National Minimum Wage

Low Pay Commission

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Low Pay Commission Report 2019

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by the Secretary of State for
Business, Energy and Industrial Strategy
by Command of Her Majesty

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Introduction

1 We, the Low Pay Commission (LPC), are an independent body charged with advising the Government on the levels of the National Minimum Wage (NMW), including the National Living Wage (NLW). We are a social partnership body, and our recommendations reflect a consensus between representatives of workers, representatives of employers and labour market experts, reached through careful consideration and discussion of the available evidence. This annual report – our 21st – provides the evidence and rationale behind our recommendations on the rates to apply from April 2020. We submitted our recommendations to the Government in October 2019. Publication of this report, which would ordinarily accompany or follow the Government's announcement of the forthcoming rates (usually at the Budget in November), was delayed by the General Election on 12 December 2019.

2 Our remit for the NLW, set by the Government, is for the rate to reach 60 per cent of median earnings by 2020. The recommendations in this report therefore determine whether we believe the Government's target, originally set in 2015, can be reached. While the NLW is designed to move towards a target, there is flexibility built in. The intention behind a relative target (set as a percentage of median earnings) is that it responds to changes in the economy. If the economy booms and pay rises, then the nominal value of the NLW target, and the size of the increases required to reach it, will rise as well; likewise, if the economy slows, so do the pace of increases. Furthermore, our remit to reach the target is subject to sustained economic growth, which we interpret as annual growth in GDP of at least 1 per cent on a rolling four-quarter basis.

3 Over the course of the past year, the Government has sought views on the future of the NLW and on its proposal to set a new (and higher) target for the NLW to reach two-thirds of median earnings. We submitted our advice to the Government on this earlier in the year (Low Pay Commission, 2019c). This included our own analysis of the necessary conditions for such an increase, its potential impacts and the policy framework needed to underpin it, as well as the views of the organisations who responded to our annual consultation.

4 For each of the other NMW rates, which apply to workers under the age of 25 and to apprentices, our remit is to raise pay as high as possible without damaging employment prospects. Our recommendations here reflect the careful balance between setting a pay floor for these younger workers and the risk of pricing them out of the jobs market. We have recently concluded a review of the structure of the NMW youth rates (Low Pay Commission, 2019b) and recommended to the Government lowering the threshold for eligibility for the NLW, first to 23 and eventually to 21. In consequence, and given the Government's acceptance of our recommendation, this is the last year in which we will make recommendations for a 21-24 Year Old Rate.

5 Our discussions this year took place against a unique backdrop: the negotiations for the UK's exit from the European Union. Our 'retreat' – the meeting where Commissioners agree the recommendations we are to make – took place at the same time as the EU Council meeting in mid-October. This meant that during our deliberations the status of the UK's future trading relationship was unknown. In response to this uncertainty our letter of recommended rates to the Government made the following statement:

6 'We met in particularly uncertain times. There remains a possibility of a no deal Brexit which forecasts suggest could damage the economy. In the event of a no deal Brexit, the Government has stated that "action to support the economy, businesses and households" may be required promptly. In this case, we would advise the Government appropriately on minimum wage policy. As we set out in our advice to Government for our remit beyond 2020, it is important that the LPC maintains the flexibility to respond to economic circumstances in an increasingly volatile global climate.'

7 We have reviewed the performance of the economy and the labour market up until the point of our meeting in October 2019 and we make our recommendations on this basis, reflecting the forecasts available at that time. Our recommendations do not take account of any future revisions to economic forecasts or actual out-turns caused by disruption from a Brexit without a transition period. This was a risk which we signalled in our report last year (Low Pay Commission, 2018), and it remains the case at the time of writing.

Evidence gathering

8 We remain committed to making recommendations based on evidence. As in previous years, we have drawn on five main sources: a formal written consultation with employers, workers and unions, running from March to May, supplemented by oral evidence sessions held in July; in-house economic analysis looking both backwards at trends in growth, employment and pay, and forwards at leading indicators of economic and labour market performance; in-house economic and statistical analysis of the impact of the minimum wage; independently published research, plus our own commissioned independent research from universities, thinktanks and research bodies; and a series of visits to employers and workers around the country, to see at first-hand the impact of the policy and our recommendations. We also monitor developments in minimum wage policy internationally and engage throughout the year with counterpart bodies in other countries.

9 The cycle of reporting introduced alongside the NLW limits the available time for analysing the evidence around earnings and compresses the notice period of the new rates to employers (the latter has now been reduced further by the General Election with delays to the announcement of the 2020 rates). A key source of evidence is the Annual Survey of Hours and Earnings (ASHE), an annual survey of 1 per cent of workers in the Pay As You Earn (PAYE) income tax system. The survey takes place in April each year, often soon after the new rates of the NMW have been introduced, and therefore only observes very initial employer responses. Under the pre-NLW cycle the ASHE took place six months after each uprating, giving enough time for employers to fully respond and for the rates to 'bed in'.

10 We are also limited in our ability to assess the employment and unemployment impacts of the recent upratings. At the time of making our recommendations, we had just one quarter of Labour Force Survey (LFS) data available to us covering the period following the April 2019 uprating. This is too short a timeframe to fully assess whether there have been any negative effects from the uprated NLW, other than to observe that so far there is no evidence of large-scale job loss.

11 For our in-house analysis of the economy, we drew on data available up to 23 October 2019. These included: Office for National Statistics (ONS) labour market data; pay settlement data from various pay researchers; economy and pay forecasts from the Bank of England's August 2019 Inflation Report and HM Treasury's panel of independent forecasts up to October. The most recent forecasts from the Office for Budget Responsibility (OBR) are those from Economic and Fiscal Outlook (EFO) published in March 2019. We note them, but place greater emphasis on the more timely forecasts from the Bank and the HM Treasury panel.

12 Alongside our in-house analysis and commissioned research, we spoke to a wide range of stakeholders, including employers, workers, their representatives and others. We are very grateful to the organisations and individuals that have provided evidence to assist us in reaching our recommendations for the new rates.

13 Each year we carry out a written consultation. This year we received 59 written responses, with representatives from over 30 organisations attending our oral evidence sessions in July and September. In addition, Commissioners met with a range of organisations outside the formal consultation process, and the Secretariat held regular meetings with stakeholders.

14 We carried out six Commission visits this year: Neath and Swansea; Ayr and Kilmarnock; Derry/Londonderry; Newcastle and Hartlepool; Great Yarmouth; and Manchester and Wigan. In the course of these visits, we held over 70 meetings with employers, workers and other interested groups, hearing their direct experience of the minimum wage. As ever, these meetings were invaluable in placing the economic evidence in context and understanding the choices facing workers and employers 'on the ground'. We would like to record our gratitude to everyone who gave up their time to meet with us and who helped us organise these visits. Appendix 1 lists those stakeholders who responded to our call for evidence or whom we met on visits, and who agreed to be listed.

15 A number of commissioned external research projects informed this report, supplemented by two one-day workshops where participants presented and discussed findings. We thank all who took part and helped scrutinise the robustness of findings. The findings are used to supplement other evidence throughout this report and a summary is given in Appendix 2.

16 We have met formally as the Low Pay Commission ten times since our previous report, including two days to take oral evidence from representative organisations, and an all-day meeting in October to take presentations from the Government and a number of expert stakeholders on economic and labour market issues. In addition, we met in mid-October for three days to review and assess the evidence relevant to our remit, and to agree all the recommendations contained in this report.

This report

17 We have restructured the report in an effort to make it more easily navigable and avoid too many large chapters. The new structure is as follows:

- Chapter 1 sets out the current state of the UK economy from the point of view of the indicators that are most relevant to the NLW: GDP growth, employment, wages and productivity.
- Chapter 2 looks in more detail at the labour market as a whole.
- Chapter 3 looks in more detail at who NLW and NMW workers are, describing both their personal characteristics and those of their jobs.
- Chapter 4 looks at the impact of the NLW on key labour market outcomes – employment and earnings.
- Chapter 5 and Chapter 6 do the same as Chapter 4, but for younger workers affected by the age rates of the NMW and for apprentices respectively.
- Chapter 7 then looks at how employers have responded to the NMW and NLW and the other broader impacts on the economy.
- Chapter 8 looks at the prospects for the economy over the next 12 months, considering forecasts for the major indicators set out in Chapter 1.
- Chapter 9 sets out our rate recommendations for 2020, the rationales for them and some consideration of the potential impacts on the incomes of certain household types.

The Commissioners

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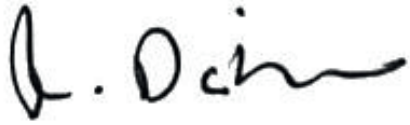

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Jay Arjan
Tim Butcher
Helen Connolly (to May)
Joe Cooper
Emma Hill (from July)
Anthony Lord
Joseph Wilkinson
Kevin Wrake
Nicola Allison (Office of Manpower Economics)

The Government's Remit to the Low Pay Commission

National Living Wage and National Minimum Wage: Low Pay Commission Remit 2019

The Government continues to build an economy that works for everyone. Making work pay for the lowest earners in our society is a core part of our commitment. This April the increases to the National Living Wage and National Minimum Wage are expected to boost the wages of over 2.1 million workers.

The Government's objective is for the National Living Wage to reach 60% of median earnings by 2020, subject to sustained economic growth. The Government asks the Low Pay Commission to monitor and evaluate the National Living Wage and to recommend whether economic conditions allow for the rate effective from April 2020 to meet 60% of median earnings by October 2020.

In addition, the Government would like the Low Pay Commission to monitor and evaluate the levels of each of the different National Minimum Wage rates (16-17, 18-20, 21-24 age groups and apprentice rates) and make recommendations on the increases it believes should apply from April 2020 such that the rates are set as high as possible without damaging the employment prospects of each group. The Government also asks the Low Pay Commission to recommend the accommodation offset rate that should apply from April 2020. Recommendations and a report should be made by October 2019.

In making these recommendations the LPC is asked to take into account the state of the economy, employment and unemployment levels, and relevant policy changes.

Youth rate review

The Government notes the Low Pay Commission's intention to produce advice later this year on whether the current youth rate structure best supports their stated remit. The Government wants to ensure these rates continue to support young people in the labour market.

Post-2020 remit of the LPC

At Budget 2018, the Government announced its aspiration to end low pay in the UK. This year, it will confirm a remit for the LPC for the years beyond 2020. In deciding this remit, the Government will engage with the LPC, as well employers and the TUC, to gather evidence and views. The LPC's remit post-2020 will be confirmed by Budget 2019.

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, Energy and Industrial Strategy by October 2019.

Executive summary

1 This is the 21st report of the Low Pay Commission, the independent body responsible for making recommendations to the Government on the levels of the National Minimum Wage (NMW) and the National Living Wage (NLW). In this report we set out the rationale and evidence for the recommendations we made to the Government in October. We consider the state of the economy and labour market, the impact of the NMW and NLW rates on employment, hours and earnings and the views of workers and employers gathered from our written consultation, meetings with stakeholders and programme of regional visits.

2 Our remit for the NLW, since 2016, has been to make recommendations for the rate so that it reaches 60 per cent of median earnings by 2020, subject to sustained economic growth. As such, this is the final year in which we will make a recommendation on this basis, and we are recommending reaching that target by increasing the NLW to £8.72. Because of strong earnings growth, this means a higher rate than the one we had previously projected. The forecasts we had at the time of our recommendation were for continued economic growth, but as last year we do not take account of future disruption caused by a Brexit without a transition period. Overall, the introduction of the NLW and subsequent upratings have coincided with record levels of employment and while the economic and employment picture this year was less positive than in previous years, there is no evidence that the NLW has led to significant employment losses beyond the Government's tolerance.

3 For the other rates of the NMW, our remit is as it has been since the NMW was introduced: to raise the rates as high as possible without damaging employment.

Economic context

4 To assess whether the economy can bear a higher minimum wage, we monitor a range of economic indicators: employment, economic growth, changes in pay and productivity and a range of considerations that affect the affordability of the NLW to individual firms and the quality of jobs for workers. As anticipated in the forecasts, the economy has weakened since 2016. The actual out-turns in 2018 and so far in 2019 have been close to the forecasts available to us last autumn, although the volatility in GDP growth around the Brexit deadline date had not been factored in (the UK was expected to leave with a deal and a smooth transition on 29 March 2019).

5 Despite GDP growth continuing to be modest, the labour market remained strong in the first half of 2019 and generated much stronger growth in employment than had been forecast. Employment levels and rates were at record highs while unemployment levels and rates continued to fall back to figures not seen since the early 1970s. There have been increasing numbers of full-time and permanent employees, though a large share of the recent growth is from self-employment.

6 This strong employment performance is consistent with high demand from employers. While they have fallen recently, the number (and rate) of vacancies is still well above its pre-crisis high. High numbers of vacancies mean lots of opportunities for workers to move job, and those who do so tend to see significantly higher wage growth. But despite this, job-to-job moves are subdued, which may suggest risk aversion among workers, or a mismatch between those looking for other jobs and the vacancies available. This mismatch may explain why some firms report they are struggling to recruit.

7 The low level of job-to-job moves is unexpected given that a large number of workers remain underemployed. Underemployment may explain why wage growth has, until recently, been muted despite record low unemployment. While unemployment has been below pre-crisis levels since 2015, underemployment has fallen more slowly and remains above its pre-crisis level. It is necessary to look at unemployment and underemployment together to understand the level of slack in the labour market.

8 While still strong, the latest labour market data (covering the period up to August/September 2019) show some signs of softening. Employment fell for the first time in two years and the fall in vacancies suggests slowing demand for staff. Survey data showed the lowest rate of vacancy growth since January 2012, particularly from smaller employers.

9 The labour market has been strong over several years, but it is only in the last eighteen months that this seems to have fed through into an improvement in earnings growth, which was expected to pick up but has done so more strongly than anticipated. This improvement in earnings relative to forecasts has implications for the path of the NLW, which is now higher than we had projected in our 2018 Report. In addition, with inflation falling back slightly faster than forecast, there have been sustained increases in real wages since the start of 2018 with real average wage growth in mid-2019 close to the pre-financial crisis trend. However, real average wages remain below their 2008 levels.

10 Earnings have improved but productivity has not. Strong labour market performance, combined with weak economic growth, is reflected in poor productivity outcomes. Levels of productivity have been flat over the last two years and are only around 2 per cent higher than in 2008. Productivity growth remains poor by historical and international standards.

The impact of the National Minimum Wage on pay and employment

11 The April 2019 increases in the NMW rates directly raised pay for around two million individuals, representing 7 per cent of all UK workers. Despite the above-average increases of recent years, these numbers - the 'coverage' of the rates – have remained relatively flat since 2016, as employers have increased pay for those paid above the minimum to stay above the wage floor.

12 Workers on the minimum wage are not necessarily the same individuals as those with the lowest weekly pay, or who are most likely to experience in-work poverty. Minimum wage workers are not concentrated at the very bottom of the weekly pay distribution, but are instead spread among the bottom three deciles, reflecting the importance of getting enough hours of work to individuals' income.

13 Minimum wage workers are more likely to be women, more likely to be in part-time work and more likely to be in short-term employment. The industries with the largest numbers of low-paid workers are overwhelmingly the retail, hospitality and cleaning and maintenance sectors, but there are various other, smaller sectors where a high proportion of the workforce is paid at or near the minimum. More than one in five minimum wage workers actually receive less than the minimum, and although this proportion has fallen slightly in the past year, it still stands close to its highest level over the NMW's twenty-year history.

The National Living Wage

14 Overall, the NLW has increased pay at the lower end of the labour market without harming employment. The increase in the NLW directly raised pay for around 1.6 million workers in 2019. Since 2015, the NLW has had a clear impact on pay and earnings, with hourly pay for the lowest paid growing significantly faster than for other workers. However, the picture changed slightly in the year to April 2019, with hourly wages growing as strongly as the NLW across the bottom two-fifths of the pay distribution. This faster pay growth resulted from firms deciding to protect pay differentials, changing workforce structures or competing with other employers on pay.

15 The picture also changed for weekly pay, which is more important for living standards. Between 2018 and 2019, the average weekly wage for NLW workers grew more quickly than for most other groups, and by more than the NLW, as these workers typically added more hours. This welcome increase contrasts with the first two upratings of the NLW, where weekly pay grew more slowly than hourly pay for NLW workers.

16 There has been strong growth in employment for the groups of workers more exposed to the NLW and in areas of the country with larger proportions of NLW workers. However, when we look at jobs themselves, we see that those that are more likely to pay the NLW have grown less quickly than the economy as a whole. This could be a sign of a negative effect from the NLW on demand for these jobs, or it could be a consequence of a tight supply of labour. Furthermore, the healthy employment rates of the most at-risk workers, combined with falling employment in low-paying occupations, could suggest that workers may be moving into better-paying occupations.

17 This is consistent with evidence from employers, who have told us that job losses resulting from the NLW have been rare. Where they have responded by adjusting employment, changing hours or slowed hiring have been more common than redundancies, and the NLW has been only one of several factors driving decisions. But there have been a range of other ways in which employers have dealt with the NLW, which we will go on to discuss.

The impact of the youth rates

18 The overall picture for young people is one of stable employment coupled with robust growth in young people's pay, which has been the strongest for several years. Because pay growth has outstripped the increases in their respective minimum wages, the bite has fallen for all three age groups, including in the low-paying sectors. Coverage and underpayment of the youth rates have also declined in the last year. However, it remains the case that coverage alone understates use of the rates, as employers often pay between the relevant minimum wage and the rate above, effectively making use of the lower rate.

19 The labour market position of young people has continued to improve, with falling unemployment and rising employment since 2011. However, there are signs that this is beginning to slow, with a slight increase in unemployment among 18-20 year olds not in full-time education in the last year and numbers of 18-24 year olds not in education, employment or training remaining high.

20 There is evidence of a shift, albeit slight, of young workers away from low-paying occupations. This could suggest that young people have a relatively strong position in a tight labour market and are able to choose to work in jobs with higher levels of pay. There is no strong evidence that employers are substituting older workers for younger workers.

The Apprentice Rate

21 Although the apprenticeship programme and numbers of starts are more stable than in recent years, it remains challenging to unpick the effects of the Apprentice Rate. Our preferred data source, the Apprentice Pay Survey (APS), shows relatively healthy levels of pay for most groups, and stakeholders in most (but not all) sectors tell us the rate is not a primary factor in decisions over recruiting apprentices.

22 It is clear that the rate is still the main driver for the pay of 16-18 year old apprentices, for whom coverage of the rate is over 35 per cent in their first year. Apprenticeship starts among this group have continued to gradually decline, although there is no evidence that this is linked to pay and APS shows their pay growth as relatively healthy. For older apprentices – particularly those aged 21 and over – coverage of the Apprentice Rate is significantly lower. But employers continue to make use of the lower pay floor in the first year of the apprenticeship by setting wages in between the Apprentice Rate and the age-related NMW rates. This means that while coverage is low, actual usage of the rate is far higher.

23 Large numbers of apprentices continue to be underpaid, and we believe this to be a consequence of employers not following the rules on the payment of apprentices' training hours. Until this rule is more widely understood, enforced and followed, the purpose of the Apprentice Rate and efforts to push up apprentices' pay will be undermined.

Other impacts on employers and workers

24 So far, we have looked at the impact of the various rates on pay and employment, and in almost all cases found them to be benign. This raises the question of how employers are responding if not through employment and hours, and what the real impact is on workers. It is difficult to separate the impact of the different rates, but given its higher rate and far greater coverage, most of the stakeholder evidence here pertains to the NLW.

25 The most common responses to the NLW since 2016 have been to accept some reduction in profits or to raise prices, often in combination as part of a varied strategy. While it is difficult to discern changes to profits and prices in official data, survey and stakeholder evidence suggests that many affected businesses have made changes.

26 Effects on productivity and investment have also been common, but approaches in these areas differ by sector and size of firm. Smaller businesses reported cutting investment to manage the cost of the NLW, while larger firms were more likely to spend on training and technology to raise productivity. Business investment in low-paying industries does not appear to have been uniformly affected by the larger NMW/NLW increases in recent years. Productivity growth in low-paying industries has been mixed, with growth in some industries lagging behind pay growth, while in others productivity has grown faster than pay. We again heard about work intensification with some employers asking workers to take on additional tasks and work more flexibly or by raising performance standards or reducing breaks and/or tightening rules around absenteeism. Workers also spoke about the consequences of these higher expectations.

27 Other business costs are also a factor in employers' ability to absorb minimum wage increases. Some stakeholders again described a range of cost pressures creating a 'perfect storm'. Government policies also play a part in some sectors and affect how we evaluate the impact of the NLW. This is most notable in adult social care and childcare, where funding shortfalls continue to put pressure on providers. For workers, policies such as Universal Credit and tax thresholds, as well as general economic conditions, can affect the extent to which they feel the NLW's positive impact.

Forecasts for the economy

28 Economic growth is again forecast to be relatively modest. However, the economy is expected to grow by around 1.2 per cent in 2019 and 1.0 per cent in 2020 – just meeting our threshold of sustained economic growth. Despite the expected GDP weakening, the labour market is expected to remain resilient with employment growth sufficient to keep unemployment low.

29 Inflation has fallen below the Bank of England's 2 per cent target but is expected to increase in the near to medium term towards the target. Average earnings growth has picked up towards rates not seen since before the financial crisis. However, there are signs of some softening in the labour market and forecasts suggest that wage growth might slow into 2020, albeit growing more strongly than in the recent past. With inflation around the target level, the relatively strong wage growth would sustain the real wage growth that we have seen in the last 18 months. Productivity continues to disappoint but forecasts suggest that some modest growth may occur in 2020.

30 We project the on-course path of the NLW to reach 60 per cent of the median to be £8.72 an hour. Among stakeholders there was little dissent on the NLW reaching its target in 2020, though some employers expressed concern about the implications of ongoing uncertainty. Unions backed reaching the target as a minimum, citing £10 per hour as an aspiration.

Recommended rates and their implications

31 Given the ongoing strength of the labour market, the absence of evidence suggesting significant damage to jobs and the economy continuing to grow sustainably, we recommend that the NLW continues on the path to reach 60 per cent of median earnings by 2020. This means an increase of 51 pence, or 6.2 per cent, to £8.72 to reach the target of 60 per cent of median earnings in 2020. This figure is higher than the indicative figure we published earlier in the year. As the NLW follows a target based on median earnings, the recent improvement in earnings growth is the key driver behind the level

of our recommendation for this rate. However, we note that the GDP growth threshold has been met more narrowly than in previous years.

32 Earlier in the year we recommended that the age of eligibility for the NLW be reduced from 25 to 21 in two stages, moving first to 23 in 2021. We are pleased that the Government accepted this advice. The most recent evidence adds further weight to this recommendation. Growth in median hourly earnings for this group was strong and well above that for the rest of the workforce. There was a further reduction in the share of 21-24 year old workers paid at the NMW rate for their age. The employment rate for those outside of education remains higher than the pre-crisis norm, and there have also been recent increases in the share combining work with full-time education.

33 Given our recommendation to bring 21-24 year olds into the NLW fold over the next few years, our view is that it makes sense to maintain the relative gap between these two rates. To that end, **we recommend an increase of 50 pence, or 6.5 per cent, to £8.20.**

34 The 18-20 year old group saw rapid growth in earnings, which was again found across the whole distribution. However, unlike 21-24 year olds, the employment position of this group has softened slightly. **We recognise the relatively weaker position of this group in the labour market and so recommend a slightly lower percentage increase than for 21-24 year olds, at 4.9 per cent, or 30 pence, to £6.45.** This increase is larger than that recommended last year in recognition of the strong earnings growth we have seen.

35 The position of 16-17 year olds is similar to that of 18-20 year olds this year. They have seen weaker earnings growth but their unemployment and employment position improved on last year. However, this group remains the most vulnerable of those covered by the NMW framework and our priority remains ensuring a successful transition from education into the world of work. So, on this basis **we recommend an increase of 4.6 per cent, or 20 pence, to £4.55**. Again, this increase exceeds the 3.6 per cent recommended last year.

36 With regard to apprentices, the message we have heard most consistently from our stakeholders is that there is room for the Apprentice Rate to increase. Some representatives of workers and employers advocate an equalisation of the rate with the 16-17 Year Old Rate. However, this view is not consistently held, and we are in the midst of a review of the structure of the Apprentice Rate. To that end, **we recommend an increase of 6.4 per cent, or 25 pence, to £4.15**, which moves the rate part-way toward the 16-17 Year Old Rate.

37 Since 2013 we have had the aim of bringing the Accommodation Offset in line with the 21-24 Year Old Rate as long as that rate is rising in real terms. Last year we said we would close this gap over two years, with 2020 being the final year. **We therefore recommend an increase of 8.6 per cent, or 65 pence, to £8.20**.

38 The minimum wages we have recommended are likely to increase the pay of over 2.7 million workers, or around one in ten employees. The pass-through from any increase from the minimum wage into the take-home pay that many workers receive is moderated by the tax and benefit system. The increases in net pay are smaller than the gross increases in the wage floor, with income up by at least 4.5 per cent for full-time single minimum wage workers without children, and up by at least 2.5 per cent for couples with a single full-time worker and two children aged under 10.

Recommendations

The National Living Wage and other minimum wage rates

We recommend that the National Living Wage should increase by 51 pence (or 6.2 per cent) to £8.72 per hour from 1 April 2020.

We recommend that the 21-24 Year Old Rate should increase by 50 pence (or 6.5 per cent) to £8.20 per hour from 1 April 2020.

We recommend that the 18-20 Year Old Rate should increase by 30 pence (or 4.9 per cent) to £6.45 per hour from 1 April 2020.

We recommend that the 16-17 Year Old Rate should increase by 20 pence (or 4.6 per cent) to £4.55 per hour from 1 April 2020.

We recommend that the Apprentice Rate should increase by 25 pence (or 6.4 per cent) to £4.15 per hour from 1 April 2020.

Accommodation Offset

We recommend that the Accommodation Offset should increase by 65 pence (or 8.6 per cent) to £8.20 from 1 April 2020.

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Chapter 1

Economic context

1.1 This chapter looks at how the economy has developed since we made our recommendations on the rates for the National Minimum Wage (NMW) and the National Living Wage (NLW) in the autumn of 2018. We assess whether the economy has turned out as we had anticipated. Much has happened since we wrote our 2018 Report but the economy has continued to grow and that provides the context for our understanding of its current state. The prospects for the economy over the next twelve months or so are discussed separately in Chapter 8.

Rationale for last year's recommendations

1.2 Before we discuss the current state of the economy, we first briefly set out the rationale for last year's rate recommendations as context for this year's. In July 2015, the then Chancellor of the Exchequer – George Osborne – set out the Government's ambition to raise the minimum wage for those aged 25 and over (and not in the first year of an apprenticeship) to 60 per cent of median hourly earnings by 2020. He announced that he was introducing a new higher rate in April 2016 for this group – the National Living Wage – set at 50 pence above the level of the NMW. He then tasked us with setting the path in subsequent years to achieve this ambition, subject to sustained economic growth. At the time of his announcement, the Office for Budget Responsibility (OBR, 2015) estimated that it could lead to around 20,000-110,000 fewer jobs than in the absence of such a policy. But it should be borne in mind that the OBR also forecast that there would, in total, be more than 1.1 million additional jobs in the economy over the same period (2015-20).

1.3 In our Spring 2016 Report (Low Pay Commission, 2016a), we explained how we intended to meet this ambition. Our methodology would be to use equal proportionate changes in the bite (the value of the minimum wage relative to median hourly earnings) to navigate our way to the target of 60 per cent from an initial bite of around 53.0 per cent in October 2015. We judged that this approach would enable us to take account of changes in earnings prospects while keeping adjustments to a minimum.

1.4 In contrast to this new policy that implied a tolerance of some job loss, for workers aged under 25 and those aged 25 and over in the first year of an apprenticeship, the remit remained similar to that of previous years – namely, to help as many low-paid workers as possible without damaging their employment prospects.

1.5 In making our recommendations in the autumn of 2018, we were also asked by the Government to 'consider the pace of the increase, taking into account the state of the economy, employment and unemployment levels, and relevant policy changes'. When we met from 17-19 October 2018 to consider our recommendations for April 2019, the prospects for the UK economy were also subject, as now, to a much greater degree of economic uncertainty than usual, with the UK expected to leave the

EU on 29 March 2019. The forecasts that we considered incorporated assumptions of a relatively smooth exit from the EU, with an agreed deal and a transition period that left little changed in the short term. While we considered the OBR forecasts, we focused our discussion on the timelier ones made for 2018-20 by the Bank of England and the HM Treasury panel of independent forecasts.

1.6 Those forecasts suggested that economic growth was expected to remain above 1 per cent on a rolling four-quarter basis, thus meeting our definition of sustained economic growth. GDP growth in 2019 and 2020 was forecast to be slightly higher than the expected out-turn in 2018 (1.3-1.4 per cent). Employment growth was again expected to be quite modest in 2019 at around 0.4 per cent – similar to that in 2018. That weakness in job growth was expected to lead to a slight rise in unemployment, albeit with rates remaining close to their lowest levels since the early 1970s. With employment growth slowing and economic growth expected to pick up a little, productivity growth was also expected to improve, albeit still remaining weak by historical standards.

1.7 After peaking in the fourth quarter of 2017, inflation was expected to fall back towards target. In contrast, nominal wage growth was expected to pick up in 2019 and 2020. The Bank of England's forecasts for wage growth were again higher than the median of the HM Treasury panel of independent forecasts, with wage growth of 3¼ per cent in 2019 and 3½ per cent in 2020 compared with around 3 per cent for the panel in both years. Thus, real wages were expected to increase in 2019 and 2020.

1.8 Using the smoothed bite methodology outlined in our Spring 2016 Report (Low Pay Commission, 2016a) and the 2018 Annual Survey of Hours and Earnings (ASHE), this gave us a path for the NLW of £8.21 in 2019 and £8.62 in 2020. These were similar to the estimates from our previous two reports (Low Pay Commission, 2016b and 2017) but are much lower than the estimates at the time of the 2015 announcement. Indeed, our on-course rate for 2019 – £8.21 – was 53 pence (or 6.1 per cent) lower and the final target (to reach 60 per cent of median earnings) was 73 pence (or 7.8 per cent) lower than had been expected in 2015.

1.9 We therefore recommended that the NLW increase by 38 pence to £8.21 in April 2019 – an increase of 4.9 per cent. However, we noted that 'our view on the outlook for the British economy in 2019 reflects the forecasts we had at the time. These take no account of any future revisions to economic forecasts or actual outturns of any disruption from a Brexit without a transition period. We will review the economy in 2019 as part of our work on recommended rates for April 2020' (Low Pay Commission, 2018).

1.10 The decisions for the youth rates are driven by the objective of helping as many low-paid workers as possible without damaging their employment prospects. In recommending these rates, we placed great emphasis on earnings and the levels and rates of employment and unemployment in aggregate and how they compare across the NMW framework ages.

1.11 In our 2017 Report, we made recommendations for the largest increases in the youth rates for a decade. Those increases allowed a restoration of some of the value the youth rates lost during the recession and its aftermath. They were based on strong employment and earnings growth for all young people at that time. In the autumn of 2018, we noted that while labour market conditions were still strong overall, they had softened slightly in some areas. This, combined with the fact that the evidence was not yet sufficient to understand the impact of these large increases, led to a slightly more cautious approach – though all the youth rates were expected to be above both price inflation and average

earnings growth, thus leading to real and relative (to average earnings) increases in value. Table 1.1 sets out the recommendations on the NMW rates we made in our 2018 Report and compares those with the upratings since the NLW was introduced in 2016.

Table 1.1: National Minimum Wage Rates, 2016-2019

			2019	2018	2017	2016
NLW (25 and over)	Rate	£	8.21	7.83	7.50	7.20
	Increase	pence	38	33	30	50
		%	4.9	4.4	4.2	10.8
21-24 Year Old Rate	Rate	£	7.70	7.38	7.05	6.95
	Increase	pence	32	33	10	25
		%	4.3	4.7	1.4	3.7
18-20 Year Old Rate	Rate	£	6.15	5.90	5.60	5.55
	Increase	pence	25	30	5	25
		%	4.2	5.4	0.9	4.7
16-17 Year Old Rate	Rate	£	4.35	4.20	4.05	4.00
	Increase	pence	15	15	5	13
		%	3.6	3.7	1.3	3.4
Apprentice Rate	Rate	£	3.90	3.7	3.50	3.40
	Increase	pence	20	20	10	10
		%	5.4	5.7	2.9	3.0

Source: Low Pay Commission.
Note: In 2016, the NLW increased in April while all the other rates increased in October. From 2017, all the rates increased in April.

1.12 For 21-24 year olds, labour market performance was weaker than in the previous year, with employment falling slightly although the unemployment rate for those not in full-time education was at a historic low. The share of 21-24 year olds paid at the rate for their age remained low, as many employers chose to pay above this rate. A further consideration was the gap between the 21-24 Year Old Rate and the NLW. We were concerned about this gap widening, with the consequent risk of substitution between age groups. On balance, the evidence led us to recommend a 4.3 per cent or 32 pence increase in the 21-24 Year Old Rate to £7.70.

1.13 In our 2017 Report, we recommended increases above 5 per cent for 18-20 year olds because of both strong earnings and employment growth. While employment had continued to increase and unemployment had fallen, the earnings picture has slightly weakened across the distribution. We therefore recommended an increase of 4.2 per cent or 25 pence to £6.15 for 18-20 year olds.

1.14 For 16-17 year olds our priority remained their effective entry into the labour market. They are the most vulnerable age group in the labour market due to their relative lack of experience. However, their labour market and earnings performance was in line with the previous year's positive trends. On that basis, we recommended an equivalent increase – an increase of 3.6 per cent or 15 pence to £4.35 – that would be a real increase in pay and was above average wage forecasts.

1.15 Making recommendations on the Apprentice Rate was challenging because of the ongoing impact of the policy changes in England and the lack of a recent Apprenticeship Pay Survey (APS). Nevertheless, we did not get a sense from either worker or employer stakeholders that recent increases in the Apprentice Rate had affected the uptake of apprenticeships. On this basis, we recommended a similar increase to the previous year's, of 5.4 per cent or 20 pence to £3.90.

1.16 Finally, in keeping with our aim to bring the Accommodation Offset up to the level of the 21-24 Year Old Rate as long as that rate is rising in real terms, we agreed to try and achieve this commitment over two years. We therefore recommended a 55 pence increase in the Accommodation Offset to £7.55 in 2019, to ensure it better reflected the costs of providing accommodation and helped the horticulture sector in particular.

Economic forecasts used in the 2018 Report and out-turn

1.17 The state of the economy is clearly relevant to our recommendations about the levels of the NMW/NLW rates. Indeed, our current remit from the Government states that our recommendations on the level of the NLW should be subject to sustained economic growth, which we have interpreted as a threshold of 1 per cent GDP growth per year. Alongside GDP growth we also consider a range of other factors - our remit asks us to take into account the state of the economy, employment and unemployment levels, and relevant policy changes.

1.18 Having set out some of the economic context supporting the recommendations in our 2018 Report, we now go on to consider whether the economy has turned out as we had anticipated and whether that has any implications for our deliberations this year.

Economic growth

1.19 At the time of writing the 2018 Report, GDP had grown by 1.7 per cent in 2017 – in line with the forecasts available for our 2017 Report – but had weakened in the first half of 2018 as investment and trade continued to perform poorly. As shown in Table 1.2, the Bank of England forecast growth of 1.4 per cent for 2018, with a median of 1.3 per cent from HM Treasury panel of independent forecasts. Actual GDP growth in 2018, at 1.4 per cent, turned out in line with these forecasts. The Bank of England (2018) also forecast slightly stronger growth of 1.8 per cent in 2019 and 1.7 per cent in 2020. Its rationale was its expectation that GDP growth would be supported by net trade – boosted by robust global growth and the continuing beneficial impact of the recent depreciation in sterling – and investment, as trade outweighed Brexit uncertainties and the muted recovery in real household incomes subdued spending. The median forecast for GDP growth by the HM Treasury panel of independent forecasts was 1.5 per cent in 2019 and 1.7 per cent in 2020.

Table 1.2: GDP forecasts available for the 2018 Report

Forecast source and outcome	Date of forecast	GDP (change on year ago)		
		2018	2019	2020
Office for Budget Responsibility (OBR)	July 2015	2.4	2.4	2.4
	March 2018	1.5	1.3	1.3
Bank of England (BoE)	August 2018	1.4	1.8	1.7
HM Treasury panel of independent forecasts	August/October 2018	1.3	1.5	1.7
Outcome		1.4	1.6*	

Source: Office for Budget Responsibility (2018); Bank of England (2018); and HM Treasury (2018a and 2018b). Forecasting ONS data on: GDP growth (ABMI), quarterly, not seasonally adjusted, UK, 2018-2019.
Note: The actual data for GDP in 2019 is based on a four-quarter rolling average up to the second quarter.

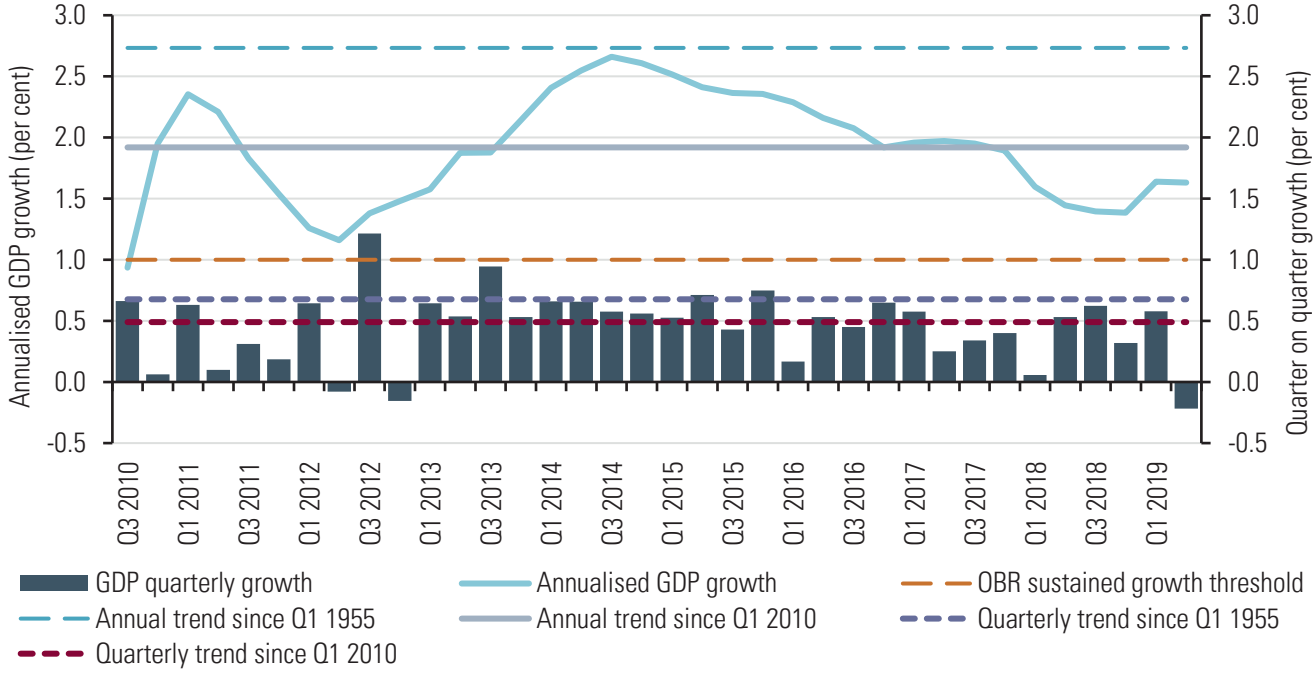
1.20 After a post-financial crisis peak in the third quarter of 2014 at 2.7 per cent – still below the pre-crisis trend – Figure 1.1 shows that on a four-quarter rolling basis, GDP growth had slowed to 1.9 per cent in 2017 and to 1.4 per cent at the end of 2018. Economic growth in the first half of 2019 was affected by Brexit-related factors – the UK had been expected to leave the EU on 29 March 2019. Compared with the same quarter a year ago, GDP growth slowed from 2.1 per cent in the first quarter of 2019 to 1.3 per cent in the second quarter of 2019. As part of contingency planning, many firms had increased their stocks in preparation of potential changes to the terms of trade and regulations. This boosted growth by 0.6 per cent in the first quarter of 2019 (compared with the fourth quarter of 2018). Some manufacturing firms had brought forward their annual summer maintenance shutdowns to April, in order to avoid any immediate effects on supply chains of leaving the EU. This, combined with a run-down of those stocks, led to a fall in GDP of around 0.2 per cent in the second quarter. Indeed, manufacturing output grew by 0.9 per cent in the first quarter of 2019 but then fell by 1.1 per cent in the second quarter.

1.21 Business investment followed a similarly volatile pattern; after declining throughout 2018, it increased by 0.9 per cent in the first quarter of 2019 but then fell back by 0.4 per cent in the second quarter. Total investment, which includes Government investment, also reflected this volatility with the 0.9 per cent fall in the second quarter offsetting an increase of similar magnitude in the first quarter. Net trade was also affected with growth in imports stronger than the growth in exports in the first quarter acting as a drag on GDP. In contrast, net trade provided a boost in the second quarter but only because the fall in imports was greater than the fall in exports.

1.22 In the first half of 2019, overall growth has been supported by consumer and government spending. Consumer spending growth picked up slightly from 0.3 per cent in the first quarter of 2019 to 0.4 per cent in the second quarter, while government spending was up 0.8 per cent in the first quarter and 0.7 per cent in the second quarter.

1.23 Despite that strengthening in consumer spending, growth in output of services – usually dependent on spending – weakened from 0.4 per cent in the first quarter of 2019 to 0.1 per cent in the second quarter, with retail and wholesale output slowing from 1.1 per cent to 0.1 per cent. Output in accommodation and services fell by 0.3 per cent in the second quarter having grown by 0.3 per cent in the first quarter.

Figure 1.1: GDP growth, UK, 2010-2019



Source: LPC estimates using ONS data: quarterly change in GDP (ABMI), quarterly, seasonally adjusted, UK, Q3 2010-Q2 2019.

1.24 Smoothing out these factors, GDP grew by around 1.6 per cent on a rolling four-quarter basis in both the first and second quarters of 2019. That is within the range of forecasts available last autumn (1.5-1.8 per cent). In Chapter 8, we discuss the prospects for a repeat of this volatility of the timing of economic activity as we approached the new deadline for leaving the EU.

Employment and unemployment

1.25 The forecast strengthening in the economy in 2019 was not expected to be sufficient to increase job growth. Indeed, job growth was expected to slow, as shown in Table 1.3. However, despite the weakening in GDP growth, the labour market has continued to generate jobs (and faster than expected). The forecasts overestimated job growth in 2018 – the number of workforce jobs increased by 0.5 per cent in 2018, slower than forecast (around 1.0 per cent) and slower than the 0.8 per cent increase recorded in 2017. But in the year to June 2019, the number of workforce jobs increased by 1.8 per cent (or 640,000) to 35.7 million. This was the fastest increase since June 2016 and much higher than had been forecast.

Table 1.3: Employment growth and ILO unemployment rate forecasts available for the 2018 Report

Forecasts	Date of forecast/outcome	Employment growth (per cent)			Unemployment rate (per cent)		
		2018	2019	2020	2018	2019	2020
Office for Budget Responsibility (OBR)	July 2015	0.3[a]	0.6[a]	0.6[a]	5.3	5.3	5.4
	March 2018	0.6[a]	0.4[a]	0.4[a]	4.4	4.5	4.6
Bank of England (BoE)	August 2018	1.3	0.5	0.5	4.1	4.0	4.0
HM Treasury panel of independent forecasts	August/October 2018	1.0	0.4	-	4.1	4.2	4.4
Outcome to date	August/September 2019	0.5	1.8[b]		4.1	3.9[c]	

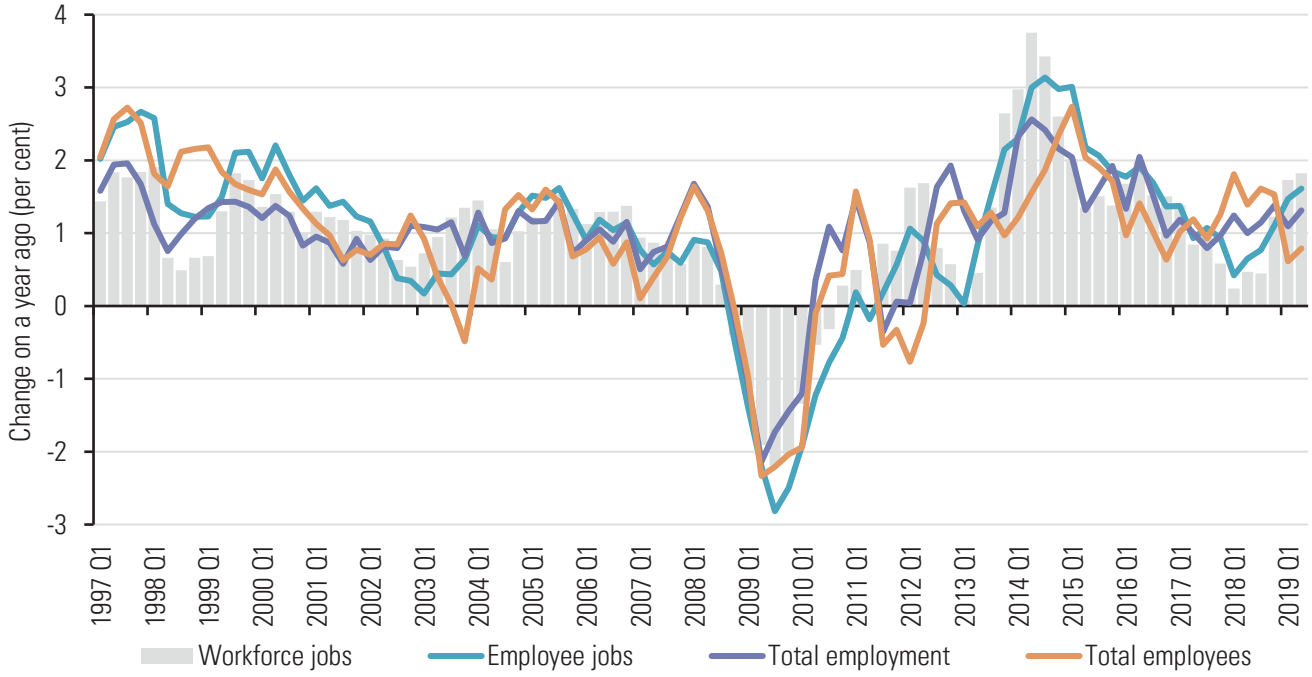
Source: Office for Budget Responsibility, (2015 and 2018); Bank of England (2018); and HM Treasury (2018a and 2018b). Forecasting ONS data on: Workforce jobs growth (DYDC) for the whole year and ILO unemployment rate (MGSX) for the fourth quarter, quarterly, seasonally adjusted, UK, 2018-2020.

Notes:

a. OBR forecasts total employment growth (MGRZ).
b. Workforce jobs (DYDC) data for 2019 was published in June 2019.
c. Unemployment rate for 2019 is that for August 2019.

1.26 Other measures of employment growth, as shown in Figure 1.2, also reflect a strong labour market: the number of employee jobs increased by 1.6 per cent to 30.8 million between June 2018 and June 2019; the total number of people in employment increased by 1.3 per cent to 32.8 million in the second quarter of 2019; and the total number of employees increased by 0.8 per cent to 27.7 million. These are all record levels. We might expect employment levels to increase as the population increases but even employment rates have reached record levels – with that for those aged 16-64 at 76.1 per cent in the three months to June 2019.

Figure 1.2: Employment and job growth, UK, 1997-2019



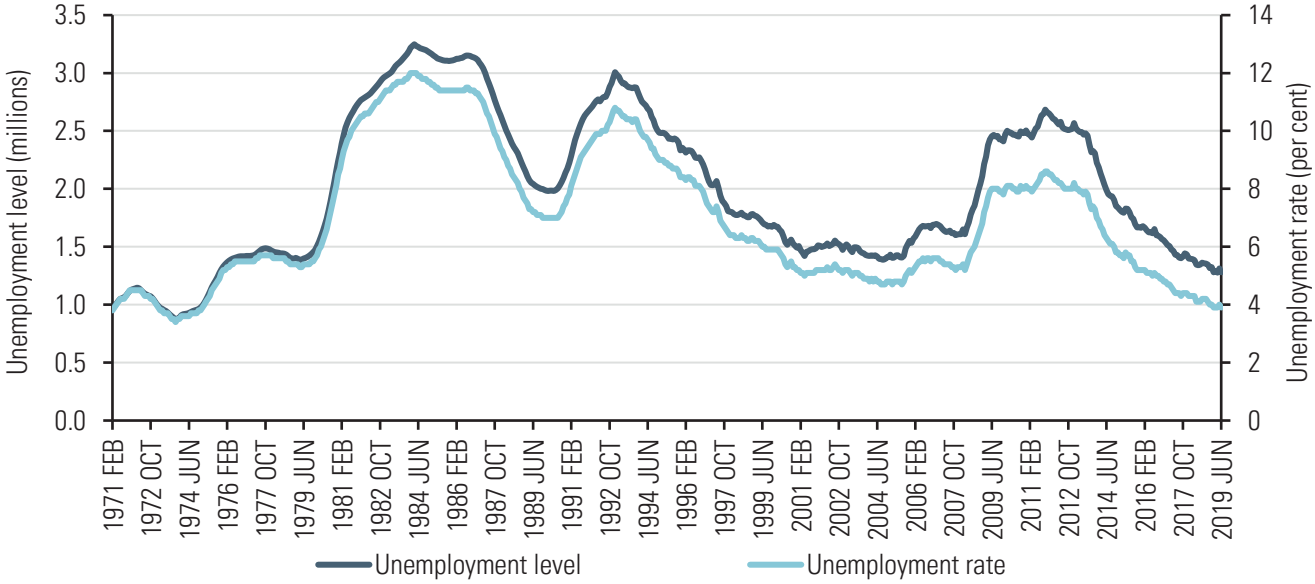
Source: LPC estimates using ONS data: Workforce jobs (DYDC), Employee jobs (BCAJ), total employment (MGRZ), and total employees (MGRN), quarterly, seasonally adjusted, UK, 1997-2019.

1.27 As shown in Table 1.3, the Bank of England (2018) had expected the unemployment rate to fall from 4.1 per cent in 2018 to 4.0 per cent in 2019 and remain at that rate in 2020. In contrast, the median from the HM Treasury panel of independent forecasts had unemployment picking up to 4.2 per cent in 2019 and 4.4 per cent in 2020. The unemployment rate for the 16-64 year old group has continued to fall. Indeed, in July 2019, it had fallen to 3.8 per cent, the lowest it has been since December 1974.

1.28 The actual level of unemployment has also continued to fall – falling from 1.36 million in August 2018 (at the time of our 2018 Report) to stand at 1.31 million in August 2019. Despite the substantial increase in the labour force in recent years, it is below its pre-recession level and is at its lowest level since August 1975.

