets that may offer better predictive power.

A2.22 Having identified the characteristics of minimum wage workers, we next consider research that sought to identify barriers (perceived and real) that acted as impediments to minimum wage workers progressing out of those minimum wage jobs.

Perceived barriers and risks of job mobility and progression of low-paid workers

A2.23 Research has generally found that changing jobs or moving firms can lead to higher wages and faster wage growth. For example, ONS (2022) found that those who move job typically experience greater hourly wage growth, and this is higher still among those who also changed industry, occupation, or region. However, on our visits across the UK, from meetings with low-paid workers and trade unions, and in focus groups of minimum wage workers, we hear that many workers perceive significant risks or barriers when looking to move jobs. We, therefore, commissioned YouGov to explore the barriers low-paid workers face when changing roles, employers, or hours of work.

A2.24 YouGov (2023) conducted a three-stage approach, which consisted of a qualitative stage of 15 in-depth online interviews with low-paid workers, followed by two quantitative surveys – the first with low-paid workers, and second with higher-paid workers. The latter was mainly to benchmark the findings for the low paid. The interviews with low-paid workers earning £12 per hour or less, took place between 26 June and 5 July 2023. The sample included a mix of characteristics, such as age, sex, ethnicity, part-time and full-time workers, and those who had or not had changed job in the past two years. This was complemented by two online surveys of a total of 2,000 employees in the UK aged 16 and over. Fieldwork for the first, of 1,000 low-paid employees, was conducted in August 2023. The second, of 1,000 higher-paid employees, was conducted between 20 September and 3 October 2023. The proportion of minimum wage workers was boosted during fieldwork, and then re-weighted to be representative at the data analysis stage. The samples for both surveys were weighted by age, gender, ethnicity, region, work status, wage level, industry, sector, and organisation size. The results are representative of low-paid workers.

A2.25 The research found that a combination of factors makes 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. Around two in five low-paid workers say they are likely to apply for another job in the next 12 months. While this is a higher share than their higher-paid counterparts, it leaves a majority of low-paid workers who are unlikely to apply for a new job.

A2.26 Pay was by far the most important motivation for low-paid workers when applying for new jobs. The majority of low-paid workers reported feeling capable, experienced, and qualified enough to apply for new jobs and that they would have access to the right resources and support. But only half agreed there would be value to them moving jobs. In qualitative interviews, some workers said they were less willing to move job for higher pay because they might end up with worse overall terms and conditions. Attitudes among low-paid workers were generally risk-averse and focused on the negative aspects of any job move. The most common of these were having a bad manager, not enjoying the job, or having poor working relationships. These fears were also similar among higher-paid workers. However, low-paid workers did worry more about uncertainty over the number of hours, the flexibility of those hours, not being paid fairly, and having an unreliable employer.

A2.27 Some felt they lacked the time and financial resources to search and apply for other jobs. Although the majority lived in areas where they felt they had reasonable access to job opportunities, some said that local opportunities were limited. Combined with a lack of motivation and worries that other jobs would not fit their situation and responsibilities, this meant they were less likely to invest time in searching and applying for other opportunities.

A2.28 A majority of low-paid workers stated that it was important for them to work in a role where there were opportunities for progression. Despite this, they tended to have little experience of progression and promotion in their current workplace. Three-quarters of those sampled reported not having received a promotion in their current role. An even higher proportion felt future promotion was unlikely in their current roles.

A2.29 Counterintuitively, nearly half of the sampled workers said it was unlikely they would accept a promotion even if one was offered. The reasons were varied. Some were concerned that additional responsibility could lead to worse work-life balance, or conflict with caring responsibilities. In these cases, they did not feel that the pay increases, as a result of promotion or progression, would offset the consequences. Some had low confidence in their own skills and low expectations of their ability to progress. Older workers were much less likely to expect or say they would accept a promotion.

A2.30 Overall, there were high levels of dissatisfaction with pay among low-paid workers. By a wide margin, pay was the aspect of work most likely to be thought of as a disadvantage. The majority of low-paid workers believed they deserved to be paid more in their current job, and a large minority felt that they were paid worse than others in similar jobs elsewhere. Low-paid workers' perceptions of some features of their jobs were more positive. Aspects such as the location of their job, relationships with colleagues and their work-life balance drove low-paid workers' overall job satisfaction. These factors were also commonly cited as key benefits of their current job. The number and predictability of working hours and flexibility were also more likely to be considered a benefit than a disadvantage – around three in ten low-paid workers cite these as benefits of their role (with around one in nine citing them as a disadvantage).

A2.31 Dissatisfaction with pay was not unique to low-paid workers – indeed, higher-paid workers also commonly stated that their level of pay was a disadvantage of their current job. But this negative sentiment was much stronger in low-paid roles. Low-paid workers also more frequently identified concerns around unreliable employers and lack of fair pay if they were to change jobs than those in higher-paid roles. Another common disadvantage was a lack of opportunities for promotion or progression – particularly for low-paid workers in their thirties and forties.

A2.32 In conclusion, the research found high levels of dissatisfaction with pay among low-paid workers but many of them perceived barriers that limited their ability to move jobs for better pay. This research complemented and helped provide insights into more econometric-oriented research that looked at whether employers were able to exploit these perceived barriers in low-paid labour markets.

Monopsony, minimum wages and the UK labour market

A2.33 Frontier Economics (forthcoming) investigated the role that imperfect competition in the labour market can play in explaining employment effects (or lack thereof) associated with minimum wage increases. Manning (2016 and 2021) found strong evidence that the labour market in developed countries deviates from a simple perfectly competitive framework and that there is substantial variation across industries, occupations and geographical regions. Recent studies in the US (such as Munguia-Corella, 2020, and Azar, Berry, and Marinescu, 2022) have explored the relationship between minimum wages and measures of employment concentration as a proxy for monopsony power. They found that increases in the minimum wage significantly decreased employment in high concentration markets but become less negative (and even positive) as labour market concentration increases.

A2.34 Previous studies in the UK have focused on the measurement of monopsony power in the labour market and its impact on average wages (Manning and Petrongolo, 2017 and 2022, and Abel, Tenreyro, and Thwaites, 2018) but not on the interaction between monopsony and the effect of minimum wages on employment. This study does that and builds on the US literature.

A2.35 Other research on labour market concentration is limited but has highlighted issues relevant to low-paid labour markets. Bell and Tomlinson (2018) examined product and labour market concentration in the UK economy since the early 2000s. They estimated that product market concentration increased between 2003 and 2018 but that there had been a small decline in labour market concentration. The latter was driven largely by falling concentration within sectors suggesting that outsourcing labour to small firms may have played a role. They also found that labour market concentration was substantially higher for low-paid workers and for low-paying sectors than the rest of the UK economy, indicating that labour market concentration and lack of employment options may be more of a concern for low-paid workers than for the rest of the labour force. Despite these overall findings, there was substantial variation in concentration across sub-sectors. That variation was also found by Araki, Bassanini, Green, Marcolin, and Volpin (2023) in their study of OECD countries. They estimated that UK rural labour markets were more concentrated than UK urban labour markets but found that the UK labour market was less concentrated than the OECD average.

A2.36 Frontier Economics (forthcoming) estimated its concentration measure using data on employment, geography and industry from the British Structure Database (BSD) – an annual abstract from the Inter-departmental Business Register (IDBR), which covers VAT and PAYE-registered firms (around 96 per cent of all firms in the UK). The BSD has information at the workplace (local unit) and firm (enterprise unit) level. The Annual Survey of Hours and Earnings (ASHE) was used to estimate various measures of pay, hours worked and employee numbers. These pay, hours and concentration measures were derived for each Travel-to-Work Area in England and Wales between 2015 and 2019. The data for 2020 and 2021 are affected by the furlough schemes that operated to support incomes during the pandemic. The researchers also added an industrial dimension, using 4-digit Standard Industrial Classification (SIC) codes, to their definition of local labour markets. They used analysis of job moves to identify nine industry clusters. Their unit of analysis was an industry cluster within a local area for instance, retail in Chelmsford.

A2.37 The study examined the association between changes in the minimum wage and labour market outcomes (employment, hours, hours per worker, wages). The analysis took account of firm exposure to minimum wage increases in local areas and different levels of market concentration. The researchers found robust evidence that the introduction of the NLW increased the hourly wages of the low paid across all labour market areas (those with both low and high labour market concentration).

A2.38 In line with previous work, the researchers found some evidence that, following an increase in the minimum wage, employment and total hours increase in high-employer concentration areas relative to low-employer concentration areas. This is also in line with the theoretical model of monopsony that allows for the possibility that increases in minimum wages can lead to increases in employment and hours. They also found some evidence that minimum wage increases exert downward pressure on the wages of higher income workers in markets with high concentration. However, as noted by the authors, the magnitude and statistical significance of the results are sensitive to the specification of the model. That may in part be due to the fact that they find labour market concentration is generally low in low-paying labour markets. The researchers will publish a more detailed summary of their results later this year.

A2.39 The researchers concluded that monopsony likely interacts with minimum wage effects differently across different sectors and occupations, due to differences in public sector employment, in the elasticity of hours per worker, in the geographic distribution of different sectors, and other factors. The finding of low-employer concentration in most sectors of the low pay labour market suggested that future work on monopsony effects could usefully focus on sectors or local areas with higher-employer concentration. We noted that the extent of monopsony might not be picked up by the data available as even travel-to-work areas may not be disaggregated enough. Further, research by YouGov (2023) suggested that to be reasons other than concentration of employers that prevent workers from moving jobs and thus enabling some degree of monopsonistic power to employers even in low concentration areas.

A2.40 Having considered the impact of the minimum wage across geographies, we now look at research that also makes use of geography to assess the impact of the NLW on work arrangements.

Minimum wages and alternative work arrangements

A2.41 The final project of our commissioned research programme for this report investigated the impact of the minimum wage on work arrangements. Although there is a substantial literature on first order margins of firm adjustment – wages and employment – there is little evidence on alternative work arrangements (variable hours and zero-hours contracts, temporary or work agency contracts, involuntary part-time work and solo self-employment) as margins of adjustment. The evidence in the UK to date has suggested a limited impact of the minimum wage on employment in general. However, there has been little research into whether increases in the NLW have had an impact on the type of work arrangements used by employers or whether increases in the NLW have incentivised the use of self-employment.

A2.42 Cominetti, Costa, Datta, and Odamtten (2022) showed that low-paid workers were far more likely to be employed through these alternative work arrangements, and that such contracts were heavily characterised by job insecurity and hours insufficiency. Boeri, Giupponi, Krueger and Machin (2020) reported that the use of these types of contracts had been rising across the OECD in recent years. It is often cited that employers make use of these types of contracts to reduce labour costs and are an attempt to avoid certain labour market regulations. This report aims to understand potential impacts of minimum wage changes on margins such as contract types and job attributes related to hours volatility and work security. Albagli, Costa, and Machin (forthcoming) used the Labour Force Survey from 1992 to 2022 to assess whether there has been an increase in the use of these types of contracts since the introduction of the NLW.

A2.43 Their empirical design is based on differences-in-differences model (further extended to allow for dynamic effects with an event study model) which exploiting differential pre-policy exposure to the minimum wage across groups of workers by region-age and therefore compare the incidence of these work arrangements before and after the introduction of the NLW. They defined the NLW exposure to treatment in two ways – using a definition of bite (the NLW as a proportion of the median) and coverage (share of workers covered by the NLW). The methodology adopted was similar to that used in Manning (2016), Dube (2019) and Butcher and Dickens (2023) although the previous research also had a gender dimension and focused on adult workers aged 25 years and over.

A2.44 For the difference-in-difference analysis, the researchers used a pooled sample (before and after the introduction of the NLW) but then also limited the sample to low-paying industries. They corroborate the findings of a significant increase in hourly wages after the introduction of the NLW for both the pooled sample and the sample limited to low-paying industries. The researchers found no effects on employment but some effects consistent with a fall in net stock changes of unemployment and an increase in inactivity, however these findings are in part due to the inclusion of younger workers (aged under 25) in the analysis. These changes can be explained by a significant shift in flows between employment states, namely a marked decrease in flows from employment to unemployment through a reduction in involuntary separations (layoffs), ultimately resulting in a higher level of job retention. Additionally, the study does not find robust evidence in support of decreases in hiring and quitting (voluntary separations).

A2.45 In line with the findings of Brochu and Green (2013) using Canadian data, they found that workers were more likely to remain in their jobs following the introduction of the NLW. Unlike that previous research which did not separate full-time and part-time, Albagli, Costa, and Machin (forthcoming) found stronger effects for those already on full-time contracts. Some evidence of that was found by Dustmann et al (2022) when discussing the reallocation mechanism. This increase in job retention is particularly significant for those workers who had been with their employer for less than a year and it is accompanied by flow effects in favour of switches from variable to fixed hour contracts and from temporary to permanent hours contracts. They found no significant effects on other job moves or on-the-job search.

A2.46 They then looked at the impact of the NLW on work arrangements. For both samples, they found a significant increase in the use of zero-hours contracts. For the pooled sample and in line with the previous effects favouring more stable contracts, they found a reduction in underemployment hours although mostly driven by the increased likelihood of workers not underemployed to retain their jobs and little movement among those already underemployment. Furthermore, they found a reduction in involuntary part-time employment (those who would prefer to work full-time but were not able to find a full-time job) due to positive effects on flows from involuntary to voluntary part-time. Overall, the combined effects are suggestive of a decrease in non-standard work arrangements (according to the OECD definition) albeit mostly due to the job retention channel of those workers already in standard work.

A2.47 The researchers concluded that these potentially favourable effects for hours sufficiency and job security primarily benefited low-tenured incumbents, raising questions about the net benefits for firms' productivity, profitability, and workers' career progression opportunities, which they argued required further evaluation.

In-house econometric research

A2.48 For this report, we have conducted two initial econometric assessments of the impact of the increase in the NLW to £10.42 an hour in April 2023. The findings from both of these are provisional and will be published in due course. The first, Butcher and Dickens (forthcoming), used the variation in wages across geographies, ages, and gender to assess the impact of the most recent increases in the National Living Wage (NLW). The second, Latimer (forthcoming) applied a bunching approach to compare employment in the same 'job types' across low-paying and high-paying areas, before and after an increase in the NLW.

The impact of the National Living Wage on labour market outcomes using geographic and demographic variation in wages

A2.49 Butcher and Dickens (forthcoming) adopted a methodology similar to that of Manning (2016), Dickens and Lind (2018), Dube (2019) and Butcher and Dickens (2023). It assessed the impact of the National Living Wage (NLW) since the onset of the pandemic and extended the research by Butcher and Dickens (2023) to also re-examine the impact of the introduction and subsequent increases in the NLW. They examined differential changes in labour market outcomes of interest across area-gender-age groups that were more or less exposed to the minimum wage. For example, we should expect a greater exposure to the minimum wage among women, and younger and older age groups, as they are more likely to work part-time and be employed in lower-paying occupations. Minimum wage exposure is also likely to be higher in lower-paying areas of the UK, such as the North East, Northern Ireland or Wales, rather than in London or South East.