1.29 So, despite the weakening of GDP growth, the labour market has performed much better in terms of employment and unemployment. We look at this in more detail in Chapter 2.

Figure 1.3: Unemployment level and rate, 16 and over, UK, 1971-2019



Source: ONS data: 16 and over unemployment levels (MGSC); 16 and over unemployment rates (MGSX); monthly, seasonally adjusted, UK, 1971-2019.

Earnings growth

1.30 We next look at whether that labour market strength has fed into wage growth. While there are alternative measures of earnings growth, the ASHE is our favoured source and we are grateful to the ONS for pre-release access to the ASHE data, which were released on 29 October 2019.

1.31 The headline wage growth recorded by average weekly earnings total pay was 3.8 per cent in the year to the second quarter of 2019, while median hourly earnings in ASHE for all workers was 3.9 per cent – the same as the growth in average weekly earnings regular pay. Median hourly earnings in the Labour Force Survey were stronger in 2019 (up 4.6 per cent) but have grown by 11.6 per cent since 2015 – in line with the increase in average weekly earnings total pay (11.5 per cent) and median hourly earnings for those aged 25 and over in ASHE (11.6 per cent). In contrast, the National Accounts estimates of growth in wages and salaries per worker in the second quarter of 2019 were weaker (2.6 per cent) than in AWE or ASHE but have grown by 11.3 per cent since 2015 – in line with the other estimates of wage growth.

1.32 The wage growth forecasts that were available to us in our 2018 Report are shown in Table 1.4. The Bank of England and the HM Treasury panel had forecast that average weekly wage growth would gather pace in 2019 and increase by 3.0-3.3 per cent. This is lower than the actual wage growth observed in 2019. According to ASHE, median hourly wages for those aged 25 and over increased by 3.5 per cent, while average earnings growth increased by 3.6-3.7 per cent.

Table 1.4: Forecasts for average earnings growth, 2018-2020

Forecasts	Date of forecast/outcome		Annual wage growth (per cent) 2018	2019	2020
Office for Budget Responsibility (OBR)	July 2015	Weekly	3.9	4.1	4.4
		Hourly	4.2	4.3	4.6
	March 2018	Weekly	2.7	2.4	2.5
		Hourly	3.4	2.5	2.7
Bank of England (BoE)	August 2018	Weekly	2.5	3.3	3.5
HM Treasury panel of independent forecasts	August/ October 2018	Weekly	2.7	3.0	2.9
Outcome	Average Weekly Earnings total pay		2.9	3.7	
	Average Weekly Earnings regular pay		3.0	3.6	
	Annual Survey of Hours and Earnings median hourly wage excluding overtime for those aged 25 and over		2.7	3.5	

Source: Office for Budget Responsibility (2015 and 2018); Bank of England (2018); and HM Treasury (2018a and 2018b). Forecasting ONS data on: Average Weekly Earnings, AWE (KAB9), whole year, seasonally adjusted, GB, 2018-2020.
Note: Average weekly earnings growth for 2019 compares January-August 2019 with January-August 2018.

Table 1.5: Comparisons of average wage growth

Source	Pay measure	2016-2017	2017-2018	2018-2019	2015-2019 per cent
Average Weekly Earnings (AWE)	Total pay (including bonuses) Apr-Jun	2.2	2.4	3.8	11.5
	Regular pay (excluding bonuses) Apr-Jun	2.1	2.7	3.9	11.4
Annual Survey of Hours and Earnings	Median hourly earnings excluding overtime (16+)	2.5	2.7	3.9	12.7
	Mean hourly earnings excluding overtime (16+)	3.0	3.8	3.2	14.3
	Median hourly earnings excluding overtime (25+)	2.0	2.6	3.5	11.6
	Mean hourly earnings excluding overtime (25+)	2.7	3.7	3.2	13.5
Labour Force Survey	Median hourly earnings Q2	1.8	3.4	4.6	11.6
	Mean hourly earnings Q2	2.2	3.0	3.4	11.3
	Median FT weekly earnings Q2	1.9	2.2	3.4	10.2
	Mean FT weekly earnings Q2	1.4	2.4	4.5	11.2
National Accounts	Wages and salaries per employee job	1.9	5.2	1.7	10.9
	Wages and salaries per worker	2.2	3.8	2.6	11.3
	Compensation of employees per employee job	3.2	3.1	3.2	12.4
	Compensation of employees per worker	3.0	2.3	4.1	12.8

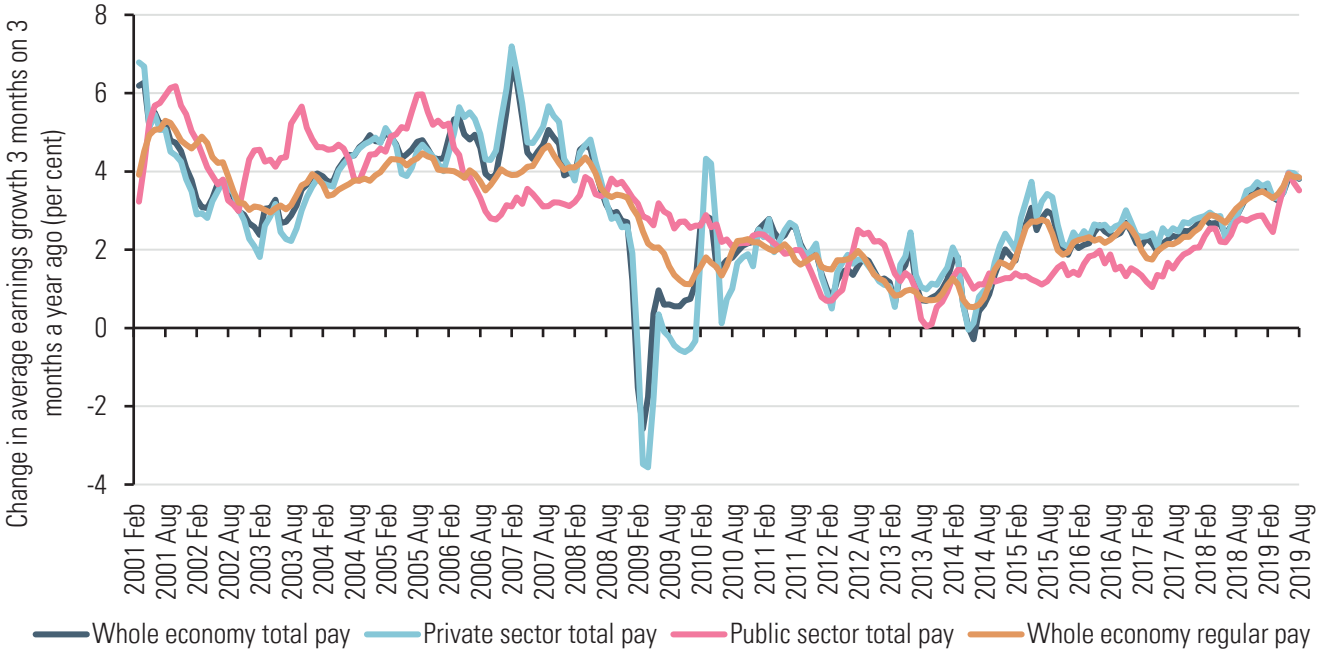
Source: ONS: AWE annual three-month average change for the whole economy, total pay (KAC3), regular pay (KAI9); ASHE 2010 methodology, standard weights; LFS microdata, population weights; and UK National Accounts; UK, 2015-2019.

1.33 The pick-up in average earnings growth since the start of 2017 can clearly be seen in Figure 1.4. Between the end of 2011 and early 2015, average earnings growth generally remained below 2 per cent, whether including bonuses or not. Average earnings growth then rose sharply to reach around 3 per cent in the middle of 2015 before falling back towards 2 per cent.

1.34 In the three months to August 2019, average weekly earnings total pay (including bonuses) was 3.8 per cent higher than in the corresponding period a year ago. It was higher in the private sector (3.8 per cent) than in the public sector (3.5 per cent). The sectors with the strongest wage growth were construction (5.7 per cent) and finance and business services (4.5 per cent). Wage growth in manufacturing (2.7 per cent) was more subdued, while there appeared little effect of the NLW in wholesaling, retailing, hotels and restaurants (3.2 per cent). Similar patterns of pay were also observed for regular pay.

1.35 Although total pay growth and regular pay growth was stronger in the private sector than in the public sector in the three months to August 2019, the gap has narrowed significantly over the last two years. The relaxing of the public sector pay cap has led to increases in public sector pay growth. Further, the decline in public sector employment since 2010 has started to be reversed. Public sector employment fell by over a million between the second quarter of 2010 and the fourth quarter of 2017. Since then, it has increased by around 70,000 with more than half that increase coming in the first half of 2019. With competition for workers increasing, this may have also fed into private sector wage growth.

Figure 1.4: Average earnings growth in whole economy, private and public sectors, UK, 2001-2019



Source: ONS: AWE total pay (KAC3), AWE regular pay (KAI9), real AWE total pay (A3WW), real regular pay (A2FA), annual three-month average change for the whole economy, monthly, seasonally adjusted, GB, 2001-19.

1.36 Compositional changes in the workforce may also have helped boost recorded pay growth. Employment over the last year has grown faster for those in full-time employment compared with part-time employment, for those in permanent rather than temporary jobs, and for those in higher-paying industries and occupations.

Pay settlements

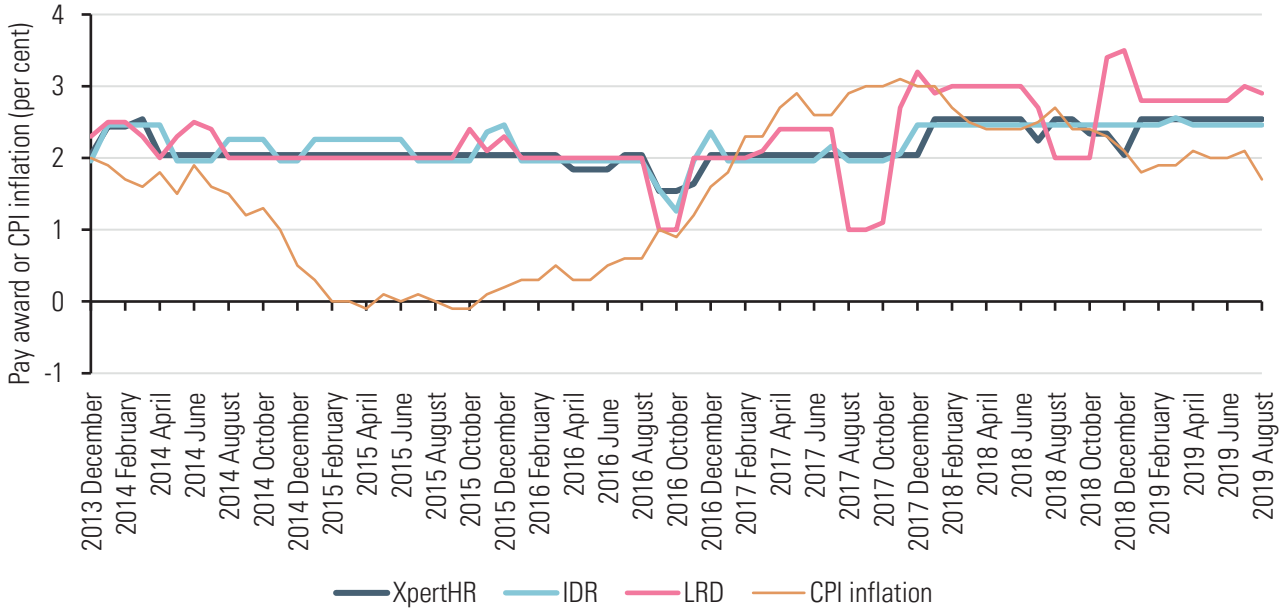
1.37 Another driver of increased wage growth has been a pick-up in pay settlements and awards. Although, the Office for National Statistics (ONS) does not keep official records of pay settlements and awards, we can monitor the pay awards, settlements and pay data recorded by private sector pay research organisations. We monitor six of these – XpertHR, Incomes Data Research (IDR), Labour Research Department (LRD), the Chartered Institute for Personnel and Development (CIPD), the Recruitment and Employment Confederation (REC), and MakeUK, the manufacturers' organisation – each covering different sectors of the economy with some degree of overlap. Together, they give a useful picture of what is happening to pay awards across the economy.

1.38 Before the financial crisis, there appeared to be a strong relationship between pay awards and average wage growth, whereby average wage growth was around 1.5-2.0 percentage points higher than awards. This difference was known as wage drift and was accounted for by movements up pay scales, progression, promotions, and employment composition. However, since the financial crisis, there had been little difference between pay awards and average earnings growth – with the use of pay scales becoming less common and a higher number of new job entrants (with starting wages often lower than the workers they were replacing).

1.39 Prior to our deliberations last autumn, we consulted with these pay researchers, as well as with the Bank of England's Regional Agents, to discuss the outlook for pay in 2019. All had recently undertaken surveys of employers' intentions. In general, they expected pay settlements to continue to reflect the tightening of the labour market that had led them to record a pick-up in awards towards 2.5-3.0 per cent in 2018, having been stuck at around 2.0-2.5 per cent since 2012.

1.40 The out-turn on pay settlements in 2019, as shown in Figure 1.5, has confirmed these expectations, with pay medians at 2.5 per cent to 3.0 per cent, the same as recorded in 2018, with no evidence of a sustained increase in pay pressures over the last 12 months.

Figure 1.5: Pay settlements and awards, UK, 2013-19

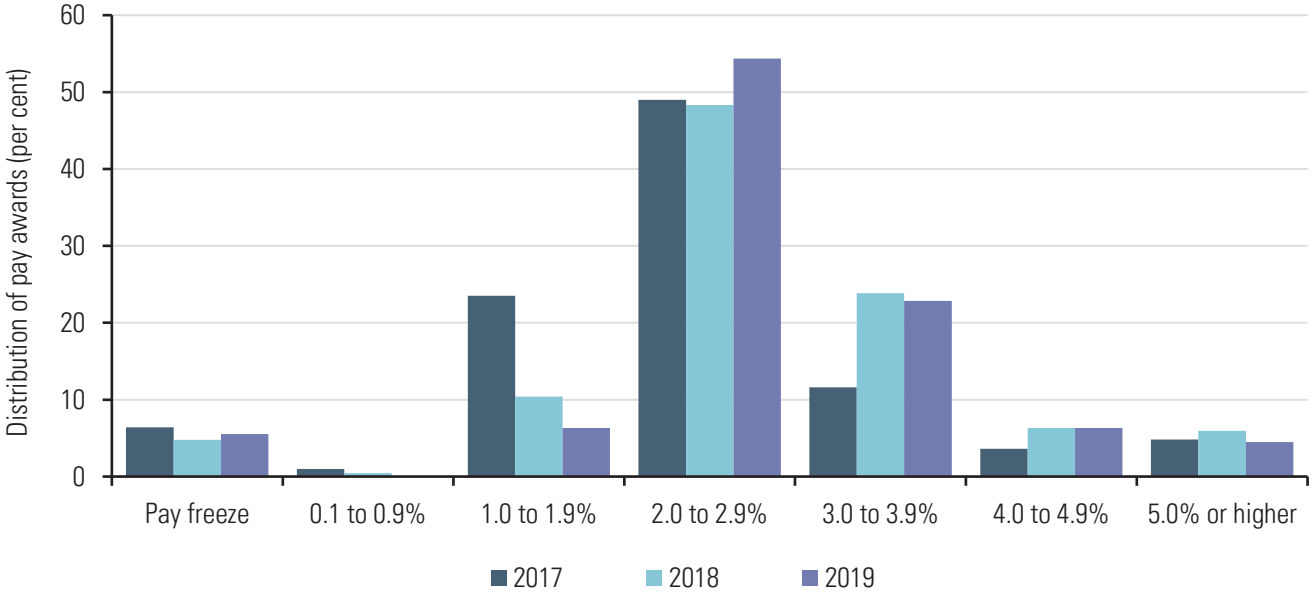


Source: XpertHR, IDR, and LRD, pay databank records, three-month medians; CPI (D7G7), UK, 2013-19.

1.41 Figure 1.5 also shows that the relationship between inflation and pay awards appears to be weak. Indeed, the falling rate of inflation over the past 12 months has not had any clear effect on pay bargaining, but it does mean that most employees will have seen a real increase in basic pay.

1.42 Figure 1.6 shows how the distribution of pay awards changed between 2017 and 2019, with fewer below 2.0 per cent, and more at 3.0 per cent or above. The pattern of pay awards remained fairly similar in 2019 compared with 2018, but with a further increased concentration of pay awards in the 2.0 to 2.9 per cent range and fewer less than 2.0 per cent. The number of pay freezes has changed little over the last three years and is well below the 20 per cent of pay awards recorded in the immediate aftermath of the financial crisis.

Figure 1.6: Distribution of pay settlements and awards, UK, 2017-19



Source: LPC estimates using XpertHR data, UK, 2017-19.

1.43 Before considering what has happened to real wages, we look at how inflation has changed in recent years.

Inflation

1.44 Many employers consider inflation when setting pay and it has traditionally played a central role in collectively bargained wage settlements. However, the relationship between earnings growth and inflation has weakened in recent years. Inflation is also used as a measure to assess the purchasing power of earnings. The real value of the minimum wage will be eroded by increasing prices.

1.45 In October 2018, the inflation forecasts available to us and shown in Table 1.6 suggested that inflation, as measured by the Consumer Price Index (CPI), would fall back towards the target of 2 per cent throughout 2018 after peaking in the fourth quarter of 2017 at around 3 per cent but would still be around 2.3-2.4 per cent at the end of 2018. It would continue to fall back towards the target in 2019. The forecasts for the Retail Price Index (RPI) followed a similar trajectory, albeit at a higher level. The falls in both inflation measures, up to the third quarter of 2019, has been slightly faster than forecasted, with CPI below 2.0 per cent and RPI below 3.0 per cent.

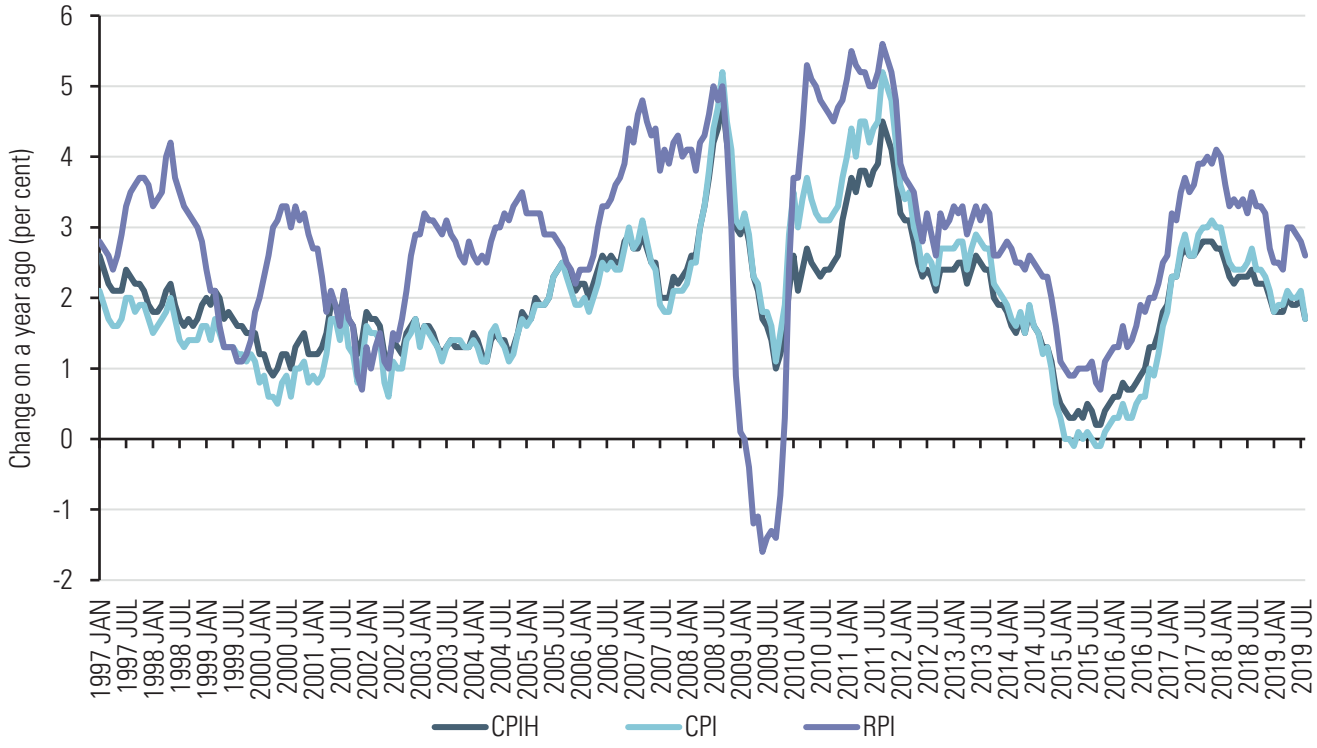
Table 1.6: Forecasts for CPI and RPI inflation, 2018-2020

Forecasts for Q4	Date of forecast/outcome	CPI inflation (per cent)			RPI inflation (per cent)		
		2018	2019	2020	2018	2019	2020
Office for Budget Responsibility (OBR)	July 2015	1.8	1.9	2.0	3.1	3.1	3.2
	March 2018	2.4	1.8	1.9	3.7	3.0	2.9
Bank of England (BoE)	August 2018	2.3	2.2	2.0			
HM Treasury panel of independent forecasts	August/October 2018	2.4	2.0	2.1	3.3	3.0	3.0
Outcome	September 2019	2.3	1.8*		3.1	2.6*	

Source: Office for Budget Responsibility (2015 and 2018); Bank of England (2018); and HM Treasury (2018a and 2018b). Forecasting ONS data on: consumer price index, CPI (D7G7); and retail price index, RPI (CZBH), quarterly, seasonally adjusted, UK, 2018-2020.
Note: CPI and RPI inflation for 2019 are data for Q3 2019.

1.46 Figure 1.7 clearly demonstrates that inflation peaked at the end of 2017 on all the inflation measures shown and then all fell gradually in line with each other. The CPI rate of inflation was at 1.7 per cent in September 2019, down from a recent peak of 3.1 per cent in November 2017. The new ONS headline measure – Consumer Price Index including housing costs (CPIH) inflation, which includes an estimate of owner-occupier housing costs and Council Tax – was also at 1.7 per cent in September 2019. It is not shown in our projections as few organisations forecast it (and it is not available in the HM Treasury panel or from the Bank of England). The RPI rate of inflation was at 2.4 per cent in September 2019, down from a peak of 4.1 per cent in December 2017. Core inflation, which is unaffected by the short-term fluctuations in food and energy prices, was at 1.7 per cent in September 2019.

Figure 1.7: CPI, CPIH and RPI inflation, UK 1997-2019

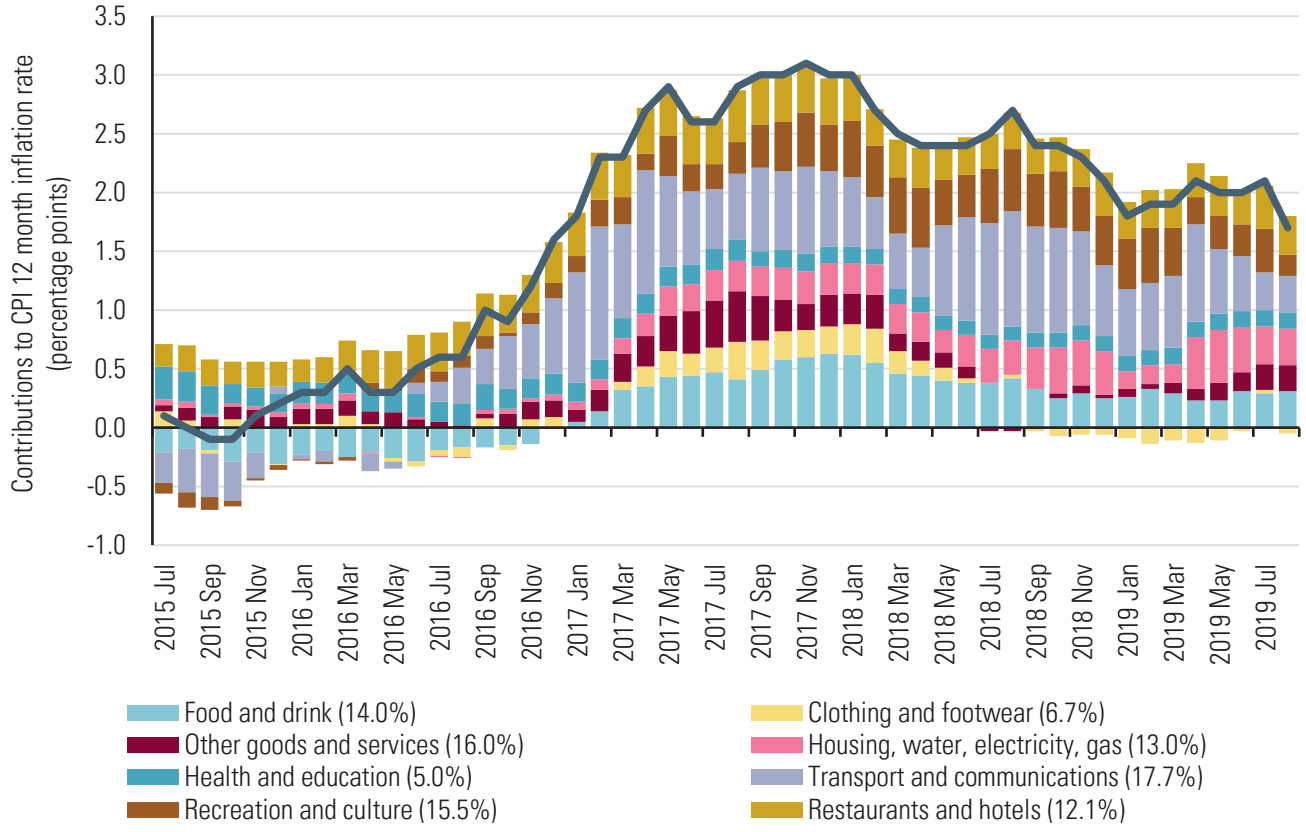


Source: ONS: CPI (D7G7), CPIH (L55O), RPI (CZBH), and core inflation (DKO8) monthly, not seasonally adjusted, UK, 1997-2019.

1.47 Over the last year, the largest downward pressures on CPI inflation have come from recreation and culture, and clothing and footwear. Prices of games, toys and hobbies have fallen sharply in recent months (although price movements for games are volatile as they are subject to the timing of new releases and the composition of the bestseller list). The price of clothing, especially children's clothing has been rising more slowly this year than last. The largest upward pressure has come from food where prices have picked up since November 2018 especially for bread, meat and oils and fats.

1.48 Figure 1.8 shows the contributions to inflation since the announcement of the introduction of the NLW in July 2015. It shows the impact on prices of the depreciation in sterling associated with the EU Referendum.

Figure 1.8: Contributions to CPI inflation, UK, 2015-2019



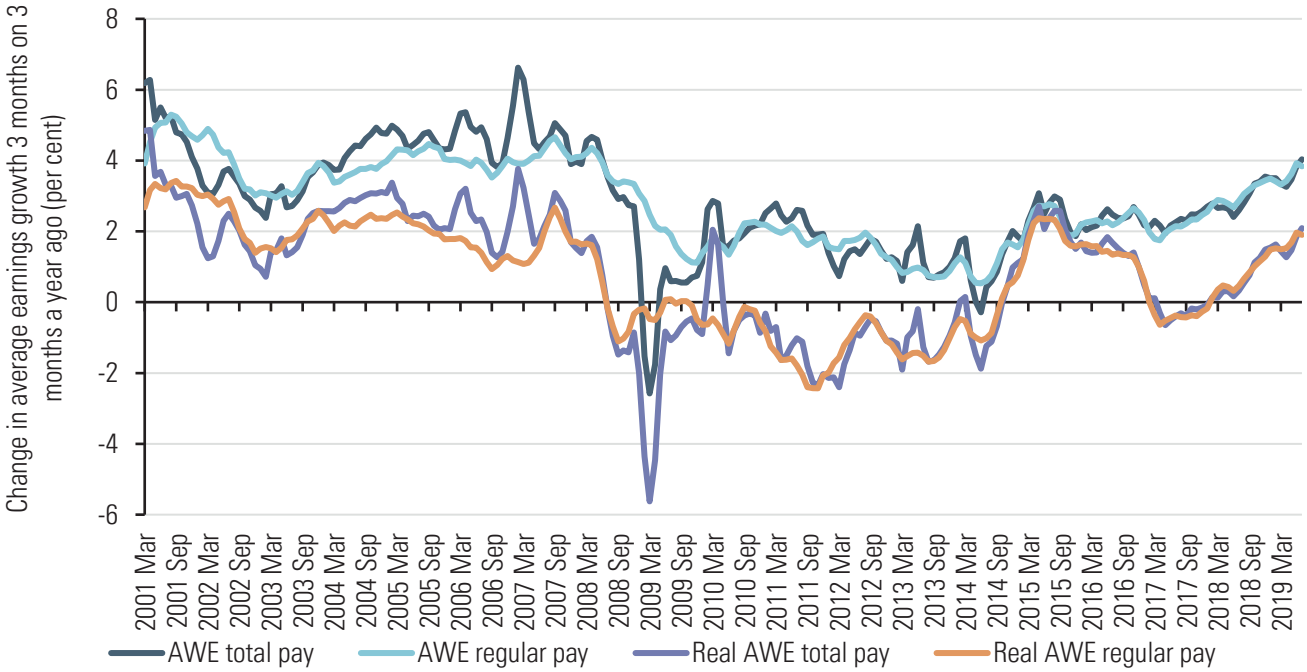
Source: LPC estimates using ONS data: CPI (D7G7), monthly, not seasonally adjusted, UK, 2015-19.

1.49 Between the first quarter of 2015 and the third quarter of 2019, the OBR (2015) had forecast that CPI inflation would rise by 7.5 per cent and RPI inflation by 12.8 per cent. It made no inflation forecasts for CPIH – the ONS headline inflation index – but then again few organisations forecast this index. CPI inflation rose slightly faster than forecast (8.8 per cent) as the uncertainty about the future trade relationship with the EU led to a depreciation of sterling and resultant increase in import prices. The impact on RPI inflation was smaller (13.4 per cent) as the expected interest rate rises did not materialise and that tempered the upward pressures from the exchange rate. Thus, inflation has been a little higher since the introduction of the NLW than the OBR had forecast.

Real wage growth

1.50 With inflation falling back, we can also see from Figure 1.9 that the increase in average wage growth has fed into a sustained period of real wage growth since the start of 2018. In the three months to August 2019, real average weekly earnings total pay was 1.9 per cent higher than in the corresponding period a year ago, while real average weekly earnings regular pay was 2.0 per cent higher. This is the strongest real wage growth since late 2015, although still weaker than the growth experienced before the financial crisis. Indeed, this recent increase in real wages has not been sufficient to raise the real value of average weekly earnings above its level in 2008.

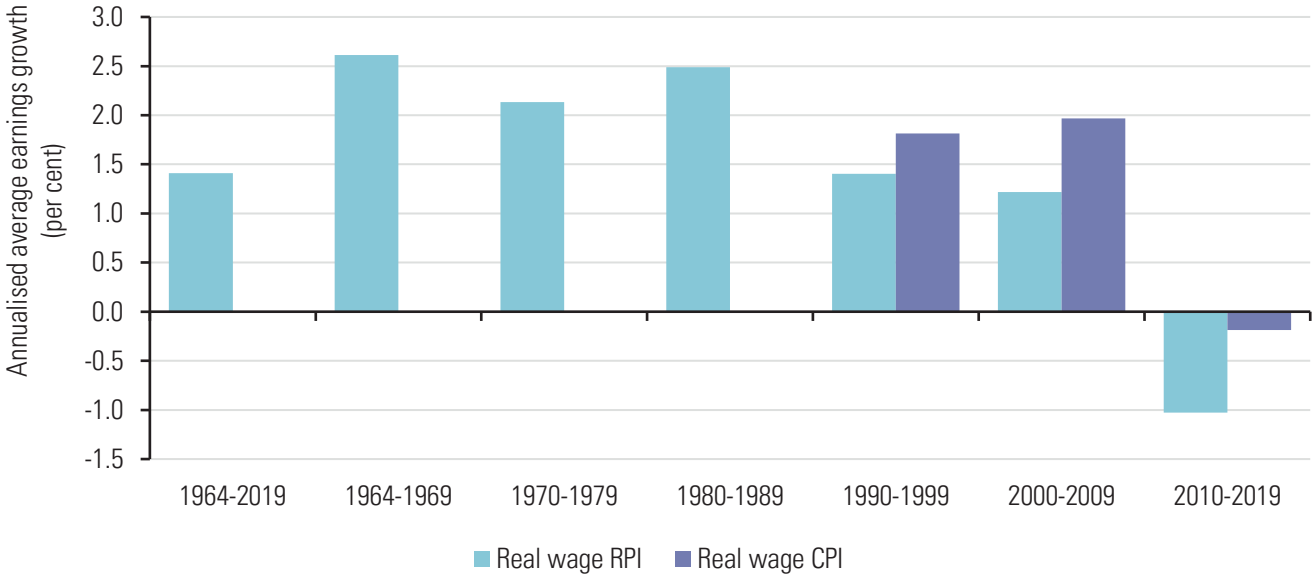
Figure 1.9: Average earnings growth, GB, 2001-2019



Source: ONS: AWE total pay (KAC3), AWE regular pay (KAI9), real AWE total pay (A3WW), real regular pay (A2FA), annual three-month average change for the whole economy, monthly, seasonally adjusted, GB, 2001-19.

1.51 Nominal wage growth was close to 15 per cent a year in the 1970s but has since slowed, growing at around 2 per cent in the 2010s. However, inflation was much higher in the 1970s than it has been in this decade. The ONS's preferred measure of inflation, CPIH, is not available prior to 1988. For long-term comparisons we need to use RPI, which is no longer a National Statistic. Taking account of price rises using RPI inflation as the deflator, Figure 1.10 shows that real wages grew at around 2.0 per cent in the 1960s, the 1970s and the 1980s but they then slowed to around 1.3 per cent in the 1990s and 2000s. Since 2010, they have actually fallen by around 1.0 per cent a year on this consistent measure. Using CPI as the deflator raises the measure of real wage growth (as generally CPI inflation is lower than RPI inflation). We can see that real wage growth on this measure was around 2.0 per cent a year in the 1990s and 2000s but that it was -0.2 per cent in the 2010s. That is, real wages have fallen on this measure since 2010.

Figure 1.10: Real average earnings growth, GB, 1964-2019



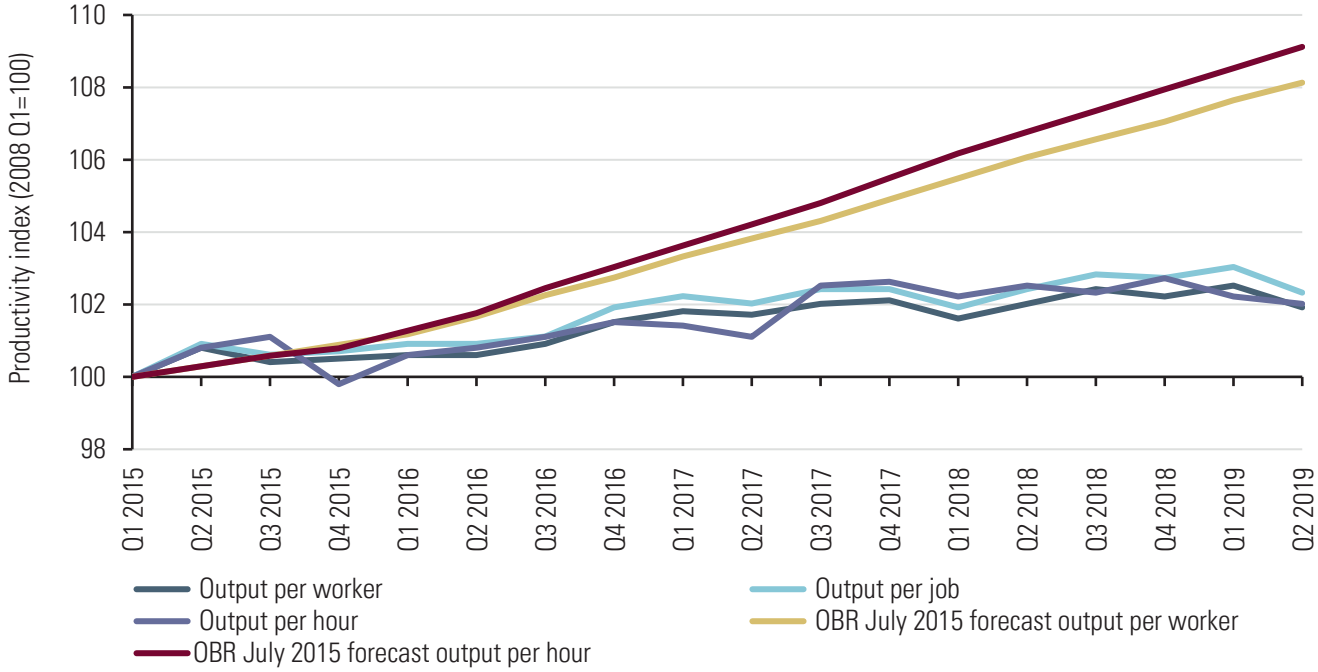
Source: LPC estimates using ONS data: AEI including bonuses (LNNC), quarterly, seasonally adjusted, GB,1964-2001; AWE total pay (KAB9), quarterly, seasonally adjusted, GB, 2000-2019; RPI (CZBH), quarterly, UK, 1964-2019; and CPI (D7G7), quarterly, UK, 1998-2019.

1.52 When the NLW policy was announced, average wage growth forecasts were such that the NLW needed to achieve the target of 60 per cent of median earnings for those aged 25 and over was projected to be £9.35 an hour in 2020. We know from our subsequent revisions to the NLW target that actual wage growth has not been as fast as the OBR (2015) had forecast in July 2015. The available ASHE data at that time were provisional for 2014. The median of hourly earnings excluding overtime for those aged 25 and over was £12.20. This was subsequently revised to £12.19 when the final data for 2014 were released. OBR forecast hourly earnings to increase by 19.4 per cent and weekly earnings would increase by 18.3 per cent between the second quarter of 2014 and the second quarter of 2015. However, the median of hourly earnings excluding overtime only increased by 13.4 per cent from £12.19 to £13.82. Wages on the OBR measures have increased by around 13.0 per cent over the same period while average weekly earnings have increased by around 14.6-14.7 per cent depending on whether bonuses are included.

Productivity growth

1.53 Despite the recent pick-up in real wage growth, productivity remains poor. As we noted in our 2014 Report, sustained increases in real wages generally depend on increased productivity. Over the long term, movements in average wages are a guide to changes in productivity. However, the productivity performance over the last decade or so has been poor – reflecting the weak recovery in output after the recession that has been accompanied by a resilient labour market with strong employment, job and hours growth. Figure 1.11 shows that productivity performance since 2015 has been modest, whether measured using output per worker, output per job or output per hour.

Figure 1.11: Productivity (output per worker, job and hour), UK, 2015-19



Source: LPC estimates using ONS data: output per worker (A4YM), output per job (LNNN), output per hour (LZVB), quarterly, seasonally adjusted, UK, Q1 2015-19.

1.54 Productivity on all three measures was at similar levels in the first quarter of 2015 as they were prior to the onset of the financial crisis in 2008. The recent slowdown in the economy is also evident. Productivity picked up modestly in 2015 and 2016 but has since stabilised with productivity in the second quarter of 2019 barely higher than in the second quarter of 2017.

1.55 In July 2015, when the NLW target of 60 per cent was announced, the OBR forecast that productivity would grow by around 8-9 per cent between 2015 and 2019. It has grown by around 2 per cent leaving the level of productivity around 6-7 per cent lower than the OBR had projected.

Implications for the NLW

1.56 In our 2018 Report, forecasts from the HM Treasury panel of independent forecasts and those of the Bank of England suggested that the on-course rate of the NLW would be £8.21 in 2019 and the NLW target would be met at £8.62 in 2020. The latter target was in line with our estimates in Autumn 2016 Report and the 2017 Report. The provisional median hourly wage for April 2018 was £13.37 and the forecast median hourly wage for 2019 was therefore £13.74. The latest data estimate that the median hourly wage in April 2018 was £13.35 with a provisional estimate of £13.82 for 2019.

1.57 In contrast to recent years, actual average wage growth has been stronger since 2018 than implied by the forecasts available. Thus, the NLW of £8.21 had a lower bite than we had expected (59.4 per cent in April 2019 instead of the 59.8 per cent that we had projected). We look at the impact of any changes in the forecasts on the path of the NLW in Chapter 8.

Conclusion

1.58 The economy has weakened since the end of 2014 and the modest growth experienced in 2018 and the first half of 2019 was in line with the forecasts we had available when making our recommendations in the 2018 Report, although the volatility around the Brexit deadline date had not been factored in (the UK was expected to leave with a deal and a smooth transition on 29 March 2019). Despite the weakening in output, employment and jobs have grown more strongly than expected – employment levels and rates were at record highs while unemployment levels and rates continued to fall back to figures not seen since the early 1970s – but the combination of those factors has been reflected in the poor productivity performance, with productivity flat over the last two years and only around 2 per cent higher than it was in 2008.

1.59 The main change of note in this year's evidence is the improvement in earnings growth, which was expected to pick up but has done so more strongly than anticipated. This, combined with inflation falling back towards target slightly faster than forecast, has led to sustained increases in real wages, with growth in July 2019 close to the average trend growth pre-financial crisis. However, despite that recent increase, real average wages remain below their levels in 2008.

1.60 This chapter has considered data available up to 18 October 2019, mainly including the period up to the end of the second quarter of 2019 but with some indicators also covering the third quarter. Our recommendations for the April 2019 upratings in the NLW, NMW youth rates and the Apprentice Rate were made taking account of the forecasts available in October 2018. The economy has generally performed to those modest expectations in 2018 and 2019. The NLW had been introduced at a time of solid GDP growth and employment performance. Its upratings in April 2019 were implemented with growth roughly in line with expectations for the first half of 2019. But employment and earnings have performed much more strongly, while inflation has fallen back below target faster than expected. The stronger growth in earnings has changed the expected 2020 NLW target, which is now higher than we had projected in our 2018 Report. The new target takes account of the latest forecasts, which are detailed in Chapter 8.

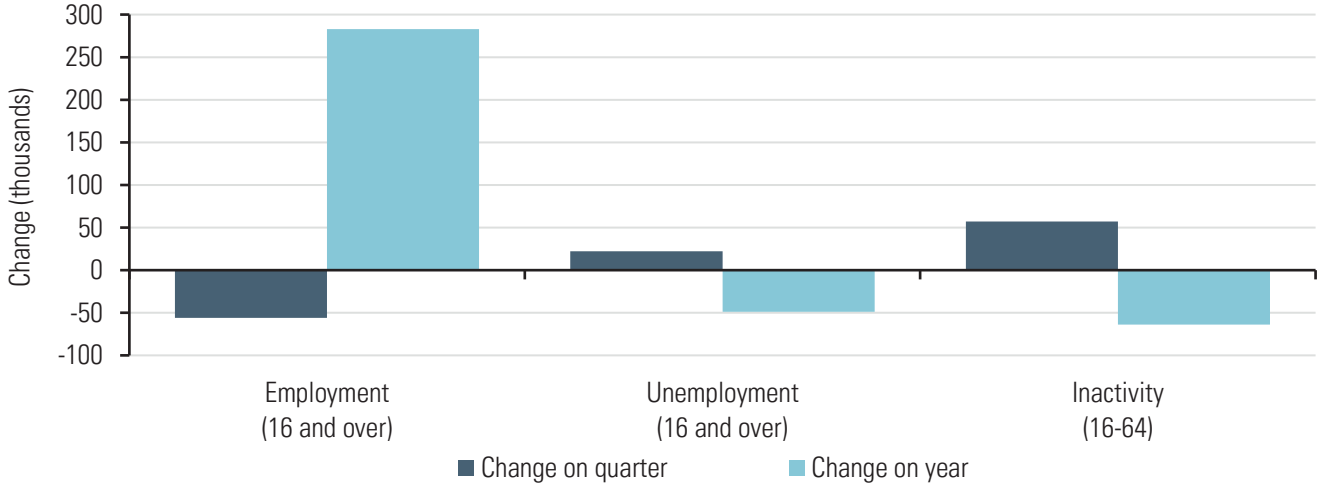
Chapter 2

The labour market

2.1 The level of demand in the labour market is key in determining whether firms can absorb higher wage costs resulting from increases to minimum wages. In recent years the UK has seen a strong labour market with record numbers of people in employment, low levels of unemployment, falling redundancies and increasing vacancies. However, rising minimum wages can put pressure on employers, who can flex their demand for labour by cutting back on hours or reducing levels of employment. In this chapter we assess the current state of the labour market, exploring what has happened to employment, hours and a range of other labour market indicators.

2.2 The first half of 2019 saw a continuation of the recent trend of increasing employment and falling unemployment. The employment rate was at its highest since 1971 whilst the unemployment rate fell to its lowest since 1974. Having reached these record recent rates, latest ONS data suggest we may be seeing the start of some softening in the labour market. Figure 2.1 shows headline employment, unemployment and inactivity indicators and contrasts changes seen in the last quarter (using the latest available data for the three months to August 2019) with twelve months ago. It shows how compared with the three months to May 2019 employment fell by 56,000 – the first quarterly decrease in two years. However, when measuring against the previous year (August 2018) employment was up by 283,000. Unemployment (those not in work but seeking and available to work) increased by 22,000 on the quarter but was down by 49,000 compared with a year ago. Inactivity (those not working and not seeking or available to work) increased by 57,000 in the latest quarter yet was still 64,000 fewer than a year before.

Figure 2.1: Headline changes in employment, unemployment and inactivity, UK, 2018-2019

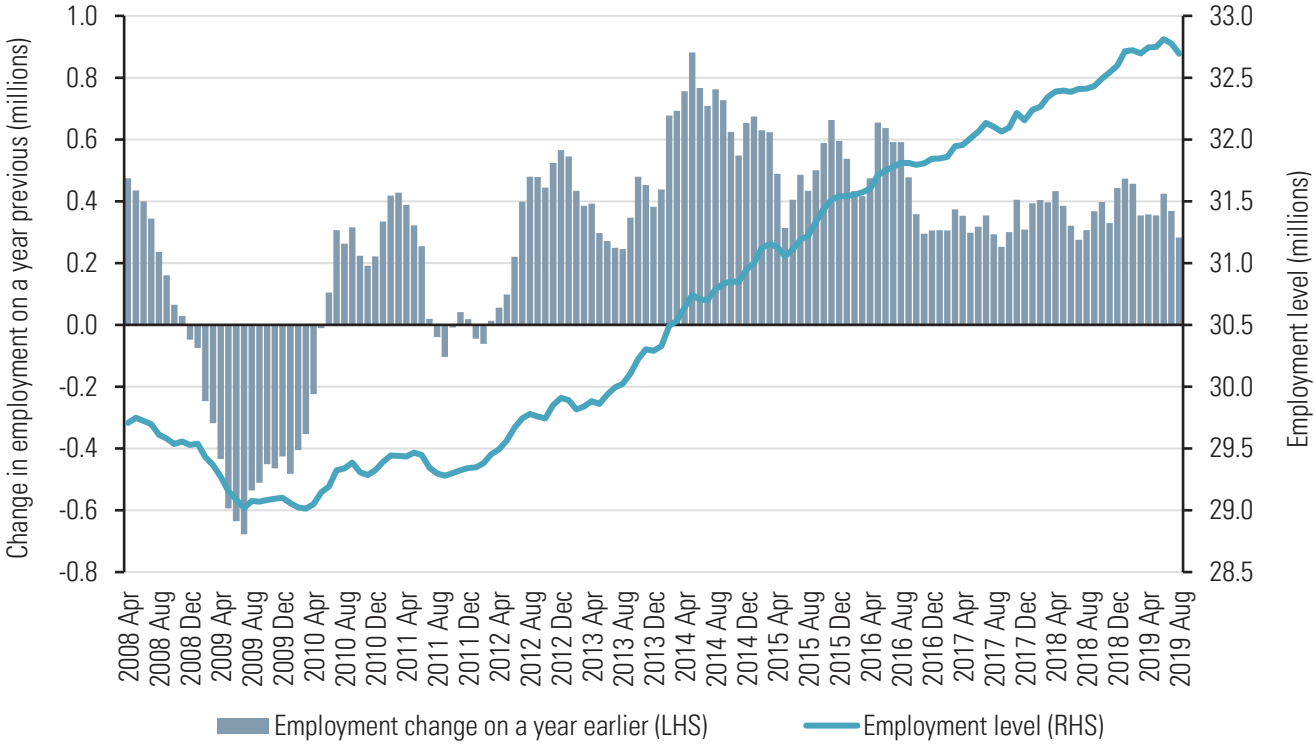


Source: LPC estimates using ONS data: total employment (MGRZ), unemployment (MGSC) and inactivity (LF2M), monthly, seasonally adjusted, UK, 2018-2019.

Employment and employee jobs

2.3 Figure 2.2 shows how strong employment growth has been in the aftermath of the financial crisis, continuing post-introduction of the National Living Wage (NLW) in 2016. In August 2019 there were 32.7 million people in employment, around 3.6 million more than a decade earlier. However, this is just below the peak of 32.8 million in June 2019 and could be the first signs of a slowdown in employment growth. Total employment rates are also just below record recent highs at 75.9 per cent. This is 0.3 percentage points higher than a year ago albeit down 0.2 percentage points on the quarter.

Figure 2.2: Employment, UK, 2008-2019



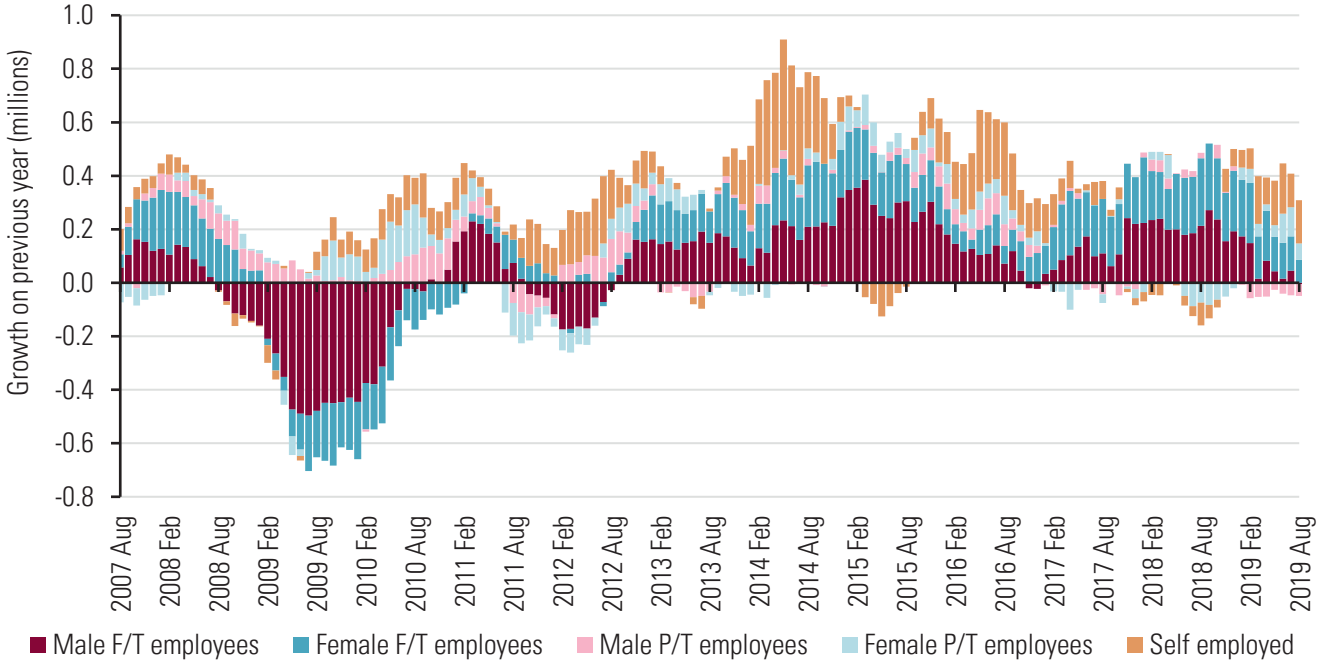
Source: LPC estimates using ONS data: total employment (MGRZ), monthly, seasonally adjusted, UK, 2008-2019.

2.4 Figure 2.3 shows how following the recession jobs growth was largely driven by self-employment which accounted for around half of the increase in employment up to 2015. By August 2019, self-employment was responsible for just over one million of the three million extra people in employment since 2008 despite only comprising 15 per cent of total employment.

2.5 Full-time employees, who bore the immediate brunt of the fall in employment, only recovered to their pre-recession levels in late 2013 for females and the start of 2015 for males. Between this period and 2019 we have seen strong growth for this group of workers, especially among women where there are almost one million more than just 6 years ago. This is partly explained by the move to equalise the State Pension age which saw the female pension age gradually increase from 60 in 2010 to reach 65 in 2018. The State Pension age for both men and women will reach 67 by 2028.

2.6 However, since the beginning of 2019 the source of employment growth has shifted back to self-employment, with lower increases in full-time employees, particularly amongst men.

Figure 2.3: Employment growth, UK, 2007-2019



Source: LPC estimates using ONS data: full-time female employees (YCBM); full-time male employees (YCBL); part-time female employees (YCBP); part-time male employees (YCBO) and total self-employed (MGRQ), monthly, seasonally adjusted, UK, 2007-2019.

2.7 Table 2.1 shows total employment broken down by employment type, age, status and contract to better understand the recent changes in growth that these areas have experienced. In the year to August 2019 growth in self-employment was particularly strong comprising 162,000 of the 283,000 total employment growth despite making up only 15.1 per cent of all employment. There are now over 1 million more people in employment than when the NLW was introduced in April 2016. Compared with the previous quarter there has been a fall in both the number of employees and self-employed.

2.8 As mentioned earlier, there has been strong growth in full-time employees in recent years. In the last year there were an additional 98,000 employees (of whom 80,000 were in full-time employment) though this was the smallest annual growth in seven years. In the 28 months since April 2016, over 940,000 full-time employees have been added to the labour market. Employment growth continues for those employed on a permanent contract, which was up by 222,000 compared with August 2018. There were 124,000 fewer on temporary contracts over the same period.

2.9 Employment growth in the last year was concentrated among those aged 25-34, increasing by 115,000, and those aged 50 and over, rising by 287,000. The latter increase can be partly explained by the changes in State Pension age already mentioned. Female employment for this age group increased by 189,000 in the year with employment among males aged 50 and over up by 97,000. Despite strong annual growth workers aged 25-34 saw a fall in employment in the latest quarter, with 20,000 fewer employed. Younger workers saw the largest falls in employment with numbers down 69,000 on the quarter and 123,000 over the year, partly explained by a drop in the youth population over the year. Yet it is not just falling levels in the youth population; there have also been falls in their employment rates as shown in Figure 2.4.

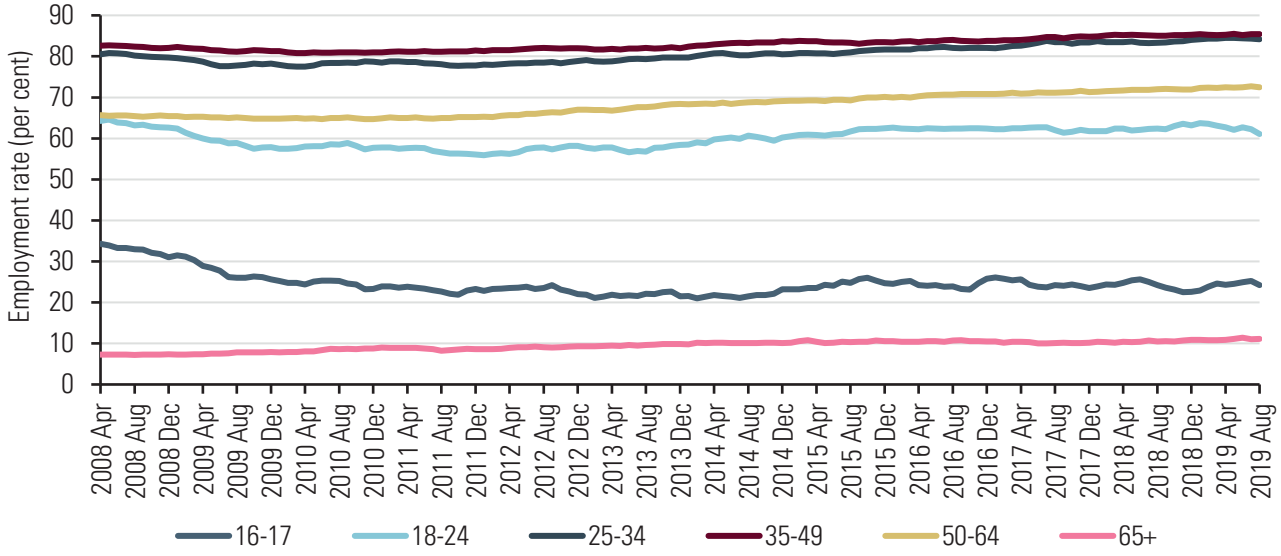
Table 2.1: Employment by status, age, hours and permanency, UK, 2016-2019

Thousands	Latest Data	Change on Last quarter	Change on Previous year	
	2019 August	2019 May	2018 August	2016 April
Employment				
Total	32,693	-56	283	1,090
Employees	27,577	-49	98	884
Self-employed	4,930	-25	162	224
Other	186	19	23	-18
Employment by Age				
16-17	338	-3	1	-17
18-24	3,366	-66	-124	-204
25-34	7,550	-20	115	327
35-49	10,866	-16	5	100
50-64	9,246	50	197	739
65+	1,327	-1	90	146
Work Status				
Full-time Employees	20,611	5	80	942
Part-time Employees	6,965	-55	16	-59
Contract Type				
Permanent Employees	26,179	20	222	1,119
Temporary Employees	1,398	-69	-124	-235

Source: LPC estimates using ONS data: employment (MGRZ); employees (MGRN); self-employment (MGRQ); other combines unpaid workers (MGRT) and Government-supported trainees (MGRW); full-time employees (YCBK); part-time employees (YCBN); permanent employees (MGRN-YCBZ); temporary employees (YCBZ); employment by age groups: 16-17 (YBTO); 18-24 (YBTR); 25-34 (YBTU); 35-49 (YBTX); 50-64 (LF26); and 65 and over (LFK4), monthly, three month average, seasonally adjusted, UK, 2016-2019.
Note: Totals may not sum due to rounding.

2.10 Figure 2.4 examines how rates of employment have changed over the last decade. For most age groups the increases in employment we have seen over the period have corresponded with higher employment rates. Rates are highest for those aged 25-49. For younger workers aged 16-24 we show employment rates for those not in full-time education, as evidence shows periods of unemployment can have longer-term scarring effects for this age group. There are relatively few 16-17 year-olds not in full-time education and so these data are quite volatile, fluctuating up and down. The most recent data show a fall in the employment rate. Those aged 18-24 had experienced a long period of their employment rate increasing. However, throughout 2019 the rate has steadily fallen from 78.0 per cent in January to 75.5 per cent in August. We look at the employment of younger workers in more detail in Chapter 5.

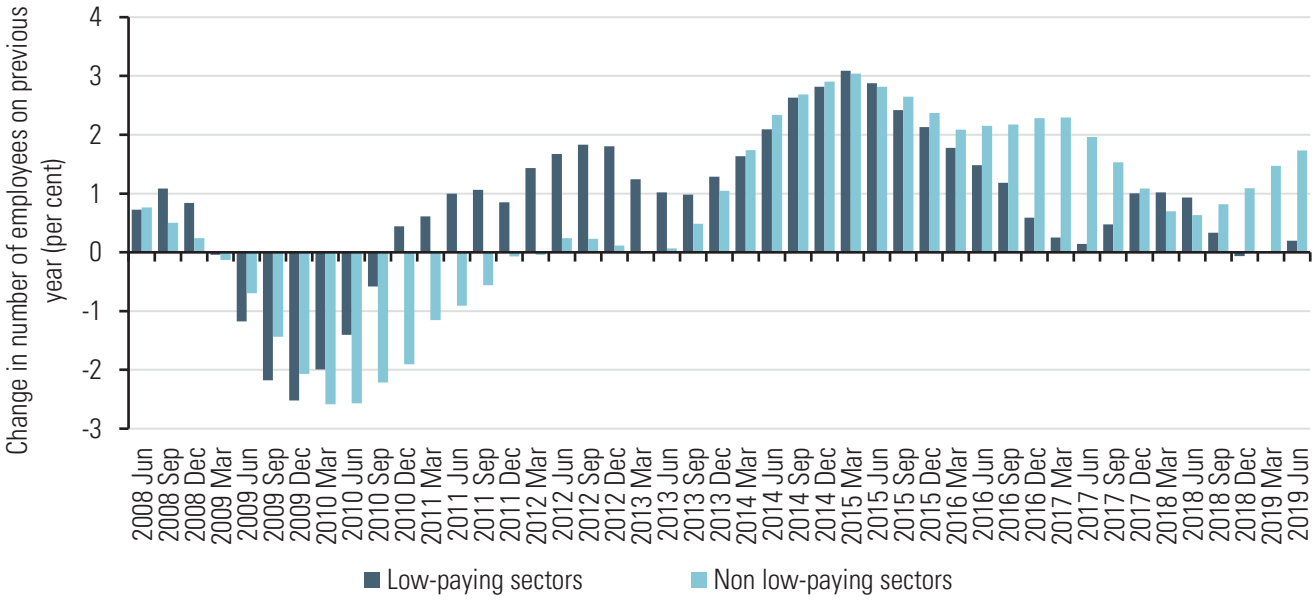
Figure 2.4: Employment rates by age, UK, 2019



Source: LPC estimates using ONS data: 16-17 (YBUA), 18-24 (YBUD), 25-34 (YBUG), 35-49 (YBUJ), 50-64 (LF2U), 65+ (LFK6), seasonally adjusted, UK, 2008-2019.

2.11 In addition to looking at the numbers of people in employment we also measure the number of jobs. As workers may have more than one job the total number of jobs will be higher than the total number of individuals employed. In June 2019, there were 30.8 million employee jobs compared with 27.6 million employees. Figure 2.5 shows the annual growth in employee jobs for those working in low-paying sectors compared with those in non low-paying sectors on a rolling four-quarter average basis. In the year to June 2019 low-paying sector jobs increased by just 0.2 per cent whilst those in non low-paying sectors grew by 1.7 per cent. This continued the recent trend of lower growth in employee jobs in low-paying sectors.

Figure 2.5: Annual change in employee jobs, by sector, GB, 2008-2019



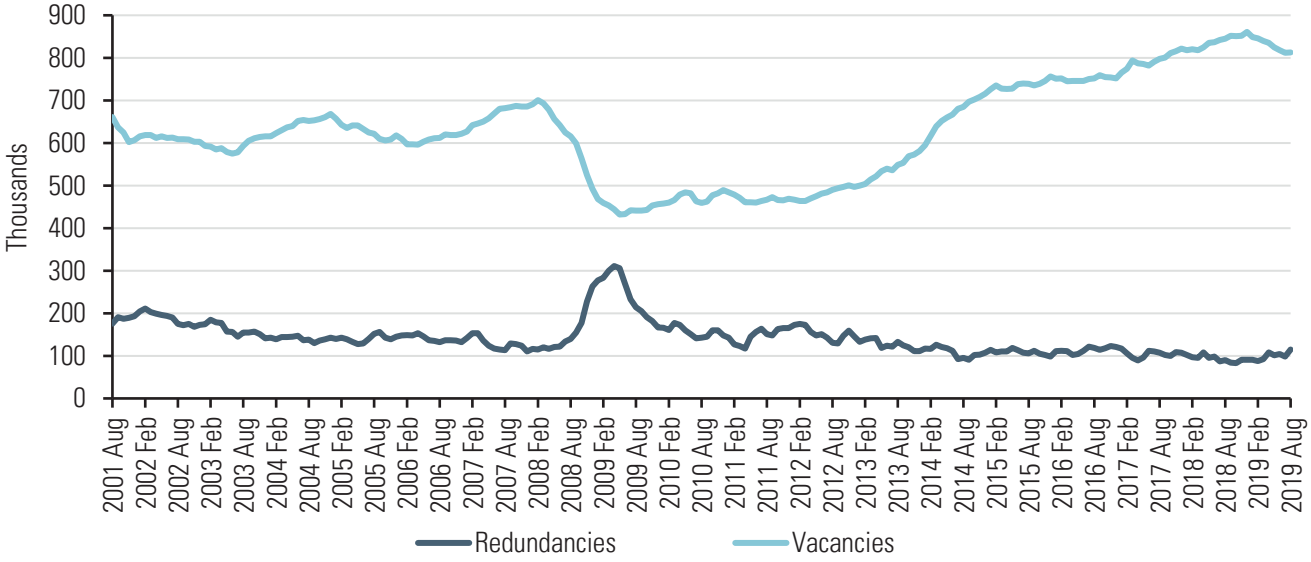
Source: LPC estimates using ONS data: employee jobs series, quarterly, four quarter moving average, GB, 2008-2019.

Vacancies and redundancies

2.12 The ongoing strength of the labour market is at least in part driven by the level of demand for workers. Vacancies and redundancies are measures of this demand and as such are indicators of the strength of the labour market. Not surprisingly, as shown in Figure 2.6, redundancies rose in the immediate aftermath of the financial crisis, peaking at around 300,000 in 2009 before falling and levelling off at around 100,000, below pre-crisis levels. In the last year redundancies have picked-up slightly with numbers increasing from 83,000 in October 2018 to 115,000 in August 2019, equivalent to the pre-crisis low-point.

2.13 The number of vacancies remained between 600,000-700,000 in the pre-crisis period but fell quickly to around 430,000 in mid-2009. The number began to increase in 2012 as the demand for labour began to return, reaching a peak of 860,000 in December 2018. However, throughout 2019 we have seen a drop in vacancies – falling to around 810,000 by August – indicating a possible softening in the labour market. The largest recent falls have been in the construction and the transport and storage sectors where vacancies are down by over 15 per cent on the previous quarter.

Figure 2.6: Redundancies and vacancies, UK, 2001-2019

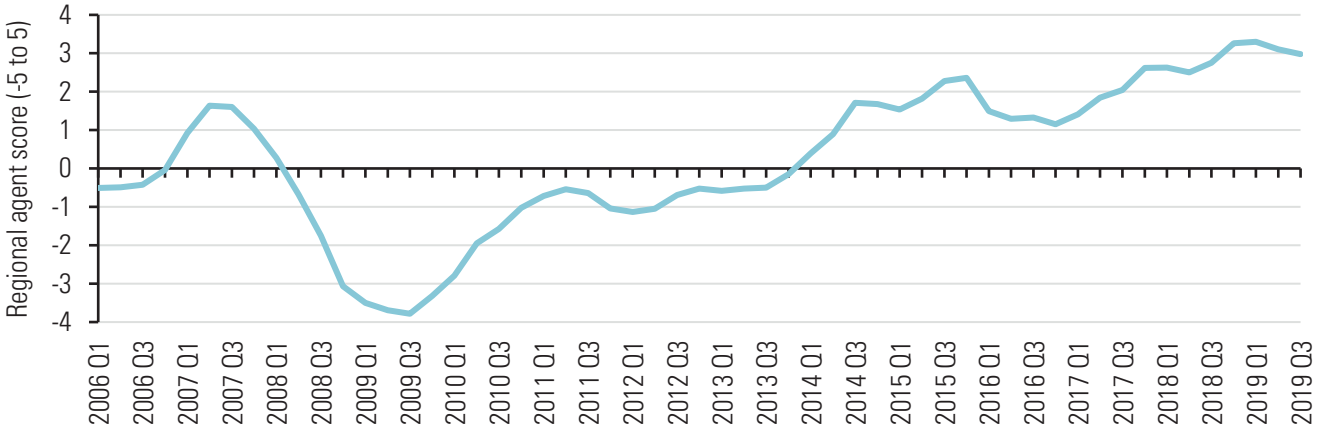


Source: LPC estimates using ONS data: redundancies (BEAO) and vacancies (AP2Y), monthly, seasonally adjusted, UK, 2001-2019.

2.14 This dip in vacancies is supported by the latest survey data looking at firms' hiring activity. KPMG/REC (2019) reported vacancy growth was at its lowest since 2012. Permanent placements were reportedly down for the seventh consecutive month in September although temporary billings had picked up. Demand for staff increases was at its lowest since January 2012 with the largest low-paying sector – retail – seeing the steepest decline. However, vacancies in hospitality – the second largest low-paying sector – were only slightly down on last year. The National Institute of Economic and Social Research (NIESR, 2019a) reported that global employment growth had slowed and that manufacturing jobs were falling at their fastest rate since 2012.

2.15 The Recruitment and Employment Confederation (2019) also reported that availability continued to fall, with skill shortages particularly acute for permanent staff in health and social care and for temporary staff in hospitality. Figure 2.7 shows that, according the to the Bank of England's regional agents, recruitment difficulties are at their highest since before the financial crisis. Furthermore, in their Summer Outlook, the CIPD (2019) reported that more than two thirds of recruiting employers had vacancies that are 'hard to fill' and that more than two-fifths (41 per cent) of employers report that it has become more difficult to fill vacancies over the past year. Difficulties in recruitment may be part of the explanation for the higher wage growth we described in Chapter 1.

Figure 2.7: Recruitment difficulties measured by Bank of England regional agents, UK, 2006-2019



Source: Bank of England (2019b).

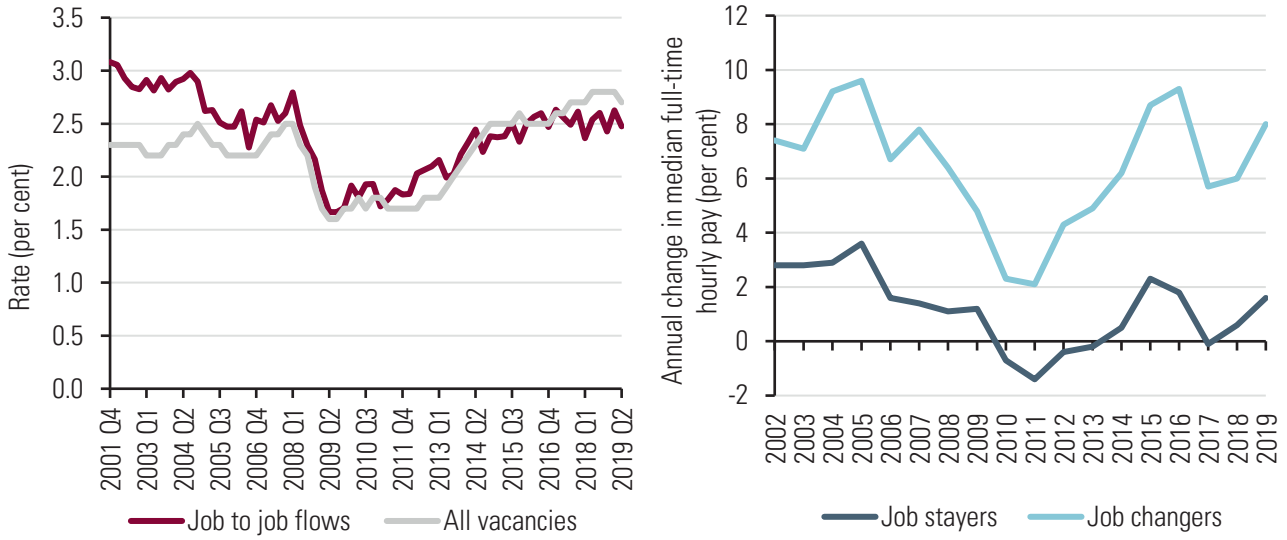
Note: Score measures the scale of general recruitment difficulties across the economy and refers to the latest three months compared with the same period a year earlier.

Job to job moves

2.16 Job to job moves are another indicator of the strength of the labour market. Individuals are more inclined to change job if they have confidence in the jobs market. Figure 2.8 shows that, in the post-crisis period, job moves fell as workers chose the security of staying with their current employer and opportunities to move dried up with falling vacancies. Moves have picked up in recent years and are almost back to pre-recession rates. However, whereas pre-crisis job to job moves were nominally higher than vacancy rates, they currently lag below vacancies, indicating for many individuals there may still be a reluctance to change jobs.

2.17 This is despite the increase in pay associated with workers moving job compared with remaining in their current position, as illustrated in the right-hand side of Figure 2.8. Although the rate of growth fluctuates year-on-year, those who change job consistently receive around 3-5 percentage points higher hourly pay growth than their counterparts who remain in their current job. Looking at the more recent data, in the years following the introduction of the NLW, real pay growth slowed and was zero for those remaining in post in 2017. Since then we have seen a pick-up in growth – in 2019 those full-time employees who stayed in the same job received a 1.6 per cent increase in real hourly pay, while those who changed jobs saw an 8.0 per cent uplift in real pay. During a time of shortages in labour supply the pay premium for workers changing jobs can put additional upwards pressure on wages overall. Firms may respond by paying higher wages to existing staff to encourage retention and prevent them from changing jobs.

Figure 2.8: Job to job flows and vacancies (LHS) and real wage growth for job stayers vs job changers (RHS), UK, 2001-2019



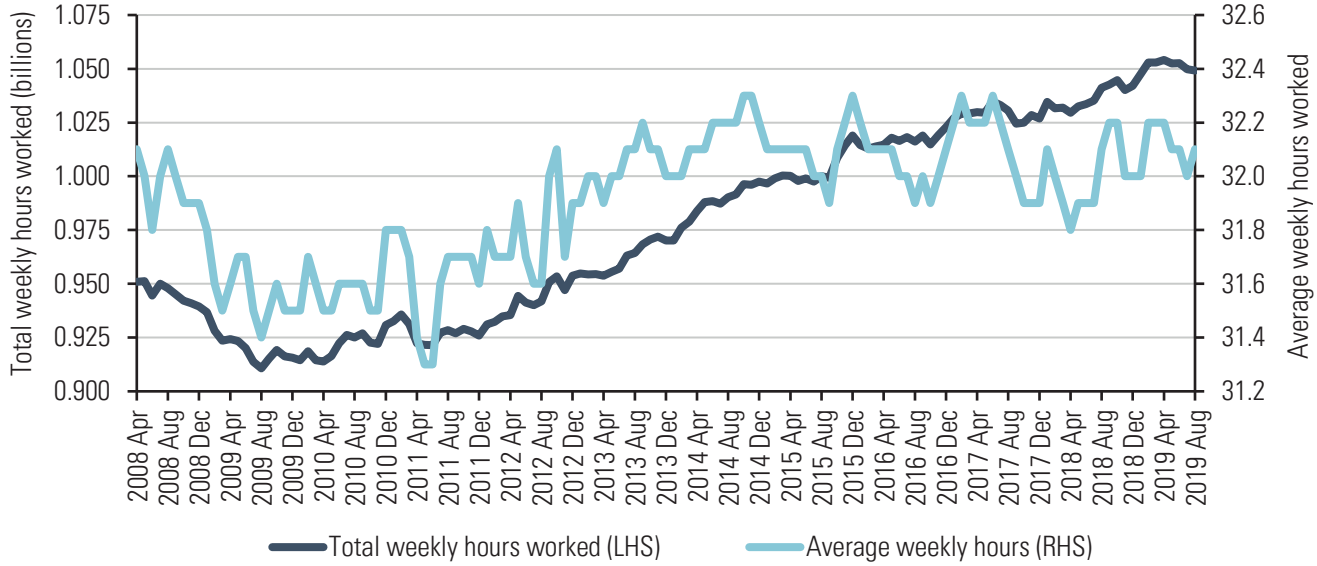
Source: LPC estimates using ONS data: job to job flow rates (XO2), seasonally adjusted, 16-69; vacancies (VACS02), not seasonally adjusted; job stayers and job changers, (ONS, 2019k), UK, 2001-19.

Hours

2.18 The number of people they employ is just one margin of adjustment that employers have available to them in response to a change in the minimum wage, or indeed any other change in economic circumstances. Another is the number of hours each worker does. Figure 2.9 shows how the total and the average weekly number of hours worked in the economy have changed since 2008. Total hours worked tend to follow a similar pattern as total employment: through the first half of this year total hours worked levelled off before falling slightly in recent months. For average hours worked the trend is slightly different. Following the financial crisis workers started to work more hours, reversing the decades-long trend for average hours to fall. However, more recently average hours have fallen slightly. This may reflect worker preference as slightly higher wage rises can offer individuals the choice to work fewer hours for similar pay. This fall in average hours also partly explains the fall in total hours worked.

2.19 The post-crisis increase in average hours can partly be explained by a change in composition. We have already seen how in recent years there has been strong growth in full-time employment. An increase in the share of the workforce made up of full-time workers will result in total average hours worked increasing, even if hours worked for full-time and part-time workers remain unchanged. Latest data shows in August 2019 full-time workers worked 37.3 hours per week, down 0.1 hours compared with a year previous. Part-time workers worked 16.3 hours, unchanged from 12 months ago.

Figure 2.9: Total and average weekly hours worked, UK, 2008-2019



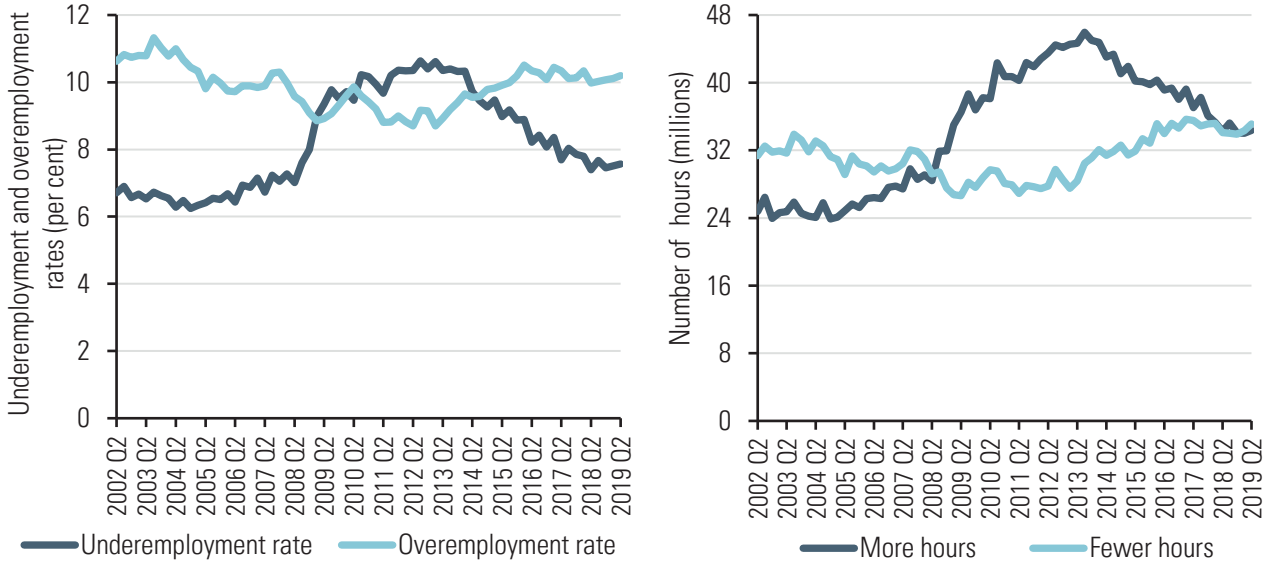
Source: LPC estimates using ONS data: total weekly hours (YBUS) and average weekly hours (YBUV), quarterly, seasonally adjusted, UK, 2008-2019.

Underemployment and overemployment

2.20 The discussion of hours worked brings us to underemployment and overemployment. If employers cannot fill their vacancies, perhaps because unemployment is low or there are vacancies elsewhere, then they may ask their current workers to undertake additional hours, possibly more than they would like. This is called overemployment. Likewise, some workers want more hours in their current job – this is underemployment. Asking individuals if they would rather work more or fewer hours in their current job enables measurement of both the incidence (the share of workers affected) and the volume (how many hours workers want more/fewer of) of over-employment and under-employment in the economy.

2.21 Figure 2.10 shows the changing picture of both under-employment and overemployment since 2002. The left-hand side of the figure shows the rates as a percentage of all workers in employment. The right-hand side shows the aggregate number of hours workers would like more or fewer of. Prior to the crisis, overemployment was more common than underemployment, but then underemployment rose sharply in the aftermath of the crisis as firms chose to cut hours rather than staff. Since 2014, there has been a steady reduction in under-employment from 10 per cent to below 8 per cent, but it remains higher than it was before the crisis. The rate of overemployment broadly mirrored this pattern, returning to its pre-crisis rate, though the total number of hours that workers would like to cut from their working weeks remains higher than the pre-crisis level at 34 million hours.

Figure 2.10: Underemployment and overemployment, 16 and over, UK, 2002-2019



Source: LPC estimates using ONS data: underemployment and overemployment rates (EMP16); more and fewer hours using Labour Force Survey variables ilodefr, ovhrs and undhrs, population weights, 16 and over, UK, 2002-19.

2.22 However, unlike unemployment, which outdid its pre-recession lows several years ago, underemployment remains above its pre-crisis level. Equally, the aggregate number of hours (or the 'hours deficit') that underemployed workers want to take on has fallen by less than the underemployment rate. On average under-employed workers want 13.9 extra hours per week, and the total hours deficit – at 34 million hours per week – is equivalent to approximately 920,000 full-time jobs. This suggests there may have been more labour market slack than first thought, which could help to explain the length of time before we began to see signs of higher wage growth, we explore this further in the next section. We look at underemployment for low-paid workers in Chapter 4.

2.23 These levels of under and overemployment tell us that some employers and workers are not paired in a way that would deliver the best set of outcomes for both. The number of hours that overemployed workers want to reduce is now roughly equivalent to the number that underemployed workers would like to take on. It might be expected for a flexible labour market to resolve this imbalance, with workers moving to different jobs that are a better fit. But as we have already shown, while there are high number of vacancies, job-to-job moves are lower than might be expected. This may be because there is a mismatch between those seeking other work or a different working pattern and those available. Underemployed workers tend to be working in lower-paid and lower-skilled jobs, while overemployed workers tend to be in higher-paid and higher-skilled jobs. This apparent mismatch is consistent with employers reporting difficulties in recruiting.

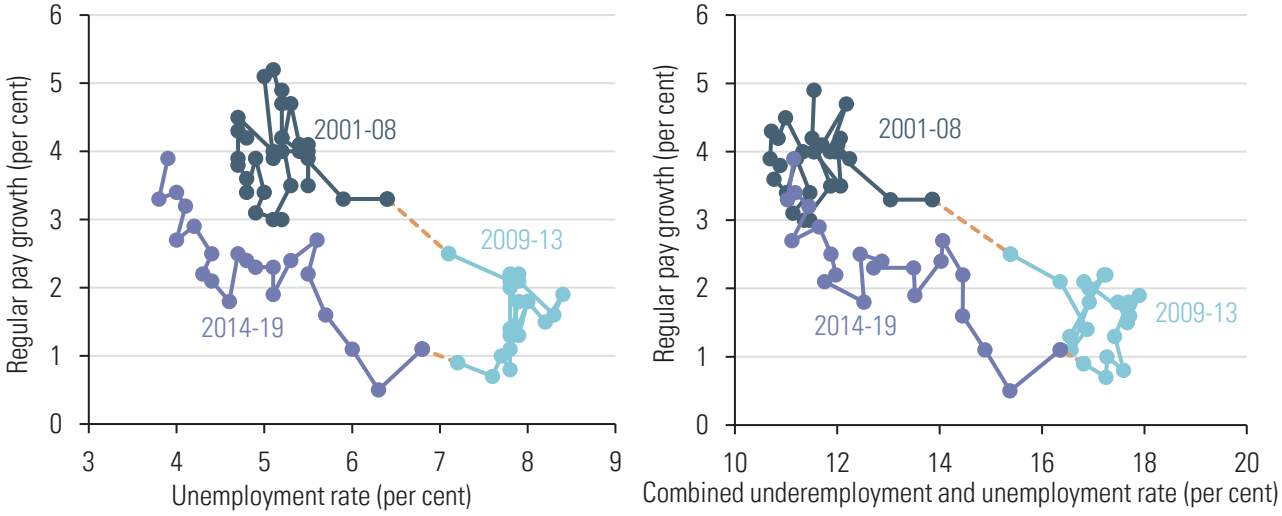
Wage growth

2.24 In Chapter 1 we showed how nominal and real wage growth had stagnated in the post-crisis decade but that there have been signs of recovery in the last two years with the return of real wage increases. Traditionally, higher wage growth tends to be associated with low unemployment, and vice-versa, as a reduced supply of available labour forces firms to pay more to attract and retain staff. The left-hand side of Figure 2.11 looks at the relationship between wage growth and unemployment (known as the Phillips wage curve) since 2001. It shows three distinct periods: pre-crisis from 2001-2008 where the picture was pretty static, with unemployment at around 5 per cent and pay growth between 3-5 per cent; post-crisis from 2009-2013 when unemployment quickly rose up to around 8 per cent and pay growth fell sharply to 1-2 per cent; and finally the recovery period from 2014-2019 which has seen unemployment steadily fall to around 4 per cent whilst pay growth has picked up, albeit slowly to almost 4 per cent only in the latest data.

2.25 We see from Figure 2.11 that in the most recent period we have seen a return to the more traditional negative relationship between wage growth and unemployment as unemployment has fallen and wage growth picked up. The relationship, though, has changed somewhat; the curve has shifted downward such that a given level of unemployment is associated with a lower level of wage growth than in the pre-crisis period.

2.26 However, as we have just shown, some workers are underemployed, and because they are seeking more hours of work, they may also put downward pressure on wages in a similar way to unemployed workers. If we consider how unemployment and underemployment together vary against pay growth, as on the right-hand side of Figure 2.11, we no longer see such a large a shift in the Philips Curve. This suggests that nominal wage growth has returned to close to pre-crisis levels only since both unemployment and underemployment have fallen. We noted earlier in this chapter that while unemployment is at a historic low, and has been for some time, underemployment has fallen more slowly and remains stubbornly above its pre-crisis level. This suggests that there is more slack in the labour market than unemployment alone suggests and may explain why very low unemployment for several years has not, until recently, been associated with stronger wage growth.

Figure 2.11: Wage growth, unemployment and underemployment, GB, 2001-2019



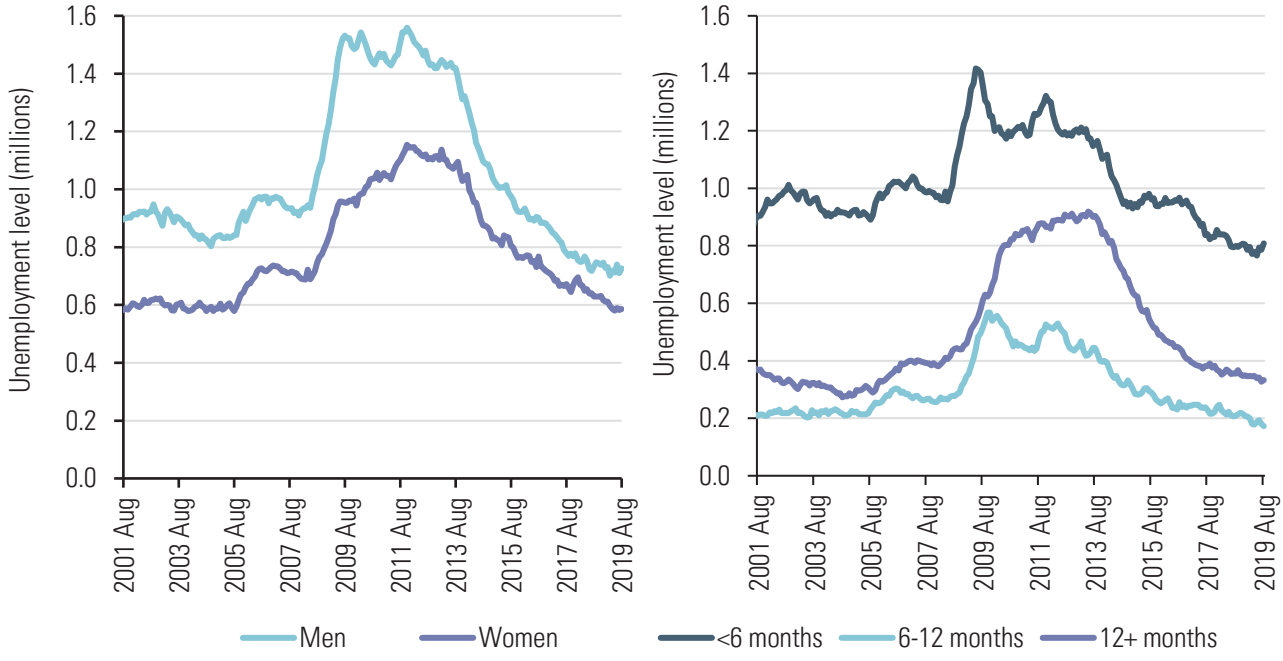
Source: LPC estimates using ONS data: whole economy average weekly earnings regular pay 3 month average (KAI9), unemployment rate (MGSX), underemployment rate (EMP16), GB, 2001-19.

Unemployment

2.27 Unemployment – defined as those actively looking for work in the last four weeks and available to start within the next two weeks is a measure of underutilisation or spare capacity in the labour supply. The unemployment rate represents the proportion of the economically active population (those in work plus those seeking and available to work) who are unemployed. Figure 1.3 showed that both the level and rate of unemployment fell sharply from 2013 onwards although in recent months appear to have levelled off. Data shows that in the three months to August 2019 unemployment rose by 22,000 to 1.31 million but was down 49,000 compared with a year before.

2.28 Figure 2.12 breaks down the headline unemployment level by gender (left hand side) and duration (right hand side). Levels for both men and women are now below those seen prior to the financial crisis. Since the recent peak in 2011 male unemployment has more than halved to 727,000 in August 2019 with female unemployment dropping to 586,000. There has also been a sharp drop in the number of long-term unemployed which fell from around 900,000 in 2013 to 333,000 in August. Short-term unemployment fell to around 800,000 but its pattern of reduction is more inconsistent. The latest data for short-term unemployment shows a slight uptick.

Figure 2.12: Unemployment levels, 16 and over, by gender (LHS) and duration (RHS), UK, 2000-2019



Source: LPC estimates using ONS data: 16 and over unemployment levels, men (MGSD), women (MGSE), up to 6 months (YBWF), 6-12 months (YBWG), over 12 months (YBWH), seasonally adjusted, UK, 2000-2019.

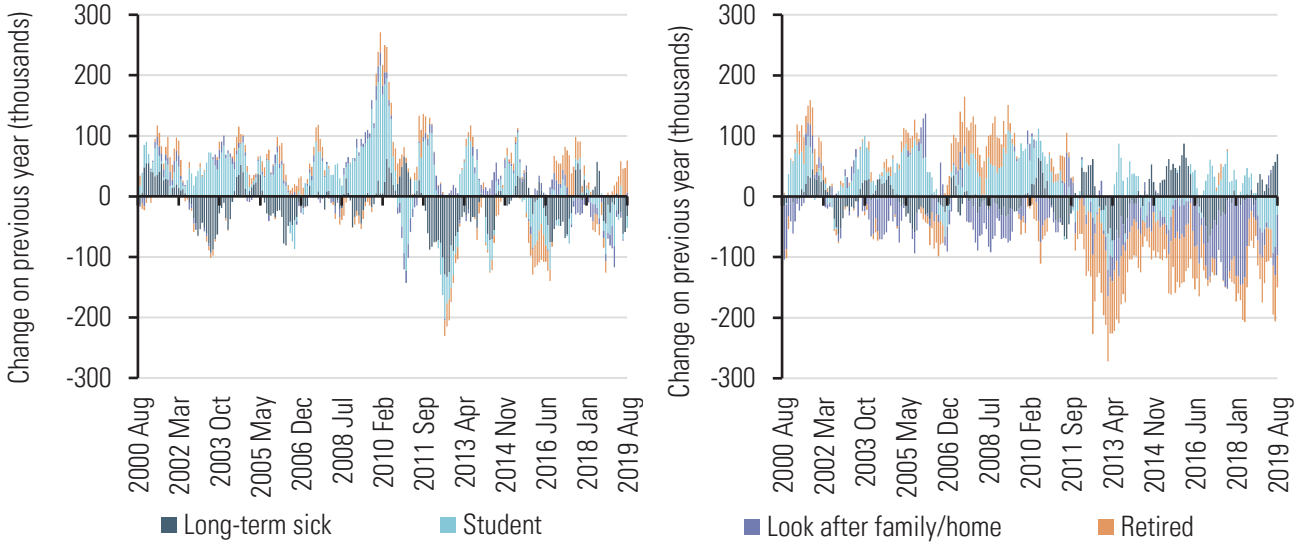
Inactivity

2.29 Those individuals that are neither in employment nor unemployed are deemed to be economically inactive. There are a number of reasons why people may not be able to enter the labour market including that they are students; looking after family/home; long-term sick; and retired. Inactivity can also be split between those wanting and those not wanting a job.

2.30 Figure 2.13 shows how inactivity levels have changed compared with the previous year for the four main groups for both men and women. The left figure shows how there was a spike in male inactivity in the immediate aftermath of the crisis as large numbers of men who may have just lost their jobs decided to return to education rather than become unemployed. In the last decade there has been no real pattern for men other than declining inactivity primarily due to falling numbers of long-term sick.

2.31 The right-hand figure looks at female inactivity and shows how in the years leading up to 2010 inactivity was increasing slightly as growth in female student numbers outweighed falls in those looking after family/home. In 2010 changes to the female retirement age already noted began with the phased increase from age 60 to 65 by 2018. This has resulted in continuing year-on-year falls of females deemed inactive due to retirement. In the last few years there have been large reductions in the number of females looking after family/home but also signs of increasing numbers of females inactive due to long-term sickness.

Figure 2.13: Change in inactivity levels by reason, men (LHS) and women (RHS), 16-64, UK, 2000-2019



Source: LPC estimates using ONS data: Men – long-term sick (BEDL), student (BEEX), looking after family/home (BEAQ), Retired (BEDR); Women – long-term sick (LF6A), student (LF64), looking after family/home (LF66), Retired (LF6C), seasonally adjusted, 16-64, UK, 2000-2019.

Conclusion

2.32 At an aggregate level the labour market has continued to perform strongly. During 2019 we have seen record highs in employment rates and lows in unemployment rates. Employment growth has continued with increasing numbers of full-time and permanent employees. This strong employment performance is consistent with high demand from employers – while they have fallen recently, the number (and rate) of vacancies is still well above its pre-crisis high. High numbers of vacancies mean lots of opportunities for workers to move job, and those who do tend to see significantly higher wage growth. But despite this, job to job moves are subdued compared with before the financial crisis.

2.33 Despite falling since the financial crisis, a large number of workers remain underemployed. This is a further reason why we might expect there to be more job to job moves, but this is not the case. This lack of movement may suggest risk aversion among workers, or a mismatch between those looking for other jobs and the vacancies available. The latter may explain why firms are struggling to recruit.

2.34 However, underemployment may explain why wage growth has, until recently, been muted despite record low unemployment. Combining unemployment and underemployment suggests that, while falling, there is more slack in the labour market than unemployment alone suggests.

2.35 The latest labour market data shows some signs of softening. Employment fell for the first time in two years and the demand for staff also appeared to slow with a fall in vacancies. Survey data showed the lowest rate of vacancy growth since January 2012, particularly among smaller firms.

2.36 We will continue to closely monitor a range of labour market indicators in order to assess whether recent changes represent the start of a new phase in the labour market or are merely a short-term blip.

Chapter 3

Who are minimum wage workers?

3.1 Minimum wage workers, by definition, are the lowest hourly-paid employees in the economy. In this chapter we take a more in-depth look to better understand the make-up of this group and identify areas where they differ from other workers above them in the wage distribution. We examine which sectors they are most likely to be found in, what types of firms employ them and where they work. We also look at the personal characteristics of low-paid workers and compare them with the rest of the workforce. Finally, we examine how the minimum wage framework for workers in the UK compares internationally. Where possible we show data for all minimum wage age groups. However due to sample size issues some analysis focuses solely on those individuals aged 25 and over entitled to the National Living Wage (NLW).

Hourly vs weekly

3.2 As we set out this year in our report on the NLW beyond 2020 (Low Pay Commission, 2019c), the workers with the lowest hourly pay are not necessarily the same individuals as those with the lowest weekly pay, and vice-versa. Whilst 80 per cent of those low-paid on an hourly basis are also among the weekly low-paid, only around half of those low-paid on a weekly basis are also low-paid in hourly terms. Minimum wage employees are mostly spread across the bottom 30 per cent of the weekly pay distribution rather than concentrated solely at the bottom. Six in ten minimum wage employees earn more each week than the lowest-paid 10 per cent of employees, and a third of these earn more each week than the bottom 20 per cent.

3.3 In this section we compare the characteristics of workers who are hourly low-paid to those that are weekly low-paid. The UK has one of the highest rates of part-time working among economically developed countries, with around a quarter of UK employees and two-thirds of NLW workers in part-time roles. This prevalence of part-time working, more than the hourly rate of pay, is a large explanatory factor in determining whether individuals are low-paid on a weekly basis. Table 3.1 illustrates this point, showing that 62 per cent of the lowest decile in the weekly pay distribution earn above the lowest decile on an hourly pay measure. Looking in more detail, 14 per cent of the bottom decile of weekly pay are actually in the top half of the hourly pay distribution, demonstrating the impact that an individual's total hours of work have on their position in the weekly pay distribution.

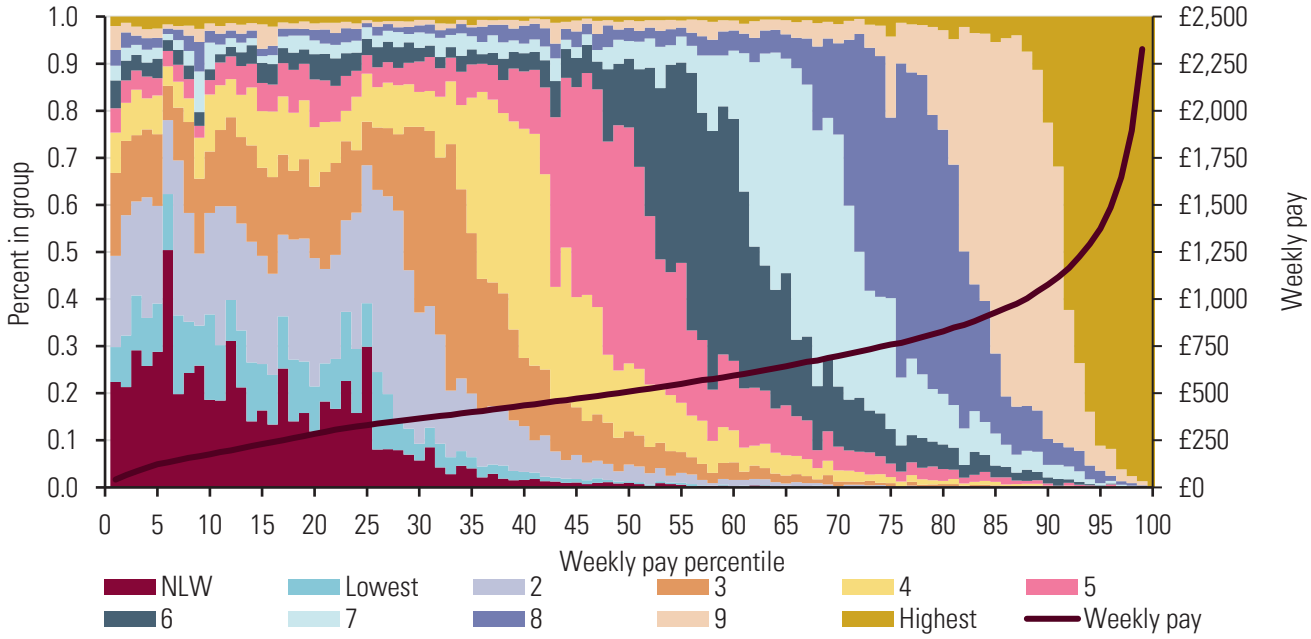
Table 3.1: Relationship between weekly and hourly pay distribution, employees aged 25 and over, UK, 2019

		Gross weekly pay									
		Lowest paid	2nd decile	3rd decile	4th decile	5th decile	6th decile	7th decile	8th decile	9th decile	Highest paid
Hourly pay	Lowest paid	38%	29%	24%	6%	2%	1%	0%	0%	0%	0%
	2nd decile	22%	24%	31%	15%	5%	2%	1%	0%	0%	0%
	3rd decile	14%	18%	19%	31%	10%	4%	2%	1%	0%	0%
	4th decile	8%	11%	9%	29%	27%	10%	4%	1%	1%	0%
	5th decile	4%	7%	6%	8%	39%	24%	9%	3%	1%	0%
	6th decile	3%	3%	4%	3%	8%	44%	23%	8%	3%	0%
	7th decile	3%	2%	3%	3%	3%	9%	48%	22%	6%	1%
	8th decile	3%	2%	2%	2%	3%	3%	9%	53%	20%	2%
	9th decile	2%	2%	1%	1%	2%	2%	3%	11%	62%	13%
	Highest paid	2%	2%	1%	1%	1%	1%	1%	2%	7%	83%

Source: LPC calculations using ASHE 2010 methodology, standard weights, UK, 2019.
Note: Totals may not sum due to rounding.