A2.50 An advantage of this approach is that it is able to capture all employment change and not just job retention and can be used to examine the impact of the NLW on a range of outcomes such as pay, employment, unemployment, hours of work, self-employment, inactivity, and non-standard contracts.

A2.51 They used two alternative measures of minimum wage exposure: the 'bite' of the NLW in 2015 (as measured by the ratio of the NLW to the median earnings of each area-gender-age group); and the coverage of the NLW in 2015 for each area-gender-age group (the proportion paid below the then upcoming NLW rate of £7.20 an hour). They derive both of these minimum wage exposure measures from the April 2015 Annual Survey of Hours and Earnings (ASHE). For robustness, they tested other base years (2013 and 2014), but the results were largely unchanged. The baseline exposure measures were then interacted with the time effects for each year from 2016 to 2023. They ran the model so that they could identify individual year effects as well as the cumulative effect over the whole period from 2015-2023.

A2.52 One of the key assumptions of this type of model is that the labour market measures of interest have evolved in a similar way for both greater and less affected area-gender-age groups. However, a minimum wage policy existed prior to the introduction of the NLW – making testing pre-treatment differences in trends more difficult. We would need to go back to a period with limited regulation in the labour market (pre-1999). But the UK labour market has changed since then. They carried out some placebo tests on the period prior to 2015, when the increases in the minimum wage were more modest. They also attempted to control for migration and skill. When estimating their results, they used clustered and robust standard errors in their regressions, weighted by group population.

A2.53 They defined minimum wage years as the period from April to March. The final year of the analysis, 2023, used the 2023 ASHE and the quarterly LFS up to the second quarter of 2023. Some of the period covered – from the first quarter of 2020 to the first quarter of 2022 – will be during periods to control the pandemic outbreak and may affect the results and their interpretation.

A2.54 They created annual panels of area, gender, and age groups. In their base analysis, they used the 20 regions and countries of the UK (Standard Government Office Regions with separate Metropolitan counties and London divided into inner and outer). The analysis was limited to those aged 25 and over as they were the workers covered by the introduction of the NLW. Ages were banded into eight groups (25-29, 30-34, 35-39, 40-45, 46-49, 50-54, 55-59, 60-64) and gender into two (male and female). They therefore had 320 separate region/age/sex groups. They also experimented with alternative geographies, such as NUTS2 and travel-to-work areas (TTWAs), and fewer age groups (the larger the number of geographies, the smaller the cell sizes and the need to reduce the age groups). The quarterly Labour Force Survey (LFS) was used to derive the measures for the labour market outcomes for each of the area-gender-age groups.

A2.55 As with their previous research, they found strong and robust evidence that the introduction and subsequent upratings of the NLW significantly increased the average hourly wage in their regiongender-age groups and that the impact was stronger in those groups most exposed to the NLW (whether measured by the minimum wage bite or coverage).

A2.56 They again found no significant negative impacts on employment before the pandemic or over the whole period (up to the second quarter of 2023). However, they did find a strong significant negative employment effect in 2020 and 2022 using both the minimum wage bite and coverage measures of NLW exposure. The timing of these effects coincide with the implementation of measures to control the pandemic which took hold in the UK. Many of the low-paying sectors and low-paid workers were most affected by these measures. The insignificant finding for 2021 may be related to the increase in the NLW being small and lower than average wage growth. These results appeared to be robust to using different definitions of geography and the age gender mix.

A2.57 The positive employment effect before the pandemic has reversed with the implied own wage elasticity falling from +0.5 pre-pandemic to -0.5 post-pandemic, but close to zero over the whole period (from 2015-2023). The small positive but not significant effect found in 2023, when the NLW increased by nearly 10 per cent, suggest that the adverse post-pandemic findings may have been more of an impact from the pandemic rather than minimum wage increases.

A2.58 They found significant negative impacts of the introduction of the NLW on hours in 2016, but this impact was reversed over the following four years with significant positive effects on hours. Over the whole period, 2015-2023, there is a significant positive effect on hours, but no effects were found after 2020.

A2.59 In line with the findings of Butcher and Dickens (2023), the NLW may have boosted participation over the whole period from 2015-2023 as inactivity was significantly reduced (for cells more exposed to the minimum wage) without an increase in unemployment. However, the strong negative effects on inactivity were mainly found prior to the pandemic. During the pandemic, the negative effects of the NLW on inactivity fall away and become insignificant. They also investigated the impact of the NLW on the use of zero-hours contracts, and the share of part-time workers but found no evidence of any long-term effects in any of their specifications.

A2.60 However, for self-employment, they found strong positive effects in 2020 and 2022 and these were large enough to drive a strong positive effect on self-employment over the whole period. This contrasted with the previous analysis by Butcher and Dickens (2023), which had found no self-employment effects. It should be noted that this finding may have other causes potentially linked to the pandemic and the large fall in aggregate self-employment. The fall in self-employment was greater among those groups less exposed to the minimum wage – older men in more affluent areas.

A2.61 These results are consistent with previous analysis by Butcher and Dickens (2023) suggesting no adverse employment effects of the NLW up to first quarter of 2020. However, since then we have seen further increases in the NLW during a period that has been affected by measures to control the global pandemic. These results suggest that the NLW may have had some adverse impacts on employment during the pandemic although, as we have noted, it may be difficult to distinguish between minimum wage effects and pandemic ones, given that many of the most affected sectors in the pandemic were also low-paying ones. We are reassured by the lack of a significant impact on employment of the most recent NLW increase of nearly 10 per cent in April 2023. However, the data to assess that is limited and, as we have flagged elsewhere, there have been concerns about the robustness and reliability of that data.

Impact of the NLW using a bunching approach

A2.62 We also investigated the impact of the 2019 to 2023 NLW increases using a bunching approach. We replicated and extended the bunching approach to assessing minimum wage impacts pioneered by Cengiz, Dube, Lindner, and Zipperer (2019) and adapted to the UK by Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu (2021). This approach compares employment in the same 'job types' across low-paying and high-paying areas, before and after an increase in the NLW. The number of jobs 'lost' below the new minimum wage is then compared with the number of jobs 'gained' which at and above the new minimum wage. If pay increases for a job, it moves from being below the new minimum wage it is counted as having been `lost' and then `gained.'

A2.63 The idea behind the analysis is to categorise all jobs into small wage bands (for example, £9.00-£9.25 or £12.75-£13.00). Increasing the minimum wage will reduce the number of jobs in wage bands below the incoming rate and increase the number of jobs in wage bands above the rate. The bunching analysis compares the number of jobs created above the incoming minimum wage (either new jobs or jobs moved from a lower-paying band), to the number of jobs lost below the incoming rate. If more jobs are destroyed below the new minimum wage than created above it, there are negative employment effects.
A2.64 The bunching approach relies on comparisons between lower and higher-paying areas. Even if there was no minimum wage change, we would expect there to be fewer low-paid jobs over time as pay increases. To control other factors which drive up pay over time, Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu (2021) carried out a difference-in-difference analysis. They estimated local wage effects and then subtracting them from pay. They then grouped jobs based on their 'job type' (wage excluding the local pay effect) before comparing what happens to jobs of the same 'job type' in low-paying areas with a control group of the top ten highest-paid areas. In theory, jobs of the same 'job type' would be paid approximately the same, if they were in the same place. They then compared outcomes for jobs in low-paid areas which are affected by the NLW, to jobs of the same 'job type' in better-paid areas which were less likely to be affected by the NLW. The jobs in the lower-paid areas had worse pay, so are more affected by the NLW. Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu (2021) provide a more detailed discussion of their method.

A2.65 We replicated that analysis and extended it to cover the 2019-2023 period with some small adjustments to their method. First, their analysis used the Annual Population Survey (APS) to reweight the Annual Survey of Hours and Earnings (ASHE) so that it was representative at the local level. We use the Labour Force Survey (LFS) quarterly data instead. The APS is made up of four quarters of the LFS and a sample boost. It is a larger sample and is weighted to population totals at a more granular level, so it would be preferable to the LFS. We compared our results for the 2015 to 2019 periods to the previous analysis, using the two different datasets, and found similar results. However, as we only use data from the first quarter after the 2022 uprating of the NLW, our results only captured the immediate impacts from the change.

A2.66 Second, we excluded workers who were paid less than they usually would be due to sickness or absence. These workers might bias the analysis as workers who were off work ill or on maternity leave would look like they had low hourly pay. If loss of pay becomes more or less common over time this could alter the results. We also exclude workers who worked for the household as an employer (SIC Major Group T) or worked in another country (SIC Major Group U). These are the standard filters used for our pay analysis of minimum wage workers in this report and ONS use them in its analysis of the prevalence of low and high-paid jobs. Finally, we exclude overtime pay, shift premium pay, and overtime hours from our measure of pay – making our definition of pay similar to that in the minimum wage legislation. We tested these two changes against the Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu (2021) approach for the 2015-2019 period and again found relatively small differences.

A2.67 We found large pay effects from the NLW increases in the 2019 to 2023. We also found statistically significant increases in the number of workers in pay bands up to £1.50 above the NLW, suggesting the NLW had 'spillover' effects on better paid workers . However, given the potential confounding effect of Covid and other factors discussed above, we cannot be certain these effects reflect genuine minimum wage effects.

A2.68 We also found a statistically significant negative employment change in the treatment group (relatively low-paid workers in low-paying areas) relatively to the control group (relatively low-paid workers in better-paid areas). This negative employment effect is larger in this year's analysis (covering 2019-2023) than in the analysis done in the previous year (covering 2019-2022). However, it is difficult to disentangle the pandemic and data issues from the effects of the NLW.

A2.69 There are four reasons that we think this analysis more likely reflects data issues and the pandemic rather than the NLW. First, workers in the treatment and control group work in different occupations. We estimate that in 2019, 47 per cent of jobs in the treatment group were in low-paying occupations, whereas only 35 per cent of jobs in the control group were. Low-paying occupations are the occupations where minimum wage workers are most likely to work (full definition in Appendix 4). This means if the pandemic had a worse effect on low-paying occupations, then this might appear as a minimum wage effect. We know this to be the case as those parts of the economy involving high personal contact, such as retail and hospitality, were forced to close temporarily. It is these sectors where we tend to find large numbers of people in low-paying occupations. In our analysis, we found that employment in low-paying occupations fell more sharply following the pandemic (see Chapter 4). This happened both in the UK and in other developed countries, which did not experience large minimum wage hikes, suggesting that it is a pandemic effect rather than a minimum wage effect (Duval et al., 2021).

A2.70 Second, these results rely on the LFS, which shows a different picture from administrative data sources. As we discuss in Chapter 2, Chapter 4 and Appendix 3 the LFS has shown much weaker growth in employees than administrative data. This difference is particularly stark in low-paying industries and low-paying areas. These results rely on local weights derived from the LFS. If the LFS has become worse at counting workers in low-paying areas since the pandemic, it could be driving some of the measured negative employment effect.

A2.71 Third, the employment effects are considerably larger for men than women, which is counter to previous evidence on UK minimum wages. Around 59 per cent of minimum wage workers are women and average pay is lower for women. It is likely that any negative employment effects would hit women first. Previous studies of the NMW have found more evidence of negative employment effects for women than men (Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu, 2021, Aitken, Dolton, and Riley, 2018 and Lord, 2022). However, we found much larger negative employment effects for men than women. While a minimum wage effect could disproportionately affect men, if it is concentrated in certain sectors, this is another piece of evidence that complicates the interpretation of the minimum wage effect found.

A2.72 Fourth, most of the reduction in employment in low-paying areas was due to increased inactivity. As a companion to our bunching analysis, we compare employment rates, inactivity rates and unemployment rates in the treatment and comparator areas. This analysis includes all workers in the areas rather than just the relatively low-paid, who are the focus of the bunching analysis. We found that employment fell more in low-paying areas but most of this reduction in employment was due to increased inactivity rather than unemployment. If our results reflected an employment effect due to reduced labour demand, we might expect to see higher unemployment (people wanting a job but not being able to find it) rather than higher inactivity (people not looking for a job). Alone this point is not conclusive, it is feasible that a minimum wage does increase inactivity rather than unemployment. Nevertheless, alongside the other issues noted, it is another point which suggests a confounding factor is affecting our results.

Conclusions based on two internal research projects

A2.73 Both our internal research projects struggle to isolate the impacts of the minimum wage on wages and employment from other factors such as the pandemic induced recession. The pandemic-induced recession hit certain sectors of the economy and groups of workers harder than others. The groups hardest hit by the recession were similar to the groups identified as most exposed to the minimum wage in both research projects. This means the negative employment effects found in both research projects could reflect either pandemic effects or minimum wage effects.

A2.74 Our current judgement is that the negative employment findings in both research projects most likely reflect pandemic effects rather than minimum wage effects. In Butcher and Dickens (forthcoming) the negative employment effects are not statistically significant after 2020. This suggests a temporary pandemic effect rather than a lasting minimum wage effect. Other characteristics of the measured effects, such as the larger negative effects for men than women, also point towards pandemic effects rather than minimum wage effects. Broader evidence, such as stakeholder evidence of employers struggling to recruit and high vacancy rates also suggest the results are not necessarily driven by minimum wage effects. For these reasons, our current judgement is that the main driver for the measured effects is the pandemic rather than the minimum wage.

A2.75 Care should be taken when interpreting these findings. It was not possible to separately identify NLW effects from pandemic effects. Further, issues have been raised about the quality of the data used in this analysis. Those issues are discussed in detail in Appendix 3.

A2.76 However, we remain open to the possibility that an element of our findings reflects negative minimum wage effects. We will continue to gather more evidence to ascertain a clearer picture of the drivers of these results. We will update these analyses with new data when it becomes available. We also plan to expand our econometric analysis to include new data sources such as the PAYE administrative data.

Annual Research Workshop and the Eleventh Annual Research Symposium 2023

A2.77 As part of our research programme, we usually hold two research events a year. The first, usually in April, is a half-day workshop that focuses on the data sources and methodology to be used by the researchers in newly commissioned research. The second, in September, is a research symposium that showcases the findings of that research.

A2.78 The three research projects we had already commissioned for our 2023 Report were presented at our event in April. Since then, we have commissioned another two projects for our 2023 Report, along with a further project that will deliver findings in time for our 2024 Report next autumn. All six of these commissioned projects were presented at our September research symposium.

A2.79 As well as those three commissioned research projects, the research workshop in April also covered minimum wage research from the Wages and Employment Dynamics project. The workshop started with presentations from three of our commissioned research projects. Johnny Runge (NIESR) outlined the progress they had made in exploring the pay-setting of employers in low-paying sectors. They will investigate the impact that the pandemic, Brexit and cost of living have had on how employers set pay.