3.4 Figure 3.1 examines this data more closely and identifies exactly where NLW workers are found in the weekly pay distribution. The NLW-related spike seen at the sixth percentile (around £132 per week) represents those part-time individuals working 16 hours per week – the maximum number of hours individuals can work without any loss of benefits. We also find another NLW-related spike further up the weekly distribution, at the lower quartile (25th percentile – £330 per week), which represents those full-time NLW workers working 40 hours per week.

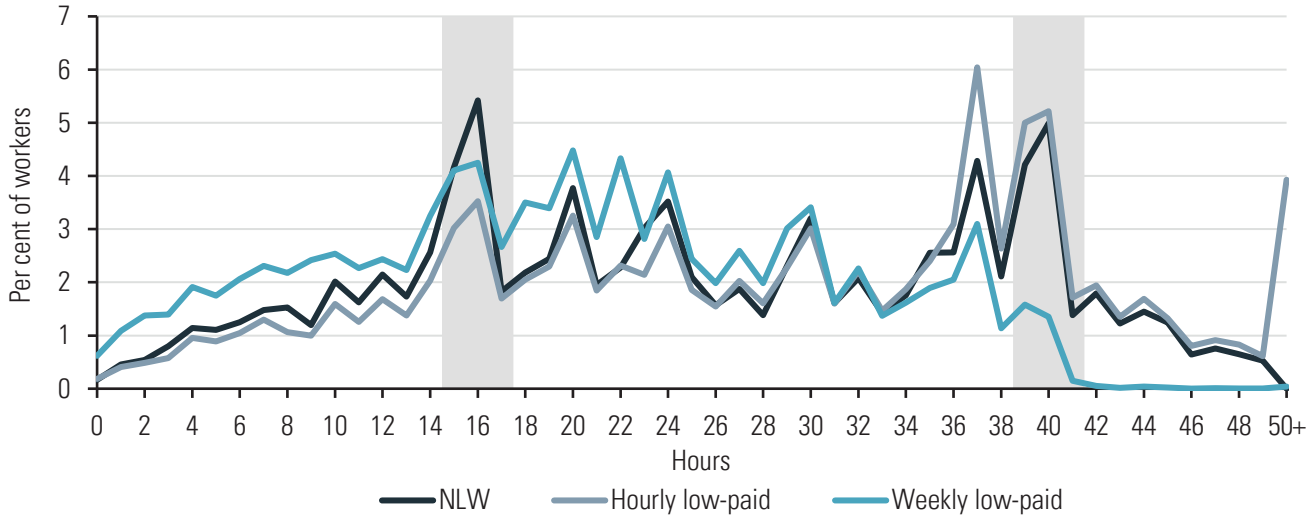
Figure 3.1: Relationship between the NLW, hourly and weekly pay distribution, employees aged 25 and over, UK, 2019



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.
Note: Data exclude first year apprentices.

3.5 Figure 3.2 further illustrates this point, showing the pattern of hours worked for NLW workers compared with all low-paid hourly workers and low-paid weekly workers aged 25 and over. We can see that the spikes for NLW workers are largest at 16 hours and 40 hours. As already alluded to, the decision for part-time NLW workers to work 16 hours is likely to be linked closely to the benefits structure. Comparing low-paid hourly workers to low-paid weekly workers it is clear that the number of hours worked is much more influential in determining workers' weekly low-pay status. Two-thirds of weekly low-paid workers work fewer than 25 hours per week whilst the figure for hourly low-paid workers is only around 40 per cent.

Figure 3.2: Distribution of hours worked for NLW workers, hourly low-paid workers and weekly low-paid workers, aged 25 and over, UK, 2019



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.
Note: Data exclude first year apprentices.

Coverage

3.6 Coverage is a measure of minimum wages on the pay distribution and shows the number of workers who are paid up to five pence above the respective rate. In this section we take a closer look at the coverage of minimum wage workers, how this has changed over recent years and how it varies across a range of personal and job characteristics.

3.7 Table 3.2 shows the headline total number of workers covered at each of the minimum wage rates in each year from 2015, the year prior to the introduction of the NLW, through to 2019. It highlights how, following the introduction of the NLW in 2016, coverage has been remarkably flat for older minimum wage workers, remaining at around 1.6m. Interestingly we also see how in 2016 the number of 21-24 year olds (previously paid at the old adult rate (21and over) but now able to be paid the new 21-24 Year Old Rate) who were covered fell as firms made a conscious decision to keep a number of workers on the top adult rate of pay, now the NLW. In 2019 around two million workers were collectively covered by all minimum wage rates, a number which is little changed in recent years.

Table 3.2: Coverage of minimum wage workers, UK, 2015-2019

Minimum Wage Rate	2015	2016	2017	2018	2019
					thousands
Adult rate / NLW	1,029	1,591	1,612	1,604	1,639
Adult rate / 21-24 Year Old Rate	257	170	166	167	154
18-20 Year Old Rate	122	114	116	120	115
16-17 Year Old Rate	30	27	33	40	36
Apprentice Rate	31	36	32	32	32
Total	**1,469**	**1,938**	**1,958**	**1,962**	**1,975**

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.
Notes:
a. Data exclude first year apprentices.
b. In 2015 the main adult rate of the minimum wage applied to workers aged 21 and over.

3.8 The 2 million minimum wage workers represent 7 per cent of all UK workers. Table 3.3 compares these minimum wage workers to all other workers paid above minimum wage rates across a range of worker characteristics. It shows that nine out of ten minimum wage workers work in the private sector compared with two-thirds of other workers. Minimum wage workers are more likely to be female – six out of ten are, compared with half of other workers. And they are much more likely to be in part-time work – 60 per cent of minimum wage workers work part-time compared with just one quarter of other workers. They are also more likely to be in short-term employment – 30 per cent of minimum wage workers have been in their position for less than a year compared with around 20 per cent of other workers. And workers in minimum wage roles are more likely to be in a temporary role and a higher share have multiple jobs compared with their non-minimum wage counterparts.

Table 3.3: Coverage of all workers by characteristics, UK, 2019

Characteristic	Minimum wage workers			Other workers		
	Number	Share of characteristic	Share of MW workers	Number	Share of characteristic	Share of other workers
	thousands	per cent	per cent	thousands	per cent	per cent
Public	74	1.2	3.8	6,390	98.8	24.2
Private	1,783	9.2	90.3	17,560	90.8	66.6
Voluntary	118	4.7	6.0	2,400	95.3	9.1
Female	1,226	8.6	62.0	13,050	91.4	49.5
Male	750	5.3	38.0	13,300	94.7	50.5
Part-time	1,188	14.6	60.1	6,940	85.4	26.3
Full-time	787	3.9	39.9	19,410	96.1	73.7
Temporary job	231	10.2	11.7	2,040	89.8	7.7
Permanent job	1,729	6.7	87.6	24,160	93.3	91.7
More than one job	165	9.7	8.4	1,550	90.3	5.9
One job	1,810	6.8	91.6	24,810	93.2	94.1
In job less than a year	601	10.5	30.4	5,100	89.5	19.4
In job more than a year	1,374	6.1	69.6	21,250	93.9	80.6
Total	**1,975**	**7.0**	**100.0**	**26,350**	**93.0**	**100.0**

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.

Low-paying industries and occupations

3.9 The demand for labour is a derived demand. The number of workers and the number of hours that employers want from them depends on the demand for the goods and services that these employers face. We generally divide industries and occupations into four groups dependent on the main source of demand for employers' outputs. These are consumer-facing sectors, sectors with a high proportion of Government funding, those more reliant on business-to-business transactions and those more exposed to internationally tradeable goods. The ultimate source of the demand for these jobs influences how employment, hours and wages in these sectors respond to changes in the minimum wage and wider economy.

3.10 The largest of these groups, in employment terms, are the sectors dependent on consumer spending – retail, hospitality, leisure and hair and beauty. Consumer spending is itself affected by consumer confidence and real incomes. Labour demand in consumer-facing sectors can therefore be more affected by changes in the wider economy and sentiments. Employers in these sectors may find it easier to pass on cost increases to consumers through higher prices, but find it less easy to replace workers with technology.

3.11 The next group of low-paying sectors are those directly affected by government funding, consisting of childcare and social care. Demand for labour in these sectors may be less reactive to changes in the wider economy, due to the proportion of funding from Government, but employers may be less able to react to changes in the NLW/NMW and wages in the wider economy due to their limited pricing power.

3.12 The third group of low-paying sectors are more dependent on business-to-business activity. This includes cleaning, employment agencies, security and enforcement, transport, storage and call centres. Demand for these services is likely to be closely related to the general performance of the economy – with consumer spending, business investment, profitability, and Government spending all playing key roles. It will also depend on the outsourcing and the contracting out of services.

3.13 The final group of low-paying sectors considered are those that are more exposed to international trade, such as textile manufacturing, agriculture, and food and non-food processing. As well as being determined by the general economy, these sectors also depend on demand from overseas and prices which are affected by exchange rates. As these goods are traded internationally, UK firms are also competing against overseas employers. Demand in these sectors depends more than others on exchange rates and the strength of global demand. Employers in these sectors may be less able to absorb increased labour costs through higher prices due to fears of being undercut by international competitors and may be more likely to make productivity-enhancing changes and increase automation in response to higher minimum wages.

3.14 We discuss the economic prospects for these different groups looking forwards in more detail in Chapter 8.

3.15 Table 3.4 compares the proportion of workers that are paid at each of the minimum wage rates across the low-paying occupations. It shows that hair and beauty has the largest share of minimum wage workers with more than one in three of all workers paid the minimum wage - this rises to two in three for the youngest 16-17 year old workers. Cleaning and maintenance is second-highest with 29 per cent of workers paid the minimum wage but it is important to note that the overwhelming number (98 per cent) of minimum wage workers in this occupation are aged 25 and over. Hospitality, on the other hand, employs large numbers of younger workers and whilst the proportions paid at the age-specific rate are lower than for NLW-entitled workers, the majority of 16-20 year olds are paid within the youth rate structure i.e. below the NLW. We discuss this in more detail in Chapter 5.

3.16 The low-paying occupations with the lowest share of minimum wage workers are agriculture, call centres and office work, all below 12 per cent. Only 2 per cent of non low-paying sectors are minimum wage workers, although for the youngest 16-17 year old workers working in these occupations the share paid at the minimum wage is higher at around 10 per cent.

3.17 Table 3.4 also compares the proportion of minimum wage workers employed in each low-paying occupation with the proportion of non-minimum wage workers. It highlights how minimum wage workers are more likely to be found working in low-paying occupations than their non-minimum wage worker counterparts. Almost half of all minimum wage workers work in either retail, hospitality or cleaning and maintenance occupations, whilst only one in eight (13 per cent) of non-minimum wage workers are found in these occupations. Minimum wage workers are also more likely to work in other low-paying occupations employing smaller numbers of workers compared with non-minimum wage workers – they are seven times more likely to work in hair and beauty and four times more likely to work in textiles. Minimum wage workers are also twice as likely to work in social care as non-minimum wage workers.

3.18 The range of occupations available to most minimum wage workers is much narrower than for other workers. Only one in five minimum wage workers are employed outside of these low-paying occupations compared with almost three quarters of non-minimum wage workers. This constraint on choice of employment when entering the labour market could restrict the ability of workers to move out of low-paying occupations into higher paid jobs.

Table 3.4: Proportion of occupation that are minimum wage workers by minimum wage rate, UK, 2019

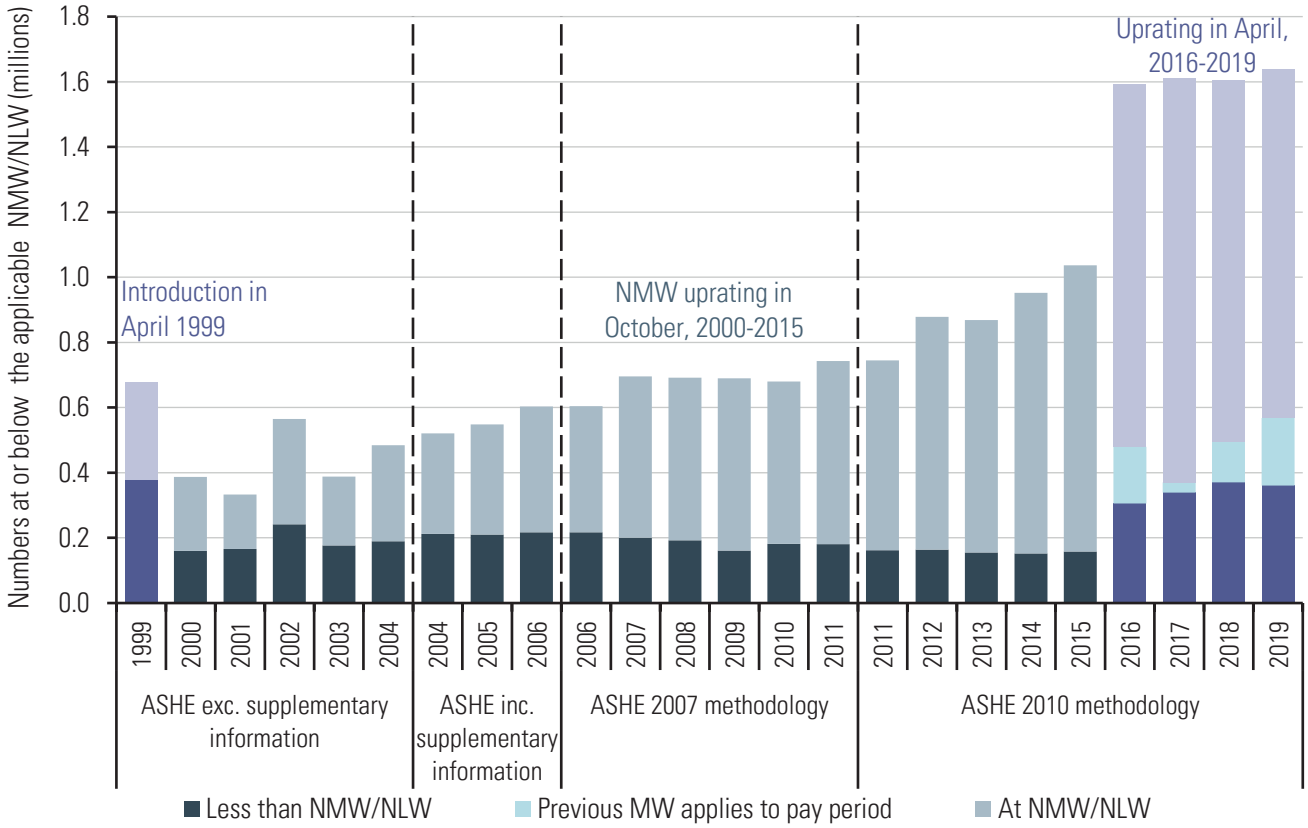
Per cent	Proportion of age in occupation covered by MW rate					Proportion in occupation	
Occupation	16-17	18-20	21-24	25+ NLW	All MW workers	MW workers	Non-MW workers
Hair and beauty	66.2	31.4	22.2	34.9	35.5	2.1	0.3
Cleaning and maintenance	10.8	7.8	8.0	30.4	28.7	12.8	2.4
Hospitality	12.3	17.5	21.7	28.9	24.4	16.8	3.9
Textiles	-	-	-	25.1	24.0	0.5	0.1
Food processing	-	-	7.5	20.5	19.0	3.0	1.0
Retail	12.9	12.0	13.3	18.7	17.0	18.2	6.6
Childcare	-	18.5	18.5	16.2	17.0	3.3	1.2
Transport	-	23.2	10.4	14.5	14.6	3.8	1.7
Security and enforcement	-	-	-	14.3	13.5	1.0	0.5
Leisure	10.8	12.8	14.0	13.1	13.1	1.8	0.9
Storage	-	4.3	5.8	14.4	13.1	3.9	1.9
Non-food processing	-	15.0	7.2	13.5	12.9	2.8	1.4
Social care	-	4.5	7.8	13.6	12.7	5.5	2.8
Agriculture	-	-	10.3	12.1	11.8	1.0	0.6
Call centres	-	-	13.6	12.3	11.6	0.4	0.2
Office work	-	8.7	9.4	11.6	11.3	3.0	1.8
Non low-paying sectors	9.6	7.8	2.9	1.8	2.0	20.2	72.8
Total	12.2	11.9	7.8	6..6	7.0	100.0	100.0

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.
Notes:
a. Some figures have been excluded due to small sample size.
b. Figures may not sum to totals due to rounding.

NLW workers

3.19 Figure 3.3 shows how the numbers affected by the main adult rate of the minimum wage have changed over time since the introduction of the minimum wage in 1999. The introduction of the NLW in 2016 resulted in a large increase in numbers affected, from around one million in 2015 to 1.6 million in 2016. In the subsequent years levels of coverage have remained relatively flat. We discuss why this is the case in more detail in Chapter 4. In 2019 the numbers affected by the NLW represent 6.6 per cent of all workers aged 25 and over.

Figure 3.3: Coverage of the NMW/NLW for workers aged 25 and over, UK, 1999-2019



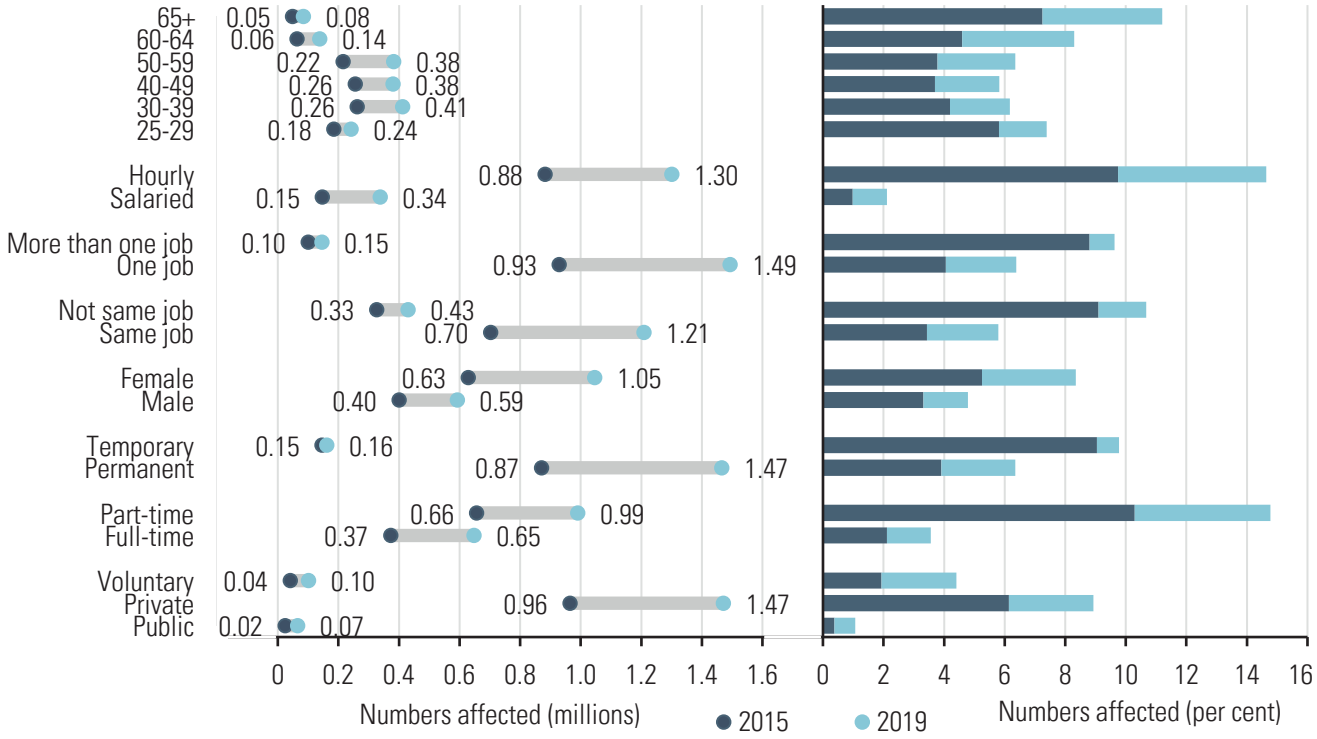
Source: LPC estimates using ONS data: ASHE without supplementary information, April 1999-2004; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-19, low pay weights, UK.
Notes:

a. Data include apprentices, as they cannot be identified prior to 2013.
b. Data for 1999 and 2016-19 are for different points in the minimum wage year than all other years, so cannot be directly compared.

3.20 We have seen how the proportions affected by the minimum wage vary across characteristics. Figure 3.4 shows changes in coverage for a range of personal and worker characteristics, in absolute and proportional terms, between 2015 and 2019. We can see that NLW workers are split fairly evenly across different age groups although the largest increase in the proportion affected by the NLW has been for workers aged 60 and over. This is partly due to changes in the State Pension age for women but also because in recent years we have seen more older people staying in employment for longer.

3.21 Whilst there are now just under one million part-time workers directly affected by the NLW, up 50 per cent from 2015, it is full-time workers who have seen the largest rate of growth during the NLW period with numbers increasing by around 75 per cent up to 650,000.

Figure 3.4: Coverage of the NMW/NLW for workers aged 25 and over, by worker and job characteristic, UK, 2015-2019



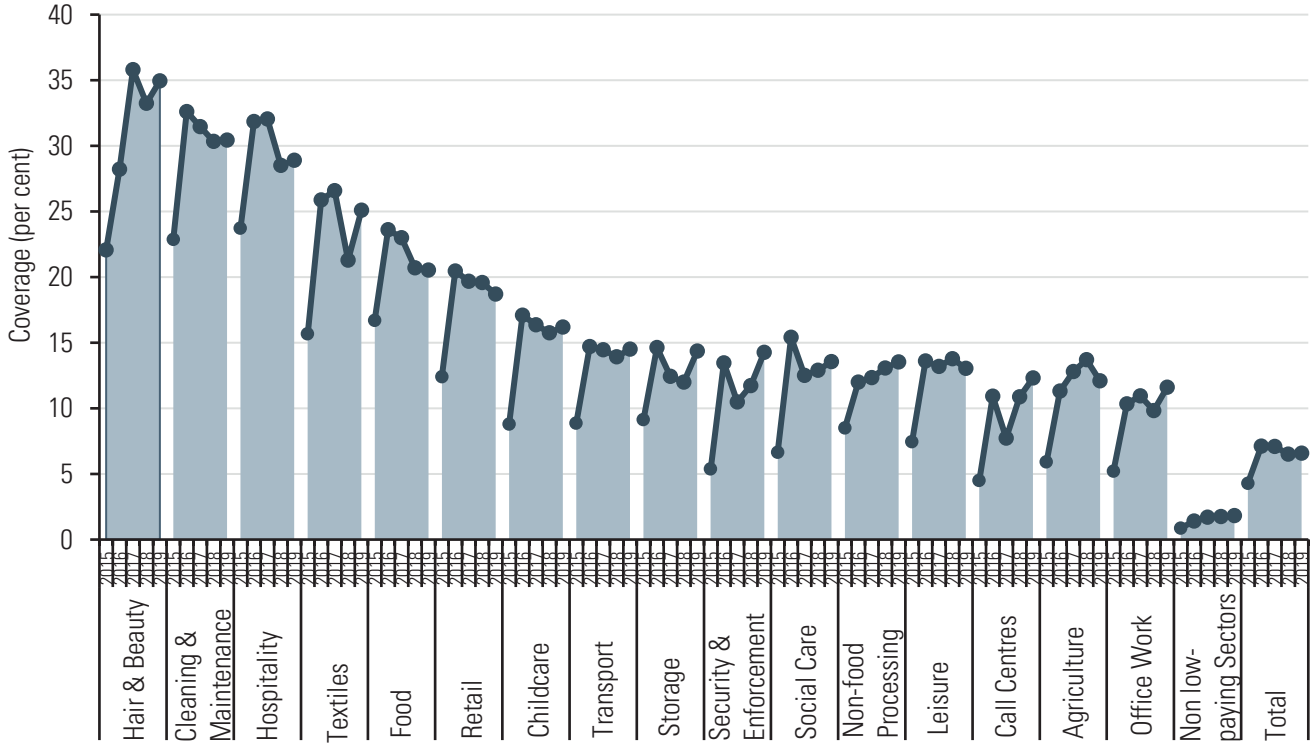
Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.
Note: Data exclude first year apprentices.

3.22 The coverage of the NLW varies widely by occupation. Whilst retail, cleaning and hospitality are by far the largest occupations in terms of numbers, with 285,000, 247,000 and 234,000 NLW workers respectively, there are other low-paying occupations with large proportions of workers paid the NLW. Figure 3.5 looks at how the share of coverage has changed within and across low-paying occupations from 2015-2019. Hair and beauty has the largest share of NLW workers with around one in three workers over 25 (or 25,000 individuals) receiving the NLW. Cleaning and maintenance and hospitality both have around 30 per cent of workers aged 25 and over earning the NLW. All three occupations saw a slight uptick in the proportion covered in 2019 following a dip in 2018.

3.23 Retail has seen its proportion of NLW workers fall year-on-year since 2016. This may reflect a deliberate attempt by employers to stay ahead of the NLW or to gain some advantage in a competitive marketplace. On visits in recent years, we have heard from retail workers that pay increases have often been offered in conjunction with revisions to terms and conditions, which may remove elements of premium pay or non-pay benefits.

3.24 In non-low paying occupations, only around two per cent of workers are covered by the NLW, but this proportion has been increasing gradually over recent years. There are now around 330,000 individuals in this group, making up one in five of all NLW workers.

Figure 3.5: Coverage of the NMW/NLW for workers aged 25 and over, by occupation, UK, 2015-2019

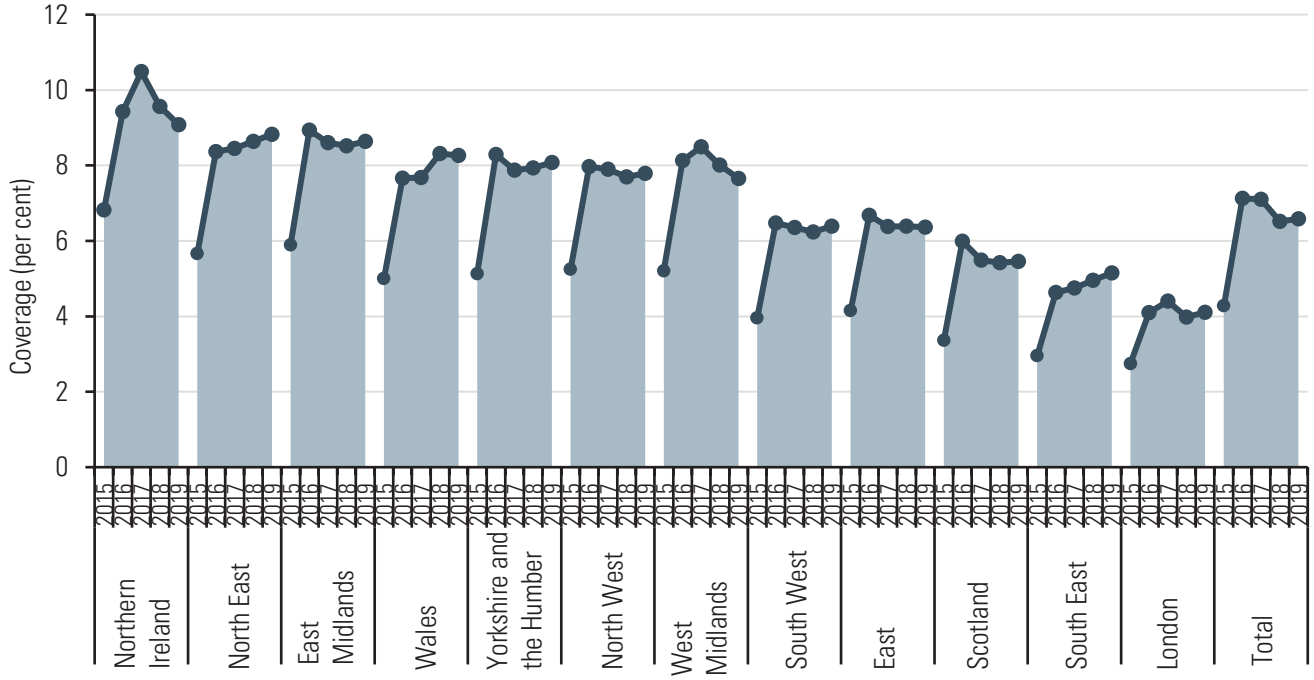


Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

3.25 Coverage also varies geographically. Figure 3.6 shows how coverage of the adult rate has changed annually across the UK since 2015. All regions and nations saw large increases in coverage upon the introduction of the NLW in 2016 but in subsequent years there have been varying regional trends in rates of coverage. Northern Ireland currently has the highest coverage at 9.1 per cent, but that figure has fallen from 10.5 per cent in 2017. Coverage in the North East is slightly lower, with 8.8 per cent of workers covered by the NLW in 2019, but this rate has increased year-on-year. The East Midlands, Wales, Yorkshire and the Humber, the North West and the West Midlands all have rates of coverage greater than the UK-wide figure of 6.6 per cent.

3.26 Coverage is lowest in London, where only 4.1 per cent of workers are paid the NLW, followed by the South East at 5.1 per cent and Scotland at 5.5 per cent. Whilst the South East has seen a slow increase in the rate of coverage in recent years, in Scotland it has remained the same since 2017. The South West and the East of England both have coverage rates below the national figure.

Figure 3.6: Coverage of the NMW/NLW for workers aged 25 and over, by region and nation, UK, 2015-2019



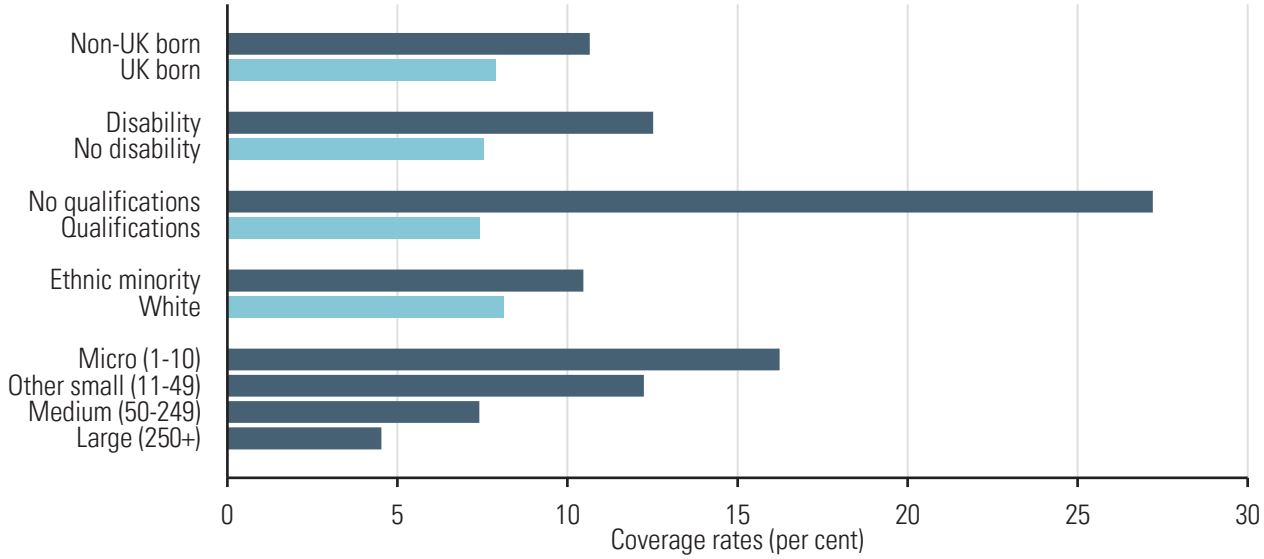
Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

3.27 Most of our analysis is undertaken using data from the Annual Survey of Hours and Earnings (ASHE), as it is the most reliable available source of pay information. Yet ASHE contains limited information on personal characteristics. Using the Labour Force Survey (LFS) enables us to look at NLW coverage for a wider range of individual characteristics than ASHE, although the LFS pay data is less robust and tends to produce higher rates of coverage. Despite this, the LFS data is still useful in identifying relative differences both within and across chosen characteristics.

3.28 Figure 3.7 shows that non-UK born workers, workers with disabilities, workers without qualifications and ethnic minorities all have higher rates of coverage than their direct comparator groups. The largest variation in coverage is by qualifications – NLW coverage among workers without qualifications is more than three times higher than for workers with qualifications.

3.29 The figure also looks at the difference in coverage by workplace size. It shows that coverage is highest in the smallest private-sector workplaces (micro workplaces have 16 per cent of workers on the NLW and other small workplaces have 12 per cent). Coverage decreases as workplaces get larger – workplaces with 50-249 workers have 7 per cent coverage and those with over 250 workers have 5 per cent.

Figure 3.7: Coverage of the NLW for workers aged 25 and over, by worker characteristic and workplace size, UK, 2018-2019



Source: LPC estimates using LFS microdata, income weights, quarterly, imputed wages, not seasonally adjusted, UK, Q2 2018-Q1 2019.

Young people

3.30 For young people, coverage of each of the youth rates does not necessarily give the whole picture of how employers are using the age-related rates. Stakeholders tell us that employers tend not to use each level of the youth rate structure exhaustively, instead choosing to either use only one or two of the rates, to pay above the youth rates but below the NLW or to pay all employees the same rate, regardless of age.

3.31 It is therefore more instructive to look at the extent to which young people are paid within the youth rate structure (that is, below the NLW or below the next rate in the youth rate structure). This is explored in more detail in Chapter 5.

Measured underpayment

3.32 In April we published a separate report on non-compliance and enforcement of the NMW (Low Pay Commission, 2019a), looking at overall trends and evaluating the policy response. In this section, we look at minimum wage underpayment using the most recent 2019 ASHE data, although we intend to return to this matter in more detail in the new year.

3.33 Since 2017, all minimum wage upratings have taken place on 1 April (the NLW moved to this date in 2016). This presents challenges for estimating underpayment because ASHE is carried out in the month of April, meaning we are attempting to measure pay immediately after a minimum wage increase. This is the point in the year when we would expect underpayment levels to be at their highest, as some firms are slow in adjusting to the incoming rates.

3.34 In some cases, the underpayment picked up in the ASHE survey will reflect a pay reference period that started prior to the introduction of the new rate (and is therefore not non-compliant). Employers are not legally required to increase pay until the first full pay period after the uprating of the NLW and minimum wage rates. This adds complexity when attempting to measure underpayment, but it can be identified in the data. In 2019, the ASHE survey date was earlier in the month compared with previous years, which meant that minimum wage workers were more likely to be paid at rates identified as compliant with the previous rates but below the new rates, especially if they are paid monthly.

3.35 Table 3.5 shows the headline rates of underpayment as a proportion of coverage for each of the minimum wage rates, highlighting how survey timing can affect the measurement of underpayment. We saw a large increase in underpayment in 2016 when the NLW was introduced. This can be partly explained by the move to an April uprating – although is also likely to reflect some of the impact of the large increase that year. All other rates saw similar increases when moving to an April uprating a year later. Following consistent increases in measured underpayment in each year since the introduction of the NLW, 2019 saw a slight reduction in the share underpaid from 23 per cent down to 22 per cent – possibly a result of greater awareness by firms or the increased resources given to HM Revenue and Customs, the body responsible for minimum wage enforcement activity.

Table 3.5: Minimum Wage underpayment by rate population, UK, 2015-2019

Minimum Wage Rate	2015	2016	2017	2018	2019
					per cent
NLW	15.0	19.2	21.1	23.1	22.0
21-24 Year Old Rate	12.3	17.5	23.6	21.1	21.1
18-20 Year Old Rate	17.4	17.7	22.7	19.3	16.4
16-17 Year Old Rate	6.5	7.4	12.5	9.1	9.3
Apprentice Rate	26.4	19.2	26.6	26.0	27.7
Total	**14.8**	**18.8**	**21.3**	**22.5**	**21.5**

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.

3.36 Table 3.6 shows a breakdown of 2019 underpayment by rate population, excluding workers who were on pay that was compliant with the previous rate. The levels of underpayment are highest for workers who should be eligible for the NLW simply as a result of the number of workers aged 25 or over. However, underpayment as a proportion of coverage is highest for apprentices who are eligible for the Apprentice Rate (those in their first year or aged 16-18) at around 28 per cent whilst 22 per cent of workers covered by the NLW are underpaid. Underpayment is lowest for the youngest workers.

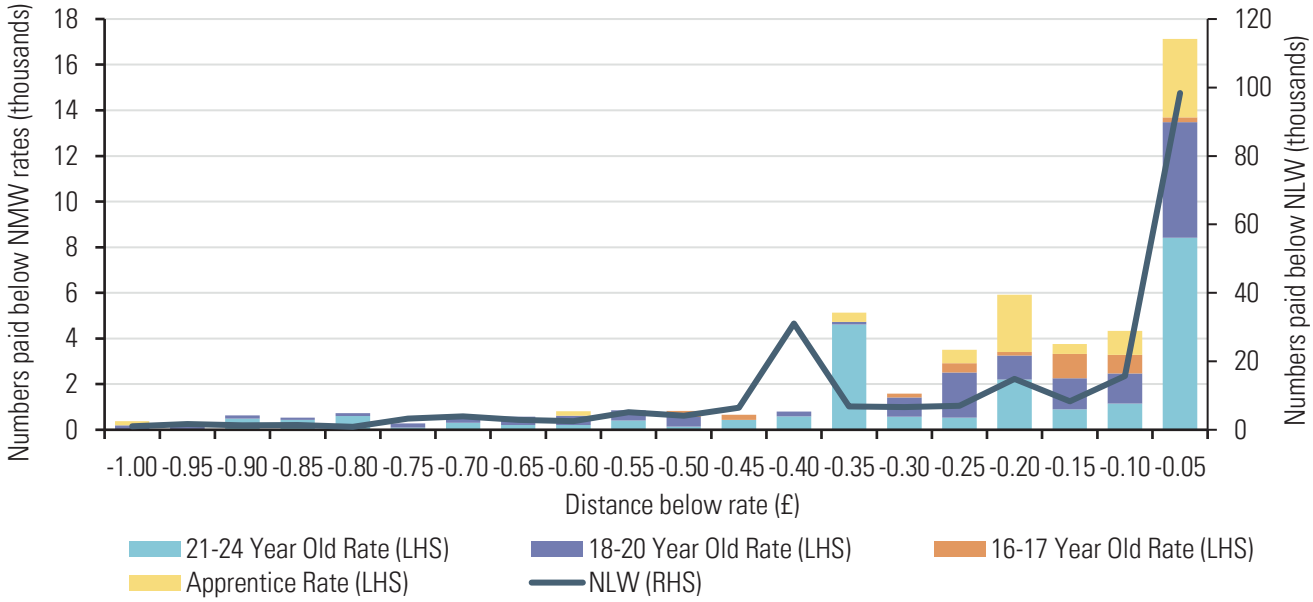
Table 3.6: Underpayment of minimum wage workers by rate population, UK, 2019

Rate population	Workers underpaid	Underpayment	Underpayment
	thousands	per cent of population	per cent of coverage
NLW	360.3	1.4	22.0
21-24 Year Old Rate	32.6	1.6	21.1
18-20 Year Old Rate	18.8	2.0	16.4
16-17 Year Old Rate	3.3	1.1	9.3
Apprentice Rate	8.8	4.6	27.7
Total	**423.8**	**1.5**	**21.5**

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2019.

3.37 Figure 3.8 looks at the distribution of underpayment by rate population, excluding workers who were on pay that was compliant with the previous rate. The size of the population that is eligible for the NLW is much larger and as such underpayment of the NLW is shown on the secondary axis. Underpayment for each rate population follows a similar pattern, with a spike just below the new rate (within five pence below) and a spike just below the previous rate. Some of these cases of underpayment may be due to technical errors, such as calculating pay based on 52 weeks in a year rather than 52.14 (365/7). However, we are particularly concerned that for each of the rate populations, there is a long tail of underpayment that goes far beyond £1 below the appropriate rate – for example, 115,000 workers aged 25 or over were paid £1 below the NLW or less in April 2019, corresponding to seven per cent of NLW coverage. Similarly, 10,000 workers aged 21-24 were paid £1 below the 21-24 Year Old Rate or less, equal to seven per cent of coverage of this rate.

Figure 3.8: Underpayment by minimum wage rate population, UK, 2019



Source: LPC estimates using ASHE 2010 methodology, low pay weights, excluding underpayment which has been flagged by the low pay flag or the payroll calculator flag, UK, April 2019.
Note: The 21-24 Year Old Rate, 18-20 Year Old Rate, 16-17 Year Old Rate and Apprentice Rate populations are shown on the left hand axis, while the NLW population is shown on the right hand axis.

Bite

3.38 Along with coverage, the 'bite' of a minimum wage is a commonly used measure of its effect on the labour market. The bite is the ratio between the median wage in a group and the level of the wage floor. A high bite indicates that the minimum wage is close to the pay of the average worker resulting in more compression at the bottom of the pay distribution. The bite is the measure used to define the NLW target.

3.39 The bite varies both across the various minimum wage rates and across different groups and sectors of the economy. Table 3.7 shows the bite level for each rate population and how it varies with a range of personal and job characteristics. The bite is highest overall for workers aged 21-24 and lowest for those aged 25 and over. The bite varies across different personal characteristics and job types. At higher ages, bites vary slightly more across different characteristics than that at lower ages. Bites are typically higher in the private sector, for part-time workers, those on temporary contracts, female workers, those with multiple jobs and those who are hourly paid. When we look at low-paying occupations we see that the bite is highest for workers aged 25 and over, suggesting that, for the occupations where it matters most, the NLW is close to the average wage.

Table 3.7: Bite by personal and job characteristics and rate population, UK, 2019

Per cent	NLW	21-24 rate	18-20 rate	16-17 rate	Apprentice rate
Public	52.2	62.2	64.8	-	54.5
Private	63.3	80.8	74.9	71.9	63.4
Voluntary	54.4	76.8	70.3	59.3	-
Full-time	53.7	72.8	72.3	70.1	63.4
Part-time	80.2	88.0	74.9	70.7	50.4
Permanent	58.9	77.7	74.5	70.7	60.2
Temporary	66.3	78.5	74.1	70.7	66.1
Male	53.8	76.1	73.8	71.9	60.5
Female	66.2	80.0	74.5	70.7	65.0
In job for more than a year	57.7	77.9	74.1	70.7	58.0
In job for less than a year	68.4	77.7	74.5	70.7	63.5
One job	58.8	77.6	74.4	70.7	62.6
More than one job	69.7	80.6	74.5	69.0	-
Salaried	49.9	67.0	68.2	58.0	48.2
Hourly paid	80.1	86.7	74.9	71.9	78.0
Retail	90.8	88.0	73.7	66.5	-
Hospitality	92.8	91.6	82.0	72.5	-
Low-paying occupations	88.8	88.5	75.0	71.0	77.1
Non low-paying occupations	49.3	65.6	68.1	59.1	55.7
Total	59.4	77.8	74.4	70.7	62.8

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, April 2019.
Note: Some figures have been excluded due to small sample size.

International comparisons

3.40 For this report, we have updated our analysis of the value of the UK's NLW compared with its equivalents in other countries. This is useful context for evaluating the effects of the NLW. We look at nominal and purchasing power-adjusted levels of minimum wages in countries that are part of the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU). We then look at the most recent changes in minimum wage rates and discuss current trends and debates in minimum wage setting. We also monitor recent research on foreign minimum wage systems. Research findings are covered in the relevant sections of this report.

The limitations of international minimum wage comparisons

Many countries' minimum wages are not paid as hourly rates. Some are monthly or daily, and as such may not be directly convertible into an hourly rate.

Definitions of minimum wage eligibility vary between countries, particularly regarding age and experience. There may also be exclusions for types of workers such as seasonal, migrant or casual workers.

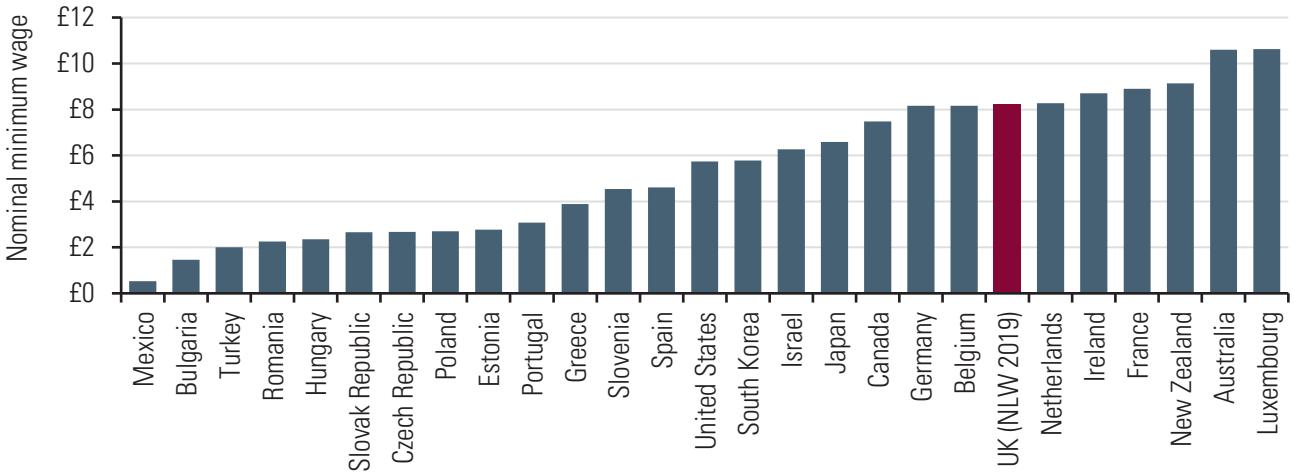
Our comparisons are based on minimum wages measured at a specific point in the year – July 2019 – but minimum wages are uprated throughout the year, which may affect comparisons.

Exchange rates and the cost of living influence comparisons of the value of minimum wages. Adjusting for purchasing power parity attempts to address these issues. 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 cost of minimum wage workers to employers and the actual income that workers receive are heavily influenced by tax and benefit regimes, which vary greatly between countries.

3.41 There is considerable dispersion in the nominal value of minimum wages in EU and OECD countries. Figure 3.9 shows that, on a nominal basis, the NLW puts the UK among the group of high minimum wage countries. Since 2016, consecutive large increases in the NLW have brought the UK into this group and above Germany and Belgium. However, nominal comparisons do not account for cost of living differences between countries.

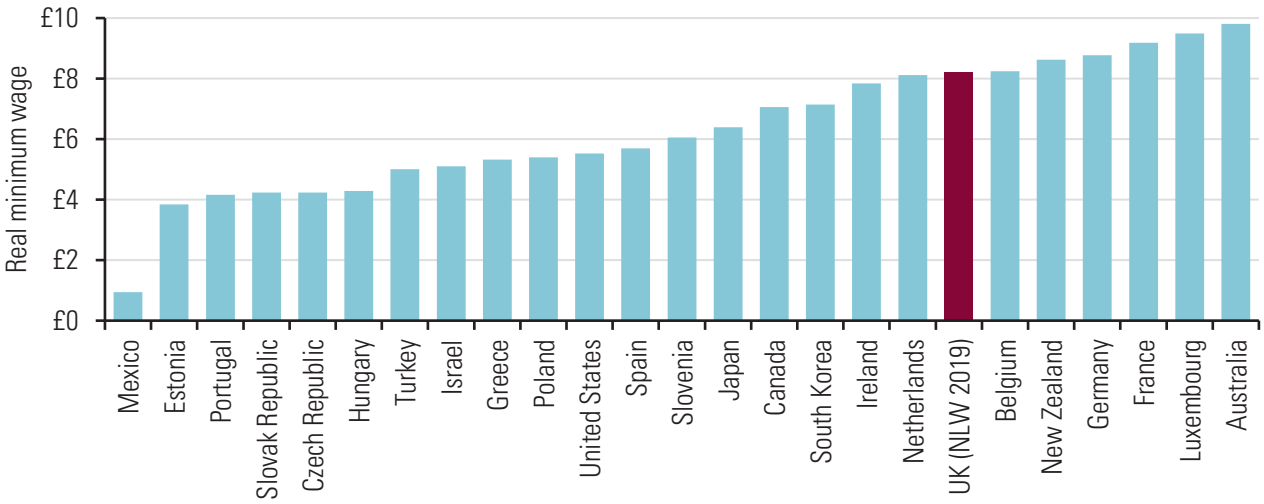
Figure 3.9: Nominal minimum wages in OECD and EU countries, July 2019



Source: LPC estimates using OECD (2019a) and HMRC (2019) data.

3.42 By adjusting nominal minimum wage rates using purchasing power parities (PPPs), derived from the OECD's Comparative Price Levels (2019a), we can attempt to address this issue. PPPs attempt to take account of the cost of living in each country. Applying them to nominal minimum wages reduces the dispersion between rates, as shown in Figure 3.10. The UK's relative position, however, remains similar. Depending on relative levels of inflation and increases in comparator countries, the 2020 rate of the NLW should move the UK closer to those with the highest rates.

Figure 3.10: Purchasing power of minimum wages in OECD countries, July 2019



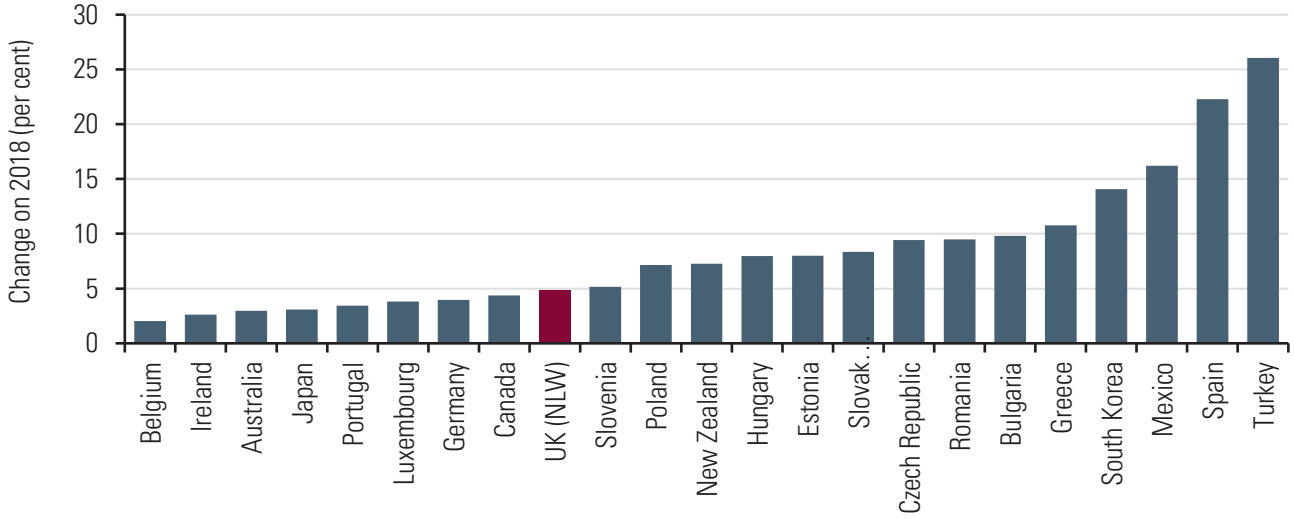
Source: LPC estimates using OECD (2019a), and HMRC (2019) data.

3.43 As already stated, one of the limitations when comparing the value of minimum wages is how they interact with different tax and benefit systems. Compared with most of its counterparts, the UK has a low effective tax rate for minimum wage workers (at least for those without children). This is true both in absolute terms and relative to workers paid at the median wage. This arguably boosts the true value of the NLW relative to most comparators. Equally, its cost to employers is relatively low compared with other countries' systems due to lower employer social security contributions than in most countries.

3.44 It is also worth noting that statutory minimum wages are not the only labour market intervention affecting pay. While, as of 2019, 22 EU member states and several OECD countries had statutory minimum wages, there are some notable exceptions. Neither the Scandinavian countries, Austria nor Italy have statutory minimum wages, instead relying on collectively agreed rates for different sectors. According to Eurofound (2019), the lowest such rates in Denmark, Norway and Austria tend to be higher than most statutory minimum wages in Europe. Some countries with minimum wages also have high coverage of collective agreements, for example Belgium and Germany. Similarly, Australia has a system of 'awards' – rates for specific occupations above the national minimum.

3.45 Compared with other high minimum wage countries, the 2018 NLW increase was large, as shown in Figure 3.11 – only New Zealand's minimum wage uprating exceeded it. The faster growth among low minimum wage countries reflects the trend of convergence in minimum wage rates. Looking at the period since announcement of the NLW in 2015, the UK's minimum wage has grown faster than in any other high minimum wage country apart from South Korea, and as fast as many with lower rates.

Figure 3.11: Change in nominal minimum wages in EU and OECD countries, 2018-2019



Source: LPC estimates using OECD (2019a) data.

3.46 There have been prominent debates around minimum wages in a number of the countries studied here, with large increases in New Zealand, Spain, Greece and South Korea attracting attention. In Spain and Greece, governments have sought to redress slides in the value of minimum wages since the financial crisis. In South Korea, the government has slowed the path to its intended minimum wage target after pressure from business groups. Minimum wages have been the subject of debate in Poland, whose recently elected government has promised a 78 per cent increase in the minimum wage by 2023, and in France following the *gilets jaunes* protests. The French government's announcement of a minimum wage increase following the protests actually took the form of an increase in working tax credits. In Ireland, the government announced in October that the planned January 2020 uprating of the minimum wage would be delayed because of the risk of a no-deal Brexit. Elsewhere in Europe, politicians in Italy and Cyprus have proposed introducing statutory minimum wages. In the US, city and state minimum wage rises have continued, though ten years have now passed since the last increase in the federal rate.

3.47 We will continue to study minimum wage regimes around the world. They serve as important context for understanding our own system and can produce research and evidence that is useful in guiding our recommendations.

Conclusion

3.48 The UK minimum wage is an hourly rate. Most people (80 per cent) defined as low-paid on an hourly measure are also low-paid on a weekly measure. However, only half of those that are weekly low-paid are also hourly low-paid. Hours worked are key for weekly low-paid workers. The distribution of hours worked shows spikes at various points for NLW workers, noticeably at 16 hours, likely a result of the benefits structure, and at 40 hours for those full-time workers.

3.49 Around 2 million workers (seven per cent) are directly affected by minimum wage rates. This figure is largely unchanged since 2016 when the NLW was introduced. The share of minimum wage workers varies across a range of personal and work characteristics and also by occupation. Minimum wage workers are more likely to be women, work part-time and be in the private sector compared with other workers. They also have a much higher chance of working in low-paying occupations including retail, hospitality, cleaning and maintenance and hair and beauty. One in five minimum wage workers (around 330,000 individuals) are employed outside our definition of low-paying occupations.

3.50 Just over one in five minimum wage workers (21.5 per cent of those covered, or 424,000 individuals) were underpaid their respective minimum wage rate in April 2019. This was down slightly compared with 2018, reversing the upwards trend seen since 2016.

3.51 The UK saw the second largest minimum wage increase in 2019 among high minimum wage countries, behind New Zealand, following the 4.9 per cent increase in the NLW. When we attempt to compare minimum wages internationally we find the UK positioned amongst the group of countries with the highest minimum wages on a nominal basis, albeit towards the lower end of that group. When we adjust for the cost of living across countries the position of the UK minimum wage is largely unchanged.

Chapter 4

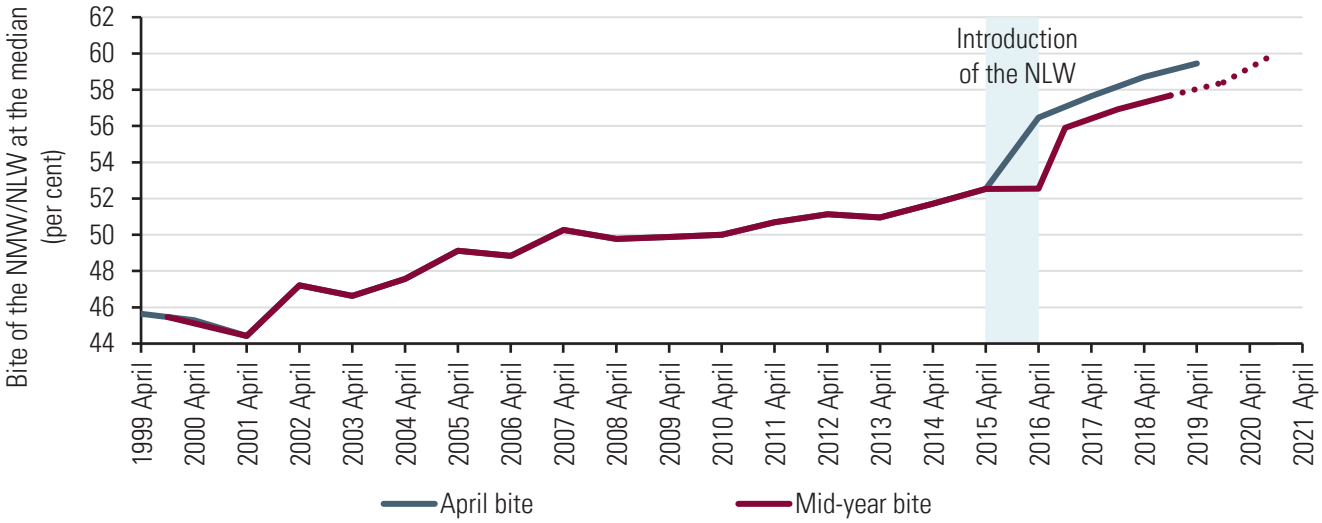
The impact of the National Living Wage

4.1 The introduction of the National Living Wage (NLW) in April 2016 was a significant departure from the previous method of setting the National Minimum Wage (NMW). The NLW was introduced at a level 7.5 per cent higher than the previous rate and with a four-year target implying significant increases in the years to follow. The Government's remit to the LPC set a target level for the NLW of 60 per cent of median earnings by October 2020, subject to sustained economic growth. This is therefore the last report that we will write based on this remit.

4.2 This chapter examines the NLW's impact on pay and employment for those workers aged 25 and over for whom it is the pay floor. Our evidence is obtained from a range of sources including analysis of official data, our visits across the UK, written and oral consultations and commissioned and independent econometric research. We start by looking at the broad impact on the labour market before moving on to focus on the sectors of the economy most affected by the minimum wage (as set out in Chapter 3).

4.3 The increase towards an NLW set at 60 per cent of median earnings represents a significant intervention in the labour market for the lowest paid. Figure 4.1 shows how the ratio between the hourly wage of the average worker and those at the pay floor has narrowed considerably over recent years. In April 2015 the hourly pay of an employee on the NMW was around 52.5 per cent of that of the average employee; by April 2016 that was around 56.4 per cent; and last April the ratio had increased to around 59.4 per cent, indicating that the gap between them fell by around 15 per cent.

Figure 4.1: Bite of the NMW/NLW for workers aged 25 and over, UK, 1999-2020



Source: LPC estimates using adjusted earnings data based on ONS data: ASHE without supplementary information, April 1999-2004; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-19, standard weights, UK. Forecasts are based on AWE total pay from Office for National Statistics (2019i) and HM Treasury (2019c) and Bank of England (2019a) average weekly earnings predictions.

Notes:

a. Bites from mid-year 2019 are based on earnings forecasts and may change when out-turn data is available.
b. Data include all apprentices (as it is not possible to identify apprentices prior to 2013). Our 2020 target bite is does not include first year apprentices.

The impact on pay

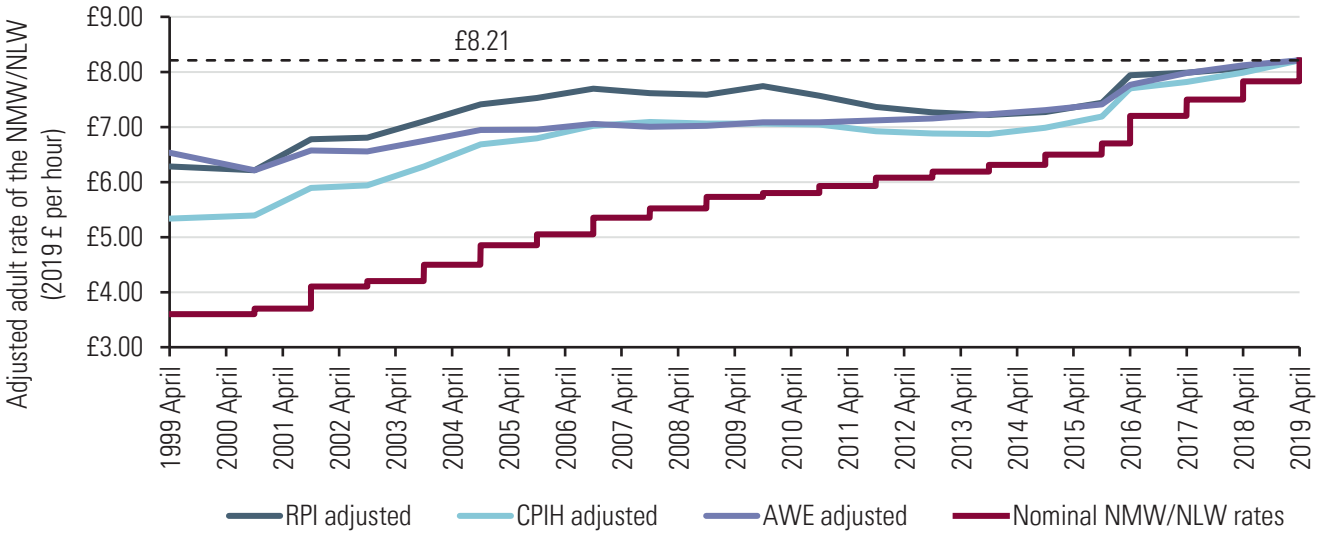
4.4 We begin by examining the impact of the most recent uprating of the NLW on pay and earnings. We examine how the level of the NMW/NLW has changed relative to prices and other types of wages and how weekly and hourly pay have changed across the pay distribution. We then look at the NLW's impact on pay consolidation and on the pay distribution more widely, the level of spillovers from the NLW and how growth has varied across different sectors of the economy.

Impact on earnings and pay

4.5 The NLW has increased the pay of the lowest-paid employees considerably faster than inflation and above the levels experienced by other employees since its introduction in April 2016. They have also experienced weekly pay growth well above both inflation and the level seen by workers with higher hourly pay.

4.6 The increases in the NLW since its introduction in 2016 have pushed the main minimum wage rate to its highest ever level in real and relative terms. As shown in Figure 4.2, the NLW is currently around 14 per cent higher in real (CPIH-adjusted) terms than the pre-NLW maximum reached in October 2007. Using the RPI definition of inflation, the real increase from the pre-NLW maximum (in October 2009) is 6 per cent. The real value of the minimum wage has increased by 53 per cent since its introduction in April 1999.

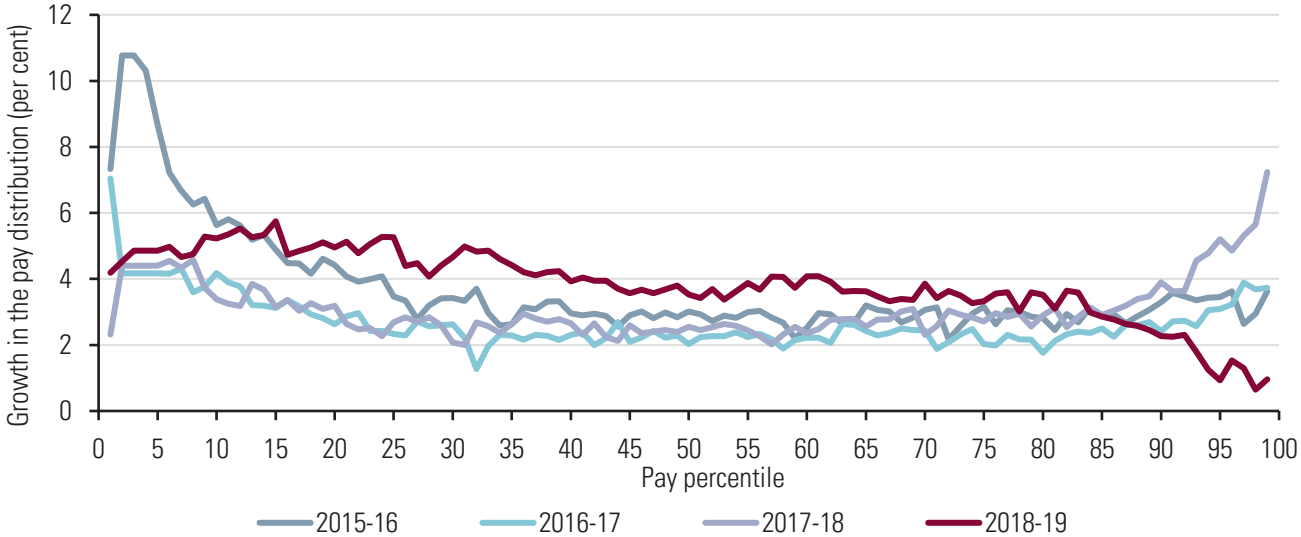
Figure 4.2: Real and relative values of the NMW/NLW, UK, 1999-2019



Source: Source: LPC estimates based on ONS data: AEI including bonuses (LNMQ) 1999-2000, AWE total pay (KAB9) 1999-2019, CPI (D7BT) 1999-2018, and RPI (CHAW) 1999-2018, quarterly, seasonally adjusted (AEI and AWE only), UK (GB for AEI and AWE).
Note: The AWE series began in January 2000 and the AEI series ended in July 2010. Our earnings series is estimated using AEI (including bonuses) from April 1999-January 2000 and AWE (total pay) from January 2000-April 2019.

4.7 Figure 4.3 shows average growth across the hourly pay distribution in each year since the NLW was introduced. Growth in median hourly pay was 3.6 per cent between April 2018 and April 2019 (from £13.34 to £13.82) following growth of 2.5 per cent in the previous year (£13.01 to £13.34). Interestingly, pay growth in 2019 peaked at the 15th percentile (where pay grew 5.7 per cent from £8.51 to £9.00), whereas in all of the previous three years pay growth decreased between the bottom 5 per cent (who are covered by the NLW) and the median. While the highest-paid saw lower pay growth than most workers in 2018-19, the reverse was true in 2017-18 and over the last two years the highest-paid have seen growth broadly at the median level. Over the whole period of the NLW, the lowest paid have seen increases in hourly pay of over 20 per cent, twice the growth of the average worker.

Figure 4.3: Percentage growth in the hourly wage distribution for workers aged 25 and over, UK, 2015-2019

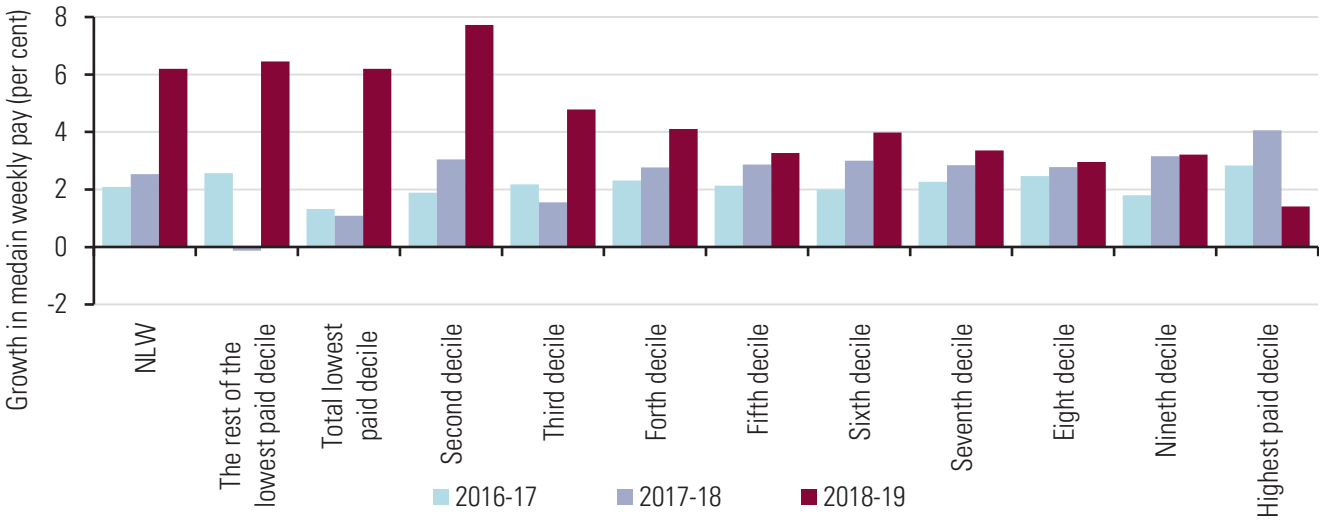


Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

4.8 While the level of hourly pay is important, weekly pay matters more for individuals' living standards. If employers responded to higher minimum wages by cutting hours, then workers would be no better off (employers' responses to the NLW are explored in 'The labour market for low-paid jobs' section on page 66). Figure 4.4 shows how average weekly pay has grown for individuals with different levels of hourly pay. The average NLW worker has seen weekly pay growth of over 6 per cent in the last year, a larger increase than that in the NLW, suggesting the average NLW worker has increased the number of hours they work. Such an increase is consistent with what we heard from employers in some sectors about recruitment difficulties – it may be the case that they have given additional hours to existing staff. This follows two years where weekly pay increased at a slower rate than the NLW, suggesting that while NLW workers were still experiencing reasonably strong growth in weekly pay, they were working fewer hours overall.

4.9 In 2018 the bottom 20 per cent of workers on hourly measures saw their weekly pay increase faster than those workers above them in the hourly pay distribution. Over the first four years of the NLW the average worker in the bottom hourly paid decile has seen their weekly pay grow by over 22 per cent, almost twice the rate for the average worker in the middle of the hourly pay distribution. For a minimum wage worker this has been even higher at almost 29 per cent, slightly more than the 26 per cent increase in the nominal minimum wage in this period.

Figure 4.4: Growth in median weekly pay, by hourly pay decile for workers aged 25 and over, UK, 2016-2019



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2016-2019.
Note: Data exclude first-year apprentices.

4.10 Worker representatives and other organisations that were in favour of raising the NLW further recognised the positive impact of the rate on the earnings of low-paid workers. They stressed the positive effects of higher pay. The London Assembly thought the NLW had raised living standards, but that more could be done. The Trades Union Congress (TUC) pointed to the potential for a higher minimum wage to increase demand in the economy. The Living Wage Foundation argued strongly that higher pay could raise worker engagement, reduce staff turnover and raise productivity. Unite noted the importance of the NLW's stronger positive effects for women and black and Asian ethnic minorities.

4.11 While workers could see that the NLW had had a positive effect on their earnings, not everyone we met on visits said they felt significantly better off for it. Many felt it had not kept pace with rising costs, giving the specific examples of Council Tax, childcare, energy and transport. Unite noted that the Minimum Income Standard, based on what the public think is needed for a 'minimum acceptable standard of living' (Loughborough University, 2019), has increased faster than other measures of inflation. Usdaw recognised this effect too and cited the Joseph Rowntree Foundation's work on the 'poverty premium', whereby low-income households often have to pay more for essential goods and services than those who are better off. Usdaw also said that tightening restrictions around access to Universal Credit, particularly for young people and those with children, were a factor which limited the benefits people felt from NLW increases. These issues are described in more detail in Chapter 7. At oral evidence, Usdaw noted that the NLW, being an hourly rate, was a 'blunt tool' and did not always result in increases in weekly earnings.

Pay consolidation

4.12 It is very difficult to identify pay consolidation in the pay data. On the evidence of employer surveys, it seems relatively rare for employers to respond to the NLW via changes to wider pay and reward structures (premium pay, overtime, bonuses and other aspects of reward). But in regional visits and other meetings with stakeholders, we hear conflicting evidence on this point. Some employers tell us they have consolidated pay or made changes to other aspects of reward and we have heard evidence of changes to non-pay benefits such as breaks or employer-run benefit schemes. It is often hard to tell whether any changes are related to the NLW or if they are part of longer-term trends.

4.13 16 per cent of affected respondents to the Chartered Institute of Personnel and Development's (CIPD) latest survey had reduced overtime or bonuses since 2016, and 8 per cent had reduced other aspects of the reward package (such as paid breaks, premium pay rates and other benefits and perks). The proportion of affected Federation of Small Businesses (FSB) members saying they had reduced overtime or bonuses has risen from 14 per cent in 2016 to 19 per cent in 2019, suggesting more activity in this area, while the proportion of members who say they have reduced other aspects of reward has increased from 5 to 8 per cent. In the British Chambers of Commerce's (BCC) workforce surveys, when asked how they would respond to the NLW, in each year since the NLW's introduction around one in five (18-21 per cent) have planned to reduce staff benefits. It is worth noting that these surveys do not ask if employers have made changes in the opposite direction, so it may be that employers who reduce benefits are balanced by those who improve them.

4.14 In some sectors there were suggestions that pay consolidation or other changes have occurred. The Federation of Wholesale Distributors (FWD) thought some members were limiting staff benefits, giving the examples of falling overtime premiums and cancelling schemes like free gym membership. Make UK reported that some of its members are starting to reduce overtime and shift premiums, and flexible benefits. The British Beer and Pub Association (BBPA) and Chartered Institute of Payroll Professionals (CIPP) were others who suggested some members had looked to make savings on other aspects of pay and reward.

4.15 In retail, there have been recent examples of apparent pay consolidation, where basic hourly rates have been increased and premiums reduced or removed. The British Retail Consortium (BRC) and Usdaw, however, were broadly in agreement that these were not a direct consequence of the NLW. Rather, competition over basic pay between retailers has driven a focus on headline rates, sometimes at the expense of wider reward packages. Usdaw cited a long-term decline in premium pay for unsocial hours. More pertinently to the NLW, Usdaw also told us that in some cases retailers have removed salary sacrifice benefits rather than increasing pay in order to remain compliant with the minimum wage.

4.16 On the other hand, the CIPD's survey found that since 2016, 26 per cent of retail firms affected by the NLW had reduced overtime or bonuses in response to the NLW and 15 per cent had reduced other aspects of the reward package like paid breaks. Both figures are significantly higher than those for all respondents. In smaller retail, the Association of Convenience Stores (ACS) told us that when assessing the NLW's cumulative impact since 2016, the most frequent response had been to reduce staff employment benefits.

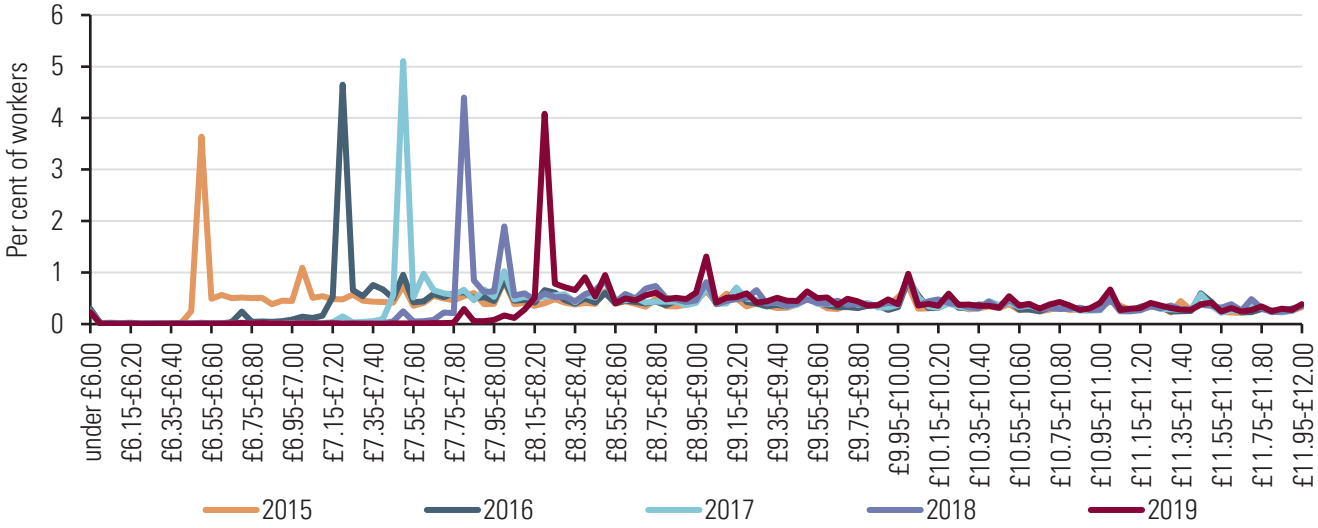
4.17 While we have limited information on the extent of paid breaks or the use of non-wage benefits to attract employees, the ASHE data set does include data on use and levels of shift-premium pay and overtime. Since 2011 the use of shift-premium pay has decreased both across the whole economy and in low-paying occupations, but the use of premiums has remained flat for NLW workers since 2016. The number of workers who receive overtime pay has similarly decreased economy-wide, but has been reasonably flat for NLW workers, with a slight increase in the most recent year. The average number of hours of overtime has, however, decreased slightly. Nevertheless, NLW workers appear to have seen their non-wage benefits retained more widely than in the rest of the economy suggesting that overall there has not been an adverse effect from the NLW on pay consolidation.

The pay distribution

4.18 The NLW has wider effects on pay than just those jobs directly affected by increases. This section examines how pay for those workers who earn slightly more than the NLW has been affected by the increase in the wage floor.

4.19 Figure 4.5 shows the distribution of hourly wages in each year since 2015. There is a similar level of 'spike' at the minimum wage rate in each NLW year; as we set out on pages 35-36, coverage has been flat over this period (the exact height is somewhat affected by the date of the ASHE survey resulting in individuals being paid below the current rate, see paragraphs 3.32 to 3.35 for more context). In 2018 there was also a noticeable spike at £8 an hour, which indicated that a significant number of employers were paying workers just (17p) above the NLW. In 2019 there was no such spike just above the NLW, but there were instead minor spikes at £8.40, £8.50 and a slightly larger spike than in previous years at £9.

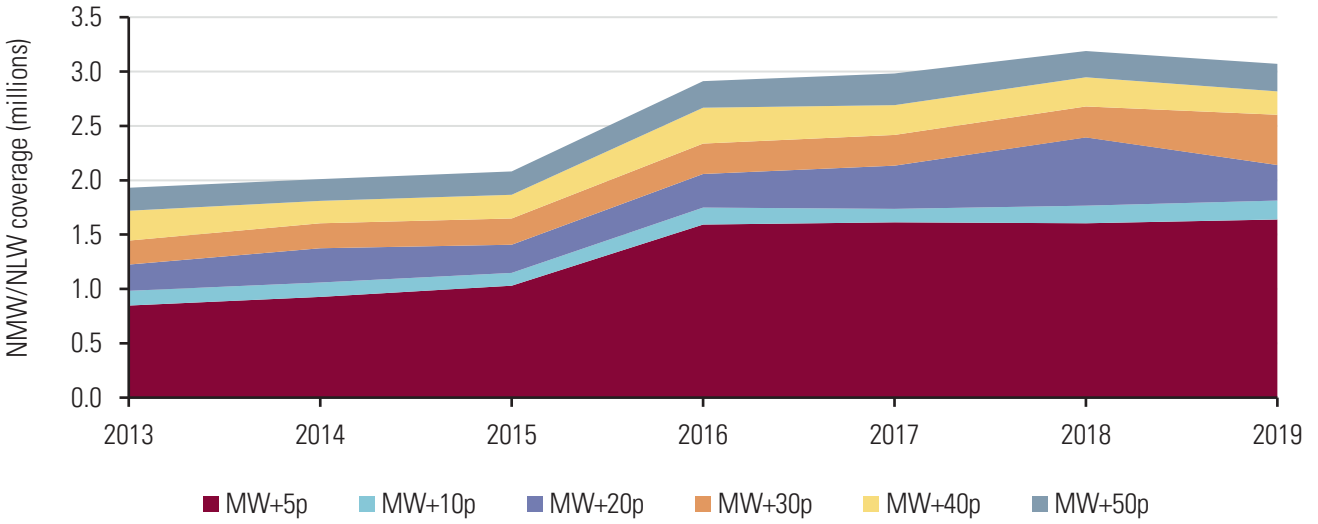
Figure 4.5: Hourly wage distribution for workers aged 25 and over, UK, 2015-2019



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

4.20 In the first year of the NLW we saw a significant increase in the numbers of workers covered by the wage floor, from slightly over a million to almost 1.6 million. The remainder of the NLW period was expected to see further increases in the numbers of workers paid at the wage floor. However, this has not been the case. Instead, up to 2018 we saw an increasing number paid slightly above the NLW, as shown in Figure 4.6. The number of workers paid between 5 and 20 pence above the wage floor increased from 375,000 in 2015 to 470,000 in 2016 before rising to 790,000 last year. In 2019, this pattern was reversed, with a fall in the number of individuals paid in this range to 500,000. Furthermore, the number of workers paid up to 50p above the minimum wage fell by 120,000 last year.

Figure 4.6: Numbers earning within different bands of the NMW/NLW, for workers aged 25 and over, UK, 2013-2019



Source: LPC estimates using ASHE 2010 methodology, low pay weights, UK, April 2013-2019.
Note: Data exclude first year apprentices.

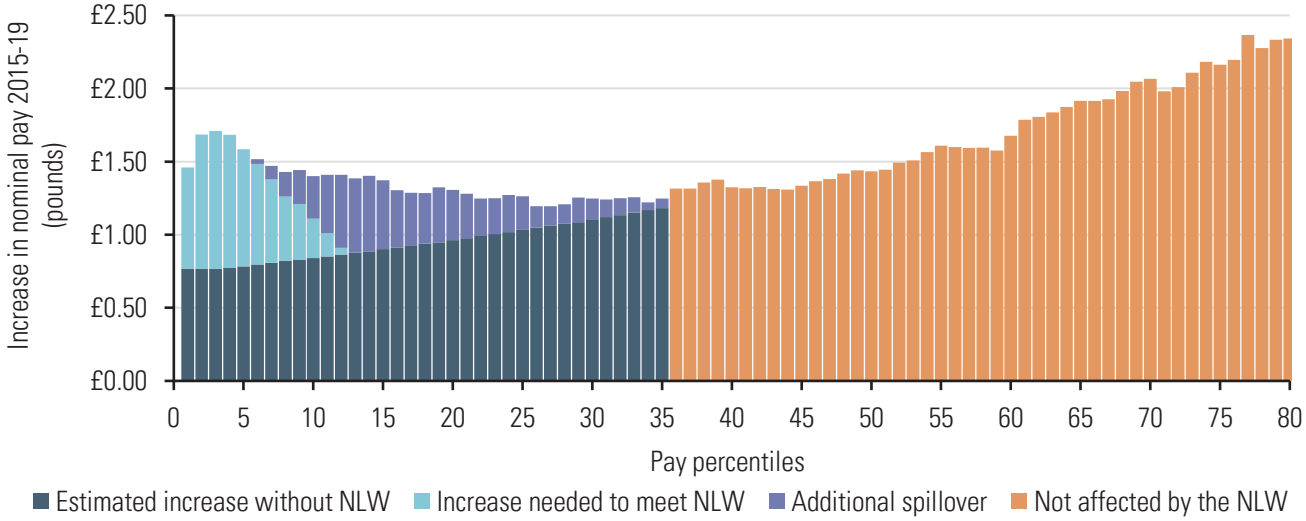
Spillovers, differentials and progression

4.21 The NLW has not just raised pay for those who are paid the minimum wage. Employers tell us that, as they try to maintain pay differentials to the NLW, they have had to increase wages for those paid above the NLW by more than they otherwise would have. Increases in the NLW therefore have a 'spillover' effect leading to wages for workers earning above the NLW increasing faster than they would have in the absence of the NLW.

4.22 This 'spillover' effect can also be seen in the data. Figure 4.3 shows that pay has increased more quickly for workers earning between the NLW and the 20-30th percentile than for the average worker. If we assume that in the absence of the NLW pay for workers in the bottom third of the wage distribution would have grown as quickly as those in the middle third, we can estimate the size of these spillovers and how far up the pay distribution they go.

4.23 Figure 4.7 shows how wages above the minimum have changed since the introduction of the NLW in 2016. We estimate how much earnings would have increased without the NLW by assuming that jobs in the bottom third would have experienced pay growth as fast as those in the next half of the distribution. Using this approach, we have estimated the hypothetical increase in the absence of the NLW (shown as the dark blue area to the left). The light blue columns show the pay increases driven purely by the higher wage floor, affecting the bottom 12 per cent of jobs. Jobs up to the 35th percentile saw faster pay growth than they otherwise would have due to spillovers (the purple area), where employers chose to maintain, or slow the decrease in pay differentials between these jobs and those paid at the minimum. This spillover is largest at the 13th and 14th percentiles where we estimate that wages grew by 50p an hour more than they would have in the absence of the NLW.

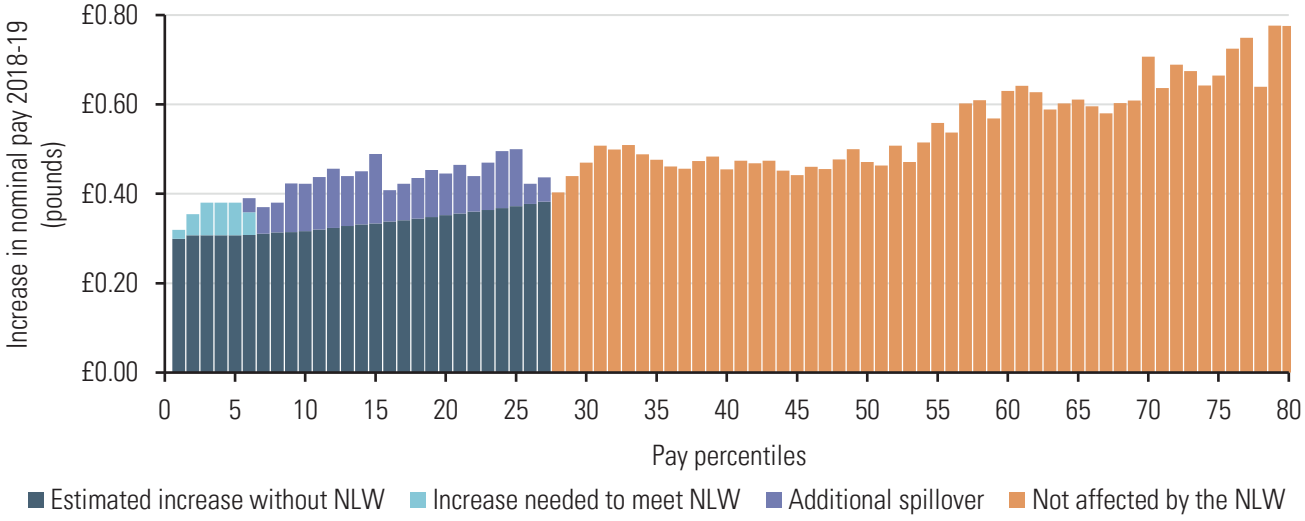
Figure 4.7: Increase in the hourly wage distribution, including spillovers, for workers aged 25 and over, UK, 2015-19



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

4.24 Figure 4.8 shows our estimate of the spillovers just in 2018-19. Unlike in previous years of the NLW when pay growth peaked with the NLW and then decreased afterwards, in 2019 pay growth was higher just above the NLW, as shown in Figure 4.3. This complicates our preferred approach to estimating spillovers. Nonetheless, we think that spillovers extended as far as the 25th-to-30th percentile. However, it could be argued that there were no spillovers in 2018-19, or that they went as high as the 45th percentile.

Figure 4.8: Increase in the hourly wage distribution, including spillovers, for workers aged 25 and over, UK, 2018-19



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2018-2019.
Note: Data exclude first year apprentices.

4.25 Avram and Harkness (2019a) examined the effects of the NLW on wage spillovers. They used the ASHE data set and geographic variation in levels of minimum wage coverage at a travel-to-work-area level to estimate the level and extent of spillovers up to 2018, while controlling for compositional differences between areas. The authors find significant spillovers up to the 30th percentile, with a 1 percentage point increase in coverage associated with a 2.0-2.5 per cent increase in wages at the 5th percentile, 1.5-2.0 per cent increase at the 10th percentile and 1.0-1.5 per cent at the 30th percentile. The authors also find that weekly earnings growth has grown less progressively than hourly pay, but that weekly wages at the 5th and 10th percentile grew faster in areas with a higher proportion of minimum wage than in areas with fewer minimum wage workers.

4.26 The evidence we received from stakeholders on differentials and spillovers was mixed, but it was clear that pay above the NLW remained a significant issue for many employers. Several employer representatives reflected on the changing context over the last 12 months, with a tightening labour market leading to faster pay growth across the distribution. As shown above, this trend is particularly visible just above the NLW.

4.27 Since 2016 we have heard that many employers have given smaller pay rises to staff above the NLW, including those supervising NLW workers, leading to reduced differentials between staff levels. This year, we heard that some employers have taken action to address differentials that had been eroded since the NLW was introduced. FSB survey data revealed that as many of its affected members have widened differentials as have narrowed them. The FSB thought this could be due to labour shortages pushing up wages or companies changing their pay structures. Similarly, in the BCC's 2018 workforce survey, when asked how they would respond to an increase in the NLW, 23 per cent said they would reduce pay growth for staff not on the NLW; in 2019 this figure fell to 14 per cent. The BCC said that, anecdotally, where employers had struggled to maintain differentials, there had been an impact on employee morale and reduced opportunities for progression. The Food and Drink Federation (FDF) told us firms are keen to maintain differentials, but this may come under threat with future increases. Usdaw told us it had negotiated larger differentials for skilled work with some retailers. In the CIPD's survey, among those organisations whose wage bill had increased as a result of the NLW, more than a third (37 per cent) of organisations reported that they had narrowed differentials. By comparison, 30 per cent of organisations had maintained them while 8 per cent have increased them.

4.28 The CBI and BCC both stressed to us that what to do about the wages of those just above the NLW remains a pressing issue for many employers. A wide range of sector representatives raised concerns, including the BRC, BBPA, National Hairdressers Federation (NHF), FWD, Make UK, Recruitment and Employment Confederation (REC), National Day Nurseries Association (NDNA) and Care England. The public sector beyond adult social care, where individual providers also thought it was a problem, and childcare was also affected – the Local Government Association also told us that differentials had been narrowed in its pay deal, that moved the lowest rates ahead of the NLW. The CIPD noted differences between sectors, with retail and hospitality employers more likely to have cut differentials.

4.29 Stakeholders told us this year that many businesses are dealing with the knock-on effects of pay compression on morale and progression. The CIPD thought some employees were 'pushing back' and complaining about lack of recognition for skills, as did the CIPP. The BRC thought that reduced differentials were in some cases decreasing incentives to progress, as individuals were unwilling to take on additional responsibilities for relatively small uplifts in pay. The CBI echoed this and pointed out the potential negative effect on staff turnover.

Case study: differentials in a leisure company

A leisure firm interviewed by the CIPD reported two issues around differentials.

Firstly, the difference in pay between those covered by the NLW and their immediate supervisors had fallen significantly. This resulted in recruitment difficulties for team leaders as some attendants had been put off from applying for the leader role because the increase in hourly pay was not seen as worth the extra responsibilities.

Secondly, there has been a convergence of occupations at the NLW. For example, a pool attendant who is required to have specific skills and qualifications is now paid the same hourly rate as a cleaner, who is not expected to have the same level of qualifications. While the firm's job evaluation scheme values these jobs differently, the impact of the national living wage has meant that they are now paid the same.

4.30 Workers from the hospitality and retail sectors also recognised these issues – some were unwilling to take on more responsibility for little extra pay or were themselves supervisors demoralised by small differentials. Unite had 'seen a narrowing (or elimination) of pay differentials for skilled workers in the hospitality sector, where chefs have seen their rates more or less frozen with some companies diverting tips and service charges to kitchen staff to make up the difference, wiping out the NLW increase for waiting staff and leaving them financially worse off.' The focus of Unite negotiations had been to at least maintain skill recognition through the cash differentials between grades if the same percentage increases could not be agreed.

4.31 As part of employers' approach to differentials, restructuring of workforces again featured in the evidence we received. Hoteliers in Scotland told us they were re-evaluating job roles to make staff more flexible. In some cases, these added responsibilities were reflected in higher pay, though not always.

4.32 The CBI thought that restructuring in this way was an increasingly common method of adjustment. The BRC thought that this was one of the main consequences of the NLW in retail, with more retailers restructuring management or planning to do so to manage future increases. This was also a feature of the CIPP's survey, with several respondents having restructured their workforces. Others we spoke to were considering implementing workforce changes.

4.33 Unions worried about the effects of workforce structure changes. Unite had seen some evidence of 'de-layering'. Usdaw told us that there was a general trend – not directly as a result of the NLW – in retail towards flatter pay structures and worried that there was a 'deficit of progression opportunities.' Some employers expressed similar concerns. The BBPA told us that its survey of licensees shows pubs removing management layers, and it worried that this would affect the quality of service and drive customers away.

4.34 Avram and Harkness (2019b) used longitudinal data to examine how the introduction of the NLW and its first uprating affected minimum wage workers ability to progress into higher paying jobs. The authors use the UK Longitudinal Household Survey to examine transitions from minimum wage jobs into jobs that were either 'low-paid' (paid less than two-thirds of the average wage) or 'high-paid' (paid more than two-thirds of the average wage) or into non-employment. They also examine what other personal and job characteristics are associated with progression into higher paying employment. The authors used variation in minimum wage use across travel-to-work-area to try to isolate the effect of the NLW on progression.

4.35 The authors find that around half of minimum wage workers transition into employment paid above the minimum wage within a year and of these, four fifths progress to low-paid employment with the remaining fifth moving into high-paid employment. When measured over three years transition rates are only slightly higher. The authors find limited evidence that the minimum wage upratings have depressed the probability for a minimum wage worker to transition into a higher-paid job and increased the probability of the worker to remain in a minimum wage job. However, under different specifications the results are not statistically significant and are close to zero. The authors do find that workers with higher levels of education, and who are working in the public sector or in large firms are more likely to progress into high-paid employment. Being female, having a history of unemployment, and part-time working are associated with a lower chance of moving into high-paid employment. Spending more time in a minimum wage job is also associated with a lower likelihood of progressing into high-paid work.

Case study: Impact of the NLW in supermarkets

This year, we met several large retail firms to discuss the NLW's impacts on pay and employment in the sector, and changes they had made to pay and reward structures. Although in some cases the NLW had been a factor in decisions, employers acknowledged that the rates of pay offered by competitors were as important a factor, if not more so.

One employer had committed to raising their basic hourly rate by more than 10 per cent over a period of two years. At the same time, discretionary bonuses had been withdrawn. A key factor in this decision had been to match the headline rates offered by competitors, although the need to keep ahead of a rising minimum wage had also been considered. The employer told us that the higher hourly rate responded to feedback they had heard from staff over the importance of greater certainty over take-home pay.

Another supermarket we spoke to paid staff a basic hourly rate around 2 per cent above the NLW, and which had increased by 5-6 per cent per annum over the last five years. This had had a significant impact on the overall pay bill, and, they told us, had limited their ability to offer staff a bonus scheme. Although their eventual aspiration was to be recognised as a Living Wage employer, they did not think this would be achievable in the short-term.

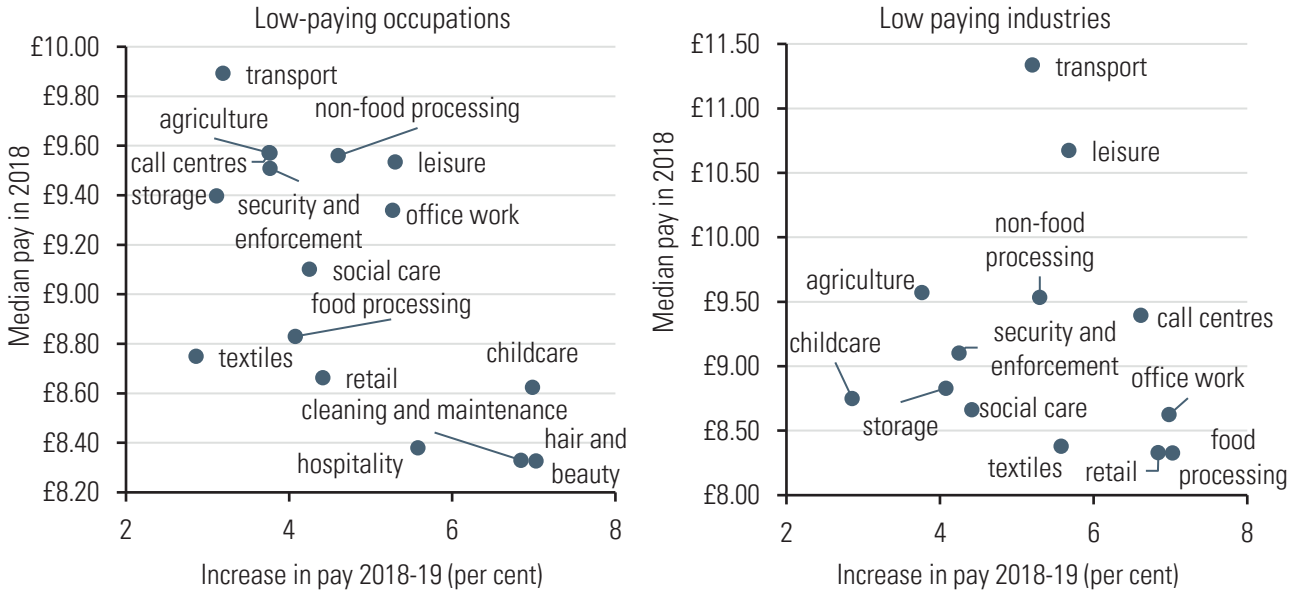
This employer told us about the challenges of maintaining pay differentials against the backdrop of these increases. Since 2014, the difference between a team leader's pay and the staff she managed had halved over recent years. The difference between team leaders and the next level of management up, which was salaried, had also narrowed, to the equivalent of a few hundred pounds annually. The employer did not think any further decreases would be sustainable, and said they were beginning work to introduce flatter management structures within stores. They noted that other supermarkets' decisions to push pay upwards had made recruitment and retention more difficult for them.

Sectors

4.36 The NLW's effects vary across different sectors of the economy. As explored in Chapter 3, the minimum wage covers more workers in certain industries, occupations, different sizes of firms, and regions. Therefore, these sectors are more likely to see wider pay effects from the NLW.

4.37 Figure 4.9 shows the relationship between the level of median pay in 2018 and its growth in 2019. As can be seen, there appears to be a slight relationship between level of pay and pay growth among low-paying occupations (left-hand-side chart), but not at the industry level (right-hand side chart). However, the relationship at occupation level is fairly weak, while pay grew fastest in the four lowest paying occupations, hair and beauty, cleaning and maintenance, hospitality and childcare, in retail – the next lowest paying – pay growth was around the average for low-paying occupations, and in textiles, pay grew by the least among low-paying occupations.

Figure 4.9: Median pay and pay growth, by occupation (LHS) and industry (RHS), for workers aged 25 and over, UK, 2018-19

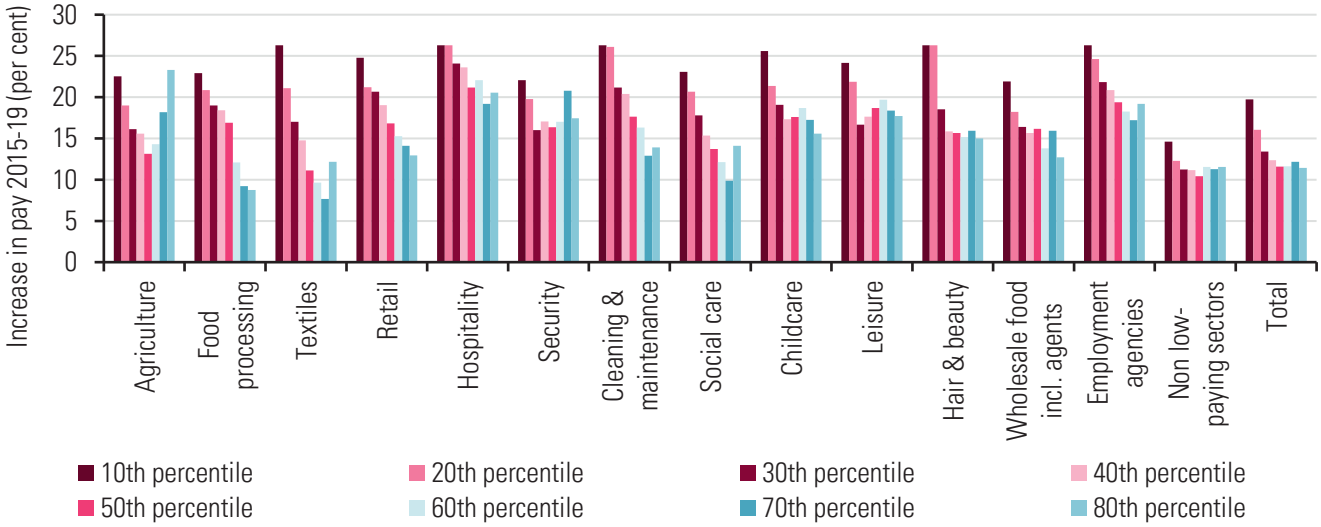


Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2018-2019.
Note: Data exclude first year apprentices.

4.38 When we look at pay growth by firm size, we see that micro-firms (who pay on average the lowest) have seen the fastest growth in median pay in 2019, while large firms (who pay the most) have seen the slowest growth. However, the pattern does not hold up across other sizes. Similarly, there was no relationship between the level of pay and pay growth at a region/nation level.

4.39 Figure 4.10 shows pay growth distributions across industries. It is clear in the data that since 2015 all low-paying sectors, with the exception of agriculture have become more equal. The 26 per cent increase in the wage floor since the introduction of the NLW has led to jobs in the bottom tenth in these industries experiencing pay increases of that magnitude. Jobs in the second decile have also seen pay growth around this level, or slightly below. After this point, pay growth typically decreases towards the 80th percentile in these industries. Only wages in the agriculture and, to a lesser extent, the security industries subvert this, with stronger wage growth towards the top-half of the pay distribution.