A2.80 Su-Min Lee and James Forrester (London Economics) then set out how they were using machine learning techniques to identify minimum wage workers. They also explored how that might be used to assess the impact of the minimum wage. In the last of our commissioned projects, Katharine Lauderdale (Frontier Economics) looked at how minimum wage effects might be affected by monopsony and labour market concentration. All three of these projects presented further results at our September research symposium.

A2.81 The final presentation was given by Alex Bryson (Work and Employment Dynamics Project). He looked at the experience of minimum wage adult workers in Britain from 2004 to 2021. He used ASHE to investigate transitions into and out of minimum wage jobs. He found that: The number of minimum wage jobs had been rising recently; the probability of exiting the NMW declined sharply from 2004/5 to 2011/12 but has remained roughly stable since then; wage growth and the probability of exiting the NMW were substantially lower among those who do not move job or firm; the opportunities for progression were occupation and firm-specific, being particularly low for those in certain low-paid occupations (such as textiles and hairdressing) and those employed in small firms. He concluded that there were some indications that mobility among NMW workers may have declined in recent years, as the bite of the NMW has increased. We are grateful to the participants at that event and for the feedback that helped develop the commissioned research projects.

A2.82 The second event, held on 7 September 2023, was our eleventh annual research symposium. This was another opportunity for the researchers of our commissioned research projects to present, discuss and receive feedback on their methodology and findings.

A2.83 The event began with a presentation on the pay-setting by employers. Ekaterina Aleynikova, Sophie Kitson, Jasmin Rostron (National Institute for Economic and Social Research) presented the findings from the research project on exploring pay-setting among employers in low-paying sectors in the context of the pandemic, Brexit, and the rise in the cost of living. These are detailed in Table A2.1.

A2.84 Chris Forde (Leeds University) then presented the early findings from an ESRC-funded project 'Labour Mobility in Transition: a multi-actor study of the re-regulation of migrant work in 'low-skilled' sectors (LIMITS) project, which looked at employers' use of migrant workers and responses to labour shortages in four low-paying sectors – hospitality, social care, food and drink processing, and warehousing. They got 1,280 responses from a survey of employers conducted between July 2022 and February 2023. The key findings were: the NMW looks like it acts as a benchmark for pay in all four sectors covered; Brexit and COVID have both had significant impact upon all 4 sectors with a move away from employing EU workers, particularly since 2020; Raising hourly pay was a key strategy for addressing labour shortages (and one which has been successful); Shortages also reflected wider, long-standing issues in each sector which may require other policies (government and individual employer) to address; Relatively little use was made of employer visas – even in sectors where there were specific schemes; and there was very little evidence of employers using automation as a means of reducing reliance on workers. These findings are similar to what we hear from stakeholders on our visits.

A2.85 David Zentler-Munro (University of Essex) then presented some innovative work that he and his colleagues at the University of Essex and University of Edinburgh had been exploring. They had built a search model of the labour market to examine the impact of changes in future minimum wages. This model was calibrated to match key patterns in the data. This work was at an early stage of progress so the findings should be treated with caution at this stage. However, they modelled an increase in the minimum wage from 60 per cent to two-thirds of median earnings in 2017 They found that: Raising the minimum wage increases employment, despite a decline in vacancy posting by firms; Workers raise their search effort, and redirect their search effort towards low-wage industries; and this raises employment in low-wage industries relative to high-wage industries, which may help with recent labour shortages. This work is ongoing and we will continue to monitor its progress.

A2.86 The next session focused on identifying minimum wage workers and minimum wage firms. First, Su-Min Lee and James Forrester (London Economics) presented the findings from the research identifying minimum wage workers using machine learning techniques. The methodology, data sources and findings are detailed in Table A2.1 below. Second, Xiaowei Xu (Institute for Fiscal Studies) then presented an overview of newly-commissioned research looking at identifying minimum wage firms and the impact on firms' contractual arrangements. This was at a very early stage of research. She set out the data sources and methods that would be used. The early findings will be published in a blog post in early 2024 with further findings presented at our research workshops in April and September. The final report will inform our recommendations in the 2024 Report.

A2.87 The following session on mobility, minimum wages, and monopsony featured three presentations from our commissioned research. Laura Pigott (YouGov) then presented her team's research on the perceived barriers and risks of job mobility and progression of low-paid workers. Maria Guijon and Danail Popov (Frontier Economics) then presented their work on monopsony, minimum wages, and the UK labour market. The final presentation in this session was given by Rui Vieira-Marques (London School of Economics), which looked at how increases in the minimum wage had affected non-standard or alternative work arrangements. The findings of all three studies are summarised in the section above with more detail given in Table A2.1.

A2.88 The final session covered recent findings on mobility of low-pay workers from the Wage and Employment Dynamics Strategic Impact project and from our in-house research programme. John Forth (City University and WED) presented findings from WED research looking at wage progression among minimum-wage workers in Britain between 2004 and 2021. Existing studies suggest that low-paid work may be a stepping-stone in certain cases, but that many low-paid employees find themselves stuck in 'dead-end' jobs or firms. The research used linked employer-employee data from the ASHE (2004-2021) to study the probability of escaping the NMW, and wage growth, among NMW workers aged 25 and over. He showed that the probability of exiting the NMW declined sharply over the period 2004/5 to 2011/12 but it has remained roughly stable over the past decade. Around one-third of workers exit the NMW each year, down from around half prior to the Great Recession.

A2.89 The choice of occupation and firm are key to the chances of exiting NMW pay: more so than industry or region. Thus, switching occupation and/or firm are important routes through which individuals have been able to move off the NMW. Exit probabilities are particularly low for employees in occupations where low pay is pervasive (such as in cleaning and food processing) and for employees in some small, private sector firms.

A2.90 The study also examined the impact of the rising wage floor on job mobility. It found that the introduction of the NLW appears to have depressed mobility rates at the bottom of the labour market. Its introduction appears to have been associated with a fall in the share of workers switching firms (but not the share switching occupations). He concluded that further hikes in the NLW were likely to reduce rates of labour mobility (including for younger workers who become eligible for the NLW in 2024). However, more work was needed to understand whether this was good or bad for employees (and employers).

A2.91 The symposium concluded with a presentation by Eduin Latimer (Low Pay Commission). He gave an overview of the findings of internal research but focused on his bunching analysis to assess the impact of the most recent increases in the NLW. He had extended the analysis, originally conducted by IFS (2021) using data up to 2019, to cover the period up to 2022. His results suggested that employment has fallen more for minimum wage workers than for other workers since 2019 but that there was insufficient to suggest that the rise in the minimum wage had caused employment to fall. It was likely that other factors, such as the pandemic and NHS waiting lists, also played key roles in reducing employment more in relatively low-paid jobs in low-paying areas than relatively low-paid jobs elsewhere. He also showed that workers in the treatment group (affected by the minimum wage) tended to be older than workers in control group (those paid just above the minimum wage). We know Covid has affected employment more for older workers (especially those with low levels of qualifications). Further, he also found that employment in the treatment areas has fallen due to increases in inactivity rather than increases in unemployment.

A2.92 He also noted that Butcher and Dickens had updated their work using geographic, age and gender variation in pay to identify impacts of the NLW to cover the period up to the first quarter of 2023. As with the previous research (Butcher and Dickens, 2023), it finds significant effects of the introduction and subsequent increases of the NLW on pay at the median (using both bite and coverage measures). However, they found no significant negative impacts on employment over the whole period although there were some significant negative effects in 2020 and 2022 in some specifications. They also found that the NLW may have boosted participation as inactivity has significantly reduced but that had not led to an increase in unemployment.

A2.93 Both of these research projects were extended, after the research symposium, to cover the 2023 upratings and those latest findings are reported above and in more detail in Table A2.2.

A2.94 Overall, the symposium covered a range of areas and methods (including both quantitative and qualitative analysis), and they formed an important part of our evidence base in October when we met to agree our recommendations for 2024.

A2.95 We would also like to thank all of those who acted as discussants or chairs at our research events: Nicola Allison (Office of Manpower Economics), Brian Bell (Migration Advisory Committee and Kings College London), Alex Bryson (University College London), Richard Dickens (University of Sussex), Paul Edwards (University of Birmingham), Mirko Draca (Warwick University), Chris Forde (Leeds University), Melanie Jones (Cardiff University), Rob Joyce (Institute for Fiscal Studies), Van Phan (University of the West of England), Rebecca Riley (King's College London), Greg Thwaites (Resolution Foundation), and David Zentler-Munro (University of Essex). The comments and suggestions have contributed to the development of our research programme.

Conclusion

A2.96 The research continues to generally find that the introduction of the National Living Wage and subsequent upratings have significantly increased the earnings of the lowest paid but that, to date, there has been no strong evidence of any negative employment effect in aggregate over the whole period. However, some evidence of negative employment effects has been found in some specifications for some years and for some groups of workers. The in-house research did find significant negative employment effects, but these coincided with onset of the pandemic (and measures to control it that led to the closure or restrictions in trading of many low-paying sectors). As we concluded in our last annual report, it has not been possible so far to separate the minimum wage effects from the pandemic ones.

Next steps

A2.97 We have so far commissioned one research project for our 2024 Report. This is:

• Identifying minimum wage firms and the impact on firms' contractual arrangements

Sam Ray-Chaudhuri and Xiaowei Xu (IFS) and Giulia Giupponi (Bocconi University, Milan)

A2.98 We will also look to commission further research in the new year.

Table AZ. I: R	esearch for the 2023 Report	
Project title and researchers	Aims and methodology	Key Findings
Exploration of pay- setting among employers in low- paying sectors in the context of the pandemic, Brexit, and the rise in the cost of living Ekaterina Aleynikova, Sophie Kitson, Jasmin Rostron, Lucy Stokes (National Institute for Economic and Social Research) and Johnny Runge (King's College London)	 This research explores pay setting in four low-paying sectors – agriculture, cleaning, hospitality and retail - and aims to answer the following questions: 1. What factors do employers in the four low-paying sectors consider when they set pay? 2. How is employer pay-setting influenced by the changes in the NMW/NLW rates? 3. What strategies have employers used for managing previous increases in the NMW/NLW (in 2022 and 2023), and how might future rises in the NMW/NLW be managed? 4. How, if at all, have employer pay setting behaviours been affected by: Rises in prices and the cost of living; Any impacts of the COVID-19 pandemic; and the UK's new trading relationship with the EU? The researchers conducted 41 in-depth semi-structured interviews with employers across the UK i four low-paying sectors: agriculture (9), cleaning (11), hospitality (12) and retail (9). The fieldwork was conducted between April and July 2023. The interviews lasted around 30-45 minutes and were conducted online or over the phone. They covered: ke information about the business; pay-setting and use of the NMW/NLW; changes in pay practices in last year the context of leaving the EU, the pandemic and the cost of living increases; and the impacts of potential future increases in the NMW/NLW. Employers were recruited to take part in the interviews using an employer database supplied by Market Location. This research used a purposive sampling approach to select employers: this aims to include a variety of employers as participants, to capture the depth and breadth of experience across employers in the specified low-paying sectors. 	 Employer pay-setting behaviours varied by employer size and sectors, with smaller employers in particular having more informal and relatively unstructured pay-setting processes. Some employers interviewed reported paying employees above the NLW rates, with key reasons for that being staff recruitment and retention. Some employers reported not using the NMW youth rates, due to concerns over fairness. Others chose not to use the NMW youth rates or employ younger workers as they felt that they were not as productive as more senior workers and required more training. These employers would also not employ apprentices. The strategies that employers mentioned they use to absorb the NLW/NMW increases included: increasing prices; reducing their workforce size; reducing pay rises or staff hours; finding efficiencies to reduce overheads; and using their own time or money to cover the gaps. Small and medium-sized employers reported finding it harder to absorb the annual increases in the NMW/NLW rates. Smaller employers were more likely to use short-term strategies or invest their own time and money, while some larger businesses looked at more long-term productivity solutions.
		particularly small businesses fore in relation to

Table A2.1: Research for the 2023 Report

particularly small businesses, face in relation to

NMW/NLW increases.

Project title and researchers	Aims and methodology	Key Findings
Machine-learning classification of minimum wage workers Gavan Conlon, James Forrester, Su-Min Lee, Lucy Manly, and Pietro Patrignani (London Economics)	 London Economics (2023) undertook research to explore a range of machine-learning techniques to understand which groups of workers are more likely to be minimum wage workers. A range of machine-learning classification methods were used to identify salient combinations of characteristics from a wide range of characteristics in a systematic and objective manner. These can be grouped into two different types: Supervised tree-based classification methods. These 'supervised' classification methods used characteristics to predict whether a worker is a minimum wage worker. A single decision tree splits the sample by different characteristics to form one set of groups. Ensemble methods (such as random forest and boosted gradient trees) combine multiple decision trees to form more robust conclusions. Latent Dirichlet Allocation. This 'unsupervised' classification method forms groups without predicting a particular outcome. The groups are formed by characteristics that often appear together. The Latent Dirichlet Allocation is a 'probabilistic' model, so it estimates the probability that each worker is a member of each group based on their characteristics The analysis used information from the Quarterly Labour Force Survey from 2013 to 2022, excluding quarters when hourly pay information may have been distorted by the furlough scheme. The Labour Force Survey is used as it includes a wide range of personal characteristics: age, sex, ethnicity, region of residence, region of work, highest educational qualifications, occupation of work, industry of work, disability status, marital status, and number of dependent children. There are important limitations and caveats to note when implementing machine-learning classifications: the interpretation of results can be complex; the models predict outcomes or identify correlations between characteristics and whether a worker is a minimum wage worker; and the conclusions made from the models are limited by	 characteristics. The concentration of minimum wage workers within each of these groups ranged from a low of 4 per cent to 52 per cent. Personal characteristics alone – at least those that can be measured in the available data – were not the key predictors of whether a worker is a minimum wage worker. Occupation followed by industry were the most important characteristics in predicting a minimum wage worker in the decision tree. Similar conclusions were found using random forest and boosted gradient tree models. Latent Dirichlet Allocation method identified ten groups of workers based on clusters of characteristics. Three of these clusters of characteristics had a much higher concentration of minimum wage workers than the other seven. These were characterised as: older workers with lower-level qualifications in elementary occupations; workers in education, and health and social work activities, with vocational backgrounds who are disproportionately likely to be from ethnic minority backgrounds; and younger workers evaluated their findings and concluded that predictions based on the decisior tree and random forest were similar to predictions based on regression models, while the gradient boosted trees perform better than those alternatives.