Figure 4.10: Growth in pay distributions, by industry, for workers aged 25 and over, UK, 2015-19



Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, 2015-2019.
Note: Data exclude first year apprentices.

The labour market for low-paid jobs

4.40 We monitor the impact of the NLW on employment and hours through three main routes. We commission academics and research organisations to undertake econometric analyses of the labour market and evaluate other published research; we talk to employers, workers and other organisations to understand their experiences of the labour market; and we look at official data on employment, unemployment and labour market inactivity, particularly for those groups most likely to be affected by the minimum wage. The effects from the minimum wage on labour demand could operate through a cut in employment or a fall in the average number of hours worked by employees or a combination of the two. We have examined both changes in employment and changes in total hours worked, and, unless otherwise stated, the trends in hours and employment are similar in each of the measures looked at in this section.

4.41 When the NLW was announced in the 2015 Summer Budget, the Office for Budget Responsibility (OBR, 2015) forecast that there could be 20,000 to 110,000 fewer jobs in the economy by 2020 then there would have been in the absence of the NLW. This was set against an increase in overall employment of 1.4 million between 2014 and 2020, which appears to be an underestimate, with employment growth totalling 2.1 million between 2014 and the three months to June 2019. The LPC treated this as an acknowledgement from the Government that the NLW could result in job losses in this range and that this would be an acceptable trade-off for higher wages.

Research evidence on the effect of the NLW on employment

4.42 Econometric analyses and research are the most robust methods to identify how higher minimum wages have affected employment and hours. Econometric analysis is better at identifying a counterfactual – what would have happened in the absence of a higher minimum wage – than the other methods that we use. The next six paragraphs summarise research that has been commissioned or published on the employment effect of the NLW, before we go on to examine what stakeholders have told us and others about how the NLW has influenced their employment decisions.

4.43 Prior to the release of this report we had examined three research projects looking at the employment effects of the NLW, with different projects covering different periods and different geographies. While none of the projects found strong evidence that the NLW led to falling overall employment, two of them indicated that there were some small effects for part-time female workers. However, these negative employment effects were not consistently replicated across all data sources and methodologies in these projects and no study has found employment effects for all low-paid workers.

4.44 Aitken, Dolton, and Riley (2018) examined the introduction of the NLW and the first uprating in 2017 comparing workers who earnt the NLW with those who were paid slightly more. They found no robust effect from the NLW on overall minimum-wage employment retention[1] but did find some evidence of a negative impact on employment retention of 2.5 percentage points for women working part-time (at the 5 per cent significance level). This equates to an employment elasticity[2] from increases in the minimum wage of between -0.35 and -0.2. These elasticities are lower than the OBR assumed when forecasting the impact of the NLW. They also found weak evidence of a fall in hours worked by full-time men in the hospitality industry of around 1 hour 45 minutes following the 2016 introduction of the NLW, that was reversed in the subsequent year.

4.45 Dickens and Lind (2018) submitted a report to us that used the variation in minimum wage 'bite' across travel-to-work areas in the UK to model the impact of the NLW introduction and the 2017 uprating. This approach enabled them to capture all entry and exit from employment and the labour market. The authors found a strong wage effect in both years; and a modest, but statistically significant, negative effect on employment for part-time women in 2017, but not in 2016, with an elasticity of around -0.29. Their results suggested that those who would have been in employment without the higher minimum wage are economically inactive instead.

4.46 The final project (McGuinness, McVicar, and Park, 2017) examined the effect of the introduction of the NMW and the NLW on employment retention and hours worked using the differences in minimum wages across the border between Northern Ireland and the Republic of Ireland. No employment or hours effects were found for the period after the introduction of the NLW – although the authors note that the coincidental depreciation in sterling following the EU Referendum could have hidden any NLW impact.

[1] Employment retention is where an individual is in employment in the period before an intervention and remains in employment after it, though not necessarily in the same job.

[2] Employment elasticity is calculated by dividing the percentage change in employment by the percentage change in the minimum wage.

4.47 Last year we also commissioned a two-year research report into the effect of the introduction of the NLW and the subsequent upratings in 2017 and 2018, which provided initial findings in last year's report. Capuano, Cockett, Gray, and Papoutsaki (2019) take a similar approach to Aitken, Dolton, and Riley (2018) in comparing employment outcomes of workers earning the NLW to those earning just above using the ASHE and longitudinal LFS data sets. The authors find that the introduction of the NLW reduced employment retention for both male and female part-time employees. The employment retention elasticities from the NLW are estimated at -0.56 for part-time women and -0.72 per cent for part-time men. The effects were largest for women working part-time in the public sector.

4.48 The authors found little evidence that the 2017 or 2018 upratings affected employment retention for men or women, working full-time or part-time, with one exception. The authors did note a finding of a positive employment retention effect on private-sector part-time women in 2018. The lack of evidence of employment effects from the 2017 uprating was consistent with the findings of Aitken, Dolton, and Riley (2018). The authors found little evidence of an effect from the NLW on working hours. They did find some evidence that men who worked full-time experienced a reduction in working hours following the introduction of the NLW in 2016, but this was not apparent in both data sets. Employment effects in this range are consistent with the assumptions made by the OBR (2015) when the NLW policy was announced.

4.49 As in previous years, most employer stakeholders told us that employment effects from the NLW have not been common. While we have heard from isolated stakeholders about NLW-related job cuts, this is not reflected in most of the employer surveys we received. It is also the case that the NLW is rarely the only factor in such decisions. Broader economic conditions influence business decisions and employment trends in the low-paying sectors and other business costs can contribute. Survey results have not shown redundancies to be a common or increasing response to NLW increases. Where respondents have been given the opportunity to differentiate between redundancies, hours cuts and slowed hiring, the latter two have usually been more common.

4.50 Beyond survey evidence, other stakeholders agreed that the general pattern of responses to the NLW has involved changes to hours and hiring rather than employment losses. UK Hospitality told us that although employment in the sector has grown, it is lower than it would have been without the NLW. The BRC told us that some retailers had reduced hours, but that widely reported job losses have been a result of structural changes in the sector rather than linked to the NLW.

4.51 Cutting hours was the most common response among respondents to the ACS's member survey, with shop owners taking on more hours in their place. Similarly, a large convenience chain in Scotland told us that it had removed a small number of hours and jobs from the business to increase efficiency, coupled with investment in automation. Also in Scotland, a small number of the hospitality employers we met had reduced hours, and the Scottish Women's Convention wrote that some workers it talked to had had their hours cut.

4.52 Some sectors that reported being under pressure from the NLW also told us that redundancies have not been widespread. They were not a common response to the NHF's member survey, with hair and beauty businesses instead slowing hiring and reducing hours, as seen elsewhere. The FWD told us that some members had reported employment cuts because of the NLW; it had seen a decline in employment across its membership over the last five years but told us that it could not directly link this to the NLW. Nevertheless, the CIPD's survey results suggest that the most affected by the NLW have been more likely to make adjustments to employment and hours. Those that reported a 'large impact' from the rate since 2016 were almost twice as likely to have reduced headcount (21 per cent) or hours (16 per cent) than those reporting 'some impact'.

4.53 On the other hand, some organisations pointed to record employment rates as evidence that the NLW has not had negative effects in this area. The TUC argued that 'there is no sense that previous minimum wage increases have reduced employment in the low-paying sectors.' It recognised a significant decline in textile and clothing manufacturing but noted that data for the sector has been volatile. UNISON did not think employment and vacancy data pointed to any 'acute difficulties' arising from the NLW. Unite pointed to strong employment growth among 'more vulnerable' groups. Cornwall Council thought that despite having high numbers of employees on the NLW in the county, this appears to have had little impact on levels of unemployment.

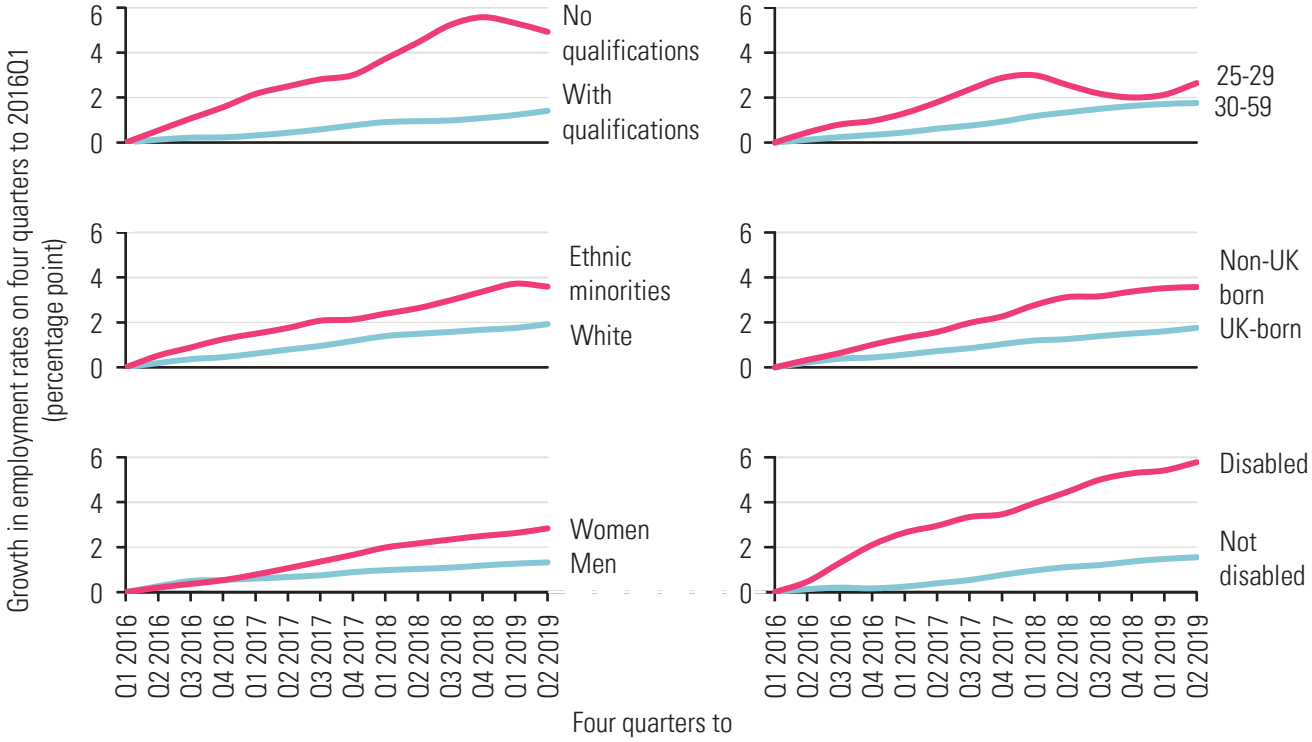
4.54 The remaining part of this section covers high-level analysis comparing the levels and rates of employment, unemployment and inactivity and how this has changed over the period since the introduction of the minimum wage. We compare how labour market outcomes have changed for groups more and less exposed to the NLW to try to draw out how the NLW may be affecting employment. This analysis does not enable us to say for sure how the NLW is affecting employment. It could be that in the absence of the NLW employment for these groups would be growing faster than it currently is. However, the analysis does enable us to monitor the health of the low-paid labour market and could let us see early warnings of NLW effects. We start by splitting workers by personal characteristics; before moving on to focusing on job characteristics, including sectors of the economy; before finishing with a look at geography. It is important to take a holistic approach across these measures as each tell a part of the story and need to be interpreted taking into account what we know about the other measures and the overall health of the labour market.

Personal Characteristics

4.55 Figure 3.4 and Figure 3.7 demonstrate that certain worker characteristics are associated with higher exposure to the minimum wage. Workers with no qualifications, those from minority ethnic groups, women, those aged 25-29, who were not born in the UK and who have disabilities are more likely to be paid the minimum wage, and therefore more likely to see employment decrease if the NLW were to reduce the demand for workers. We therefore monitor the changes in the labour market outcomes of these groups versus people without those characteristics to investigate if we can see any employment effects from previous increases or to see if the labour market is in a situation to withstand further increases.

4.56 Figure 4.11 shows how employment has grown faster for all the groups most affected by the NLW than for individuals without those characteristics. While the employment rate for those aged 25-29 seemed to have declined in 2018, it has subsequently recovered to the level it had in the same period last year. The difference in the growth in employment is largest for those groups – disabled workers and those with no qualifications – where the differences in use of the NLW is largest.

Figure 4.11: Change in employment rates for those aged 25 and over, by personal characteristics, UK, 2016-2019



Source: LPC estimates using LFS Microdata, population weights, quarterly, four quarter moving average, UK, Q2 2015-Q2 2019.

4.57 Table 4.1 shows how employment, unemployment and inactivity rates have changed over the period since the introduction of the NLW. Unemployment has fallen faster for the group more exposed to the NLW than the comparison group, with the exception of women versus men, where it has fallen by similar amounts. The table also shows how inactivity has fallen faster for the group more exposed to the NLW, and the fall in inactivity has been much more for women than men, which may be driving the similar decrease in unemployment.

Table 4.1: Employment, unemployment and inactivity, by personal characteristics, UK, 2016-2019

	Q1 2016	Q1 2017	Q1 2018	Q1 2019	Q2 2019	Change Q1 2016 to Q2 2019
					per cent	percentage point
Employment						
Men	84.1	84.7	85.1	85.4	85.5	1.3
Women	72.1	72.9	74.1	74.7	74.9	2.8
White	79.2	79.8	80.5	80.9	81.1	1.9
Ethnic minorities	70.6	72.1	73.0	74.3	74.2	3.6
With qualifications	81.0	81.4	81.9	82.3	82.4	1.4
No qualifications	46.8	48.9	50.5	52.1	51.7	4.9
Not disabled	85.0	85.2	86.0	86.5	86.5	1.6
Disabled	42.2	44.8	46.1	47.6	48.0	5.8
UK-born	78.7	79.3	79.9	80.3	80.5	1.8
Non-UK born	75.2	76.5	78.0	78.7	78.8	3.6
Total	78.0	78.7	79.5	80.0	80.1	2.1
Unemployment						
Men	3.9	3.5	3.1	2.9	2.9	-1.0
Women	3.9	3.7	3.3	3.1	3.0	-0.9
White	3.4	3.2	2.8	2.7	2.6	-0.8
Ethnic minorities	7.5	6.2	5.7	5.1	5.2	-2.3
With qualifications	3.6	3.4	3.0	2.8	2.8	-0.8
No qualifications	9.3	7.4	7.2	6.4	6.6	-2.7
Not disabled	3.2	2.9	2.6	2.4	2.4	-0.8
Disabled	10.9	9.8	8.8	8.3	7.9	-3.0
UK-born	3.6	3.3	3.0	2.8	2.7	-0.9
Non-UK born	5.3	4.7	4.1	3.8	3.9	-1.4
Total	3.9	3.6	3.2	3.0	2.9	-1.0
Inactivity						
Men	12.5	12.2	12.2	12.0	12.0	-0.5
Women	25.0	24.4	23.4	22.9	22.8	-2.2
White	18.1	17.6	17.1	16.9	16.8	-1.3
Ethnic minorities	23.7	23.1	22.6	21.7	21.7	-2.0
With qualifications	15.9	15.8	15.5	15.3	15.2	-0.7
No qualifications	48.4	47.2	45.6	44.4	44.6	-3.8
Not disabled	12.2	12.2	11.8	11.4	11.4	-0.9
Disabled	52.7	50.3	49.4	48.1	47.9	-4.7
UK-born	18.4	18.0	17.6	17.4	17.3	-1.1
Non-UK born	20.6	19.7	18.7	18.2	18.0	-2.5
Total	18.8	18.3	17.9	17.5	17.4	-1.4

Source: LPC estimates using LFS Microdata, population weights, quarterly, four quarter moving average, UK, Q2 2015-Q2 2019.

4.58 Another group of workers that are more likely to be paid the NLW are single parents (Brewer and Agostini, 2017) . Similarly to the groups above, statistics produced by Office for National Statistics (2019d) suggest that employment has grown more quickly for this group than for others, providing support to the finding that employment has grown for the groups most exposed to the NLW.

4.59 Overall the labour market outcomes are improving more quickly for the groups more exposed to the NLW, indicating that the labour market may be able to take further increases in the national living wage.

Job characteristics

4.60 Some types of jobs are more likely to pay at or around the NLW. These are jobs in low-paying occupations, industries or in micro-workplaces (see Chapter 3 for more detail). Intuiting changes in employment in these jobs are difficult. Weak demand for labour in these jobs could be a sign that the minimum wage is decreasing demand, or that these labour markets are not in a position to take further increases. On the other hand, it could be that the labour market is tight and that workers are choosing to work in jobs that are less associated with low pay.

4.61 This section is split between a focus on employer industry, job occupation and workplace size. Industry descriptions are given by the employer, covering the major field that the employer operates in while job occupation is given by the worker and covers the main tasks they do in their job. The differences between the two measures are partly due to the fact that the industry figures will include workers in higher paid roles within those industries, such as managers in retail, while the occupational figures will include workers doing low-paid jobs, but in employers whose predominant business is not associated with low-paying jobs, such as in-house cleaners in a financial firm.

4.62 We have commissioned research into the effects of the introduction of the NLW on employers, including examining how employment changed for firms of different sizes and different pay levels after the introduction of the NLW. We aim to publish this research alongside our next report.

4.63 For the UK, the data show that 63 per cent of employees aged 25 and over who work in low-paying occupations are in low paying industries and that 59 per cent of jobs in low-paying industries are in low-paying occupations. Therefore, while there is considerable overlap between the groups, by examining them separately we are measuring slightly different things. We look at the measures of job growth in low-paying occupations as these are focused on the jobs paid at or close to the minimum wage, while the measures we use looking at low-paying industries are more focused on examining changes in employers more affected by the minimum wage.

4.64 The industry figures in the following paragraphs are based on the employee jobs data set, which contains all jobs and is not collected in Northern Ireland, whereas the occupation figures are based on the LFS and only include main jobs. The employee jobs data set contains jobs worked by workers of all ages, whereas we restrict our analysis of the LFS to just those who are aged 25 and over, as this is the group for whom the NLW acts as a pay floor. Some of the smaller sectors can experience noise in the data due to their small sample sizes giving figures that can vary, due to randomness in the sampling of individuals.

Industry

4.65 Table 4.2 shows how employment by employer industry has changed over the period since the introduction of the NLW. Employment has grown in consumer facing low-paying industries, driven particularly by large increases in employment in hospitality industries; remained flat in low-paying business services industries; fallen in traded industries and grown in Government funded industries. Overall, employment in low-paying industries has grown over the period, but by less than for non low-paying industries. Indeed, over the last year employment has fallen very slightly in low-paying occupations.

4.66 The varying performance of low-paying industries across types means that there is not a clear message that we can gather from the data. The performance of each industry is affected by a range of other factors along with the NLW. Nonetheless, while low-paying industries have seen employment growth below the rest of the economy, they have grown overall in the period since the introduction of the NLW, suggesting that if the NLW is having an effect on employment it is likely to be on a fairly small scale.

Table 4.2: Change in employee jobs, by low-paying industry, GB, 2016-2019

	2019 June	2019 March	Change 2019 March on 2018 March		Change 2019 March on 2016 March	
	thousands	thousands	thousands	per cent	thousands	per cent
Consumer services	6,244	6,231	16	0.3	112	1.8
Retail (including motor)	3,321	3,317	-19	-0.6	-65	-1.9
Retail (excluding motor)	2,797	2,793	-38	-1.3	-73	-2.5
Hospitality	2,224	2,214	37	1.7	142	6.8
Leisure, Travel and Sport	570	567	10	1.7	48	9.3
Hairdressing	129	134	-12	-7.9	-13	-9.0
Business	1,485	1,490	-27	-1.7	4	0.3
Cleaning	709	697	4	0.6	-25	-3.4
Employment agencies	776	794	-31	-3.7	29	3.8
Trade	611	621	-19	-2.9	-22	-3.3
Food processing	379	378	13	3.5	19	5.3
Agriculture	159	169	-29	-14.6	-35	-17.3
Textiles, clothing	73	74	-3	-3.6	-5	-6.6
Government	1,682	1,656	29	1.8	30	1.9
Residential care	736	722	31	4.5	24	3.4
Domiciliary care/childcare	946	935	-2	-0.2	7	0.7
Low-paying industries	10,022	9,998	-1	0.0	125	1.3
Non low-paying industries	19,827	19,732	286	1.5	854	4.5
Total	29,849	29,730	285	1.0	979	3.4

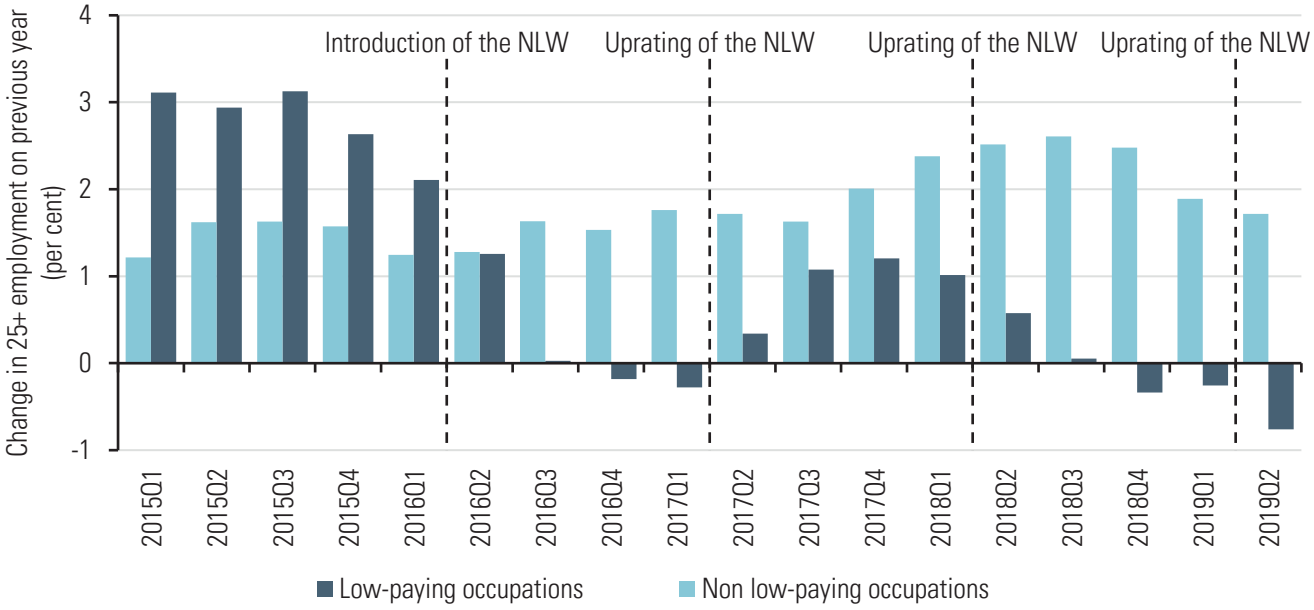
Source: LPC estimates using ONS employee jobs series, twelve-month average, not seasonally adjusted, 2015-19.
Note: Totals may not sum due to rounding.

4.67 Sector representatives did not report employers reducing employment on a large scale in response to the NLW. There were suggestions from hair and beauty, convenience retail and wholesale that some employers had made changes in which the NLW was a factor. In retail, the BRC and most employers we met did not tell us that the NLW had been the main factor in recent falls in employment in the sector. The CIPD found that retail and wholesale employers were more likely to report reduced headcount (either by hiring fewer workers or redundancies) than hospitality employers, who were more likely to use price rises to manage NLW increases. This matches what we heard from employer representatives in the hospitality sector, who did not report widespread job losses, despite recent reporting of the 'casual dining crunch' affecting restaurants. A fall in the number of employees in hairdressing may be consistent with a shift to self-employment in the sector (which is not in general a consequence of the NLW). The NHF also told us that around a quarter of survey respondents had reduced employment because of the NLW. Apparent falls in employment in agriculture were not linked to the NLW by stakeholders. Instead the NFU and ALP talked of staff shortages in the sector. It is also worth noting that there may be issues with estimates of the number of seasonal workers in the sector.

Occupation

4.68 We now move on to look at employment by occupation. Figure 4.12 shows annual growth in employment split by low-paying and non low-paying occupations. While in the period before the NLW was introduced employment in low-paying occupations grew faster than in non low-paying occupations, since the introduction of the NLW employment growth has been faster in non low-paying occupations than in low-paying occupations in every quarter. Employment in low-paying occupations was the same in the most recent quarter as it was in the first quarter of 2016, while employment has grown by over 6.5 per cent in non low-paying occupations.

Figure 4.12: Change in employment for those aged 25 and over, by occupation, UK, 2015-2019



Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2014-Q2 2019.

4.69 Table 4.3 shows how employment in each low-paying occupation has changed over the period. Half of the occupations have added jobs, while the other half have seen employment fall. It appears that even as the lowest-paying industries have added jobs, albeit at a slower rate than the economy more widely, the number of workers in the lowest-paid occupations has remained the same. This suggests that employers are adding more staff in higher paid occupations, perhaps in response to the NLW, or in response to the tighter labour market. When we look at the differences between industries and occupations using the same LFS data set (and therefore the same age, geographic and measurement definitions), we can see that in retail on both an industry and occupation definition employment is up, but for hospitality employment has increased on an industrial definition but fallen on an occupational definition.

Table 4.3: Employment for those aged 25 and over, by occupation, UK, 2016-2019

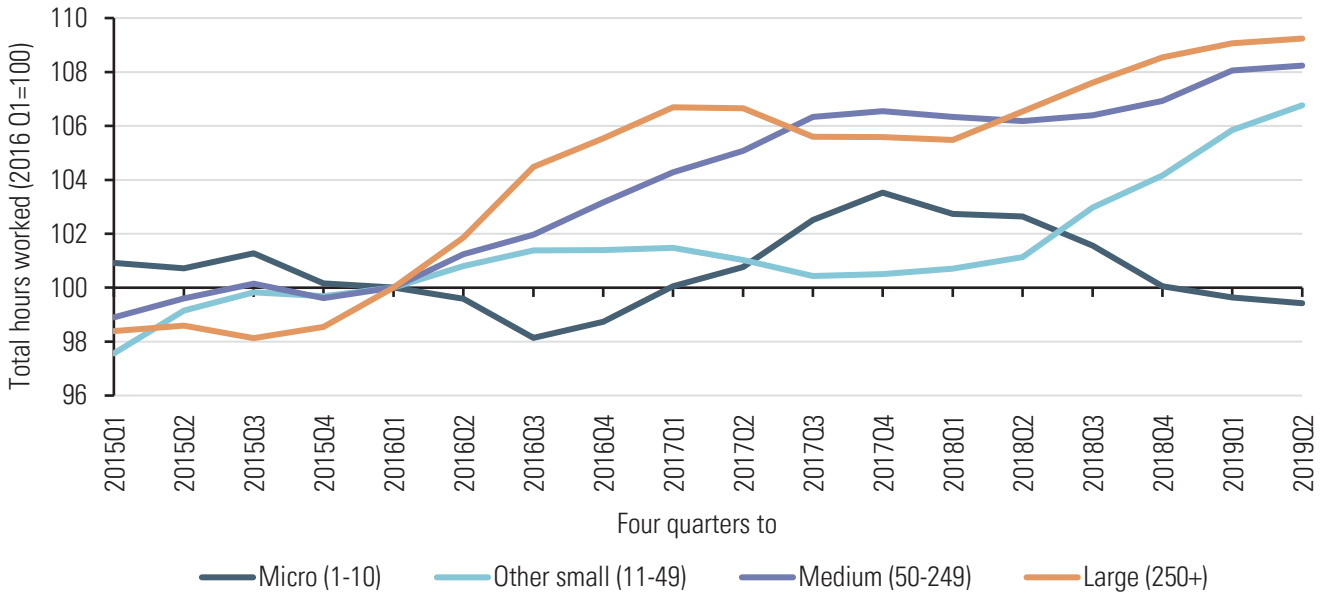
	Number of employees					Change Q1 2016 to Q2 2019
	2016Q1	2017Q1	2018Q1	2019Q1	2019Q2	
					thousands	per cent
Agriculture	134	131	107	129	131	-2.2
Call centres	104	97	103	91	92	-11.5
Childcare	277	284	282	306	311	12.3
Cleaning and maintenance	651	655	669	680	685	5.2
Food processing	303	306	283	263	259	-14.5
Hair and beauty	92	65	77	78	78	-15.2
Hospitality	716	722	721	701	696	-2.8
Leisure	157	164	165	147	143	-8.9
Non-food processing	345	359	336	316	322	-6.7
Office work	465	407	424	437	431	-7.3
Retail	1,286	1,330	1,398	1,353	1,321	2.7
Security and enforcement	174	175	184	197	195	12.1
Social care	697	696	695	696	701	0.6
Storage	338	334	351	365	358	5.9
Textiles	40	43	49	41	41	2.5
Transport	347	341	326	355	362	4.3
Low-paying occupations	6,126	6,109	6,171	6,155	6,127	0.0
Non low-paying occupations	16,041	16,324	16,712	17,028	17,095	6.6
Total	22,168	22,433	22,884	23,183	23,221	4.8

Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2015-Q2 2019.

Workplace size

4.70 Figure 3.7 shows that workplace size is correlated with minimum wage use. The smallest workplaces, those with 10 or fewer staff, have the highest proportion of staff paid the NLW, and this decreases with firm size. Figure 4.13 shows how the number of hours worked by private sector firms has changed since the introduction of the NLW. Hours worked in micro-workplaces, which are the workplaces with the highest coverage, have seen hours decline slightly when compared with the pre-NLW level, while hours in all other workplaces have grown by over 6 per cent. On the other hand, the largest workplaces, which have the lowest coverage, have seen the fastest increases in hours, with hours up over 9 per cent. The employment picture looks similar to the total hours picture.

Figure 4.13: Total hours worked by those aged 25 and over, by workplace size, private sector, UK, 2016-2019



Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2014-Q2 2019.

4.71 Business population estimates produced by the Department for Business, Energy and Industrial Strategy (2019) can also be used to look at employment in private sector firms by size. These figures are sourced from the Inter-Departmental Business Register and contain estimates of the number of very small businesses missing from this data set. In this data set, employment is estimated to have grown fastest in large businesses since 2016, but employment has increased in businesses of all sizes.

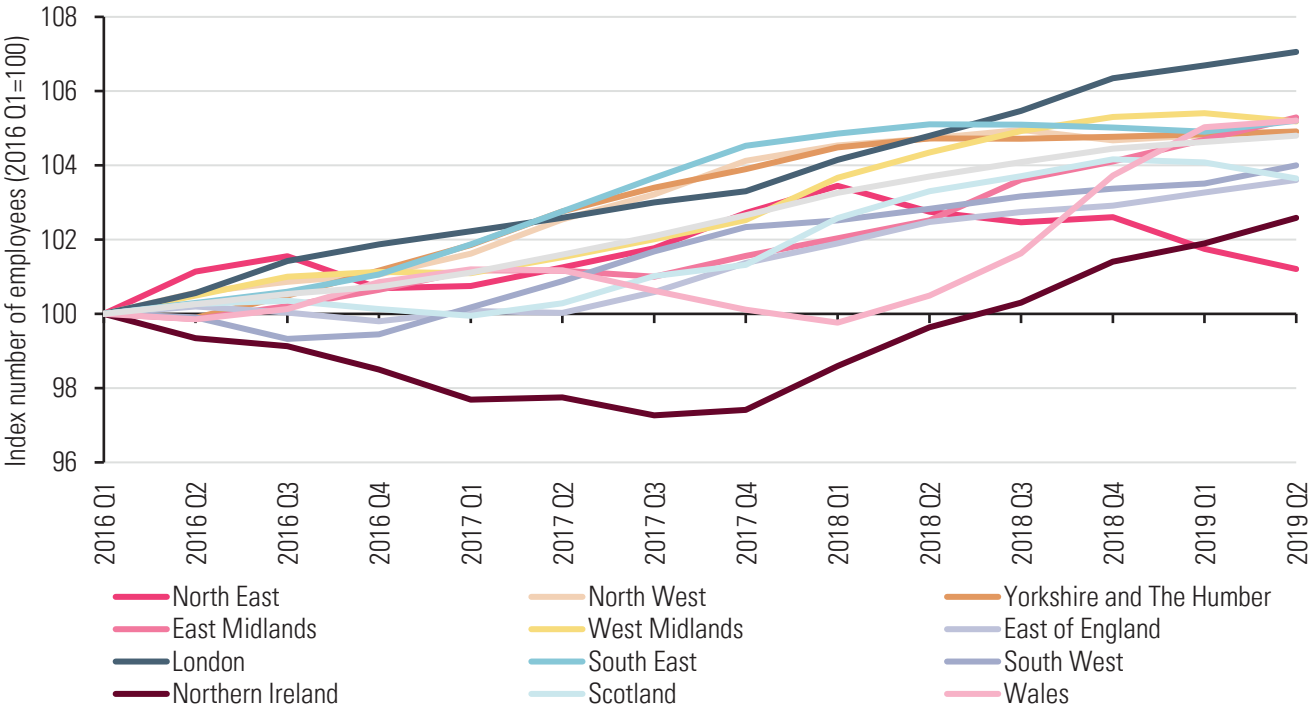
4.72 When we look at each of our three main measures of job characteristic: industry, occupation, and workplace size; we see that employment and hours have grown more slowly for the groups most likely to pay the NLW than for the labour market as a whole. This suggests that employers that are more affected by the NLW are finding it more difficult to employ workers, either by choice or through being unable to attract workers.

Geography

4.73 This section examines how employment, unemployment, inactivity and hours have changed across both regions and nations and local authorities. While we have shown in Chapter 3 that pay and coverage vary regionally, each region and nation contains a mix of higher and lower paying regions and this could obscure any pattern in employment outcomes due to the effects of the NLW. Therefore, we also look at local authorities grouped by exposure to the NLW. It is important to note that in every region and local authority less than one in five workers aged over 25 are covered by the NLW, and that therefore the measures may be mostly picking up differences in labour market performance by non-NLW jobs.

4.74 Figure 4.14 shows how total employment has changed across the constituent regions and nations of the UK. The two regions with the lowest coverage, London and the South East, are coloured blue and the regions and nations with the highest coverage, Northern Ireland, the North East, the East Midlands and Wales are coloured plum. The region that has seen the fastest growth in employment is London, which has the lowest coverage, and the lowest growth has been in the North East, and Northern Ireland, the regions with the highest levels of coverage. However, there is a variety of outcomes for regions and nations with high minimum wage coverage, as Wales and the East Midlands have seen slightly faster than average growth in employment over the period.

Figure 4.14: Employment for those aged 25 and over, by region and nation, UK, 2016-2019

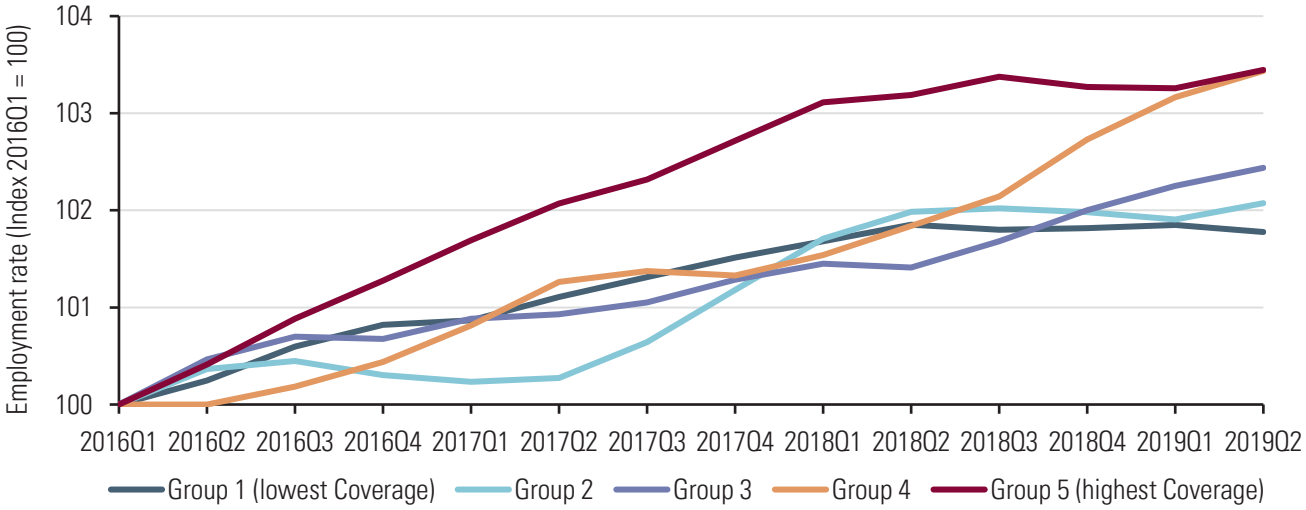


Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2015-Q2 2019.

4.75 When we examine the way that total hours vary across regions and nations we similarly see no obvious pattern with areas with higher levels of minimum wage use not seeing particularly slower or faster growth in hours than areas with lower levels of minimum wage use. Northern Ireland has seen hours grow the third most over the period, behind London and Yorkshire and the Humber (which has relatively high coverage), whereas the North East has seen the least growth in hours in the period since the introduction of the NLW.

4.76 We have grouped the Local Authority Districts (Northern Ireland is treated as a single local authority as the data is not available at a disaggregated level) of the UK into five bands based on the rate of minimum wage coverage in the local authority in 2015. To examine the changes in the employment rate, unemployment rate and inactivity rate we have grouped workers by their home local authority, not their workplace one. Figure 4.15 shows that the employment rate for the local authorities most affected by the NLW has grown the fastest over the period. Similarly, the unemployment rate has fallen faster than average for the local authorities with the highest coverage. Inactivity has decreased by around the UK average for the local authorities that are most affected by the NLW. The picture looks quite similar if we instead look at the local authorities with the highest level of current coverage.

Figure 4.15: Change in employment rate for those aged 25 and over, by local authority district, UK, 2016-2019



Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2015-Q2 2019.

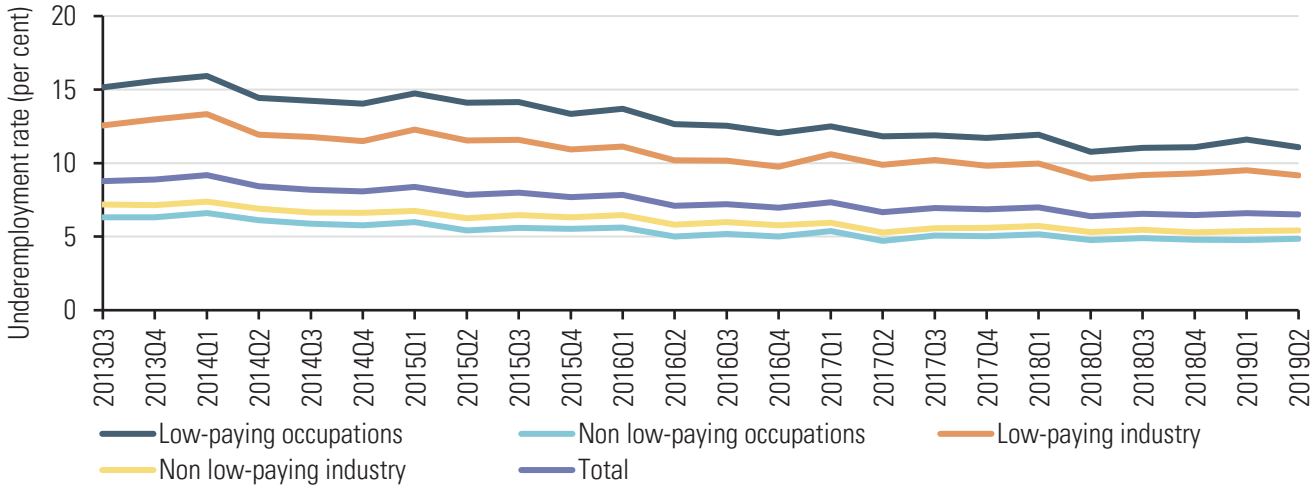
4.77 In our annual visits programme we spend time meeting employers and workers in areas with high minimum wage coverage and bite. What we heard this year is consistent with the data indicating that the NLW has not adversely affected employment in these areas. Some, like Hartlepool and Great Yarmouth, have unemployment rates well above the UK average, but the organisations we met did not put this down to the NLW. For businesses, skills and infrastructure were bigger concerns than the level of the minimum wage. The North East England Chamber of Commerce told us that in Hartlepool, despite high unemployment, there were not enough skilled workers to meet employers' demand for labour. It spoke of a lack of investment in training from local businesses, perhaps reflecting the predominance of SMEs and lack of larger employers. In Great Yarmouth we heard that the investment in the town had been focused on high-wage offshore industries, with little impact on job creation in the local economy.

Non-traditional employment/other measures of labour market slack

4.78 The evidence in this section has mostly been focused on the traditional measures of labour demand and supply – employment and unemployment. However, there are other ways of measuring the level of slack in the labour market. An important indicator in this space is the level of underemployment in the economy. Underemployment occurs when an individual is employed but would prefer to work more hours than they currently do. This is measured in one of three ways: if an individual is looking for more hours in their job; if they are looking for an additional job; or if they are looking for a new job with more hours. Figure 4.16 shows how the underemployment rate has been flat in low-paying industries and occupations over the last 18 months or so. However, workers in low-paid sectors are still significantly more likely to be underemployed. The decrease in underemployment has not been driven by falls in any particular type of underemployment, with the proportion of underemployment caused by each reason fairly steady through the period.

4.79 The increase in average hours worked by minimum wage workers in the last year (as described in paragraph 4.8) does not seem to have fed through into lower underemployment in low-paying occupations, but this could be due to differences in the data sets used, changes being more concentrated in NLW jobs in non low-paying industries and occupations, or due to labour market inefficiencies and frictions. Furthermore, as shown in Chapter 2, the 'hours deficit' is on average 13.9 hours per week for each underemployed worker. So, without a significant increase in hourly pay and/or our hours of work, underemployment levels are unlikely to change substantially.

Figure 4.16: Underemployment by industry and occupation, UK, 2013-2018



Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, UK, Q3 2013-Q2 2019.

4.80 One option for employers to mitigate the cost of the NLW or pass on risk to employees is to change contract types. We have seen little change in the use of zero-hours contracts across low-paying industries and occupations, relative to the economy as a whole, since the NLW's introduction. There was a spike in the use of such contracts in low-paying industries and occupations immediately following the NLW's introduction. But since then, the numbers of workers on zero-hours contracts in low-paying sectors have decreased, even as they have grown in the rest of the economy. There is, however, some emerging research evidence that the NLW has led to higher use of zero-hours contracts in low-paying occupations (Datta, Giupponi and Machin, 2018). The research found that 'the wage cost shock induced by the new, higher minimum wage resulted in an increased use of zero-hours contracts in the UK social care sector, and in low wage sectors more generally.'

4.81 We did not receive evidence from stakeholders that the NLW has led to wider use of zero-hours contracts. In the CIPD's survey only 3 per cent of those affected by the NLW had increased their use of such contracts since its introduction. Only 4 per cent in the FSB's survey had made more use of non-guaranteed or atypical contracts. On our visits we did hear from social care companies that use of zero-hours contracts is commonplace in the sector, but contrary to the findings of Datta, Giupponi and Machin (2018) none linked this to the NLW.

4.82 There was not convincing evidence either way on the use of short-hours contracts. Usdaw thought that the use of short-hours contracts may have peaked, though they remain common in retail. The Scottish Women's Convention thought that some of the women it worked with had seen contracted hours altered – usually reduced – since NLW was introduced. This can be in the course of organisations 'restructuring' and introducing new contracts.

4.83 However, there were suggestions that firms are requiring more flexibility from staff – 23 per cent of those affected in the CIPD's survey said they had since 2016. This may be linked to employers' efforts to increase productivity, which we discuss in more detail from paragraph 7.28 onwards. Expectations around flexibility have been a feature of recent controversies over contractual changes at major retailers, most recently Asda. In these specific cases, however, changes have not been linked directly to the NLW. Nor had any moves to engage more people on a self-employed basis. We have heard from representatives of the hairdressing industry that there has been a shift from employment to self-employment amongst hairdressers (as seen in Table 4.2 and Table 4.3), with the NLW a factor for some employers, but it has been mostly employee-led, and due to tax incentives rather than the NLW.

Case study: managing NLW increases in pubs

On one visit, we met a company which owned and operated pubs across several UK cities. They employed around 400 workers in just under 30 managed pubs, and were seeking to expand into several new locations in the near future.

Wages were the second largest cost the company faced after beer and had risen as a proportion of net turnover in recent years. In response to this, they had raised prices, but were unsure that they would be able to raise them further, given the level of competition in the marketplace. They had tried to mitigate cost increases by actively looking at ways to reduce hours and change shift patterns. This involved looking at the ratio of wages to turnover in each managed pub week by week.

Staff in pubs were generally paid at minimum wage rates, and for staff under 25 this meant using the NMW youth rates. Just under half the workforce were on zero-hours contracts, with most of the remainder paid a weekly salary. In recent years, the pay differential offered to assistant managers and supervisors had narrowed, which had led to them losing some staff. The employer had looked closely at the development and training pathways needed to move pub staff up the managerial hierarchy, including sending staff on 'beer sommelier' courses.

4.84 Overall the evidence on the labour market for NLW workers is generally positive. While the research evidence seems to suggest that there was an effect on the employment retention of part-time women from the introduction of the NLW, subsequent upratings have had no such effect. When we examine employment by personal characteristics and geography, we see that the labour market continues to strengthen for the groups and areas with more exposure to the NLW.

4.85 The picture for jobs with more exposure to the minimum wage is less benign, with slower growth in employment in low-paying industries than the economy overall, and no growth in employment in low-paying occupations over the period since the introduction of the NLW. This could be an early warning sign about the impact of the NLW or simply a consequence of the tighter labour market. Stakeholders tell us that while some of them have reduced their demand for workers due to the NLW, this is only a minority view and that many are seeing a tight labour market. Therefore, it seems difficult to attribute the slower growth in employment for those employers who make greater use of the NLW to the NLW, versus the effects of a generally tightening labour market.

Recent international evidence on the employment effects of minimum wages

4.86 Research presented to the LPC by Dustmann, Lindner, Schönberg, Umkehrer and Berge (2019) examines how the introduction of a minimum wage in Germany affected the allocation of firms and workers. The research looks at workers who earned below the incoming minimum wage and if they changed employers after the introduction of the minimum wage, while controlling for pre-minimum wage trends. The research finds that the introduction of the minimum wage in Germany lead to a reallocation of workers to firms that paid better, were larger and had a higher share of skilled workers. When the authors looked at a geographic level they found that areas that were more exposed to the minimum wage saw a decrease in the number of firms, an increase in the size of firms and better paying firms (measured using an Abowd, Kramarz, Margolis fixed effects style approach). The authors suggest that the finding of significant reallocations is consistent with a search model approach to allocation of workers, and employers exploiting monopolistic power over their workers. The authors also argue that there is evidence suggesting that higher minimum wages have driven out the least efficient firms, leading to reallocation into higher paying jobs. The findings of Dustmann, Lindner, Schönberg, Umkehrer, and Berge (2019) may indicate that one of the reasons that jobs in small workplaces, low-paying occupations and industries have performed relatively less well is the lower productivity of these firms.

4.87 Other recent international research also generally finds that the employment effects of minimum wage increases are non-existent or small. The many different city and state minimum wages in the United States have produced a significant amount of evidence, with campaigns for a $15 minimum wage and ensuing increases in some locations driving a new wave of research. Cengiz, Dube, Lindner, and Zipperer (2019) studied 138 minimum wage increases between 1979 and 2016 across various states, using a bunching estimator to assess wage and employment effects. They compared the number of jobs paid below the new minimum wage rate that disappear to the excess jobs created above it. Overall, there was little indication of job losses for minimum wages with bites of up to 59 per cent. Cengiz (2019) used machine learning to identify minimum wage workers in data and assessed their employment outcomes, again finding small effects. Godoy and Reich (2019) used county-level data to study low-wage areas for minimum wage employment effects, finding at most modest reductions in the highest bite areas. This research and other relevant studies were described in detail in Professor Arindrajit Dube's review of the international evidence on the impact of minimum wages (Dube, 2019). We note that Professor Dube made recommendation on research approaches, which we will consider over the coming year.

Conclusion

4.88 The NLW has had a clear impact on pay and earnings. While wages grew strongly throughout the bottom two-fifths of the hourly pay distribution in 2019, since 2015 the lowest paid have seen pay growth significantly above all other groups. The average weekly wage for NLW workers grew more quickly than for most other groups and by more than the NLW as these workers typically added more hours. This is in contrast to the two preceding NLW upratings where weekly pay for NLW workers grew more slowly than hourly pay. Jobs in the bottom quarter of the pay distribution saw faster growth than the average as firms decided to protect pay differentials, changed workforce structures or competed with other employers on pay.

4.89 Our evidence on the state of the labour market for low-paid jobs is mixed. There has been strong growth in employment of the types of workers more exposed to the NLW and in areas of the country with more NLW workers. However, jobs of the types more likely to use the NLW have grown considerably less quickly than the economy as a whole, which could be a sign of a negative effect from the NLW on demand for these jobs, or it could be a consequence of a tight supply of labour. There are also other sectoral factors to consider, for example the 'casual dining crunch' in hospitality and the funding issues in childcare and social care, we explore these in more detail in Chapter 7. Stakeholders have told us that job losses resulting from the NLW have been rare. Where employers have responded by adjusting employment, adjustments to hours or slowed hiring have been more common than redundancies, and the NLW has been one of several factors driving decisions. Chapter 7 examines the effects from the NLW and the other minimum wage rates on employers more widely, including looking at prices, profits and productivity.

4.90 Overall, there is not enough evidence from the pay and employment of low-paid workers to suggest that we should not increase the NLW in line with the 60 per cent bite target in 2020.

Chapter 5

The impact of the youth rates

5.1 In addition to the National Living Wage (NLW), there are three youth rates – for 16-17, 18-20 and 21-24 year olds. The Commission's remit for these rates is to raise pay as high as possible without harming employment prospects. Unlike the NLW, there is no target and no tolerance for job loss for these age groups.

5.2 Earlier this year we reviewed the structure and operation of the youth rates. In our report (Low Pay Commission, 2019b) we argued there was a strong case for lowering the age of eligibility for the NLW from 25 to 21. We recommended doing this through a phased approach, moving first to 23 from April 2021 and monitoring the impact of this change before completing the move to 21 at a later date. We did not propose any changes to the structure of the rates for those aged between 16 and 20.

5.3 In this chapter we consider the impact of recent increases in the youth rates in their current form. We look at the latest evidence on youth employment and pay using the Labour Force Survey (LFS) and the Annual Survey of Hours and Earnings (ASHE) to inform recommendations for the forthcoming rates.

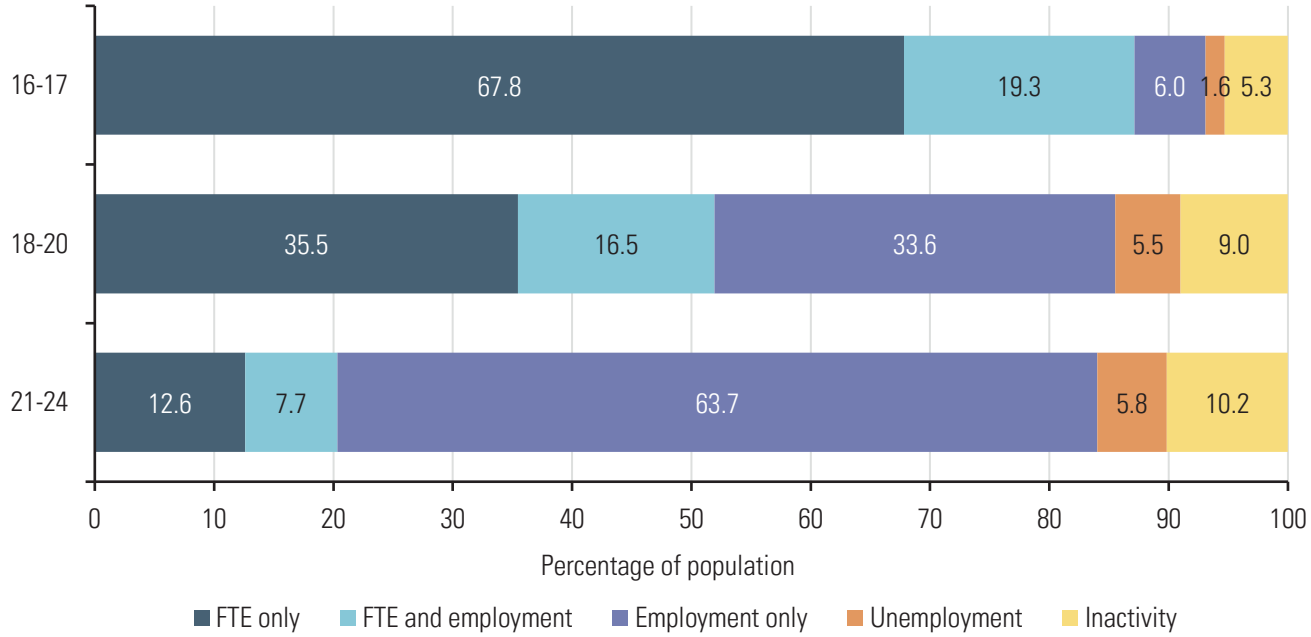
Young people

5.4 The labour market behaviour of young people has changed since the introduction of the National Minimum Wage (NMW). Young people are participating in full-time education (FTE) for longer and this has reduced the number of workers in full-time jobs. Increasingly, young people are choosing to enter the labour market later.

5.5 Historically, for decisions on the minimum wage rates, we have been particularly interested in what is happening to the employment rate among young people not in FTE. This is because there is strong evidence that suggests that periods of unemployment can damage young people's pay and employment prospects for many years into the future (Gregg 2004 and 2005 and McQuaid 2015).

5.6 However, we must also consider the employment and pay of young people who are in FTE. Figure 5.1 shows that this includes the majority of 16-17 year olds and more than half of 18-20 year olds. When making decisions about the youth rates, it is important to consider the potential impact on students who may work part-time in order to support their studies and gain skills and experience to help them transition to the labour market effectively once they leave education (UK Commission for Employment and Skills, 2015).

Figure 5.1: Economic activity of young people aged 16-24, Q2 2019, UK



Source: LPC estimates using LFS microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q3 2018-Q2 2019.

5.7 The three age groups that could be affected by the age-related minimum wages vary in size and composition. Table 5.1 shows that the number of employees aged 16-17 is relatively small at 335,000, most of whom are working while in full-time education. Meanwhile, there are nearly 2.4 million employees aged 21-24, of whom the majority are not in FTE. Half of 18-20 year olds are employed, with around a third of this group working while they are studying.

Table 5.1: Labour market summary of young people aged 16-24, Q2 2019, UK

Age	Number of employees			Overall employment rate	Participation in full-time education
	In full-time education	Not in full-time education	Total		
	(thousands)	(thousands)	(thousands)		(per cent of population)
16-17	256	79	335	25.3	87.1
18-20	369	752	1,121	50.1	51.9
21-24	255	2,106	2,361	71.4	20.3

Source: LPC estimates using LFS Microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q3 2018-Q2 2019.
Note: Totals may not sum due to rounding.

5.8 Young people are more likely to work in low-paying industries, particularly retail and hospitality. In June 2019, workers aged 16-24 accounted for 31 per cent of the workforce in low-paying retail jobs, 44 per cent of the workforce in low-paying hospitality jobs, and 15 per cent of the workforce in other low-paying occupations. These sectors may be more exposed to cost pressures as a result of increases to the youth rates and so throughout this chapter we consider the patterns of pay and employment in these occupations as well as in the wider labour market.

The impact of youth rates on pay

5.9 This section looks at the impact of the youth rates on pay, examining the earnings distribution, 'bite', coverage, and the impact on low-paying sectors.

The youth rates

5.10 The rationale for age-related minimum wage rates is that young people are in a more vulnerable position in the labour market and may be at greater risk of unemployment as a result of increases to the NMW. Research into the impact of minimum wages has generally found that increases have improved earnings without significant effects on employment, but that there may be a greater negative effect for the youngest workers, particularly during a recession (see Neumark and Wascher, 2007 or Dolton and Bondibene, 2011).

5.11 As part of our review of the youth rates this year, Hudson-Sharp, Manzoni, Rolfe and Runge (2019) undertook research to understand how employers set pay for young workers and why they may use the youth rates. They found that employers may choose to use the youth rates for an initial training period, for seasonal or casual work, or to offset cost pressures elsewhere in the business. However, they found that employers may be reluctant to use the rates because of the appearance of fairness and because they find it difficult to recruit and retain staff, particularly when competitors set higher rates. Some employers reported using the same rate for all staff regardless of age, while others reported using the rates partially, for example by merging age bands in the youth rate structure.

5.12 In our 2019 consultation, some employer bodies stated that youth rates are an important way of managing cost pressures, particularly in small and regional businesses. These included the National Hairdressers' Federation (NHF) and UK Hospitality. Some employer groups, such as the Food and Drink Federation (FDF) and the British Retail Consortium (BRC), have told us that while the lower rates are not widely used, they can offer some flexibility with new starters. However, other organisations, such as the Prince's Trust, argue that the youth rates are too low and should be increased to reflect living costs.

Case study: Workers' views on youth rates

Young people we met in Swansea with the Prince's Trust told us that employers offering jobs on the youth rates could discourage them from applying. They also thought that differentiating pay by age was a disincentive to work hard once in a job.

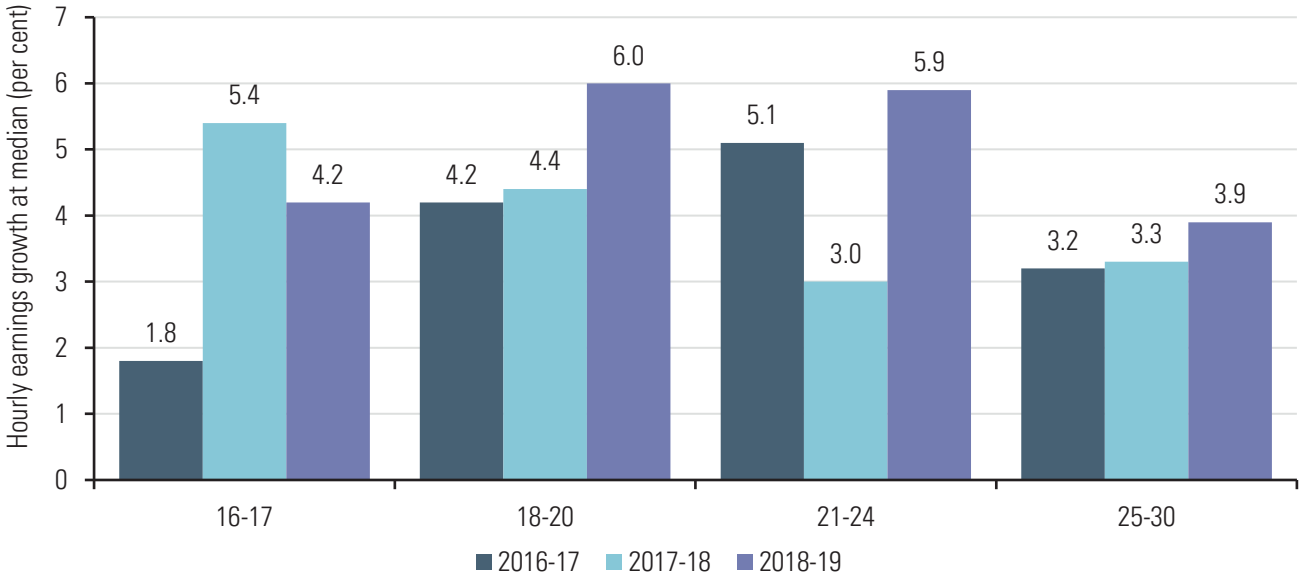
Usdaw members agreed that, at least above 18, paying youth rates was not justifiable. They argued that in retail young people may indeed be more productive than older workers, especially where roles are physically demanding.

5.13 The youth rates are uprated in April of each year to coincide with the uprating of the NLW. In April 2019, the 16-17 Year Old Rate was increased by 3.6 per cent to £4.35, the 18-20 Year Old Rate by 4.3 per cent to £6.15, and the 21-24 Year Old Rate by 4.3 per cent to £7.70.

Earnings growth

5.14 Young people have seen relatively strong pay growth over the last year. Figure 5.2 shows hourly pay growth at the median for young people, excluding apprentices. In the year to April 2019, 18-20 year olds recorded the highest pay growth at the median (6.0 per cent), followed closely by 21-24 year olds (5.9 per cent). 16-17 year olds saw 4.2 per cent pay growth at the median.

Figure 5.2: Hourly earnings growth at the median, by age, UK, 2016-2019



Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2016-19.

5.15 In the last year, the median hourly pay of young people has grown more quickly than the corresponding increases to the youth rates, as shown in Table 5.2. The lower growth in median hourly pay for 16-17 year olds is because the median hourly pay was equal to the 18-20 Year Old Rate in both April 2018 and April 2019. The increase at the median for this age group therefore reflects the April 2019 increase to the 18-20 Year Old Rate, of 4.2 per cent.

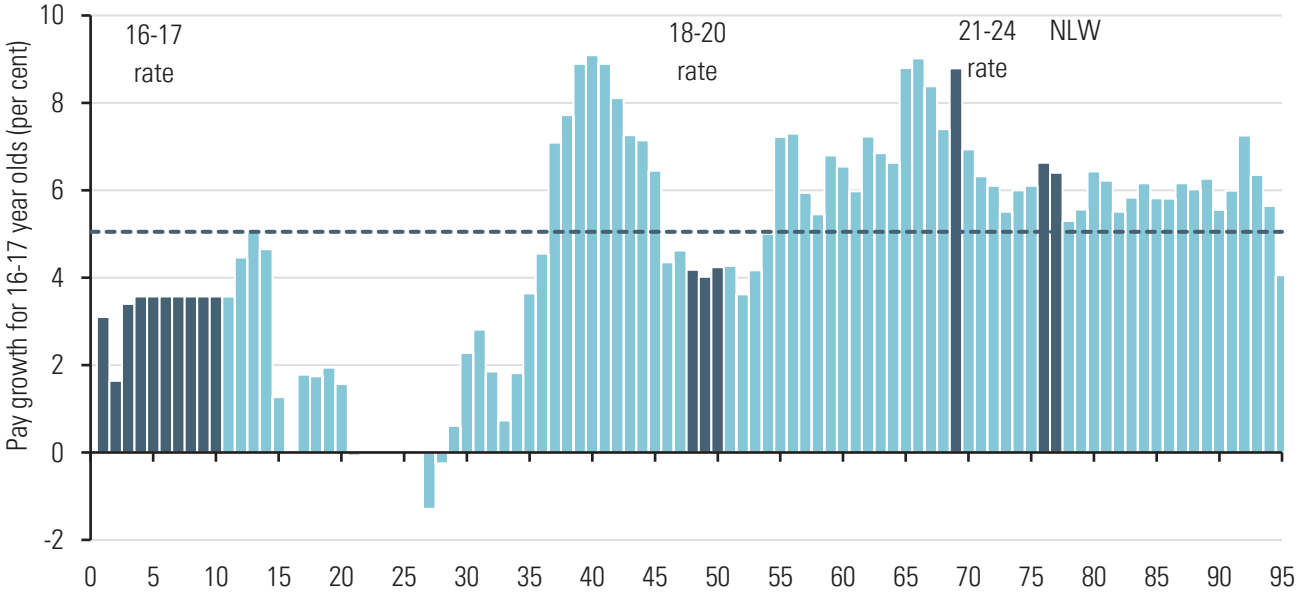
Table 5.2: Growth in median hourly pay and the National Minimum Wage, by age, UK, 2018-2019

	Median hourly pay (£)		Increase		NMW/NLW (£)		Increase	
	2018	2019	£	per cent	2018	2019	£	per cent
16-17	5.90	6.15	0.25	4.2	4.20	4.35	0.15	3.6
18-20	7.83	8.30	0.47	6.0	5.90	6.15	0.25	4.2
21-24	9.37	9.92	0.55	5.9	7.38	7.70	0.32	4.3
25-30	12.13	12.59	0.47	3.9	7.83	8.21	0.38	4.9

Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2018-19.

5.16 Because the medians can be affected by effects such as that for the 16-17 Year Old Rate, we also consider how pay has changed across the whole distribution between 2018 and 2019. Figure 5.3 shows this for 16-17 year olds. The shaded bars represent workers paid at one of the minimum wage rates in the 2019 ASHE data. These workers were not necessarily paid at the corresponding rate in 2018 and so the percentage growth can exceed the increases to the rates. The median growth across the whole distribution is 5.1 per cent, with consistently strong growth in the top half of the distribution. There is a notable dip in growth around the 25th percentile in the pay distribution, which corresponds to jobs with an hourly pay of £5 in both years. The dip in this distribution may be partly explained by a round number effect, with employers choosing to continue to pay at an hourly rate of £5 between years because the rate is simple to calculate and comfortably above the current minimum wage. The spike at the 40th percentile in the distribution may be explained by employers choosing to give larger increases to reach another round number, £6 an hour.

Figure 5.3: Earnings growth across hourly pay distribution for 16-17 year olds (excluding apprentices), UK 2018-2019

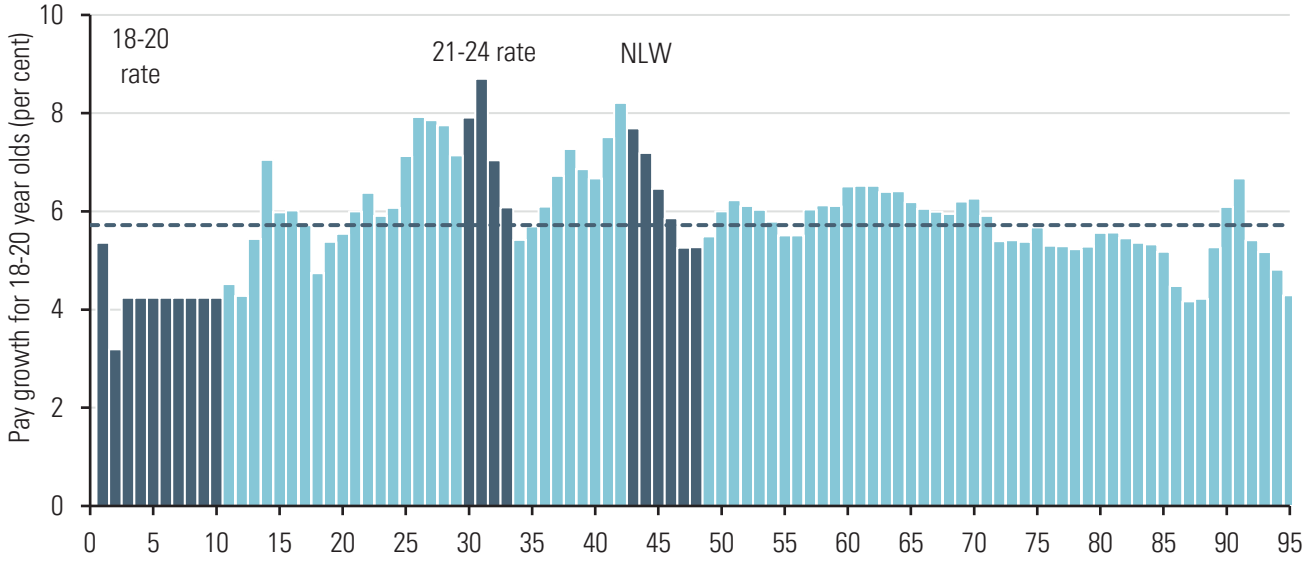


Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2018-19.
Note: The shaded bars represent workers who are paid at one of the NMW rates in 2019. The dotted line represents the median growth across the distribution, 5.1 per cent.

5.17 Similarly, Figure 5.4 shows the percentage growth across the hourly pay distribution for 18-20 year olds. Pay growth has been strong, with an average of 5.6 per cent across the distribution. As a result, the April 2019 increase to the 18-20 Year Old Rate has not matched the earnings growth of younger people with higher levels of pay. Figure 5.5 shows a similar pattern for 21-24 year olds, with strong pay growth across the distribution that exceeds the uprating applied to the 21-24 Year Old Rate in April 2019.

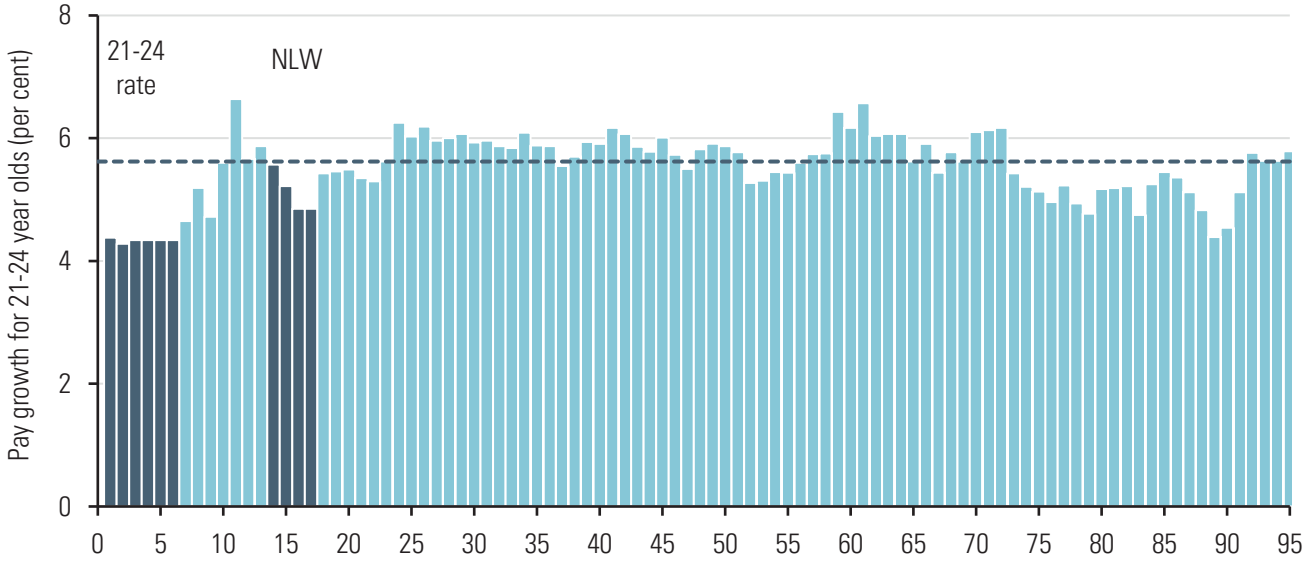
5.18 These estimates of earnings growth across the distribution are not just a measure of pay rises as they also reflect changes in the structure of the workforce. For example, more people working in high-paid jobs would increase earnings growth. Overall, growth in hourly earnings has been stronger than anticipated for young people, which is likely to be driven by a combination of pay rises in individual jobs as well as compositional effects as more young people work in jobs that offer higher pay.

Figure 5.4: Earnings growth across the hourly pay distribution for 18-20 year olds (excluding apprentices), UK 2018-2019



Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2018-19.
Note: The shaded bars represent workers who are paid at one of the NMW rates in 2019. The dotted line represents the median growth across the distribution, 5.7 per cent.

Figure 5.5: Earnings growth across the hourly pay distribution for 21-24 year olds (excluding apprentices), UK 2018-19

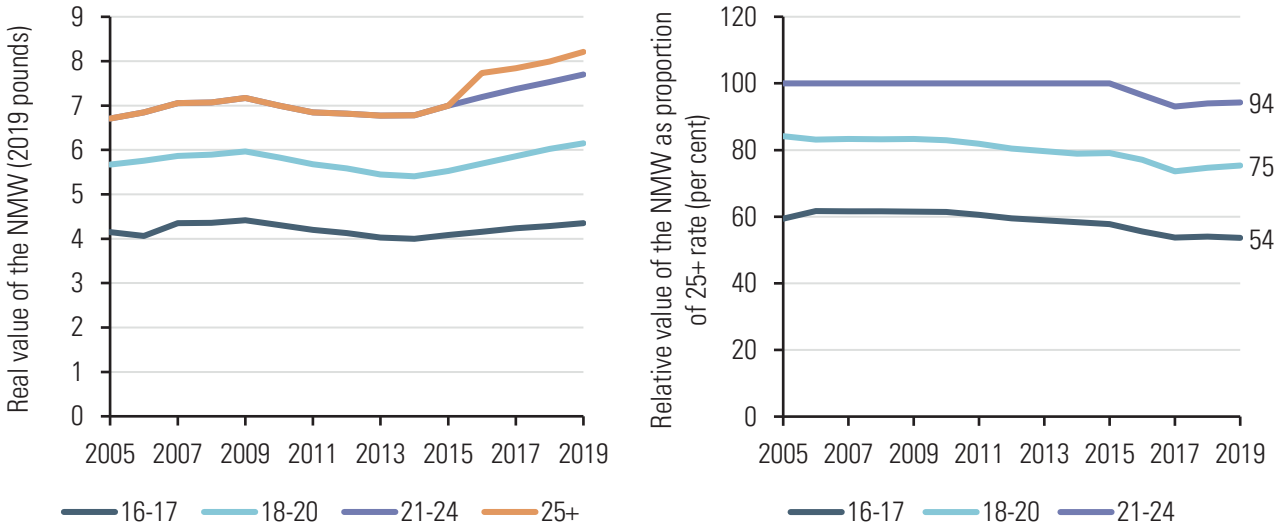


Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2018-19.
Note: The shaded bars represent workers who are paid at one of the NMW rates in 2019. The dotted line represents the median growth across the distribution, 5.6 per cent.

5.19 Even though the percentage increases to the youth rates have been smaller than growth at the median, the value of the youth rates has continued to increase in real terms. The left-hand panel of Figure 5.6 shows the value of the minimum wage rates adjusted for CPI inflation. The current levels of the 18-20 rates and 21-24 rates are the highest they have ever been in real terms, while the 16-17 rate has recovered most of its lost real terms value (remaining 7 pence, or 1.6 per cent, below its 2009 peak).

5.20 The right-hand panel in Figure 5.6 shows the relative value of the youth rates as a proportion of the NMW for workers over 25 (the NLW since 2016). Stakeholders tell us that the value of the youth rates has been eroded, which may lead employers to hire young people instead of older workers in order to manage cost pressures. Figure 5.6 shows that the relative value of the youth rates decreased in 2016, when the NLW was introduced. However, over the last three years the relative value of the youth rates has largely been maintained, with a slight reduction in the value of the 16-17 Year Old Rate relative to the NLW, and a marginal increase in the relative values of the 18-20 Year Old Rate and 21-24 Year Old Rate.

Figure 5.6: Real value of National Minimum Wage rates (left panel) and relative value of the rates as a proportion of the National Minimum Wage rate for workers over 25 (right panel), UK, 2005-2019



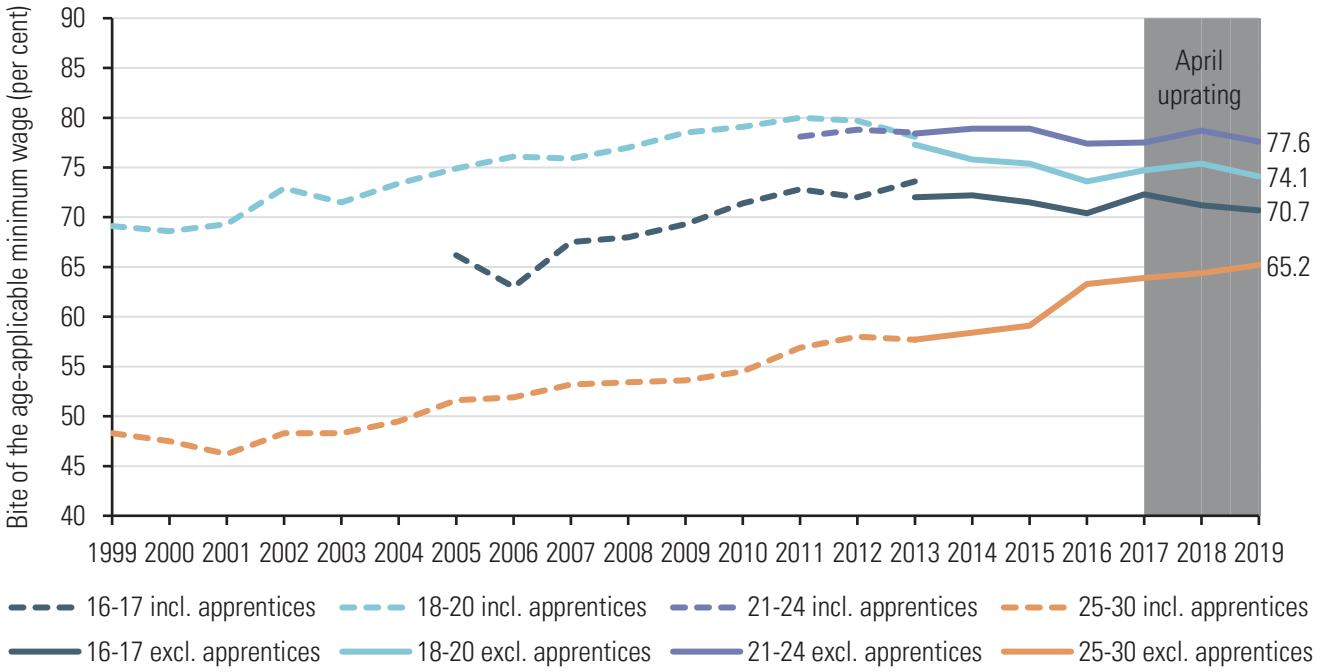
Source: LPC estimates using ONS data, CPI (D7BT), monthly, UK, 2005-2019.

Bite of the youth rates

5.21 One measure for gauging the scope to raise pay is the bite of the minimum wage, calculated as the ratio of the minimum wage to median hourly pay. We monitor the bite for each age group as a potential indicator of the pressure produced by increases to the youth rates.

5.22 Figure 5.7 illustrates the historic path of the bite since the NMW was first introduced in 1999. Our main interest is in the time series from 2013, when it became possible to exclude apprentices. We also need to note the implications of moving from an October uprating cycle to an April uprating cycle in 2017. As a result, the bite is now measured in the month of the uprating, rather than six months later. This methodological change has the effect of inflating the bite relative to previous method, as employers have had less time to respond to an uprating. Under the previous cycle, pay would continue to rise over the time between an uprating and the ASHE survey, with a consequently lower bite.

Figure 5.7: Bite of the National Minimum Wage at the median of the hourly earnings distribution, by age, UK, 1999-2019



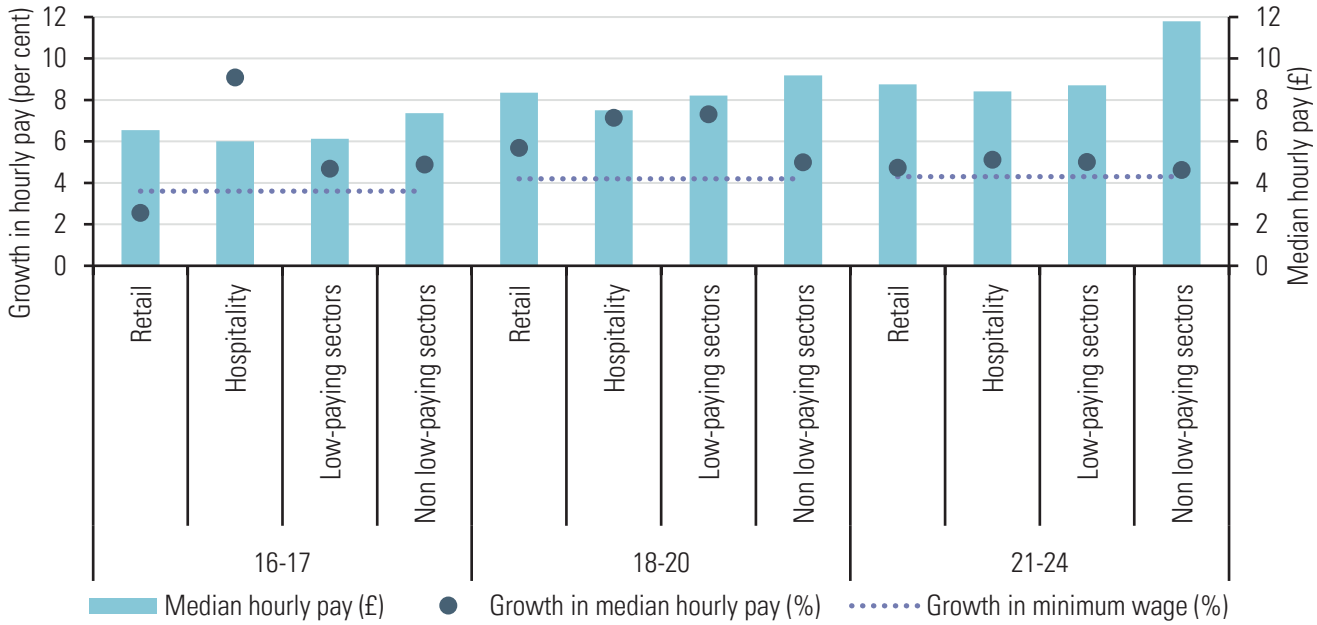
Source: LPC estimates using ASHE: without supplementary information, April 1999-2004; with supplementary information, April 2004-06; 2007 methodology, April 2006-11; and 2010 methodology, April 2011-18, standard weights, including those not on adult rates, UK.
Note: Earnings data are adjusted for a consistent time series.

5.23 Since young people have experienced growth in median hourly pay in the last year that has been greater than the increases to the youth rates, the bite of the minimum wage has reduced for all age groups. Over the year to April 2019, the bite fell for 21-24 year olds by 0.5 percentage points to 77.6 per cent, and for 18-20 year olds by 1.3 percentage points to 74.1 per cent. The bite for 16-17 year olds fell by 1.1 percentage points to 70.7 per cent.

5.24 Although the bites have fallen, they are still substantially higher than for older workers. As a comparison group, the bite for 25-30 year old workers was 65.2 per cent in April 2019. A large proportion of young workers are employed in low-paying occupations, with lower median pay, and therefore their bite tends to be higher. Of the three groups covered by youth rates, 21-24 year olds have the highest bite and 16-17 year olds the lowest.

5.25 We now turn to consider variation in pay growth by sector. This can highlight where there may be additional pressures faced by employers in increasing the minimum wage rates, or where young people who are paid the youth rates may be seeing lower pay growth than their colleagues. Figure 5.8 shows median hourly pay by sector and age, as well as the growth in median hourly pay compared with the growth in the relevant minimum wage. Young people working in hospitality have seen some of the highest pay growth, with a 9.1 per cent increase in the median hourly pay of 16-17 year olds and a 7.1 per cent increase in the median hourly pay of 18-20 year olds. On average, pay growth at the median has exceeded the increases to the minimum wages, including in low-paying sectors, meaning that the bite has decreased for all age groups. A notable exception is 16-17 year olds working in retail, for whom median pay has grown more slowly than the 16-17 Year Old Rate, leading to an increase in the bite for this group.

Figure 5.8: Growth in median hourly pay by sector and age, UK, 2018-2019

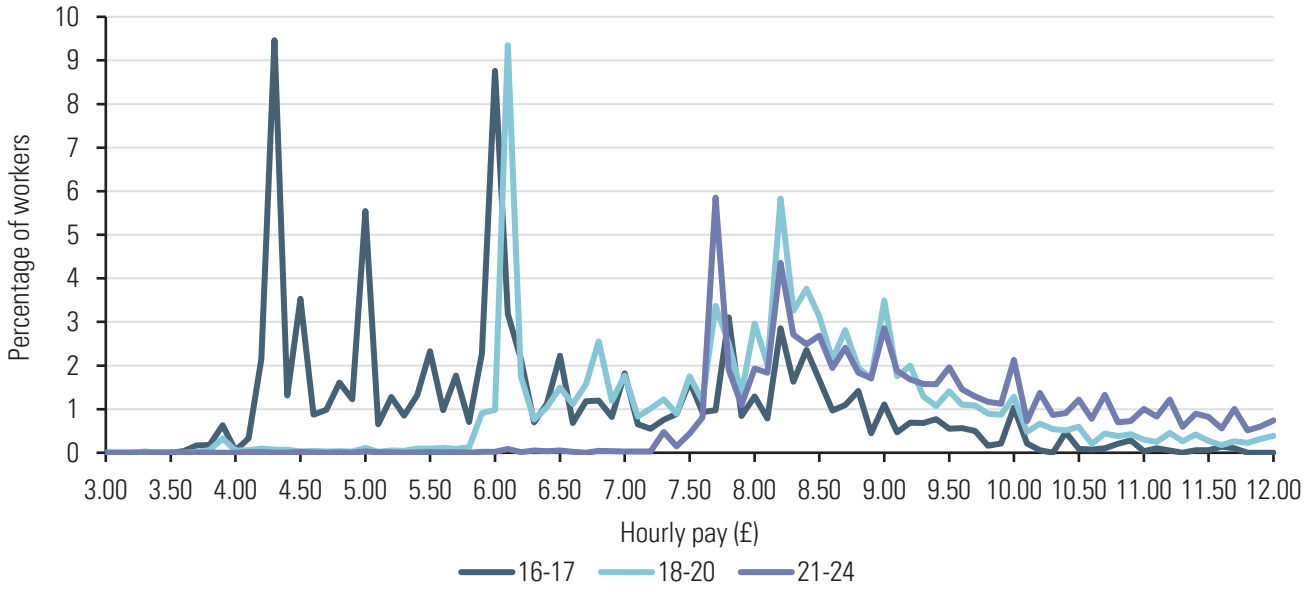


Source: LPC estimates using ASHE, standard weights, including those not on adult rates of pay, excluding apprentices, UK, 2018-19.

Coverage of the youth rates

5.26 Another key consideration for determining the scope to raise the minimum wage is the number and proportion of workers paid at the minimum wage. In previous reports, our focus has been on the proportion paid at or below their age-applicable minimum wage. However, while relatively few young workers may be paid at their age-applicable NMW, many more are paid below the next rate in the minimum wage structure. Their employers are effectively relying on the age-applicable NMW by paying less than the next rate. Furthermore, young workers may be paid at a higher rate but still within the youth rate structure – that is, at an hourly rate that is less than the NLW. Their employers are reliant on the youth rate structure, even though they are paying above the age-related minimum wages.

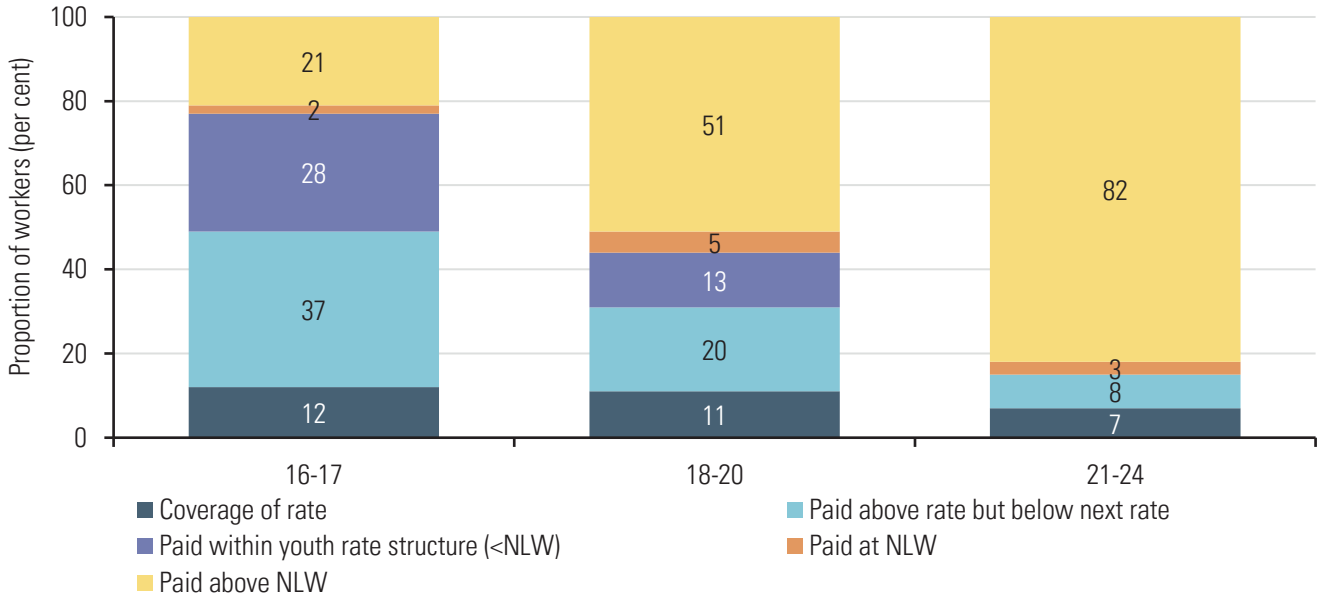
Figure 5.9: Hourly wage distribution for workers aged 16-24, UK, 2019



Source: LPC estimates using ASHE, low pay weights, including those not on adult rates of pay, excluding apprentices, UK, 2019.

5.27 Figure 5.9 shows the hourly pay distribution for workers aged 16-24 in April 2019. Many 16-17 year old workers are paid at £5 per hour or £6 per hour as well as at the 16-17 Year Old Rate. This supports stakeholder evidence that many employers choose to pay the youngest workers above the wage floor, but still within the youth rate structure. For 18-20 year old workers, there is a large spike at the 18-20 Year Old Rate, but also a notable spike at the value of the NLW, consistent with stakeholder and research evidence that some employers choose to pay the NLW to all workers, regardless of age (Hudson-Sharp, Manzoni, Rolfe and Runge, 2019). Similarly, for 21-24 year old workers, there is a large spike at the NLW rate as well as at the 21-24 Year Old Rate, with a substantial number of jobs paid between the NLW and £10 per hour. The fact that many employers are already paying this age group at the NLW or above supports our recommendation in the Youth Rates Review to reduce the age threshold for the NLW to 21.

Figure 5.10: Simplified hourly wage distribution, by age, UK, 2019

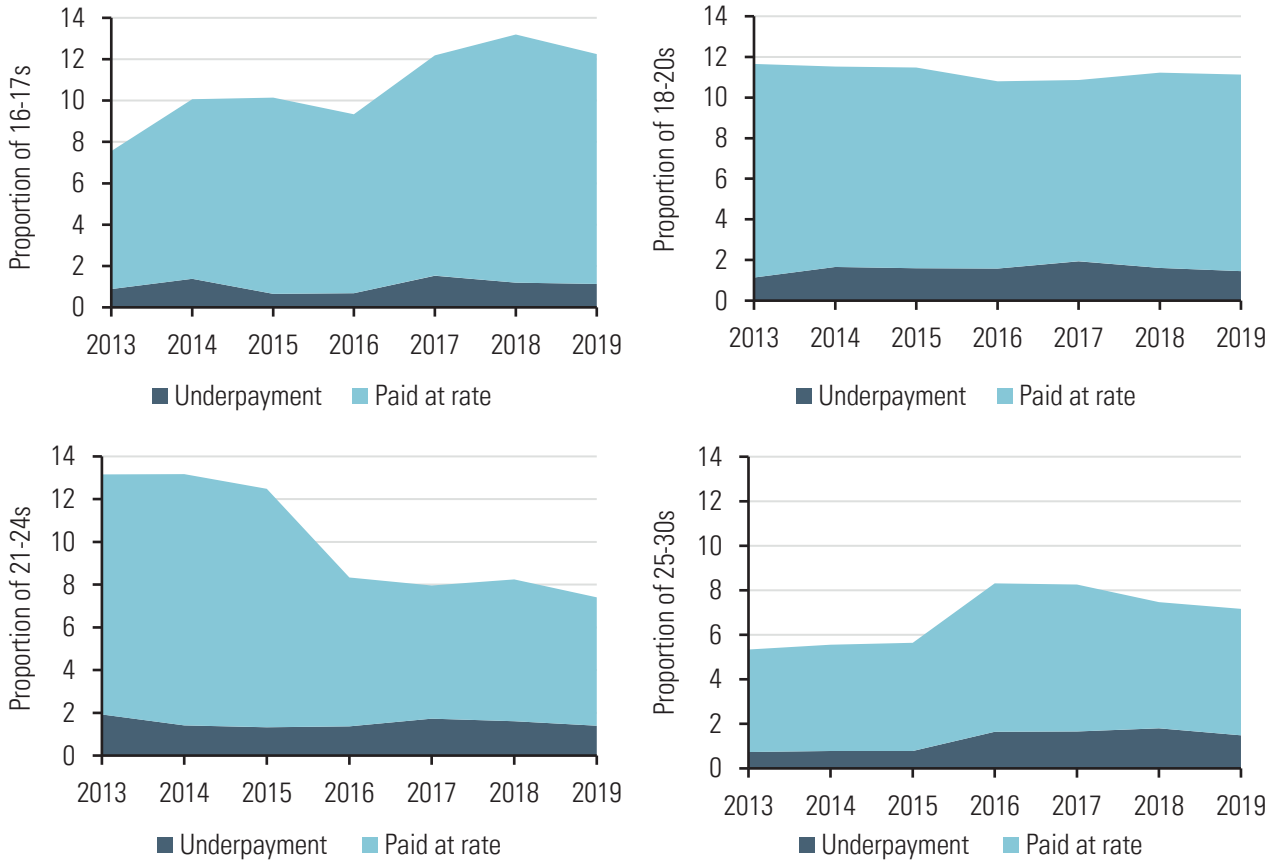


Source: LPC estimates using ASHE, 2010 methodology, low pay weights and low pay flag, including those not on adult rates, excluding apprentices, UK, 2019.
Note: Coverage at minimum wage rates is defined as those paid up to five pence above the rate.

5.28 The pay distribution for each of the age groups affected by the youth rates is simplified in Figure 5.10. For 16-17 year old workers, coverage is 12 per cent, but around half (49 per cent) of workers in this age group are paid below the 18-20 Year Old Rate and the majority (77 per cent) are paid below the NLW, within the youth rate structure. For 18-20 year old workers, coverage is similar at 11 per cent, but effective use of the rate (paying less than the rate above) is 31 per cent. Nearly half (44 per cent) of the group are paid within the youth rate structure. Coverage and effective use of the age-applicable minimum wage is lowest for 21-24 year old workers; 7 per cent are paid at the 21-24 Year Old Rate and a total of 15 per cent are paid less than the NLW, within the youth rate structure.

5.29 Figure 5.11 shows how coverage of the youth rates has changed over time (excluding apprentices). Coverage of the 16-17 Year Old Rate increased between 2016 and 2017, when the rate was increased to £4 per hour, likely because of another round number effect: this age group had previously had a spike in the pay distribution at £4 and jobs paid at this rate were swept into the coverage figures as the minimum wage was increased. Coverage of the 18-20 Year Old Rate has remained relatively stable over the period in which the NLW was introduced, while coverage of the 21-24 Year Old Rate fell substantially with the introduction of the NLW, as many employers chose to pay the higher rate to all workers over 21. In the last year, coverage has declined for each of the youth rates.

Figure 5.11: Coverage and underpayment of youth rates, by age, UK, 2013-2019



Source: LPC estimates using ASHE: 2010 methodology, low pay weights and low pay flag, including those not on adult rates, excluding apprentices, UK, 2013-19.

5.30 Underpayment has also reduced for all groups in the last year. Excluding apprentices, underpayment for 16-17 year olds has reduced by 0.1 percentage points to 1.1 per cent (9.3 per cent of coverage), for 18-20 year olds it has reduced by 0.1 percentage points to 1.5 per cent (13.1 per cent of coverage), and for 21-24 year olds it has reduced by 0.2 percentage points to 1.4 per cent (18.9 per cent of coverage). However, it should be noted that the 2019 ASHE survey was performed earlier in the month, and so a larger proportion of workers have been flagged as within the previous pay period and therefore not yet subject to the increased rates. Some of these workers may have gone on to be underpaid in the following pay period but we cannot assess for whom this would be the case and so they are classed as paying at the rate. This is a major limitation of having the main source of earnings data measured at the same time as the increases to minimum wage rates.

5.31 Coverage and effective usage of the youth rates varies by sector, with some sectors more reliant on the youth rates than others. Figure 5.12 shows that effective use of the rates can be as much as three times coverage. For example, 12 per cent of 16-17 year olds working in hospitality are paid at or below the 16-17 Year Old Rate. However, a total of 59 per cent of this group are paid less than the 18-20 Year Old Rate and are effectively relying on the existence of the lower rate. A further 28 per cent are paid less than the NLW, within the youth rate structure. Coverage and effective use of the rates is higher in low-paying sectors than non low-paying sectors, and hospitality as a sector has a particularly high reliance on the youth rate structure. This could be a result of additional cost pressures in the sector or could reflect differences in the skills and experience of younger workers. In the evidence provided for our youth review, hospitality employers were in the minority of stakeholders who wanted the youth rates to continue in their current form.

Case study: Youth rates in hotels

Hoteliers we met with UK Hospitality in Cardiff and Glasgow had different approaches to young workers' pay.

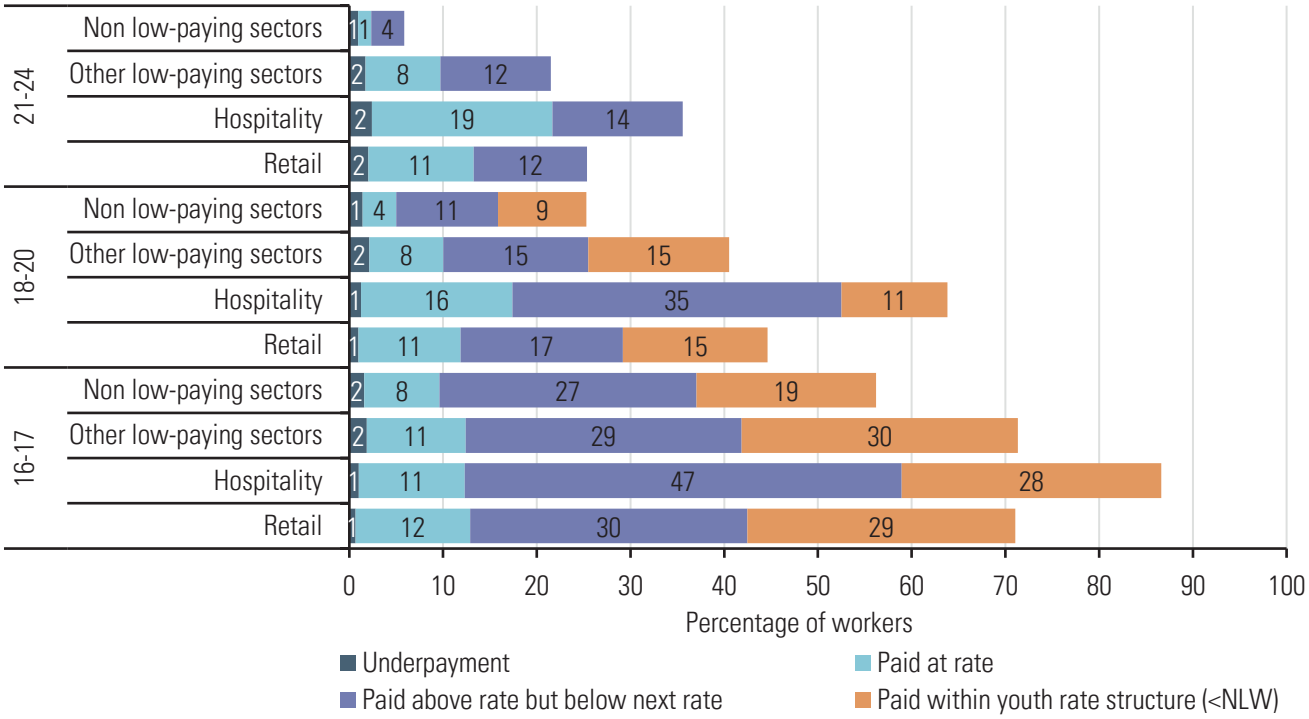
In Cardiff, none of the employers present differentiated pay by age above the age of 18. In Glasgow, the majority paid all staff at the same grade the same rate. The main reason for this was to aid recruitment and retention in a tight labour market, we heard. Some also recognised arguments around fairness when staff are performing the same tasks, including those who differentiated pay by age. Two of those present did use the youth rates from 18, but one of those told us that this had had a detrimental effect on recruitment and staff turnover among younger workers.

There was no perception among either group that employers in the sector actively recruit younger workers because they may be cheaper, or favoured older people if the same rate is paid to all ages.

5.32 Coverage and effective use of the youth rates also varies between firms. Figure 5.13 shows that coverage and effective use of the rates is much higher in small and micro businesses than in larger businesses. For example, 22 per cent of 18-20 year olds working in small or micro businesses are paid at or below the 18-20 Year Old Rate compared with 7 per cent of those working in large businesses. Many more businesses pay above the rate but below the next rate, effectively relying on the lower rate. This is particularly apparent in the cases of small firms employing the youngest workers – for example 68 per cent of 16-17 year olds working in small businesses are paid below the 18-20 Year Old Rate. This could reflect the greater cost pressures that small and regional businesses can face – they are more likely to rely on the youth rate structure as a way of maintaining affordability. In our 2019 consultation, employer bodies reported that any changes to the youth rates would be most expensive for small and regional businesses.