Project title and researchers	Aims and methodology	Key Findings
researchers	Aims and methodology The aim of this research was to explore the views of low-paid workers relating to changing roles, employers, or hours of work, and the barriers they face in doing so. YouGov (2023) conducted a three stage approach, constituted of a qualitative stage of 15 in-depth interviews with low-paid workers, and two quantitative surveys with low-paid, and medium- and high-paid workers. It conducted 15 online in-depth interviews, between 26 June and 5 July 2023, via Zoom with low-paid workers aged 23 and over who were earning £12 per hour or less. The sample frame involved a mix of the following characteristics: age, ethnicity, gender, full- time/part-time workers, and those who had or not had changed job in the past two years.	 The main findings were: A combination of factors made low-paid workers feel moving job was a substantial risk even when they were dissatisfied with their pay and chances of progression in their current roles. Around two in five low-paid workers said they were likely to apply for another job in the next 12 months. This was a higher share than their better-paid counterparts. Pay – by a significant margin – was the most important motivation for low-paid workers when applying for new jobs. Overall, attitudes among low-paid workers were risk-averse and focused largely on what could be lost if they were to move job.
	This was complemented by two online surveys. The first of 1,000 low-paid UK employees aged 16 and over, was conducted from 2-22 August 2023. The proportion of minimum wage workers was boosted during fieldwork, and then re-weighted to be representative at the data analysis stage. The second, of 1,000 higher-paid employees, was conducted between 20 September and 3 October 2023. The samples for both surveys were weighted by age, gender, ethnicity, region, work status, wage level, industry, sector, and organisation size. The results are representative of low-paid workers. YouGov uses RIM (Random Iterative Method) weighting as its standard approach. This weighting method calculates weights for each individual respondent from the targets and achieved sample sizes for all chosen variables. This ensured that representative samples were achieved.	 that if they moved jobs they might have a bad manager, not enjoy the job, or have poor working relationships. However, low-paid workers were more likely to worry more about the availability and flexibility the hours offered, not being paid fairly, and having an unreliable employer. Some felt they lacked the time and financial resources to search and apply for other jobs. A majority of low-paid workers stated it was important for them to work in a role with programmer the second sec

Project title and researchers	Aims and methodology	Key Findings
Monopsony, minimum wages and the UK labour market Maria Guijon, Katharine Lauderdale, and Dan Popov (Frontier Economics)	Frontier Economics (forthcoming) investigated the link between different degrees of labour market concentration and minimum wage effects on number of workers in low pay employment, total weekly hours worked among low pay workers, average hours per worker among low pay workers, and base hourly wages among low pay workers. A methodological contribution of this study was to use a novel data-driven sectoral definition of low- pay labour markets, which grouped sectors together based on the volume of low-paid job switches across sectors. The study derived its labour market concentration measure using data on employment, geography and industry from the British Structure Database (BSD). The Annual Survey of Hours and Earnings (ASHE) was used to estimate various measures of pay, hours worked and employee numbers. These pay, hours and concentration measures were derived for each Travel-to-Work Area in England and Wales between 2015 and 2019. The researchers also added an industrial dimension, using 4-digit Standard Industrial Classification (SIC) codes, to their definition of local labour markets. They used analysis of job moves to identify nine industry clusters. Their unit of analysis was an industry cluster within a local area for instance, retail in Chelmsford. The study examined the association between changes in the minimum wage and labour market outcomes (employment, hours, hours per worker, wages). The analysis took into account firm exposure to minimum wage increases in local areas, and different levels of market concentration.	 The main findings were: There was robust evidence that the introduction of the NLW increased the hourly wages of the low-paid across all labour market areas (those with both low and high labour market concentration). In line with previous work, there was some evidence that, following an increase in the minimum wage, employment and total hours increased in high-employer concentration areas. This is also in line with the theoretical model of monopsony that allows for the possibility that increases in minimum wages can lead to increases in employment and hours. They also found some evidence that minimum wage increases exert downward pressure on the wages of higher income workers in markets with high concentration. However, as noted by the authors, the magnitude and statistical significance of the results are sensitive to the specification of the model. That may in part be due to the fact that they found labour market concentration is generally low in low-paying labour markets. The researchers concluded that monopsony likely interacts with minimum wage effects differently across different sectors and occupations, due to differences in public sector employment, in the elasticity of hours per worker, in the geographic distribution of different sectors, and other factors. The finding of low-employer concentration in most sectors of the low-paying labour market suggested that future work on monopsony effects could usefully focus on sectors or local areas with higher-employer concentration.

Project title and	Aims and methodology	Key Findings
researchers		
Minimum Wage Effects: Adjustment Through Labour Market Dynamics and Alternative Work Arrangements Pinjas Albagli, Rui Costa and Stephen Machin (London School of Economics)	The aim of this report was to understand potential impacts of minimum wage changes on margins such as contract types and job attributes related to hours volatility and work security. The study primarily focused on the introduction of the National Living Wage in April 2016 in the UK and exploited the variation in pre-policy exposure to minimum wages across different regions and ages, in a similar vein to Manning (2016), Dube (2019), and Butcher and Dickens (2023), as a means to estimate the causal effects. Albagli, Costa and Machin (forthcoming) use the Quarterly Labour Force Survey (QLFS) as the main data source. The QLFS contains unique information on most types of contracts of interest to the Low Pay Commission. It also covers a long period of time enabling the study of heterogeneity over the scale of NMW upratings and changes in age bands of NMW. However, sample sizes can be small for particularly detailed socio-demographic groups. Robustness was conducted using the Annual Population Survey (APS).	 The main findings were: In line with previous research, there were significant wage effects from the introduction of the NLW, especially for workers in low-paying industries. Whilst there was no overall negative employment effect from the introduction of the NLW, there were some negative estimated effects on unemployment with positive effect on inactivity. The negative impact on the probability of being unemployed was primarily driven by increased job retention, marked by substantially lower flows to unemployment, predominantly fuelled by a decrease in involuntary separations (i.e. layoffs). This decrease in layoff probabilities was notably pronounced among those facing job loss after the ending of a temporary contract. The reduction in layoff probabilities is consistent with the findings of Brochu and Green (2014) and Dube, Lester and Reich (2016) in the US and Canada. There was no evidence of significant reductions in voluntary separations or job-to-
	They used a difference-in-difference model and an event study model to derive their results. They pool the data for 16-65 year olds from the second quarter of 2014 to the second quarter of 2017. They derived 96 age-region cells (from 8 age groups and the 12 standard regions). They used two measures of exposure to the minimum wage (bite and coverage) to assess the impact of the introduction of the NLW on the incidence of various contract types and self-employment. They did this by comparing the outcomes up to the first quarter of 2016 and afterwards. In the event analysis, they track these changes each quarter for a panel of age-region cells before and after the first quarter of 2016.	 job transitions. Nor was there evidence of changes in on-the-job search. A substantial part of the employment retention effect was observed among those full-time contracts. The chances of a worker reporting to a underemployed fell – sustained by reduce flows from non-underemployment to underemployment and non-employment. Modest effects of workers moving frow variable to fixed-hour contracts were also found. There was no evidence that the NLW pushed workers into self-employment, but incidence of zero-hours contracts increased among those most exposed to the NLW. Overall, the combined effects of incree flows from variable to fixed hours, tempo to permanent positions, and enhanced job retention of full-time workers resulted in a overall reduction in what the OECD classi as non-standard work arrangements.

Project title and	Aims and methodology	Key Findings
	The sim of this report was to access the impact of	The main findings wars:
researchers The impact of the National Living Wage on labour market outcomes using geographic and	The aim of this report was to assess the impact of	 The main findings were: They found significant effects of the introduction and subsequent increases of the NLW on pay at the median (using both the bite and coverage exposure measures). They found no significant negative impacts on employment across the whole period. However, they did find a strong positive employment effect before the pandemic but a strong negative effect after its onset (particular in 2020 and 2020). These effects offset each other. Some evidence of positive effects on hours over the whole period (2015-2023) but no effect since 2020. Over the whole period from 2015-2023, the NLW may have boosted participation as they found that inactivity had significantly reduced in the lowest-paying region/age/sex groups, but this had not led to an increase in unemployment However, they did find that the negative effects on inactivity fell away during the pandemic. Some significant positive effects were found on self-employment but only in 2020 and 2020. These were large enough to drive an overall positive effect between 2015 and 2020.
	The baseline exposure measures were then interacted with the time effects for each year from 2016 to 2023. Difference-in-difference parameters were then estimated for individual year effects as well as the cumulative effect over the whole period.	 However, the effect is likely related to the fall in self-employment across the UK and among thos groups less affected by the NLW. No effects were found on the share of part-time employment or the use of zero hours
	The Labour Force Survey from the second quarter of 2013 to the second quarter of 2023 was used to derive the labour market outcomes for each region/age/sex group. These included employment rate, unemployment rate, inactivity, self-employment, and zero-hours contracts.	 These results were generally consistent wit previous analysis that suggests that there had been no significant adverse employment effects of the NLW over the whole period from its introduction but suggested that there may have been more adverse effects during the pandemic Care should be taken when interpreting these findings. It was not possible to separately identify NLW effects from pandemic effects. Further, issues have been raised about the quality of the data used in this analysis. Those issues are discussed in detail in Appendix 3.

Table A2.2: Low Pay Commission in-house research

Project title and	Aims and methodology	Key Findings
researchers	Cribb Ciurneni Inun Lindner Watern Wareham	The main findings ware.
on labour market outcomes using bunching analysis	Cribb, Giupponi, Joyce, Lindner, Waters, Wernham, and Xu (2021) provided a comprehensive assessment of the impact of the NLW, up to the onset of the pandemic, on earnings, employment, hours, and incomes. This research project replicated that provide and extended is to clean eaver	• We found strong evidence to suggest the NLW raised pay for workers both on and above the NLW between 2019 and 2023. There was weaker evidence of pay effects from 2022 to 2023 than from 2019 to 2022.
Eduin Latimer	that previous analysis and extended it to also cover the period since the onset of the pandemic, with	 Employment in relatively low-paid jobs within low-paying areas fell relative to
(Low Pay Commission)) minor methodological changes. It focused on the impact on earnings, employment, and hours.	comparable workers in better-paying areas. These effects were large and were larger for the 2019-2023 period than the 2019-2022 period.
	The research adapted the bunching approach in Cengiz, Dube, Lindner, and Zipperer (2019) to estimate the effect of NLW on employment and wages jointly. It exploited differences in wage levels across geographical areas but focused on the impacts on those aged 25 and over.	pandemic disproportionately reduced employment in low-paying occupations, so
	The approach compares employment in the same 'job types' across low-paying and high-paying areas before and after an increase in the NLW. The number of jobs 'lost' below the new minimum wage is then compared with the number of jobs 'gained' at and above the new minimum wage.	 area and the Labour Force Survey has become less reliable, especially at a local level relative to before the pandemic. 3. We estimated larger negative employment effects for men than women.
	The analysis on earnings, employment, and hours used ASHE (for high quality wage data) and the Labour Force Survey (LFS) at Travel-to-Work-Area (TTWA) level.	This is not in line with previous evidence on the minimum wage in the UK.4. In supporting analysis, we found that economic inactivity rather than unemployment was driving the negative employment effects. This indicates that it
	The research provided initial econometric findings on the impact of the NLW during the pandemic and as restrictions were eased.	may be a labour supply issue rather than a fall in labour demand due to the minimum wage.

Appendix 3 Main data sources

A3.1 In this appendix, we outline the main data sources that we have used in our analyses, including any major changes that have occurred since our 2022 Report. We use four main sources of data to measure earnings in this report: the Annual Survey of Hours and Earnings (ASHE), Average Weekly Earnings (AWE), HMRC Pay As You Earn (PAYE) administrative data and the Labour Force Survey (LFS). We use three main sources to understand employment: the LFS, HMRC Real Time Information (RTI) and ONS Workforce Jobs series (WJ). The LFS captures the number of people in employment, whereas the administrative PAYE series measures the number of employees (registered on the PAYE system) in the UK; and the Workforce Jobs series is an estimate of the number of jobs. There are some significant differences between these definitions, most notably that the PAYE series excludes the self-employed. All of these data sources are published by the Office for National Statistics (ONS), although the PAYE series is collected by HMRC.

A3.2 In addition to employment and earnings data, we also look at a wide range of macroeconomic data and statistics. This appendix outlines the two main macroeconomic series on inflation and gross domestic product (GDP) used in our analyses, as well as summarising any revisions over the last year that ONS has made to its GDP estimates.

A3.3 In 2020 and 2021 there were significant limitations across several of the datasets we use due to the impact of the pandemic. Data from 2022 is largely free from the direct impact of pandemic restrictions, although some impacts on data collection have persisted and our estimates of annual changes are affected by using data collected during the pandemic as a base. For this reason, throughout the report we have also compared the latest data with 2019 where possible and we continue to use some higher frequency data – such as weekly LFS data – where this gives a clearer picture of more recent changes.

Annual Survey of Hours and Earnings

A3.4 The Annual Survey of Hours and Earnings (ASHE) is our main source for analysis of the structure and distribution of earnings in the UK and is regarded by the ONS as the best source of earnings information for cross-sectional analysis. It provides information on the level, distribution, and composition of earnings, as well as information on hours worked, gender, age, geography, occupation and industry. It is a survey of employees completed by employers and conducted in April each year. The reference date for the 2023 survey was the pay week (or other pay-period if the employee was paid less frequently) which included 27 April 2023. The sampling frame consists of a one per cent sample of employee jobs in PAYE income tax schemes obtained from HM Revenue & Customs (HMRC). It is weighted to be representative of the population of employees in the UK by gender, broad age group, region and occupation.

A3.5 As ASHE surveys only employee jobs paid through PAYE, some workers are excluded: it will not capture the self-employed or workers who are not paid through PAYE. This latter group could include workers in the 'gig economy' who retain the rights of workers – including to the minimum wage – but are not classed as employees and may not appear on a company payroll. It could also include a small number of employees who earn less than the limit at which their employers are required to pay them through PAYE (currently £123 a week) – although in most cases, employees are paid through PAYE regardless of their earnings.

A3.6 In our analysis of the earnings effects of the minimum wage, our main measure of hourly pay using ASHE excludes overtime pay and shift premiums. We do this to make our measure of pay as close as possible to the legal definition used in minimum wage legislation.

A3.7 ASHE data for the latest year used in our report is always provisional and therefore subject to revision. Final data is received a year later and used in subsequent reports: thus, for this report we received 2022 final data at the same time as receiving provisional data for 2023. We are grateful to ONS for allowing us pre-release access to enable us to give timely statistical advice to Commissioners.

Changes to the Standard Occupational Classification within ASHE

A3.8 An important change to the 2021 final and 2022 provisional ASHE data was the move to a new system for classifying occupations. Since 2011, job roles in ASHE had been classified using the Standard Occupational Classification (SOC) 2010, but in 2021 was revised to produce SOC 2020. SOC 2010 and SOC 2020 retain the same structure, and many occupations can be closely mapped between the two. However, a small number of occupations have been reclassified, merged with others, or split across multiple SOC codes. Full details of the changes are available in SOC 2020 Volume 1 (ONS, 2021b).

A3.9 The change to the SOC codes introduced a discontinuity in the ASHE data from 2021, compared with previous years. This has both a direct and indirect effect on our analysis. Firstly, we have updated our definition of low-paying occupations based on the new occupation codes (see Table A3.2 below). Secondly, occupation is used to weight observations in ASHE to make it representative of the whole population of employee jobs. This means that the move to SOC 2020 has a knock-on effect on estimates of pay and hours across all breakdowns, making it more difficult to compare estimates before and after 2021. We consider the impact of this and how we have dealt with it in our analysis in Box A3.1.

Box A3.1: Changes to the Standard Occupational Classification (SOC) in ASHE: impact on estimates of pay and hours

The move to SOC 2020 from the 2021 final ASHE data onwards changes the weighting of each observation in the data and means that there is a discontinuity in ASHE estimates of pay and hours before and after 2021. In this box we look at the impact of this change and explain how we have accounted for it in our estimates.

The fact that we have 2021 data with both the SOC 2010 weights and SOC 2020 weights allows us to chain-link estimates of pay and hours by applying the same proportional change we see between the two different sets of 2021 data to previous years, approximating the change we would see if occupations in those years were classified using SOC 2020. This helps to remove any step change introduced by the discontinuity in 2021.

However, there are some limitations to this approach: Firstly, the two sets of data we have for 2021 are not identical. The change between the provisional and final versions will capture any corrections made or new records added between the two, as well as the change in SOC coding. We cannot precisely separate the impact of these two sets of changes, but updates between the provisional and final data set affect a small number of records relative to the overall population (new records make up just over 1 per cent of all records) and so we expect the reweighting changes to dominate. Secondly, using 2021 as a linking year assumes that the 2021 data is similar to that of previous years, particularly in terms of the distribution of the variables used to weight the dataset – age, gender, occupation and region. This is broadly the case for the NLW population aged 25 and over, but less so for the apprentice and youth rate populations, as we discuss below.

In order to balance the need for consistency with the risks of carrying through distortions found in the 2021 data, we have taken the following approach in this report:

We chain-link in the following cases:

1. Estimates of median pay are chain-linked across the board, including for analysis of subgroups. The median is relatively robust to small shifts in the distribution, and changes introduced through chain-linking are minimal for most groups (Table A3.1). By extension, estimates of the bite of the minimum wages are also chain-linked.

2. In Chapter 4, covering the NLW population (those aged 25 and over from 2016-2020 and those aged 23 and over from 2021), all estimates using ASHE data are chain-linked. While the 2021 link may be less reliable for subsets of this population, we chain-link to maintain consistency with whole population estimates. We also chain-link estimates of bite and coverage back to 1999 for those aged 21 and over and those aged 25 and over.

3. In Chapters 3 and 10, estimates of coverage and underpayment are chain-linked. These Chapters present data for the whole population and as this is dominated by the NLW population we follow the methodology used in Chapter 4.

We do not chain-link in Chapters 5 and 6, where we look at the youth and apprentice populations in detail, we do not chain-link any measures except median pay. So, for example, wage distributions and coverage are presented without chain-linking. This is because the 2021 data was more atypical for youth and apprentice populations and because the occupational structure of these groups varies more over time.

Comparison of chain-linking and not

We provide a comparison of chain-linked and non-chain-linked estimates of the key measures (median, bite and coverage) in Table A3.1 below. From this, it can be seen that for most minimum wage rate populations, chain-linking has very little impact. The exception to this is the Apprentice Rate population. There is considerable sampling variation in this population in ASHE, exacerbated by the fact that it is a small population spread over a broad range of ages and occupations. As a result, all estimates for the whole apprentice population should be treated with caution. Added to this, there have also been significant (real) changes in the age and occupation profile of apprentices over time, which makes chain-linking at the whole population level particularly unreliable for this group.

ASHE 2021 compared with other years

The use of chain-linking relies on the 2021 data being broadly comparable to that of previous years. While we know that 2021 data was affected by the pandemic, it is considerably more reliable than the 2020 data. Importantly, the inclusion of questions relating to furlough allowed us to produce a muchimproved estimate of hourly pay than had been possible in 2020. However, the response rate remained well below where it had been in 2019 and for many groups – particularly young people – employment was still considerably below its usual level in April 2021, affecting the distribution of pay and occupations across the economy.

We have examined the breakdown of the minimum wage rate populations by the main weighting variables used in ASHE and compared the distribution of these between 2015 and 2019 with the distribution in 2021. Figure Y illustrates the variation in the (SOC 2010) occupation dimension for different minimum wage rate populations. For the NLW population as a whole (particularly those aged 25 and over), variation is minimal: that is, the share of the population in each combined gender, age group, region and occupation group is very similar in 2021 and 2015-2019. The main exception to this is the increase in the share of workers in Professional Occupations (major group 2) in 2021, potentially due to the pattern of employment change during the pandemic.

For the youth and apprentice populations, there is more variation, both in occupational composition as shown in Figure Y and other weighting variables. This is in part due to additional sampling variation in these small groups. However, 'real' changes in occupational composition over time, such as the increase in young people working outside of low-paying sectors, will also feed into this variation. Youth groups will also be more sensitive to changes that affect a specific cohort of the population (for example, the size of birth cohorts over time). Along with continued low employment in 2021 and the lower sample size, we have therefore decided not to chain-link estimates when looking at the whole distribution of wages across the youth and apprentice populations. We continue to chain-link medians, and – as can be seen in Table A3.1 – this results in no or very small changes for most groups. We

recommend treating medians for the whole apprentice rate population with caution, for reasons discussed above.





Age group/rate population of employee and 1-digit SOC code of occupational group of job

Source: LPC estimates using ASHE microdata, standard (SOC 2019) weights. Variation is measured as the maximum absolute difference between 2021 and any of the years 2015-2019.

Chain-linking methodology

We chain-link estimates for variables from 2020 or earlier by using the following method:

First, we estimate a chain-linking factor for the relevant variable at the relevant disaggregated level. For estimates between 2011 and 2020 we estimate this factor as follows:

Chain – *linking* $factor(X) = X_{2021}^{SOC2020} / X_{2021}^{SOC2010}$

The chain-link factor reflects the factor by which the variable changes in 2021 under the new weighting system relative to the old weighting system.

Second, we estimate the variable using the old weighting system.

Finally, we multiple the estimate using the old weighting system by the chain-link factor to provide the chain-linked estimate. This gives an estimate of what the variable would have been in a given year, if the SOC2020 weights had been available in that year. As previously discussed it relies on the assumption that if the SOC2020 weighting system had been introduced earlier, it would have changed estimates by the same factor as it did in 2021.

For estimates earlier than 2010, we follow a similar process. There were methodological changes to ASHE in 2011, 2007, and 2004 as well as 2021. Chain-linked estimates for the period before 2011 need to account for these changes. We do this by estimating a chain-linking factor which accounts for multiple methodology changes. This chain-linking factor is the product of factors for each methodology change. For instance, for an estimate in 2010 the chain-linking factor would be as follows:

$$Chain - linking \ factor(X^{2010\ method}) = \frac{X_{2021}^{SOC2020}}{X_{2021}^{SOC2010}} * \frac{X_{2011}^{SOC2010}}{X_{2011}^{SOC2000}}$$

The chain-linking factor here includes an adjustment based on the methodology change in 2021 and the methodology change in 2011. For estimates before 2006, we multiply by another factor to account for the 2006 change. For estimates before 2004 we multiply by the factor to account for the 2006 change and another factor to account for the 2004 change.

Other things to note relating to our chain-linked estimates:

-For 2021 estimates on a SOC2010 basis, we exclude the approx. 300 records which appear in the provisional data but not the final data

-For estimates of coverage and other estimates of incidence (e.g. low-pay) we separately chain-link the estimated totals and the estimated rates. This means that the implied total employee numbers by the rates will sometimes differ slightly from the total employee estimates without chain-linking.

-We use our central estimates of pay in 2021, which apply an adjustment for furloughed workers, for chain-linking. For more detail on this adjustment, see Chapter 3 of Low Pay Commission (2021).

Table A3.1: Chain-linked and non-chain-linked estimates of median, coverage rate and underpayment rate, by rate population, 2015-2019

	2015	2016	2017	2018	2019
25+ NLW population				1	1
Median (chain-linked)	£12.40	£12.77	£13.03	£13.36	£13.84
Median (not chain-linked)	£12.38	£12.76	£13.01	£13.35	£13.83
Coverage (chain-linked)	4.3	6.7	6.7	6.6	6.6
Coverage (not chain-linked)	4.3	6.7	6.6	6.5	6.5
Underpayment (chain-linked)	15.5	19.9	21.9	24.0	22.1
Underpayment (not chain-linked)	15.0	19.2	21.1	23.1	21.3
23-24 year olds					
Median (chain-linked)	£9.00	£9.41	£9.78	£10.10	£10.77
Median (not chain-linked)	£8.97	£9.37	£9.75	£10.06	£10.73
Coverage (chain-linked)	9.6	6.3	5.7	6.0	5.2
Coverage (not chain-linked)	9.5	6.3	5.7	6.0	5.2
Underpayment (chain-linked)	10.3	18.3	23.6	19.2	21.6
Underpayment (not chain-linked)	10.3	18.2	23.4	19.0	21.4
21-22 year olds					
Median (chain-linked)	£7.70	£8.06	£8.46	£8.73	£9.20
Median (not chain-linked)	£7.70	£8.06	£8.46	£8.73	£9.20
Coverage (chain-linked)	16.5	11.3	11.8	11.6	10.9
Coverage (not chain-linked)	16.3	11.2	11.7	11.5	10.8
Underpayment (chain-linked)	13.8	17.2	24.1	22.6	20.9
Underpayment (not chain-linked)	13.7	17.0	23.8	22.4	20.7
18-20 year olds	•	•			
Median (chain-linked)	£6.80	£7.20	£7.50	£7.83	£8.27
Median (not chain-linked)	£6.80	£7.20	£7.50	£7.83	£8.27
Coverage (chain-linked)	12.1	11.7	12.0	12.2	12.0
Coverage (not chain-linked)	12.0	11.5	11.9	12.1	11.9
Underpayment (chain-linked)	17.3	17.6	22.6	19.2	16.3
Underpayment (not chain-linked)	17.4	17.7	22.7	19.3	16.4

Source: LPC estimates using ASHE, UK, 2015-2021. Median and bite are calculated using standard weights; coverage and underpayment are calculated using low pay weights. Coverage is shown as a percentage of employee jobs held by the rate population and includes any job paid up to 5 pence above the relevant minimum wage. Underpayment is shown as a percentage of the covered population.

Other issues relating to ASHE

A3.10 In 2020 and 2021, estimates from ASHE data were affected by furlough. Where we refer to the 2021 ASHE data in this report, we use our central estimate of workers' pay unless otherwise stated. This is adjusted to remove the effect of reduced payments due to furlough. We use additional questions asked in ASHE 2021 to determine the ratio between measured pay and normal pay for each job and adjust upwards accordingly. In cases where these questions were not answered, we use the median ratio to adjust their pay, and we limit the ratio to a range between 80 and 100 per cent. This is discussed in detail in Appendix 3 of our 2021 Report (Low Pay Commission, 2021). Figures in this report may vary from central estimates reported in Low Pay Commission (2021) due to the SOC update, although the methodology used is the same. By the ASHE reference date in 2022, no workers were on furlough and questions relating to furlough were removed from the survey. However, growth comparisons will be affected by furlough effects and how they were measured in 2020 and 2021.

A3.11 In 2023, there were 156,000 usable responses to ASHE. This is 5 per cent more than last year but 15 per cent less than in 2019. The fall in sample size is due to fewer employers responding to the survey. While the reduction in sample size is less severe than for household surveys such as the Labour Force Survey, it does cause two issues for our analysis. First, the reduced sample sizes mean that there is more uncertainty over our results, especially for smaller subgroups (such as groups within the younger rate populations). Second, if the employers who no longer respond are not representative of the wider employer population, the reduction in sample size might bias the results from the survey. For instance, if the ONS stopped receiving as many responses from well-paying firms, this could bias the estimates of average pay down. ONS weight the survey to population totals from the Labour Force Survey in order to make it representative of the workforce. This should help to mitigate this risk, but it is possible that the changing pattern of non-response has had an effect on pay estimates.

A3.12 The ASHE is weighted to the LFS, so any issues with the LFS may indirectly affect the ASHE. We discuss the recent issues with the LFS and its falling sample size later in this appendix. The ASHE is weighted to employee totals from the LFS, so if the LFS is becoming a less reliable measure of the number of employees and their characteristics, this will alter the results from ASHE. ASHE 2023 is weighted to LFS from the second quarter of 2023. This is before the recent steep decline in the LFS sample size, but the LFS still diverges considerably from other sources at this point. This could lead to increased volatility and potentially bias in the ASHE results (although it is hard to predict in which direction).

A3.13 The introduction of the National Living Wage (NLW) in 2016 had important implications for our analysis and interpretation of ASHE data. A key change is that the NLW was introduced in April, coinciding with the ASHE data collection period. Previously, new minimum wage rates were introduced in October, with measurement of earnings, the bite and underpayment occurring six months after implementation of the new rates. Both the bite of the minimum wage, and measured underpayment, are at their highest upon introduction, and correspondingly lower when measured six months after implementation. All the other minimum wage rates were uprated in April 2017 to ensure alignment with the NLW uprating date. This introduced a break in the time series, with a step change in estimates of both the bite and underpayment.

A3.14 ASHE is not our preferred source of pay data for workers eligible for the Apprentice Rate. Estimates of the total number of apprentices are lower in ASHE than in administrative data, suggesting that some apprentices are not identified as such by employers responding to the survey. Previous research commissioned by the LPC (Drew, Ritchie and Veliziotis, 2016) has suggested that lower-level apprenticeships in small firms are likely to be underrepresented. Recently, we have also seen indications that apprenticeships done by older workers – often at the higher end of the pay distribution – are underrepresented. The impact of these issues is reduced when we look at individual age groups, however this does leave us with small samples where indicators are often volatile.

A3.15 The distribution of earnings growth since 2019 is different between ASHE and other sources such as the HMRC Real Time Information administrative data. The ASHE data tend to show stronger pay growth at the bottom of the distribution relative to the RTI and weaker growth at the top. There are a number of factors which could be driving this difference. Firstly, ASHE is based on a sample of employees, and is affected by non-response. Non-response rates have increased since 2019 and the weighting system in ASHE could be underweighting certain types of business (Phan, Stokes, Forth, Bryson, Singleton, Ritchie and Whittard, 2022). Secondly, the RTI data includes all earnings including bonuses, whereas ASHE has a more limited coverage of bonuses. Strong growth in bonuses as a share of total pay could partly explain the stronger pay growth at the top of the distribution in the RTI. Thirdly, compositional effects from the pandemic are likely to affect different data sources in different ways. As an administrative data source, the RTI should capture all new jobs and these flows can alter the pay distribution (for example, new low-paid workers lower measures of median pay). While ASHE is affected by the same dynamics, the effects may be smaller since it is a survey rather than administrative data. We continue to use ASHE as our main data source on pay and earnings, as it is currently the only data source with detailed information on hourly earnings. However, we compare ASHE with other data sources where possible.

Average Weekly Earnings

A3.16 Average Weekly Earnings (AWE) is the lead monthly measure of the level of average weekly earnings per employee in Great Britain. It is based on data from the Monthly Wages and Salaries Survey, which samples around 9,000 employers (excluding small businesses employing fewer than 20 people) covering 12.8 million employees. AWE provides a monthly measure of regular pay, bonus pay and total pay. It replaced the previous measure of short-term changes in earnings, the Average Earnings Index (AEI) in January 2010. AWE uses current industry weights that are updated each month to take account of the distribution of jobs across sectors. The ONS also produces a decomposition of the growth rates to show how much growth is due to wage growth, and how much growth results from changes in employment across sectors. The AWE estimates do not just measure pay, but also reflect industry-based compositional changes within the workforce (but not job-type or occupation-based changes within industries).

A3.17 The ONS publishes three AWE historic time series, all of which are monthly in frequency and include bonus payments: the whole economy series runs from January 1963 to December 1999, while public and private sector series are available from January 1990 to December 1999. The method used to compile these time series takes into account the observed relationship between AEI and AWE, in particular that AWE increased faster than AEI for most of the period between January 2000 and July 2010 (when both measures were available). The difference between the AEI and AWE wage growth should not be over-interpreted, as there is considerable uncertainty introduced by the estimation process. As these historic time series are now only available up to 1999, even though the AEI was not discontinued until 2010, there is no fully consistent complete time series for these data sets up to the present time.

A3.18 AWE revisions were carried out in 2017 and 2019 following regular reviews of the methodology used to calculate estimates of earnings of employees in small businesses. Businesses with fewer than 20 employees are excluded from the Monthly Wages and Salaries Survey, which is largely used for the calculation of the AWE. To compensate for this omission, pay is estimated using a factor derived from ASHE, which does cover small businesses. Changes were announced that aim to better reflect earnings of employees in small businesses as well as reflecting improvements to the coverage of small businesses on the main sampling frame, the Inter-Departmental Business Register. Details of the findings of the most recent review and revisions made as a result can be found in Office for National Statistics (2019).

A3.19 In April 2020, lockdown measures and furloughing led to significant changes in employee pay, making it necessary to change the way that AWE data were processed. Normally, when companies do not respond their employee and pay information is imputed based on their most recent previous response. But in a period where there had been substantial pay changes, this imputation may not always be accurate. The ONS therefore increased the level of data validation over this period. Response rates were 84 per cent in August 2023, close to pre-pandemic levels. As a result, AWE validation is back to normal.

Average Earnings Forecasts and Projection of Path for Minimum Wage

A3.20 We project the path for the minimum wage using three data sources. First, we calculate a baseline estimate of median hourly earnings. We do this using the ASHE data. This estimate is based on the eligible population for the NLW. It excludes overtime and shift premia and excludes workers with less pay than normal due to sickness or absence (based on the "lop" loss of pay variable in the ASHE dataset). We also exclude workers where their hourly pay estimate is zero or the low-pay weight is missing.

A3.21 Second, we use the 12-month smoothed growth rate of AWE total pay (ONS Code: KAB9) to project the growth rate of median hourly earnings in each month between the latest ASHE data and the latest available AWE data.

A3.22 If there are more than 6 months of AWE data since the latest ASHE publication, we calculate the smoothed AWE growth rate for the relevant 6 month period and use it in our projections. We then use the latest AWE data for any remaining months of available AWE data. For instance, if the latest AWE data relates to December and the latest ASHE data relates to April, we would apply the 12-month smoothed October AWE growth rate to the six months between April and October and then the 12-month smoothed December AWE growth rate for the remaining months between October and then the 12-month smoothed December AWE growth rate for the remaining months between October and then the 12-month smoothed December AWE growth rate for the remaining months between October and the six December.

A3.23 Finally, we use forecasts for average earnings to project the growth of median hourly earnings for periods where no AWE or ASHE data are available. We take these forecasts from the HM Treasury panel of independent forecasts. The median wage growth for 2023 and 2024 is taken from the forecasts for the last three months in the panel of independent forecasters (Table 2 and Table 5) from HM Treasury (2023e). The Bank of England (2023c) conditioning assumptions on average wage growth are added to the panel and included in those medians.

A3.24 We assume that pay grows at the same rate each month within the year in our projection. For instance, if the forecast growth rate for pay in 2024 is 5 per cent (and we only have forecast data for 2024), we would assume that each month in 2024 pay grows by 0.4 per cent month-on-month as growth at this rate compounds over 12 months to equal 5 per cent.

A3.25 Projections for median pay in the future are inherently uncertain. Moreover, since the pandemic pay forecasts have become a less reliable guide to future pay. To reflect these uncertainties, we project a range around our central estimate for the on-course rate. This lower end of the range assumes pay grows 1 percentage point a year slower than in our central projection and the higher end of the range assumes pay grows 1 percentage point a year faster than in our central projection. This is not a formal confidence interval, it is based on judgement and an assessment of previous forecast errors.

Labour Force Survey

A3.26 The Labour Force Survey (LFS) is the official data source used to measure employment and unemployment. It is a quarterly survey of around 60,000 UK households conducted on a rolling monthly basis and provides information on: employment; unemployment; earnings; and personal and socio-economic characteristics, including gender, ethnicity and disability.

A3.27 Analyses of aggregate employment, unemployment and hours worked use seasonally adjusted monthly and quarterly LFS data published by ONS using the latest population weights. For detailed analyses of the labour market by age, ethnicity, disability and other personal characteristics, we conduct analyses using the non-seasonally adjusted quarterly LFS microdata. In previous years, we have generally used the four-quarter moving average of these outputs to take some account of seasonality, which is different to the seasonal adjustment method used by ONS. Since the start of the pandemic, tracking movements in the labour market over shorter periods of time has become important. As a result, we have increasingly used single quarter estimates (not seasonally adjusted), or single quarter estimates compared with the same quarter of a previous year where data are highly seasonal. Consequently, our analyses based on LFS microdata may produce estimates that differ from headline aggregates published by ONS.

A3.28 The pandemic introduced a number of issues for surveys. Lockdown meant a move to telephone-only interviewing but a side effect of this was the introduction of additional non-response bias to the survey. ONS established housing tenure-based weights in an attempt to address this and produced revised datasets in October 2020. In July 2021, ONS also introduced the use of HMRC RTI data to improve the population weights used to produce labour market estimates.

A3.29 In March 2022, updated RTI weights by nation and region were published. These data were then used to address two minor issues that arose from the previous reweighting exercise. The result of these revisions was a revised set of weights which led to slightly higher LFS population totals (for those aged 16 and over) – the fourth quarter of 2021 showed revised weight total of 53,746,000 compared to 53,573,000 from the old weights. Other differences included an increase to those non-UK born (more so for non-EU born than EU born), a downwards revision to the employment rate and increases to both unemployment and inactivity rates in Northern Ireland. Other countries of the UK were largely unaffected. Revised quarterly datasets from the first quarter of 2020 to the fourth quarter of 2021 were published by ONS from June 2022.

A3.30 As with ASHE data, the LFS has transitioned from coding occupations on a SOC 2010 basis to a SOC 2020 basis. SOC codes for both systems continue to be provided.

Falling LFS response rates

A3.31 A major concern in recent years has been the reduction in survey response rates. While they had been steadily decreasing since 2015, the issue was accelerated by the pandemic. In July 2020 ONS responded by doubling the issued sample but this was then reduced back to 160 per cent in May 2021 when ONS rolled out a Knock to Nudge programme to improve response rates. The issued sample was reduced further to 150 per cent of pre-pandemic levels in November 2021, before rising slightly to 155 per cent in January 2022.

A3.32 In March 2022 ONS announced (ONS, 2022a) plans to move to the new Transformed Labour Force Survey (TLFS) which would become the primary source of official statistics of the UK labour market from March 2024. The online-first successor to the LFS would deliver increased coverage and make the survey more representative of the population as a whole. ONS also planned to make more use of administrative data. As part of the complex transformation of the TLFS a period of dual running alongside the LFS was proposed to identify differences in findings.

A3.33 Response rates for the LFS continued to fall however. Smaller samples mean there is a greater chance the data is not representative and is less likely to accurately reflect the true number of people who are employed, unemployed, or economically inactive. There is also greater variability from quarter to quarter, making the data less reliable. In July 2023, the LFS sample was reduced back to prepandemic levels – the result was a reduction in the overall response rate to just 15 per cent. Several organisations including the Resolution Foundation, the Financial Times and the Institute for Employment Studies voiced concerns over the reliability of the LFS data.

A3.34 On 13 October 2023, ONS announced that the scheduled 17 October labour market overview would be pushed back a week to allow additional time to produce the best possible estimates of the labour market using the best available data sources. HMRC RTI data, vacancies and earnings data were published as scheduled on 17 October. However, the usual LFS data was not released. The September release was therefore the latest data that was used in Commissioner deliberations.

A3.35 For information, the delayed Labour market overview was published on 24 October 2023 – containing an alternative series of estimates of UK employment, unemployment and inactivity as experimental statistics derived using growth rates from PAYE RTI data alongside Claimant Count information from May-July 2023 onwards. This was to provide a more holistic view of the state of the labour market while the LFS estimates were uncertain. Unadjusted June to August LFS data was not published.

A3.36 Figure A3.1 highlights falling LFS response rates and while Figure A3.2 shows differences in estimates of employment from the most recent data between LFS and administrative RTI data for younger age groups. They highlight how the different sources were broadly in line prior to the pandemic but then began to diverge. There were some large shifts in the LFS that appear to contrast what we see in the RTI, especially for 18-22 year olds. As a result, we are not confident in the second quarter of 2023 data (especially for young people). We use the LFS with caution and compare it to other sources where possible.





Source: Labour Force Survey, population weights, not seasonally adjusted, 02 2015-02 2023.



Figure A3.3: Comparisons of number of employees in LFS with RTI for 16-22 year olds

Source: HMRC PAYE data, 3-month rolling average, not seasonally adjusted, UK, August 2016-August 2023; Labour Force Survey, population weights, not seasonally adjusted, Q3 2016-Q2 2023.

PAYE Real Time Information

A3.37 An additional data source that allows us to understand trends in the number of employees and their earnings is from HMRC's Real Time Information (RTI) administrative data derived from Pay As You Earn (PAYE) records. We refer to these data as the PAYE data. Rather than using a sample, as with the other data sources discussed above, PAYE data covers the whole population of employees paid through PAYE. Monthly statistics are produced on the number of employees and the distribution of pay for the population of nearly all employees in the UK. The data are available by age, industry and region, but they are not available by gender. The data do not include the number of hours worked, and so cannot be used to estimate hourly pay, but the data provide information on median and mean monthly pay and the median of pay growth.

A3.38 Where we use PAYE data, this provides information on the number of employees, not the employment rate. This means that rises and falls can also be related to changes in the total population, due, for example, to shifts in migration patterns or the changing age profile of the population. Although these changes usually occur over an extended period, the pandemic precipitated dramatic changes in migration. This is most likely to affect workers in their mid-20s and 30s. Demographic changes will also be more pronounced for the under 17 and 18-24 age groups as they are smaller age groups.

Differences between PAYE data and the Labour Force Survey

A3.39 Administrative data sources cannot be directly compared with estimates from surveys where the administrative system is measuring a different concept to the survey, or where the population coverage is different. Statistics derived from PAYE administrative data are not directly comparable with statistics from AWE, ASHE and LFS because of differences in measurement and coverage.

A3.40 The number of people receiving pay from PAYE employment is higher than in the LFS employee series, and has shown more substantial falls since the start of the lockdown measures. This is likely to be because RTI covers a different population to the LFS. PAYE administrative data includes all individuals who are employed in a PAYE scheme and who were paid in the reference period, while the LFS sample has no coverage of those aged under 16 or temporary residents in the UK, but has a stronger coverage of people who are in work but not being paid. A further difference arises because PAYE administrative data classifies any person receiving pay through a company payroll as being an employee, while the LFS only classifies a person as an employee if the interviewee describes themselves as an employee in their main job.

A3.41 Statistics on pay are also not directly comparable with AWE or ASHE. As well as published administrative PAYE pay measures being on a monthly basis, PAYE estimates include earnings of employees whose pay was reduced for any reason and do not distinguish between full- and part-time work. PAYE estimates are calculated on a person basis, including all jobs for which an individual is paid through the Pay as you Earn tax system, while AWE and ASHE estimates are calculated on a job basis. This difference causes RTI estimates to be higher than AWE estimates. PAYE estimates also include redundancy payments paid through payroll.

Inflation and price data

A3.42 The ONS publishes monthly inflation indices which reflect changes over twelve months in the cost of a 'basket' of goods and services on which people typically spend their money. In our analyses, we have used two main inflation measures: the Consumer Prices Index (CPI), and the Consumer Price Index including owner-occupied housing costs (CPIH). We have also used the Retail Prices Index (RPI), the Services Producer Price Index (SPPI), Producer Price Indices (PPI) and the GDP deflator. Traditionally RPI was used in wage negotiations but this has gradually been replaced by CPI over the last decade or so. Few negotiations now use RPI as a benchmark. CPIH is used as the ONS headline and for deriving the official AWE real wage series. It is also used in international comparisons. However, few organisations make forecasts for it, so we tend to use CPI as our measure for inflation prospects.

A3.43 Each measure uses the same basic price data, but the CPI (which follows international definitions) excludes Council Tax and a number of housing costs faced by homeowners that are included in the RPI and CPIH. Other differences include the methodologies used to combine individual prices at the first stage of aggregation; the sources used to derive the weighting that each component contributes; and the population that the 'basket' is designed to represent. The RPI is never revised and the CPI, although revisable in theory, has never been revised. CPIH includes costs associated with owning, maintaining and living in one's own home (known as owner occupiers housing costs) along with Council Tax, which are excluded from CPI. It has been revised twice when a new method was introduced. The first revision was on 24 March 2015, which incorporated improvements to the measurement of owner occupiers' housing costs. The second was on 21 March 2017, incorporating council tax and revised weights for owner occupiers' housing costs. In both cases, the full back series was revised. ONS does not intend to make any further revisions.

A3.44 The Services Producer Price Index (SPPI), Producer Price Indices (PPI) and the GDP deflator focus more on the costs for businesses. Producer price inflation, derived from the PPIs, measures changes in the prices of goods bought and sold by UK manufacturers, including price indices of materials and fuels purchased (input prices) and factory gate prices (output prices). The input price measures the price of materials and fuels bought by UK manufacturers for processing. It includes materials and fuels that are both imported or sourced within the domestic market. It is not limited to materials used in the final product but includes what is required by businesses in their normal day-to-day running, such as fuels. The factory gate price (output price) is the amount received by UK producers for the goods that they sell to the domestic market. It includes the margin that businesses make on goods, in addition to costs such as labour, raw materials and energy, as well as interest on loans, site or building maintenance, or rent. The input and output producer prices are published monthly.

A3.45 In July 2022, ONS extended the back series by making historical data readily available and revising the index to 2015=100. The headline PPI output series (GB7S) now goes back to January 1957. The headline input series (GHIP) now includes a back series to January 1984. Unlike the headline output index, the input headline was first introduced in the early 1990s. The addition of these back series does not affect the methodology used to calculate the previous ONS data to 1973. For the periods January 1957 to December 1972, ONS rescaled data from a number of historical rebased series to make these comparable with previously published data.

A3.46 The SPPI provides quarterly estimates of inflation in services bought and sold by UK businesses. There has been no change to the methodology since January 2021, when the SPPI was produced with an annual weight update using the annual chain-linking method recommended by Eurostat. Previous SPPIs had their weights updated every five years using the rebasing method.

A3.47 The GDP deflator represents the broadest measure of inflation in the domestic economy, reflecting changes in the price of all goods and services that comprise GDP. It is important to note that the GDP deflator covers the whole of the economy, not just consumer spending. Movements in the implied GDP deflator in 2020, 2021 and 2022 have been largely affected by the Government consumption deflator, which is the expenditure that is incurred by the Government in producing non-market goods and services, such as health and education. The volume of government activity fell while at the same time government expenditure increased in nominal terms, reflecting how ONS record volume estimates of education and health.

Measuring price changes for items 'more exposed to the minimum wage'

A3.48 This year, we have also used the price microdata that are used to calculate these price indices and other ONS price statistics. These data have been made available by ONS since 2017 for research purposes only. They include the individual price quotes from which the ONS calculate its price indices and pre-calculated indices for the individual items that form part of the basket of goods used to measure inflation.

A3.49 Data are available for 2010 onwards for price quotes and 2005 onwards for item indices; however, during the pandemic there was serious disruption to price collections. For sectors that were shut down, prices could not be collected at all, and in-person price collection of other items could not take place in some months, leading to large reductions in sample size. In its item indices, the ONS imputed values for each item where there were gaps. This was typically done in such a way as to minimise the impact on the overall price index, and so imputed indices should not be used for comparing price changes of individual items. Price quotes data have not been imputed. In order to avoid the impact of these data collection issues, we avoid using price data for individual items during the period of disruption: In Figure 7.2 we use price quote data from August 2021 and in Figure 7.3 we use item indices from either side of the disrupted period.

A3.50 When comparing price changes between items and sectors most exposed to the minimum wage and others, we follow the method used by Wilson (2020) for compiling item-region indices. We then weight these indices using each item's CPI item weight as a share of the total CPI weight of exposed and less exposed items respectively. This approach helps to control for the fact that some sectors have many more items assigned to them than others and so would otherwise be disproportionately represented in the overall index. However, this should be considered a 'naïve' approach to weighting, as we have not adjusted the CPI weights to reflect the varying contribution of different regions to overall inflation. It should also be noted that weights do not reflect different patterns of expenditure in different regions. For example, the hourly rate for a domestic cleaner in Wales will receive the same weight as the hourly rate for a domestic cleaner in London, and both will contribute equally to the calculation of the index in Figure 7.2.

A3.51 Our classification of those products most exposed to the minimum wage and our mapping of items to sectors are taken from the data published in Wilson (2020) and Frontier Economics (2020). These studies used data on wages and turnover from 2015-2018 to calculate exposure at the sector and region level. Due to data availability, we were not able to update these calculations this year, although we will look to do this once sufficient data beyond the pandemic is available. The basket of goods used to calculate inflation measures is updated each year, which means that items added to the basket since 2019 will not feature in our analysis. This is unlikely to have a noticeable effect on our estimates: the vast majority of items added each year are tradeable items, which we exclude to limit the effects of international price movements on the analysis.

Gross Domestic Product

A3.52 GDP provides a measure of total economic activity. It is often referred to as one of the main 'summary indicators' of economic activity and is used to measure growth in the economy. In 2018, the ONS introduced a new publication model for GDP, reducing the number of published estimates of quarterly GDP from three to two. It sought to balance timeliness with accuracy of GDP estimates, with the aim of reducing the likelihood and frequency of revisions. It also enabled the publication of monthly estimates of GDP.

A3.53 Quarterly GDP: The first quarterly estimate of GDP is published 40 days after the quarter to which it refers. This is two weeks after the previous model's preliminary estimate (but in line with other G7 release schedules) and so will contain higher quality output data. It also contains information from the income and expenditure approaches two weeks earlier than in the previous model although the data content will be less than in the previous second estimate. A comprehensive (second) estimate of GDP continues to be released as part of the Quarterly National Accounts, available 85 days after the end of the reference quarter as previous.

A3.54 Monthly GDP: the ONS brought forward the Index of Services release by two weeks, which, alongside the Index of Production and the Index of Construction allow production of a combined monthly estimate of GDP using the output measure, the timeliest of the three GDP measures, and the only one available on a monthly basis.

Blue Book 2023 changes

A3.55 The Blue Book, published annually by ONS, presents a full set of economic accounts for the UK. It outlines any methodological changes made to the National Accounts in addition to the normal quarterly process of incorporating new information into its estimates of economic activity. The 2023 Annual National Accounts, also known as Blue Book 2023, incorporated a wide range of improvements to sources and methods. These include: introducing new methodology to improve estimates of the impact of global supply chains; implementing outstanding classification decisions affecting the public sector; a range of improvements to the deflators used across the National Accounts; data source and method changes to improve the international comparability of UK gross domestic product (GDP) estimates; and estimating 2021 for the first time using the supply and use tables (SUTs) framework, and improving our estimates of 2020 with the latest data.

A3.56 These changes led to revisions to the GDP series back to 1997. Average quarterly GDP revisions from the first quarter of 1997 to the second quarter of 2023 were smaller than in the last two Blue Books (2021 and 2022); however, revisions were larger throughout 2020 and 2021, reflecting the higher levels of data uncertainty because of the coronavirus (COVID-19) pandemic. Revisions to 2020 and 2021 annual GDP were larger than normal; however, this is not the case if you consider the size of the movements in GDP over this period, where the relative revisions over 2020 and 2021 are much more comparable with those prior to the pandemic.

Business Insights and Conditions Survey

A3.57 In March 2020, ONS introduced a new fortnightly business survey to understand how firms have been affected by the pandemic and lockdown measures. It captures firm-level data on how their turnover, workforce, prices, trade and business resilience have been affected in the two-week reference period. Each two-week period is referred to as a "Wave". Prior to Wave 7, results were unweighted but apportioned by responding business employment size. From Wave 7 onwards results were weighted by employment for industries sampled in the survey.

A3.58 In November 2020, the Business Impact of Coronavirus (Covid-19) Survey was superseded by the Business Insights and Conditions Survey (BICS). At this time (Wave 17) the survey increased its representative sample to 39,000 businesses with a response rate around 25 per cent. The published data continue to provide weighted estimates from businesses on financial performance, workforce, prices, trade and business resilience. The latest data available were from Wave 92, covering the period from 17 September-1 October 2023.

A3.59 Over time ONS has dropped survey questions that are no longer applicable, replacing them with more relevant questions. These are documented in their published spreadsheets each Wave. To reduce the burden on firms the frequency of some questions has also extended from every survey to every other or even every four surveys.

A3.60 For this report we have made greater use of this firm level resource by analysing the BICS microdata through the ONS' Secure Research Service. As part of this analysis we combined the data with our definition of low-paying sectors to allow us to compare responses from firms operating in low-paying sectors with those in non-low paying sectors.

A3.61 This analysis uses statistical data from ONS which is Crown Copyright. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates. The analysis was carried out in the Secure Research Service, part of the Office for National Statistics.

Low-paying industries and occupations review

A3.62 Earlier this year, we reviewed our definitions of low-paying industries and occupations. These are the industries and the occupations which are most exposed to minimum wage rises. The table below sets out which industries and occupations are included within our updated definitions. A detailed discussion of the review and detailed mapping tables are available on our website (Low Pay Commission, 2023b)

175	I		
Low-paying industry/occupation	Current industry definition	Current occupation definition	
	(SIC 2007)	(SOC 2020)	
Retail	45, 47, 77.2, 95.2	3553, 3555, 5443, 7111, 7112, 7114, 7115, 7121, 7123-7132, 7219, 9241, 9249	
Hospitality	55, 56	5434-5436, 9261,9263 9266	
Social care	86.102, 87, 88.1	6135-6137	
Employment agencies	78.1, 78.2	-	
Cleaning and maintenance	81, 96.01	6231,6232, 6240, 9131,9221-9229	
Leisure	59.14,79, 92, 93, 96.09	3413, 3431-3433, 6129, 6211, 6212, 6219, 9267, 9269	
Food processing	10.1-10.3, 10.7-10.8	5431-5433, 8111, 9132	
Wholesale food incl. agents	46.2, 46.3,52.1	-	
Childcare	85.1, 88.91	3232, 6111, 6114, 6117, 9232	
Agriculture	01,03,75,	5112-5114,9111- 9119	
Security and enforcement	80.1	6312, 7122, 9231	
Textiles and clothing	13, 14, 15	5411-5413, 5419, 8112, 8146	
Hair and Beauty	96.02, 96.04	6221,6222	
Office work	-	4131,4152,4159, 4212,4214, 4216,4217, 7212, 9219	
Non-food processing	20.4, 22.2,23.4,23.7, 27.3, 32.1- 32.4,	5422, 5423, 5442, 8114, 8119, 8131, 8135, 8139, 8141, 8144, 8149, 9129, 9139	
Storage	-	9252-9259	
Transport	49.32,49.39,53.2,	8145, 8213, 8214, 8219, 8239	
Call centres	82.2	7113, 7211	
Activities of other membership organisiations	94.9	-	
Education	-	4135, 4213, 6112-6113, 9233	
Healthcare		6131, 6133, 9262	

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Appendix 4 International minimum wages

A4.1 As part of our work on the National Minimum Wage (NMW) we keep track of the international context and monitor developments in other countries' minimum wages and related public policy. We have regular contact with officials and counterpart bodies in a number of other countries and hold a workshop each autumn, where officials from around the globe share experiences of monitoring and setting minimum wages. At the event we held in September 2023, we were joined by minimum wage commissioners and officials from France, Germany, Greece, Ireland, New Zealand, Spain, and Sweden as well as researchers from Eurofound, the International Labour Organisation (ILO), and the Organisation for Economic Co-operation and Development (OECD).

Global context

A4.2 Minimum wages, statutory or negotiated, exist in more than 90 per cent of ILO Member States (International Labour Organisation, 2020). The main countries without a statutory minimum wage are concentrated in Scandinavia, Central Europe, the Middle East, the north east of Africa and Southern Africa. In Scandinanvia, Central Europe and Southern Africa, there are strong traditions of collective bargaining. That is not the case in the Middle East and the north east of Africa.

A4.3 Globally, around half of the countries with a statutory minimum wage have a single national minimum wage rate; the other countries have more complex systems. An estimated 18 per cent of countries with statutory minimum wages exclude either agricultural workers, domestic workers or both from minimum wage regulations. Around 54 per cent of countries with statutory minimum wages adjusted their minimum wages at least every two years during the period 2010–19. Countries in the OECD, including the EU, have experienced more regular upratings – usually at least annually.

A4.4 The ILO (2022) noted that 'in times of price inflation, the real value of minimum wages diminishes if they are not adjusted to keep up with rising prices'. It added that 'the adequacy of minimum wage levels depends crucially on the ability to review and adjust rates regularly'. It reported on how inflation rates had affected the purchasing power of minimum wages for selected countries between 2015 and 2022.
Recent upratings in other countries

A4.5 Across the OECD, labour markets were tight in 2022 with employers offering better deals and nominal wage growth was strong. However, OECD (2023x) showed that real wages fell in all but four OECD countries – Belgium, Costa Rica, Israel and the Netherlands – between the first quarter of 2022 and the first quarter of 2023. In contrast, over the period from December 2000 to July 2023, minimum wages generally kept pace with inflation. Real minimum wages increased by around 3 per cent on average across the OECD. Nine countries, including Germany, had higher increases. Another 13 countries, including France and the UK, had increases but were below the OECD average. The real value of the minimum wage was just about maintained in Spain, while in six countries the real value fell, including the US and Ireland.

A4.6 Focusing on the EU, Eurofound (2023) reported that all Member States increased their minimum wage rates for 2023, with increases ranging from just over 5 per cent in Luxembourg to more than 20 per cent in Germany and Latvia. These hikes were generally much larger than those of the previous year: the median nominal increase (in national currencies) across Member States in 2023 was almost 11 per cent, while the median increase in 2022 was 5 per cent. Historically these are large nominal increases. However, inflation has been high across the EU and that has eroded the real value of those increases. The purchasing power of minimum wage earners has not significantly improved across most Member States.

A4.7 As part of our international network, we were able to meet and discuss developments in various countries across the globe. An overview of these developments in selected countries is given below.

Australia

A4.8 As part of the Annual Wage Review (AWR) 2022-23, the Fair Work Commission (the Commission) increased the National Minimum Wage by around 8.6 per cent and award minimum wages by 5.75 per cent from 1 July 2023. The National Minimum Wage increased from A\$812.60 to A\$882.80 per week or A\$21.38 to A\$23.23 per hour. The National Minimum Wage applies to employees not covered by an award or registered agreement. Most employees are covered by an award, which outline the minimum pay rates and conditions of employment.

France

A4.9 France has a combined process in place, in which a legal formula links the growth of minimum wages to the development of actual wages and the development of consumer prices with the assessment of an expert committee, which can make a recommendation for an additional increase (coup de pouce) on top of the formula. There is also a formula that enables increases during the year to take account of inflation. In France, the minimum wage increased by 9.0 per cent from €10.67 to €11.65 between January 2022 and May 2023. That increase was made in several stages: inflation adjustments in May and August 2022; the annual increase in January 2023; and a further inflation adjustment in May 2023

Germany

A4.10 In October 2022, as part of a political agreement among the coalition partners of the new Government, the German National Minimum Wage increased to €12 per hour. It had already increased from €9.82 in January 2022 to €10.45 in July 2022. Combined, that was an increase of around 22.2 per cent. There have been no further increases since then. The German Minimum Wage Commission estimated that coverage of the minimum was around 3.9 million (11.3 per cent of all jobs) when it was introduced in 2015. This increased to around 5.8 million (14.9 per cent) after the large increase in October 2022.

A4.11 In June 2023, the German Minimum Wage Commission decided to increase the minimum wage by 3.4 per cent to €12.41 in January 2024, followed by an increase of 3.3 per cent in January 2025 to €12.82. These upratings track the increase in collectively negotiated wages from the period of June 2022 to June 2023. The increases were decided by majority with the chair and the employer representatives in favour, while the representatives of trade unions were against it. This was the first time that a decision has not had consensus. The Minimum Wage Commission will decide in June 2025 on the upratings for the years 2026 and 2027.

Greece

A4.12 Although Greece established a minimum wage expert committee in 2013, it has a limited mandate with purely an advisory role and no direct consultations with social partners. There is a process at the end of which, the Government makes the decision. The social partners (workers' and employers' organisations) and policy experts (an independent think-tank, the Foundation for Economic and Industrial Research (IOBE), and the Bank of Greece) submit papers with their views on the minimum wage. The social partners then negotiate directly with mediation but typically there is no agreement. After negotiations, the Centre for Planning and Economic Research (KEPE) – a government think-tank – prepares a paper for the Minister of Labour that: summarises the views and the negotiation outcome; evaluates the data on the economy and labour market; sets out its own recommendation; and includes the views of the expert committee. The latter are not submitted independently. The Minister of Labour then makes recommendations to the Cabinet.

A4.13 As part of the post-financial crisis loan package agreed between the Greek Government and the Troika (The EU Commission, the IMF and the ECB), the minimum wage was reduced by 22 per cent in 2012. The minimum wage remained at €568 a month until January 2019, when it increased to €650. In January 2022, it increased by 2 per cent. In response to rising inflation, the Government increased it by 7.6 per cent to €713 in May 2022. This was the first time the Greek Government had increased the minimum wage in the middle of the year. May was then expected to become the annual implementation month. However, that was brought forward to April in 2023 with a further increase of 9.4 per cent to €780 – finally taking it above its pre-crisis level.

A4.14 It should also be noted that minimum wage workers in Greece are entitled to 14 months of payments within a year (not just 12). Adjusting for these payments, the minimum wage in Greece increased from €758 in January 2022 to €910 in January 2023 – an increase over the year of 16.7 per cent. There is also an equivalent day rate for blue collar workers set at €34.84. In addition, there are bonuses for experience (for 3, 6 and 9years) and being married.

Ireland

A4.15 In November 2022, the Irish Government tasked its Low Pay Commission to make the appropriate recommendations required to ensure that the minimum wage will be set at 60 per cent of hourly median wages by January 2026. The first stage of this process was implemented in January 2023 when the Irish National Minimum Wage increased by 7.6 per cent to €11.30 an hour. The National Minimum Wage was estimated to be 51.8 per cent of the median hourly wage in 2023. With Ireland experiencing strong economic growth and very low levels of unemployment, the Commission recommended speeding up the transition to the target of 60 per cent of median hourly wages.

A4.16 In July 2023, the Irish Low Pay Commission recommended an increase of 12.4 per cent from €11.30 to €12.70 per hour from 1 January 2024. The National Minimum Wage will be retitled to the National Living Wage when the threshold of 60 per cent of the median wage is reached.

New Zealand

A4.17 Every year, the New Zealand Government has a statutory obligation to review the national minimum wage. For the 2023 review, the Government waited until January 2023 before making a final decision to factor in the latest inflation figures. Consumer Price Index inflation was 7.2 per cent in the year to December 2022. The Government increased the minimum wage by 7.1 per cent from NZ\$21.20 to NZ\$22.70 an hour effective from 1 April 2023. This was the largest minimum wage increase for five years. It took the minimum wage to around 72 per cent of the median hourly wage (\$31.61).

A4.18 The New Zealand Ministry of Business, Innovation and Employment is currently in the process of doing the review to set the minimum wage for 2024. There is an election in October 2023 so the review will be provided to the new Minister sometime in December.

Spain

A4.19 In Spain, the minimum wage – the Salario Mínimo Interprofesional (SMI) – is set by the Government after consulting on proposals with employers and trade unions. After increasing by 3.6 per cent to €1,000 in January 2022, the SMI increased by 8.0 per cent to €1,080 in January 2023. As in other Southern European countries such as Greece, Spanish minimum wage workers are entitled to 14 months of payments each year. That raises the minimum wage to €1,260 a month.

Sweden

A4.20 Unlike the other countries we have discussed above, Sweden does not have a statutory minimum wage. Instead, it has a comprehensive system of collective bargaining that results in similar outcomes (compared with a statutory minimum) for the low paid.

International comparisons of minimum wages

A4.21 Direct comparisons of the values of minimum wages across countries are inexact for a number of reasons. These include differences in eligibility, particularly regarding age, experience, and exclusions for specific types of workers; whether rates are hourly, weekly, and monthly, with the problems of converting between these figures; and differences in tax and benefit regimes, which affect both what workers are paid, and what they cost employers. In addition, exchange rates and the cost of living influence comparisons of the value of minimum wages.

A4.22 In particular, compared with other countries, the UK has a relatively high age threshold for the adult rate at 23 years, in many countries it is 18 or 21 years. This affects comparisons of bite across countries as the UK's bite will appear lower than in other countries. The younger the workers included, the lower the average wage (as young workers earn less on average) and therefore the higher the bite of the NMW relative to that average. That will be less of a problem going forwards as the UK is committed to reducing the age of entitlement to the adult rate of the minimum to 21 years in April 2024.

A4.23 We can compare how countries have changed their minimum wages between January 2022 and January 2023 in their own currencies. This can be done whether a country has an hourly, weekly or monthly statutory minimum wage. Figure A4.1 shows that the third largest annual increase in the UK (9.7 per cent) only put it in the middle of these countries. Many countries protected their minimum wage workers during the year by making adjustments for inflation.





Note: Minimum wages changes are between the applicable rates in January 2022 and January 2023.

Source: LPC estimates based on data from wageindicator.org and Eurostat.

A4.24 We now compare the value of minimum wages across a range of countries. This is more complex and requires some standardisation. The OECD standardises the minimum wages over the calendar year. For example, the UK's average NLW in 2022 was £9.35 an hour (and not £9.50 that was the rate from 1 April 2022). The minimum wage in the majority of countries is set as a monthly figure, which we have converted to an hourly figure using data on the regulations in each country. Rates are then converted into sterling (GBP) using the average exchange rate for 2022. On this measure, as shown in Figure A4.2, the UK has a relatively high minimum hourly wage, slightly above France and Belgium but behind Australia, Luxembourg, and New Zealand.

A4.25 Adjusting for purchasing power parity attempts to address differences in exchange rates and the cost of living between countries. They are more stable than market exchange rates and account for different prices of goods and services but are also harder to measure than market exchange rates as they rely on periodic price surveys. The OECD produce such a comparison, although the most recent available data are from 2022. On this comparison, the UK is again towards the upper end of the list of countries but also now behind the Benelux countries, France and Germany.



Figure A4.2: Comparison of international minimum wages adjusted for purchasing power parity, OECD, 2022

Source: LPC estimates based on OECD real minimum wage data (in 2022 constant prices at 2022 USD PPPs). Note: Minimum wages are converted to an annual value to enable comparison across the whole of 2022. (For example, in the UK the minimum wage changed in April 2022 from £8.91 to £9.50. That is equivalent to £9.35 across the year: 3 months of £8.91 and 9 months of £9.50). A4.26 We can also use that comparison over time. Figure A5.3 clearly shows the impact of inflation in 2022. The 3.4 per cent increase in the nominal value of the UK's NLW between 2021 (£8.86) and 2022 (£9.35) was a fall of 2.3 per cent in real terms using this OECD comparator. The fall in the UK was in the middle of outcome for OECD countries in 2022 – the latest available data. Most countries (25 out of 35) saw the value of the minimum wage fall in 2022. The falls in Australia and Canada were similar to the UK. Much larger falls were experienced in many Eastern European and Central European countries, as well as the US and the Netherlands. Many of those countries have since made significant adjustments to restore the real value. In the US, the federal wage has been frozen since 2009. The highest real increases in the minimum wage were in Brazil, Mexico and Turkey. There were also large increases in Germany and Hungary.





Source: OECD real minimum wages, in 2022 constant prices at 2022 USD PPPs, hourly, US\$, 2015-2022.

A4.27 We can also look at this measure over a longer time period. The UK's NLW was introduced in April 2016. Figure A5.4 shows how the real minimum wage has changed across OECD countries since then (and up to 2022). The UK is again mid-ranking (sitting 16th out of 35 countries). The UK's NLW has increased by 18.5 per cent in real terms, similar to the increase in New Zealand. The largest increases (of 45 to 80 per cent) have been in Eastern Europe, Mexico and Korea. Only four countries have seen the value of their minimum wage fall over this period. There are the United States, the Netherlands, Malta and Belgium. However, the real minimum wage has also changed little in France.



Figure A4.4: Change in real value of the minimum wage across OECD countries, 2015-2022

Source: OECD real minimum wages, in 2022 constant prices at 2022 USD PPPs, hourly, US\$, 2015-2022.

A4.28 Another way of comparing minimum wages across countries uses its 'bite', defined here as the ratio of the minimum wage to a point on the hourly earnings distribution, such as the median hourly pay. A high bite indicates that the minimum wage is closer to median hourly pay and therefore there is more compression at the bottom of the pay distribution. Median rather than mean earnings provide a better basis for international comparisons as it accounts for differences in earnings dispersion across countries.

A4.29 The OECD (2023e) uses full-time hourly earnings for its comparisons and also takes the average value of the minimum wage over the calendar year. This means the bites shown here are not comparable with those in the rest of this report, which uses all workers, not just full-timers. The bite of the UK's minimum wage was over 60 per cent in 2022 for all workers aged 23 and over, as the bite for part-time workers is much higher than 60 per cent. On the OECD full-time measure, the UK was reported to have a 'bite' of around 58.0 per cent in 2022 – towards the upper middle when compared with the other OECD countries. It was higher than Germany and Australia but lower than South Korea, France, Portugal and New Zealand.



Figure A4.5: Comparison of international minimum wages relative to average median wages of full-time workers, 2022

A4.30 As shown in Figure A4.6, the bite in the UK increased by 9.3 percentage points between 2015 and 2022. This has been driven by minimum wage policy in the UK. First, to reach 60 per cent of median hourly earnings for workers aged 25 and over by 2020, and second to reach two-thirds of median hourly earnings for workers aged 21 and over by 2024. The bite in the UK is thus set to increase further in 2023 and 2024 on these comparisons. Despite that commitment, six other countries in the OECD (including New Zealand, South Korea and Spain) have experienced faster increases in the minimum wage bite since that policy was first announced in 2015.

Source: OECD (2023d). National minimum wage relative to average wages of full-time workers, 2022.



Figure A4.6: Change in international minimum wages relative to average median wages of full-time workers, 2015-2022

Source: OECD (2023d). National minimum wage relative to average wages of full-time workers, 2015 and 2022. Note: For Croatia, the comparison is between 2014 and 2022.

Conclusion

A4.31 Across the globe, there has generally been a commitment in recent years to higher minimum wages – that is particularly the case in many Eastern European countries as well as in the UK and New Zealand. Minimum wage increases have generally been larger in 2022 and 2023 than in 2021. However, despite those larger nominal increases, rising inflation has eroded their value. That is also the case in the UK. Some countries, such as France and the Netherlands, have had additional increases during the year to compensate for that increase in inflation. Germany had large increases in 2022 but did not increase it in 2023. In Ireland, the Irish Low Pay Commission again recommended a large increase in the minimum wage as part of its commitment to raise it to 60 per cent of median earnings by 2026.

Appendix 5 Previous LPC recommendations

A5.1 This table shows the non-rate recommendations made by the Low Pay Commission over the last few years and their status as of October 2023. We will update this table in our forthcoming 2024 Non-compliance and enforcement report.

2023 Compliance and Enforcement report	Status
Take forward the LPC's 2018 recommendations on one-sided flexibility	Ongoing
Ensure more regular naming rounds to create momentum and increase coverage.	Complete
 Expand the data HMRC collects on its caseload, in particular: whether underpayment is formal or informal the characteristics of underpaid workers involved the working arrangements of underpaid workers. 	Ongoing
2022 Report (Accommodation Offset)	
The value of the Accommodation Offset as a proportion of the NLW will not significantly increase until we have some assurance that there are robust minimum standards in place for accommodation and that these are enforced.	- Ongoing
We recommend a minimum hours requirement before accommodation costs can be deducted, for workers at risk of no or very low pay as a result of accommodation charges.	
We recommend that seafarers be exempt from the Accommodation Offset while on board ship.	
We recommend that BEIS and the Home Office work together to address the interactions between the Accommodation Offset and the minimum hourly rates set for seasonal workers visas in agriculture.	
2022 compliance report	
We recommend the review of Operation Tacit by the Director of Labour Market Enforcement (DLME) should engage with a wide variety of relevant stakeholders and should be made public.	Complete
We urge the DLME to take a view, in light of Operation Tacit, on whether there is a case for further regulation of the textiles sector.	
We recommend HMRC addresses previous LPC recommendations to improve and promote third- party complaint protocols.	- Ongoing
We urge the Government to take action on the measures we recommended in 2018 to address one- sided flexibility.	
2021 Report (domestic workers)	
Our recommendation is that exemption 57(3) should be removed. If the government intends to introduce a visa route for au pairs and does not wish to repeal the exemption, then 57(3) must be amended so that it does not provide a loophole for exploitation.	Complete, comes into force in April 2024
2020 compliance report	•

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We recommend the Government evaluates what data are recorded in non-compliance investigations, and considers how this can be used to develop measures of cost-effectiveness.	Ongoing
We recommend the Government monitors the effects of the increase in the threshold for naming employers found to have underpaid workers.	Ongoing
We urge the Government to take responsibility for the delivery of the new higher NLW target in the sectors where it is the main source of funding.	Ongoing
We recommend the Government uses targeted communications to both apprentices and their employers to highlight underpayment risks, and in particular the problem of non-payment of training hours.	Complete
We recommend HMRC review the way they record apprentice underpayment, and to publish the numbers and profile of the apprentices they identify as underpaid.	Ongoing
We recommend that HMRC review their approach to investigations involving apprentices, to understand whether these investigations would identify non-payment of training hours.	Ongoing
We join the Director of Labour Market Enforcement in recommending that the Government reviews the regulations on records to be kept by an employer, to set out the minimum requirements needed to keep sufficient records.	Brought into legislation in 2021
2019 compliance report	-
We urge the Government to use all available opportunities to improve the measurement of underpayment, and to investigate new methodologies for assessing the scale of non-compliance.	Ongoing. DLME have commissioned a large scale survey due in 2024 in 2025.
We recommend that the Government continues to invest strongly in communications to workers.	Ongoing. 'Check your pay' campaign will be repeated in 2024
We urge the Government to consider how to build confidence in the complaints process, and to work with trade unions to understand the current barriers to reporting.	Ongoing
We recommend that the Government's communications should build confidence in the third-party complaints process, including via guidance or case studies around successful complainants. We urge the Government to work closely with Acas, trade unions and other bodies to achieve this.	Ongoing
We urge the Government to invest time in getting the guidance to employers right, as this will simplify the task of enforcement in the longer term.	Ongoing
We recommend that the Government restart regular naming rounds to create momentum, increase coverage and allow stakeholders more time to prepare and support.	Complete – naming restarted in December 2020
One-sided flexibility (2018)	
A right to switch to a contract which reflects your normal hours	A right to request rather than switch comes via The Workers (Predictable Terms and Conditions) Act 2023
A right to reasonable notice of work schedule	Ongoing
Compensation for shift cancellation or curtailment without reasonable notice	Ongoing
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