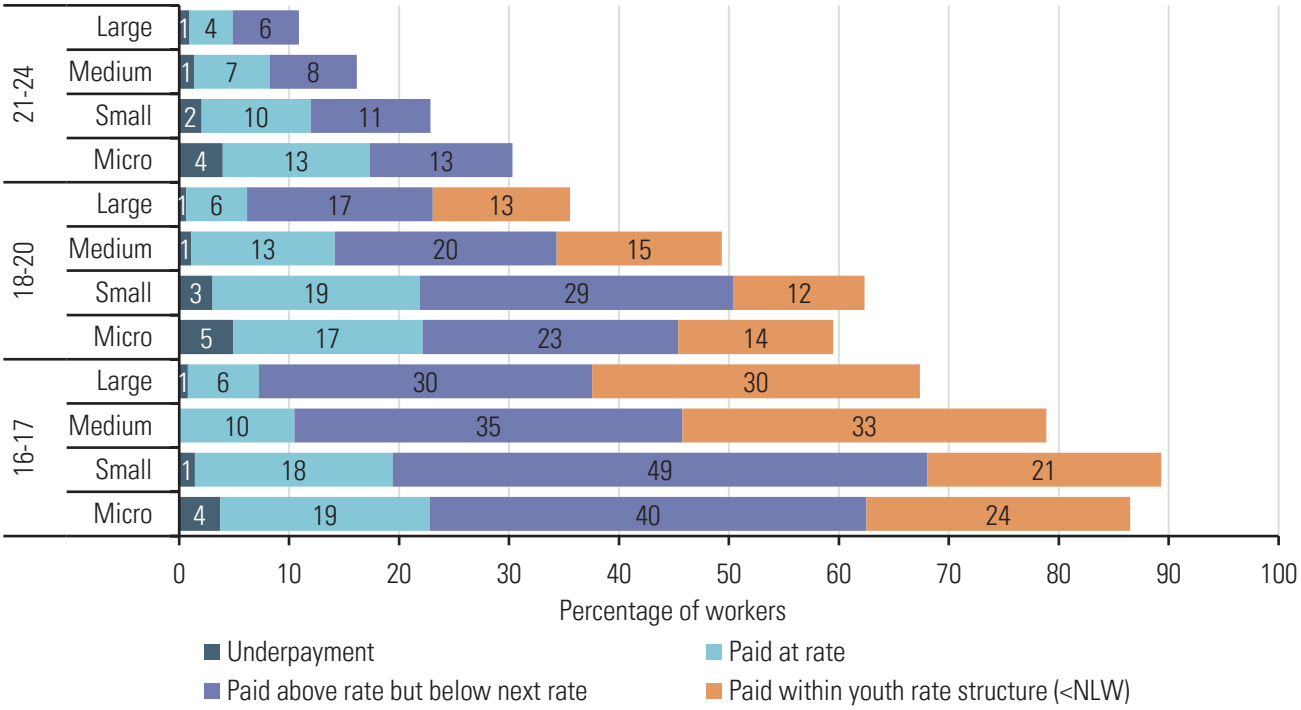
5.33 Underpayment is also higher in small and micro businesses; 5 per cent of 18-20 year old workers and 4 per cent of other young workers in micro businesses were paid below the age-applicable minimum wage in April 2019 compared with 1 per cent of these age groups in medium and large businesses. Again, this could reflect smaller businesses looking for ways to manage cost pressures or it could suggest that guidance on compliance is not well communicated to the smallest businesses.

Figure 5.12: Coverage and usage of youth rates by sector and age, UK, 2019



Source: LPC estimates using ASHE, 2010 methodology, low pay weights and low pay flag, including those not on adult rates, excluding apprentices, UK, 2019.

Figure 5.13: Coverage and usage of youth rates by firm size and age, UK, 2019



Source: LPC estimates using ASHE, 2010 methodology, low pay weights and low pay flag, including those not on adult rates, excluding apprentices, UK, 2019.

Labour market position of young people

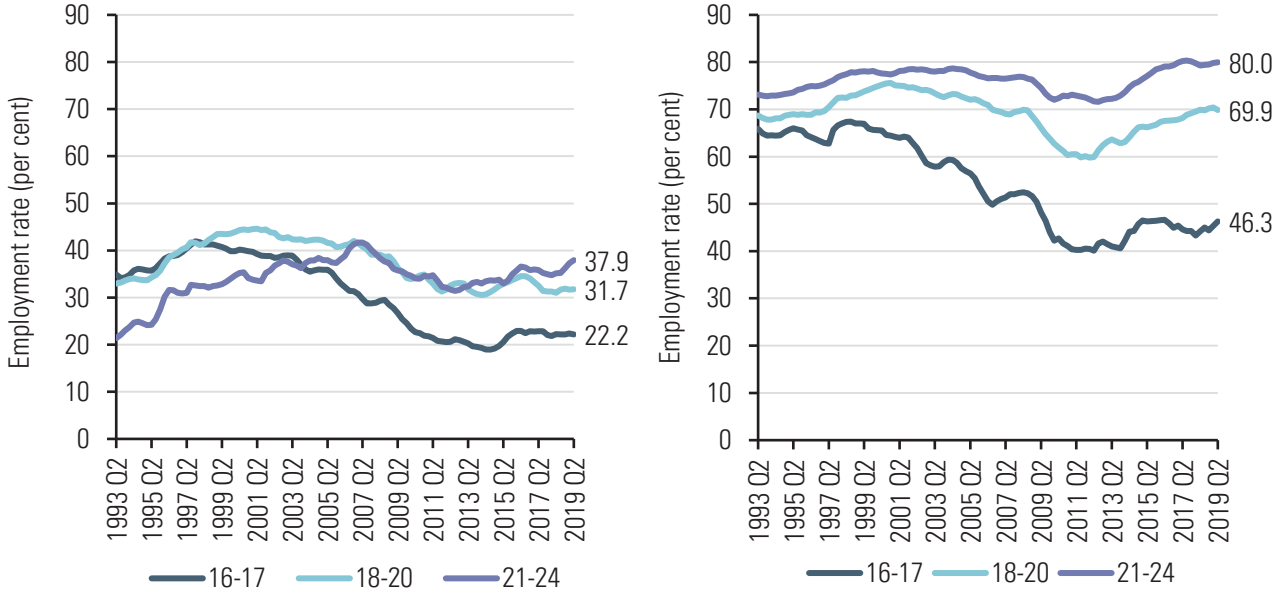
Economic activity

5.34 The remit for the three youth rates is to raise young people's pay as high as possible without harming their employment prospects. Assessment of labour market data is therefore a critical part of the decision-making process when recommending the rates of the minimum wage. We use LFS data to assess the current health of the youth labour market to inform decisions on the extent to which we can raise the minimum wage rates for these groups. At the time of our deliberations, LFS microdata was available for the period up to June 2019. The next section considers that data.

5.35 Employment of young people fell during and after the recession in 2008, but has since been gradually improving. Figure 5.14 shows that the employment rate is strongest for 21-24 year olds who are not in FTE; their employment has risen by 8.4 percentage points from their recession lows to 80 per cent in Q2 2019. Similarly, the employment rate of 18-20 year olds who are not in FTE has risen to 69.9 per cent in Q2 2019, although this remains below pre-recession levels. The employment rate of 16-17 year olds who are not in FTE has not shown the same levels of growth, but this could partly be because the composition of this group has changed as participation in education has increased.

5.36 It is also important to consider the economic activity of those in FTE, as can be seen in the left hand panel of Figure 5.14. The employment rates of 21-24 year olds in full-time education rose to 37.9 per cent in June 2019, but for 16-17 year olds and 18-20 year olds employment rates have been relatively static, have not reached their pre-recession levels and remain well below levels seen in the late 1990s and early 2000s.

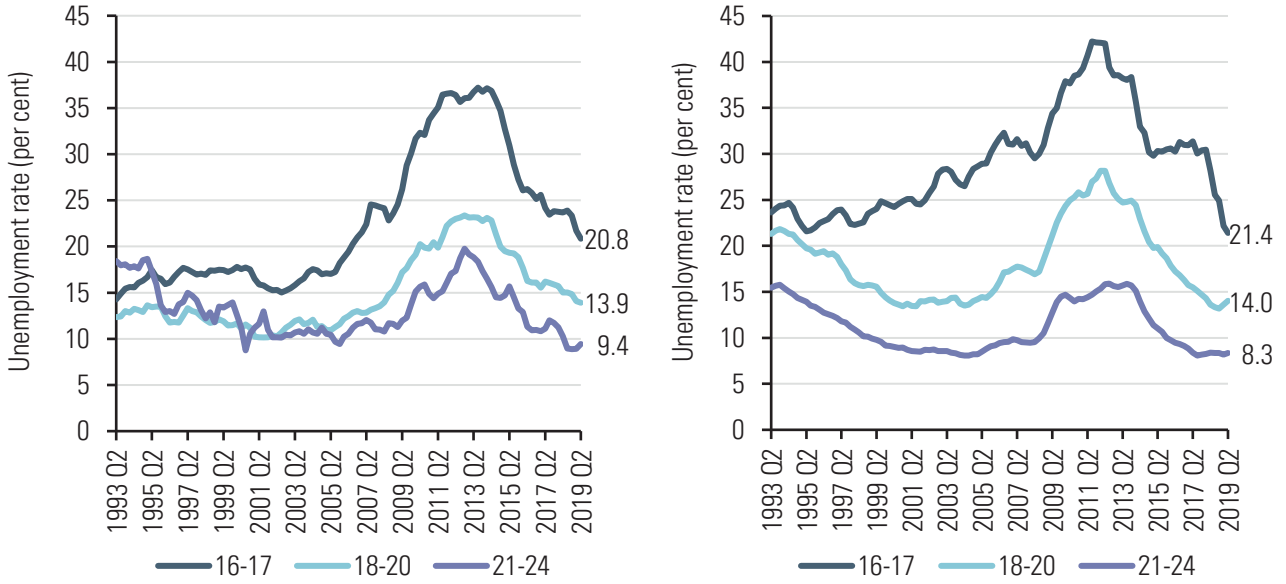
Figure 5.14: Employment of young people in FTE (left panel) and not in FTE (right panel), UK, 1993-2019



Source: LPC estimates using LFS microdata, quarterly, four-quarter moving average, UK, Q3 1992-Q2 2019.

5.37 Figure 5.15 shows how the unemployment rates of young people have changed over time. The right-hand panel shows that the unemployment rates of those who are not in FTE have been falling, and for all age groups are equal to or below pre-recession levels. There has been an uptick in unemployment among 18-20 year olds in the last quarter, but this is a small increase compared with the overall reduction in unemployment that we have observed since 2011. The unemployment rate of 16-17 year olds not in FTE has fallen substantially; this group is now very small and represents only 1.6 per cent of the age group as a whole. Unemployment of young people in FTE has also fallen since the recession, although it remains higher than pre-recession levels.

Figure 5.15: Unemployment of young people in FTE (LHS) and not in FTE (RHS), UK, 1993-2019



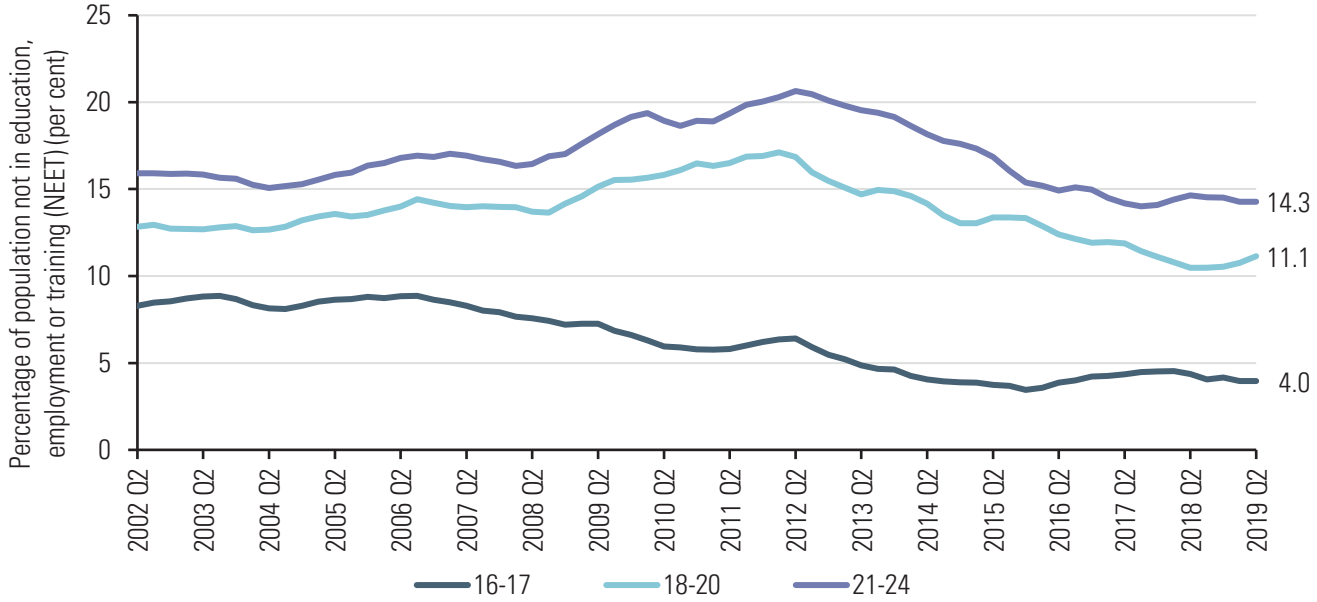
Source: LPC estimates using LFS microdata, quarterly, four-quarter moving average, UK, Q3 1992-Q2 2019.

NEETs

5.38 We monitor the number of young people not in education, employment or training (NEET), as these young people are at greatest risk of long-term unemployment and scarring effects. Figure 5.16 shows the proportion of each age group that are NEET. The proportion of 16-17 year olds that are NEET has been gradually falling as increasing numbers participate in education; over the year to the second quarter of 2019 it fell by 0.4 percentage points to 4.0 per cent of the age group (55,000). For 18-20 year olds, while the larger trend has been towards decreasing NEET rates, the proportion that are NEET rose by 0.7 percentage points to 11.1 per cent (250,000) over the year to June 2019. This was driven by increases in both inactivity (from 5.9 per cent to 6.2 per cent) and unemployment (from 4.6 to 4.9 per cent).

5.39 The proportion of 21-24 year olds that are NEET has fallen overall since 2012, but has shown little sign of improvement since the introduction of the NLW and the effective introduction of a 21-24 Year Old Rate in 2016. In the year to the second quarter of 2019, the percentage of 21-24 year olds that are NEET fell marginally by 0.4 percentage points to 14.3 percent (473,000). The majority of this group were inactive (292,000) rather than unemployed (180,000). In our 2019 consultation, respondents including Unite and the Prince's Trust argued that the youth rates should be increased to encourage greater numbers of young people into the labour market.

Figure 5.16: NEET rates by age, UK, 2002-2019

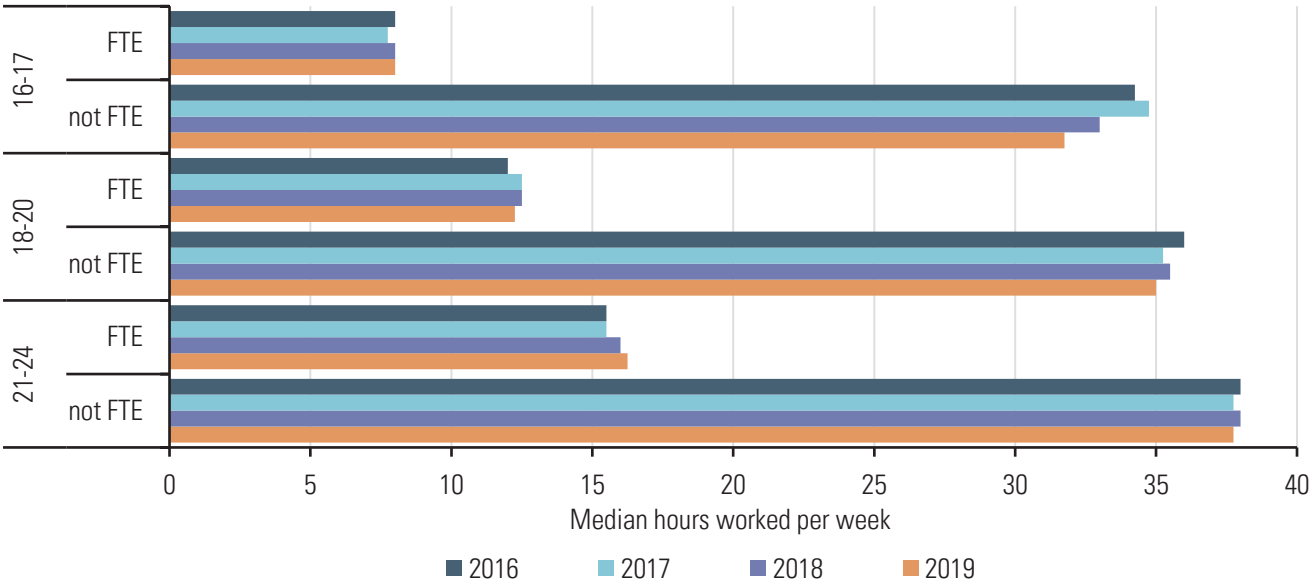


Source: LPC estimates using ONS data: People aged 16 to 17, 18 to 20 and 21 to 24, not in education, employment or training (NEET), quarterly, four-quarter moving average, UK, Q3 2001-Q2 2019.

Hours and underemployment

5.40 As well as monitoring employment, we monitor the hours worked by young people as an indicator of how employers may respond to increases to the minimum wage. Figure 5.17 shows the median hours worked by age and education status since 2016. The youngest workers and those in FTE tend to work fewer hours on average. Over the period since 2016, the median hours worked by young people in full-time education has increased by 4.8 per cent for 21-24 year olds and 2.1 per cent for 18-20 year olds. Meanwhile, young people outside FTE are on average working fewer hours per week than they were at the start of the period, with a 7.3 per cent reduction in median hours for 16-17 year olds, a 2.8 per cent reduction for 18-20 year olds, and a 0.7 per cent reduction for 21-24 year olds not in FTE.

Figure 5.17: Median hours worked by age and education status, UK, Q2 2016-Q2 2019



Source: LPC estimates using LFS microdata, quarterly, four-quarter moving average, UK, Q3 2015-Q2 2019.

5.41 There can be multiple factors that lead to young people reducing their hours – for example, young people may choose to work fewer hours to fit alongside their studies, or may choose to reduce their hours when they are offered an hourly pay rise to take home the same weekly pay. Others may prefer to work more hours but are not able to. It is therefore important to monitor underemployment, which measures the number of employed people that are either looking for an additional (second) job, looking for a new job with longer hours, or want to work longer hours in their current job.

5.42 Rates of underemployment are higher for younger workers, and have remained relatively constant over the last year for 18-24 year olds, while they have increased for 16-17 year olds (see Table 5.3). This could indicate that the youngest workers are struggling to find jobs that offer enough hours to meet their needs. However, it should be noted that the number of 16-17 year old workers is small, and survey data for small groups is more volatile.

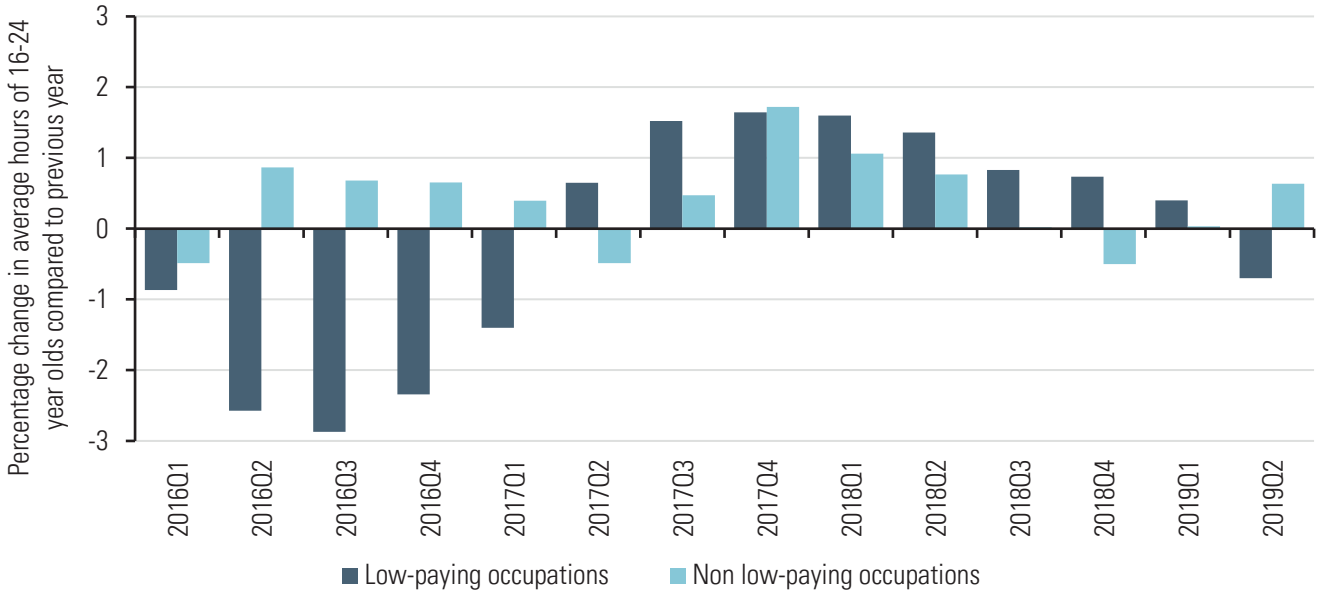
Table 5.3: Underemployment of employees, by age, UK, 2018-2019

Age	Underemployment, 4-quarter rolling average (per cent)					Annual change	
	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	Percentage point	per cent
16-17	17.3	17.6	17.8	19.8	21.1	3.8	21.7
18-20	18.9	19.1	18.9	18.9	19.1	0.1	0.7
21-24	13.7	13.7	13.5	13.5	13.5	-0.2	-1.8
25+	7.4	7.3	7.2	7.1	7.2	-0.2	-2.8

Source: LPC estimates using LFS microdata, quarterly, four-quarter moving average, UK, Q3 2017-Q2 2019.

5.43 We now consider the changes in hours by sector, in order to understand whether there is different behaviour in sectors that are more reliant on the minimum wage rates. Figure 5.18 shows the change in average hours worked by 16-24 year olds for low-paying and non low-paying occupations. When the NLW was introduced, the average hours worked by young people decreased in low-paying occupations and increased in non low-paying occupations. Following the 2017 upratings to the minimum wages, the average hours worked by young people increased in both low-paying and non low-paying occupations. However, in the last year the average hours worked by young people in low-paying occupations has reduced, while it has grown in non low-paying occupations. This could be primarily worker-led, with more young people choosing to work part-time, reduce their hours or move to better paying jobs if they work longer hours, or it could be employer-led, with employers opting to offer fewer hours as a way of managing their costs. The fact that underemployment has been relatively constant with the exception of 16-17 year olds suggests that it is more likely to be driven by young people choosing to work fewer hours.

Figure 5.18: Change in average hours of young people aged 16-24, by sector, UK, 2016-2019

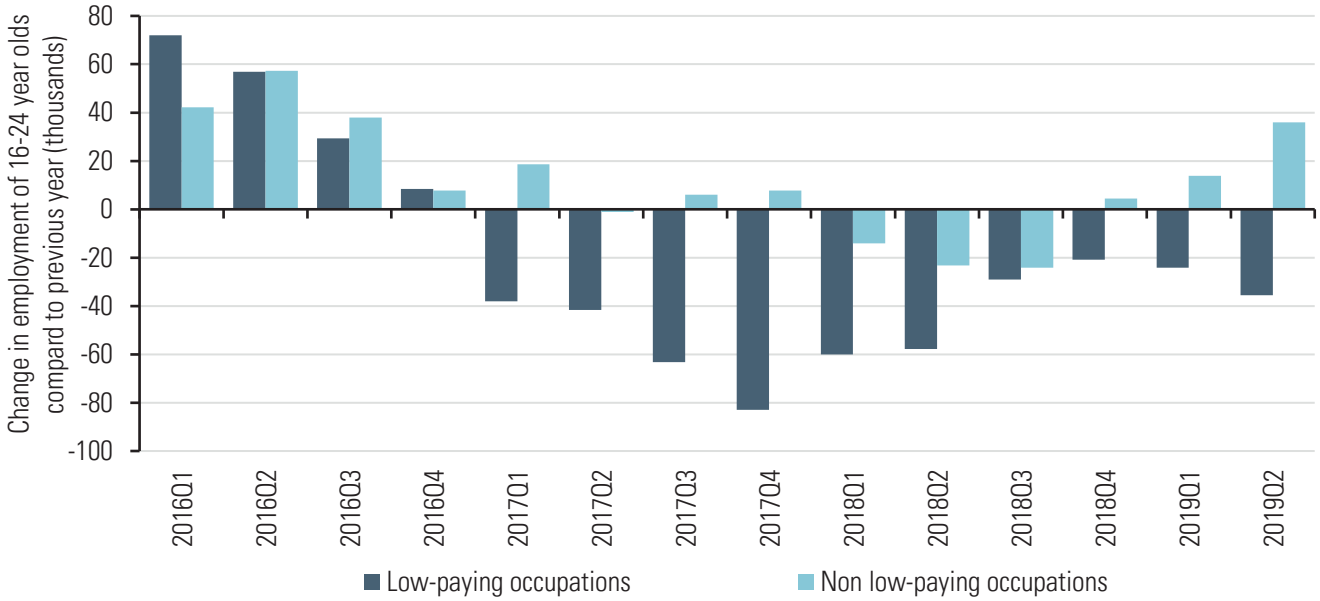


Source: LPC estimates using LFS microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q2 2014-Q2 2019.

Young people in low-paying sectors

5.44 The number of young people employed in low-paying occupations has been falling since the start of 2017, as illustrated in Figure 5.19. This could partly reflect demographic changes, as the youth population has been falling; employment growth has also been relatively slow for young people in non low-paying sectors over the same period, although it has started to pick up again in recent months. In the year to June 2019, employment of 16-24 year olds fell by 36,000 in low-paying occupations and grew by 36,000 in other occupations. This could suggest that young people are starting to move away from traditionally low-paying jobs. Comparing with Figure 5.18, the change in employment in low-paying occupations often follows the opposite pattern to change in hours in low-paying occupations, with the median hours worked tending to increase when employment reduces, and vice versa. The exception is in the last year, when both median hours and employment have reduced in low-paying occupations. This could be because young people have a relatively strong position in a tight labour market, and are able to choose to work in jobs that are offering higher pay, or it could be because businesses in low-paying sectors are looking for ways to manage cost pressures and have reduced their demand for new staff.

Figure 5.19: Change in employment of young people aged 16-24, by sector, UK, 2016-2019

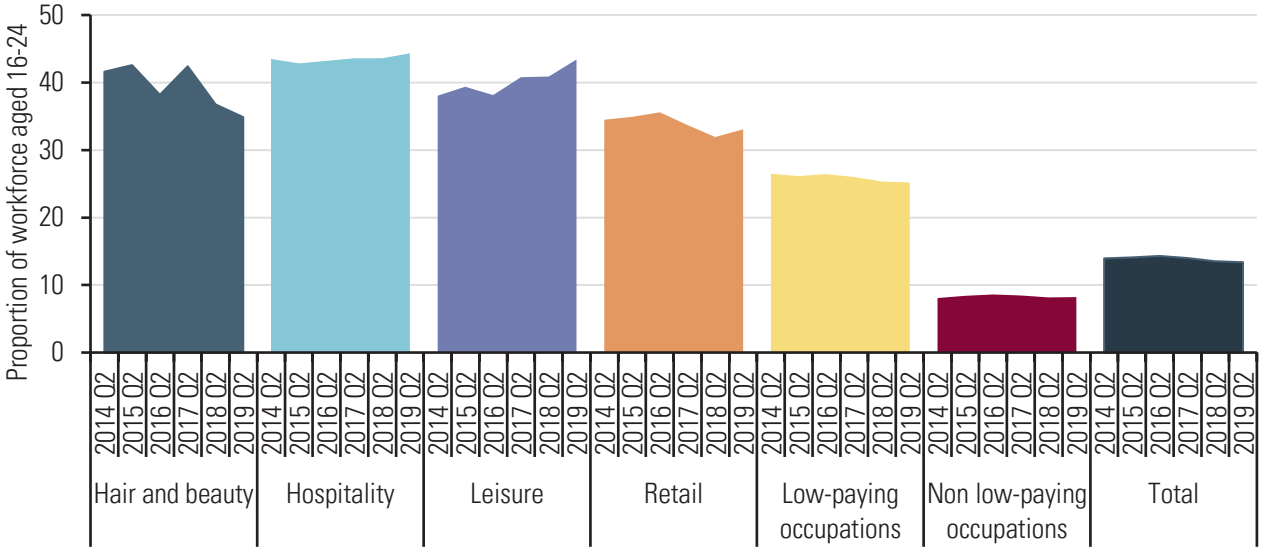


Source: LPC estimates using LFS microdata, population weights, not seasonally adjusted, four quarter rolling average, UK Q2 2014-Q2 2019.

5.45 In our 2019 consultation, stakeholders including Unite, the Chartered Institute of Payroll Professionals (CIPP) and the Early Years Alliance (EYA) reported anecdotal evidence of employers switching to younger workers because of the lower costs associated with the youth rates. The differentials between the youth rates and the NLW might lead employers to substitute unskilled older workers for cheaper young workers. This was supported by research we commissioned as part of our youth review (University of Westminster, 2019), which found tentative evidence that the introduction of the NLW may have boosted the employment prospects of young people aged less than 25.

5.46 However, Figure 5.20 shows that at an aggregate level, there has not been a measurable movement towards employing young people in low-paying occupations. Indeed, the proportion of the workforce aged 16-24 has fallen in low-paying occupations over the period in which the NLW was introduced, although it fell marginally in the whole labour market as well. There has been a reduction in the proportion of young people employed in hair and beauty, despite evidence from employer bodies that hairdressers are highly reliant on youth rates to manage cost pressures – this hasn't translated into employing an increasing proportion of younger staff at a national level. However, in the leisure sector there has been an overall increase in the share of the workforce that is aged 16-24 over the period since the NLW was introduced in 2016, as well as in the hospitality sector. We will continue to monitor these trends as we investigate how employers are responding to the minimum wage rates.

Figure 5.20: Proportion of workforce aged 16 to 24, by sector, UK, 2014-2019



Source: LPC estimates using LFS microdata, population weights, not seasonally adjusted, four quarter rolling average, UK, Q3 2013-Q2 2019.

Conclusion

5.47 Young people have experienced the strongest pay growth for several years. 21-24 year olds experienced 5.9 per cent pay growth at the median, well above the growth they saw last year (3.0 per cent). 18-20 year olds also saw very strong pay growth of 6.0 per cent at the median, while 16-17 year old workers had 4.2 per cent pay growth. Pay growth across the whole earnings distribution has been stronger than anticipated and higher than the April 2019 increases to the youth rates. As a result, the bite has reduced for the three age groups, including in low-paying sectors.

5.48 Coverage and underpayment of the youth rates have declined in the last year. However, coverage can understate use of the rates – employers often only use a subset of the youth rates or pay between the youth rates, effectively relying on the lower rate. There is higher effective usage of the rates in smaller firms and in the hospitality sector.

5.49 Young people continue to improve their labour market position, with falling unemployment and rising employment rates since 2011. However, there are signs that this is beginning to slow, with a marginal increase in unemployment among 18-20 year olds not in FTE in the last year. NEET rates remain a problem, driven by high levels of inactivity among 18-24 year olds.

5.50 There is evidence of a shift, albeit slight, of young workers away from low-paying occupations into non-low paying occupations. This could suggest that young people have a relatively strong position in a tight labour market and are able to choose to work in jobs with higher levels of pay. There is no strong evidence that employers are substituting older workers for younger workers.

5.51 The overall picture is one of stable employment coupled with strong growth in young people's pay. However, there is well established evidence that young people are more vulnerable to economic downtowns and it is important to balance these positive indicators with their weaker economic position. Pay growth and employment for 21-24 year olds is strong and consistent with our recommendation earlier this year to work towards lowering the age of eligibility for the NLW to 21.

Chapter 6

The Apprentice Rate

6.1 In this chapter we look at the evidence which has informed our recommendation on the Apprentice Rate for 2020. We use the latest data on pay to understand the position of apprentices and the impact of the rate. We also assess changes in the apprenticeship programme, mainly by looking at the numbers of starts in the past year. As in previous years, it is not easy to pick out the impact of the Apprentice Rate on the supply of apprenticeships or the prospects of apprentices, as there are a wide variety of other factors which influence apprentice recruitment and retention. In particular, the impact of the reforms of recent years in England is arguably still working its way through the system and there are further changes in the pipeline.

6.2 As in previous years, the most striking feature of the data on apprentice pay is the high level of non-compliance with the minimum wage; the overall rate of non-compliance is 17 per cent; within some age bands, as many as one in four apprentices do not receive the minimum wage to which they are entitled. We look in particular detail at the evidence around this underpayment and consider its likely causes. Each year in our consultations, it is relatively rare for us to hear from employers who pay the Apprentice Rate, but the data on non-compliance suggests there may be many more employers paying below, at or close to the apprentice rate than our consultation evidence suggests. Whether employers pay for their apprentices' training hours is a major determinant of this; the evidence in this chapter suggests that too many still do not.

6.3 Coverage of the rate varies widely between different groups, but for younger apprentices, especially those aged under 19, the rate plays a significant role in setting apprentices' pay. And while it is much less common for apprentices over the age of 21 (who make up the majority of the programme overall) to be paid at or near the Apprentice Rate, many more are paid between this rate and the one above. Therefore, employers are still making use of the 'discount' on the age-appropriate NMW which the Apprentice Rate enables.

6.4 Although the complexity of the Apprentice Rate itself is sometimes overstated, the evidence around the rate and the impacts of ongoing policy changes are often not clear-cut. In this report we consider the evidence primarily with regard to our recommendation on the April 2020 rate – but we intend to come back to the rate and consider the wider question of whether its structure is still fit to purpose, in the coming year.

Stakeholder views

6.5 The complexity of the evidence on the Apprentice Rate makes it all the more important to carefully consider stakeholder views on both the rate and, more generally, the role of apprenticeships in low-paying sectors and the wider economy. Among employer representatives this year, there were several groups who told us that there was scope for increases in the rate. Both the Federation of Small Businesses (FSB) and the British Chambers of Commerce (BCC) advocated alignment with the 16-17 Year Old Rate to simplify the system, a frequent proposal throughout the Apprentice Rate's existence. The BCC told us at oral evidence that that their members were reporting a lack of candidates for apprenticeship vacancies and felt that the headline apprenticeship rate could be a factor. The Confederation of British Industry (CBI) told us at oral evidence that there was room to push the rate upwards. UK Hospitality and the British Retail Consortium (BRC) both stated that few of their members paid apprentices at the rate, although the BRC did state that wider pay pressures could in the future lead employers to lower their pay offer to apprentices.

6.6 Infrequent use of the rate was a theme in evidence from several sector bodies. The Institute of Directors, National Farmers' Union (NFU), Make UK, Food and Drink Federation (FDF) and the British Beer and Pubs Association (BBPA) all told us that their members tended to pay above the Apprentice Rate. This echoed a common response from our regional visits, where the majority of employers we met told us they did not or would not use the rate. The main exception to this trend was the National Hairdressers' Federation (NHF), who argued strongly against increasing the rate and told us that many employers in the sector were already at the limits of their ability to afford apprentice pay.

6.7 Another common theme in the evidence from employers' representatives – although one not directly related to the rate – was dissatisfaction with the operation of the Apprenticeship Levy and the difficulties employers faced in making use of their funds. Although we cannot comment in any detail on the mechanics of the levy, we heard frequently that these broader issues were a greater constraint on the recruitment of apprentices than the level of their pay.

Case study: use of the Apprentice Rate

Each year on our regional visits we meet a range of companies who employ apprentices. Their attitudes towards and expectations of apprentices can vary widely, as do the status and importance of the apprenticeship within their businesses. All of this can mean we hear a mixture of views about the Apprentice Rate.

The large, national firms we meet overwhelmingly tell us they pay their apprentices at the same rate as other workers. One large, national retailer told us that its 130 retail apprentices, if they were over 18, were paid the standard team member rate, including for their training time. Those under 18 were paid less than the standard adult rate, but still comfortably above the 16-17 Year Old Rate and in line with non-apprentices of their age. The employer saw this as a worthwhile investment in the training of potential future managers. Another large retailer told us they had apprentices throughout their organisation, including in head office, studying on courses ranging from intermediate to degree level, and the policy of paying them the normal rate for their role was consistently applied.

The picture in smaller employers, and particularly in certain sectors, is often very different. One hairdressing employer we met, who employed six apprentices, told us he would only take on apprentices aged 16-18, as the cost of employing 19 year olds was prohibitive for him. Changes in

funding arrangements had had a material impact on employment costs: whereas previously he had been able to break even, he told us he now lost money on each apprentice he took on, and it was some time before an apprentice's contribution to the business matched the investment in developing their skills. In addition, apprentices he had trained had gone on to leave at the end of their apprenticeship and set up in self-employment in rival salons. At oral evidence, the NHF told us that this was a relatively common situation. This factor may partly explain the high coverage of the Apprentice Rate in hairdressing; employers are not confident that their investment in apprentices will have longer-term rewards.

6.8 Trade unions uniformly told us that the Apprentice Rate was too low. Their main argument against the rate was that it is too low to live on, but there were also a variety of other arguments advanced for the negative effects of a low Apprentice Rate and the potential positive impacts of a higher one. The Trades Union Congress (TUC) told us that 'a higher apprentice rate would improve retention and completions…there would not be any significant risk of loss of incentives for employers to train'. Unite argued that low apprentice wages led to exploitation, while UNISON described the level of the rate as 'grossly inadequate', noting this view was shared by the majority of employers. They referred back to research they had submitted to us in 2018, which argued that apprentice pay formed only a small element of the total costs employers faced in recruiting apprentices, and that increases in the rate would have little effect on employment (New Policy Institute, 2018). Usdaw described the rate as 'simply unacceptable in 2019' and argued that the requirement for a lower minimum wage to incentivise apprentice recruitment had been overtaken by the levy.

6.9 Many of these arguments relate to the fundamental principle of the Apprentice Rate, as a discounted rate to take account of the employer's investment in an apprentice's training and development. In this report, we are concerned mainly with a recommendation on the rate for April 2020. But we do recognise the need to revisit and reconsider the purpose of the rate and will be coming back to this in our review of the rate's structure.

Apprentice pay

Apprentice pay data: APS versus ASHE

This year we have access to two data sources on apprentice pay: the Annual Survey of Hours and Earnings (ASHE) and the biennial Apprentice Pay Survey (APS). Although for other groups ASHE is our preferred source, for apprentices we consider APS a more reliable source.

ASHE consistently underestimates the number of apprentices in the workforce. In some cases, employers may be unaware that their employees are apprentices, or they may not be logged as such on employers' payroll systems. Past research commissioned by the LPC suggests that those apprentices missing from ASHE are disproportionately likely to be on low earnings and changing jobs frequently – both key risk factors for non-compliance. As it is completed by employers, it is also unlikely to capture non-compliance related to non-payment of training hours, which we will go on to show is probably the main factor behind underpayment of apprentices.

APS therefore offers a more reliable sample, as well as a larger one (as a survey of over 9,000 apprentices, against only 1,860 caught in the ASHE sample). It also allows for more detailed comparison of apprentices' pay and training hours across different sectors and levels of study. The main potential flaw in APS is that it uses apprentices' own reports of their pay and hours, and these can vary depending on whether the apprentice has access to a payslip at the time of the interview. In addition,

this year's ASHE is more recent; the fieldwork for APS was carried out between November 2018 and March 2019, and as such it does not take account of the most recent April 2019 uprating.

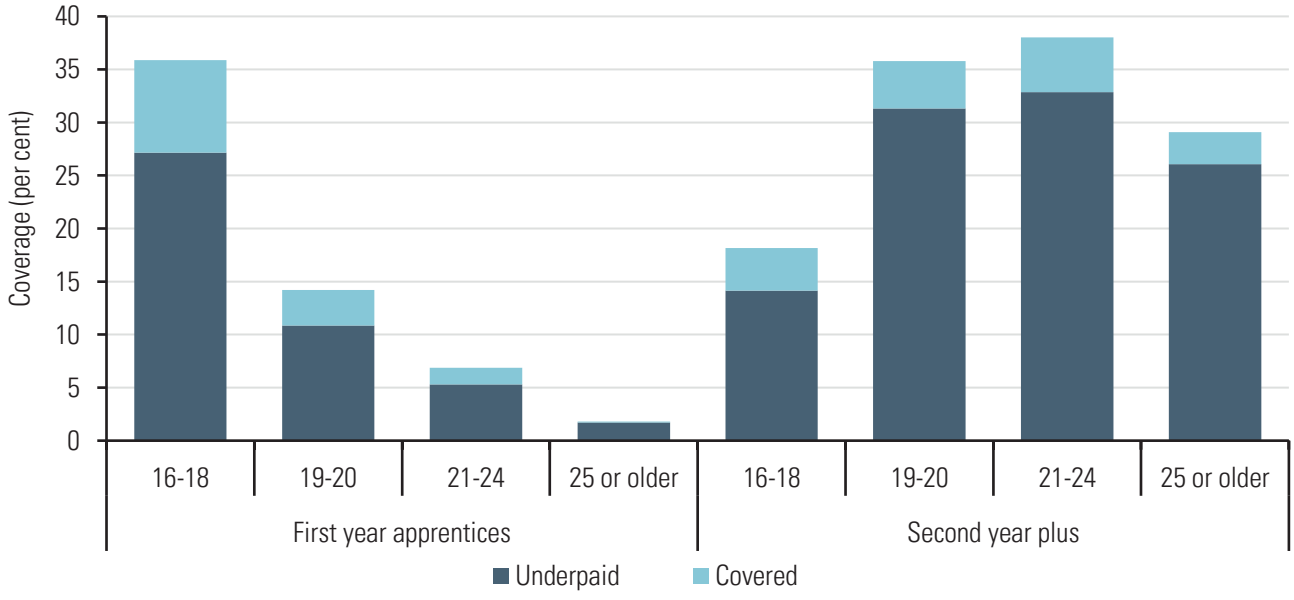
In making our recommendations this year, we have drawn on both data sets while trying to take account of the flaws in each.

Underpayment

6.10 The most noticeable feature of the data on apprentice pay is the high level of underpayment which both data sets record. In ASHE, underpayment of the Apprentice Rate, expressed as a proportion of coverage, is consistently higher than for other rates (although the total of underpaid individuals is lower, because of the relative size of the apprentice population). This year, underpayment as a proportion of coverage and as a proportion of the total population rose again, to 27.7 and 4.8 per cent respectively (as set out in Table 3.6). The bulk of the underpayment recorded in ASHE is by a relatively small margin, with spikes within 5p of the rate, and at the previous year's rate (see Figure 3.8).

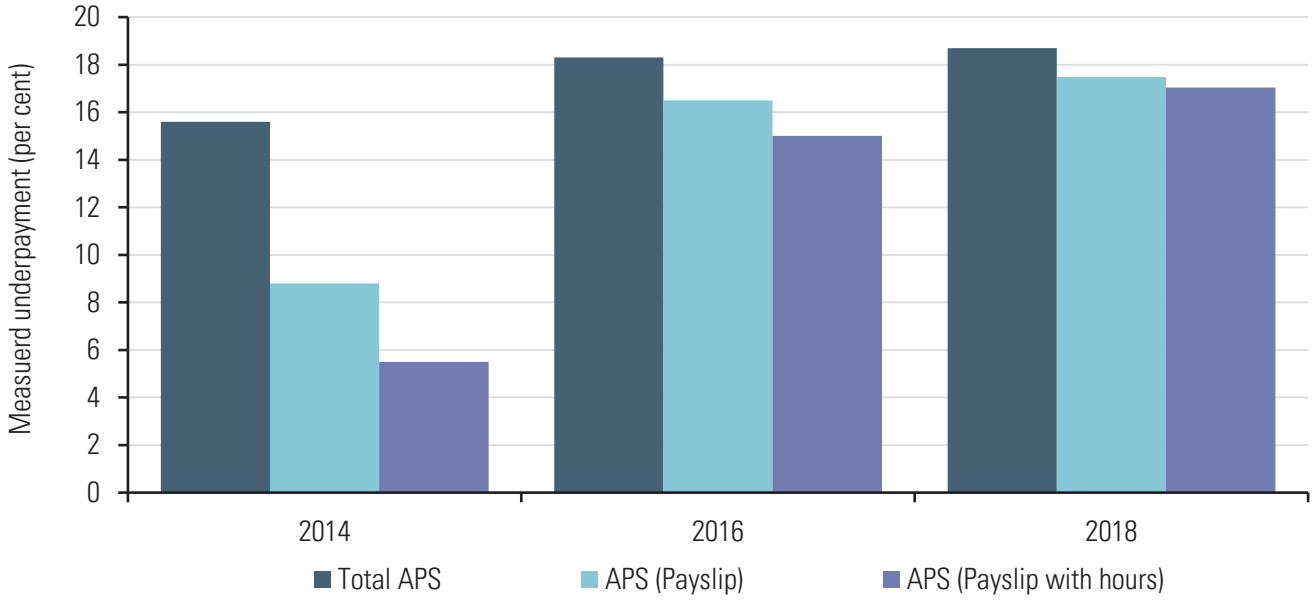
6.11 The estimates which APS produces are higher than those in ASHE by an order of magnitude, and the difference between the two measures bears directly on what we believe are the driving factors. Figure 6.1 shows the levels of apprentices recorded in APS as being underpaid. The groups most affected by underpayment can roughly be separated into 16-18 year olds – who are particularly likely to be underpaid in their first year – and apprentices aged 19 and above, who are more likely to be underpaid in the second year of their course. The former group are underpaid against the Apprentice Rate, while the latter are underpaid against the relevant NMW age rate. The underpayment figures for these groups are in excess of 25 per cent of the total apprentice population, and in all cases, the number of underpaid apprentices outstrips the numbers who are covered by the rate. Figure 6.2 shows this is an increase on levels recorded in previous rounds of APS; and that although the rate of underpayment dips slightly when apprentices have to hand their payslip (and are less likely to provide inaccurate information), it does not do so dramatically.

Figure 6.1: Underpayment and coverage of relevant minimum wage for apprentices, APS, GB, 2018



Source: LPC estimates using APS, GB, 2018.

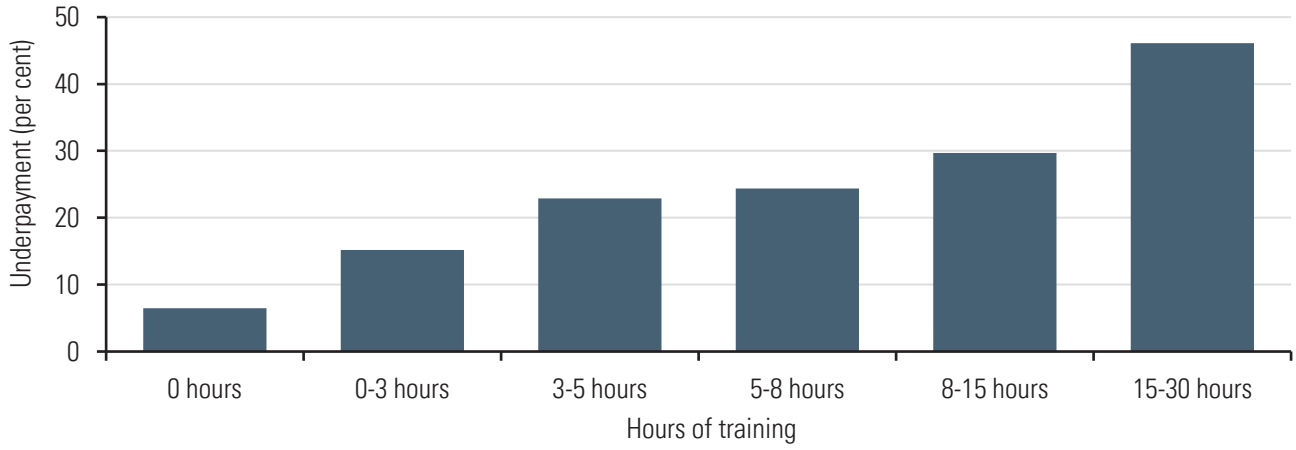
Figure 6.2: Total underpayment of apprentices, by access to payslip information, APS, GB, 2014-2018



Source: LPC estimates using APS, GB, 2014-18.

6.12 In previous years, when we have looked in detail at the Apprentice Rate (Low Pay Commission, 2015), we have said that we think the likeliest driver for these high levels of underpayment to be non-payment of apprentices' training hours. The amount of training hours – both on and off the job – is the key element of apprenticeships which sets them apart from other positions, and recent reforms in England have strengthened the requirement for an apprentice to spend 20 per cent of their time in training outside the workplace. As with any workplace training, this time is meant to be paid for, and the basic intention behind a discounted Apprentice Rate is to allow the employer to offset this extra cost as apprentices are supposed to undertake far more training than other workers. If employers are not paying for training time, then the purpose of the rate is undermined. The data in APS this year support our hypothesis that non-payment of training hours is driving underpayment. As Figure 6.3 shows, there is a clear relationship between the average weekly hours of training an apprentice reports in APS and the likelihood of them being underpaid.

Figure 6.3: Underpayment by average weekly hours of training, APS, GB, 2018



Source: LPC estimates using APS, GB, 2018.

6.13 This point is reinforced in Figure 6.4 looking at the differences between the pay rates calculated in APS and those which feature on apprentices' payslips. As set out in the explanatory box above, APS data are based on apprentices' own reports of their pay and hours. The latter component is subdivided into hours of work and hours of training – both on and off the job. Total pay is then divided by total hours to calculate an hourly rate. Around half of the apprentices surveyed in APS have access to a payslip which states separately their hourly rate of pay, and this allows a comparison between the stated hourly rate and the calculated rate, which accounts for training hours. As set out in Figure 6.4, the distributions of each of these rates (for those apprentices for whom both measures are available look significantly different. The pay distribution for the stated hours shows considerably less underpayment, with larger spikes at the applicable NMW rates. This implies that the high levels of underpayment are not simply a question of employers getting the rate wrong; they show that employers know the applicable NMW rates, including knowing that the rate should increase in the second year, and set pay accordingly. Instead, it is non-payment of training hours that remains the most likely cause of underpayment.

Examples of non-compliant apprentice pay

The following examples illustrate how non-payment of training hours can lead to non-compliant apprentice pay.

Example 1

An 18 year old enters a level 2 apprenticeship role which the employer advertises as paid at the Apprentice Rate of £3.90 per hour. She spends four days a week in the workplace, working eight hours each day, including both work tasks and on-the-job training. She spends a fifth day receiving off-the-job training at a training provider. At the training provider, she receives six hours of training.

In total, she should be paid for 38 hours each week (thirty-two hours in the workplace and an additional six hours at her training provider). Instead her employer pays only for time in the workplace and disregards the hours of off-the-job training. This means the apprentice receives a weekly wage of £124.80. This equates to an effective hourly wage of £3.28, which is non-compliant.

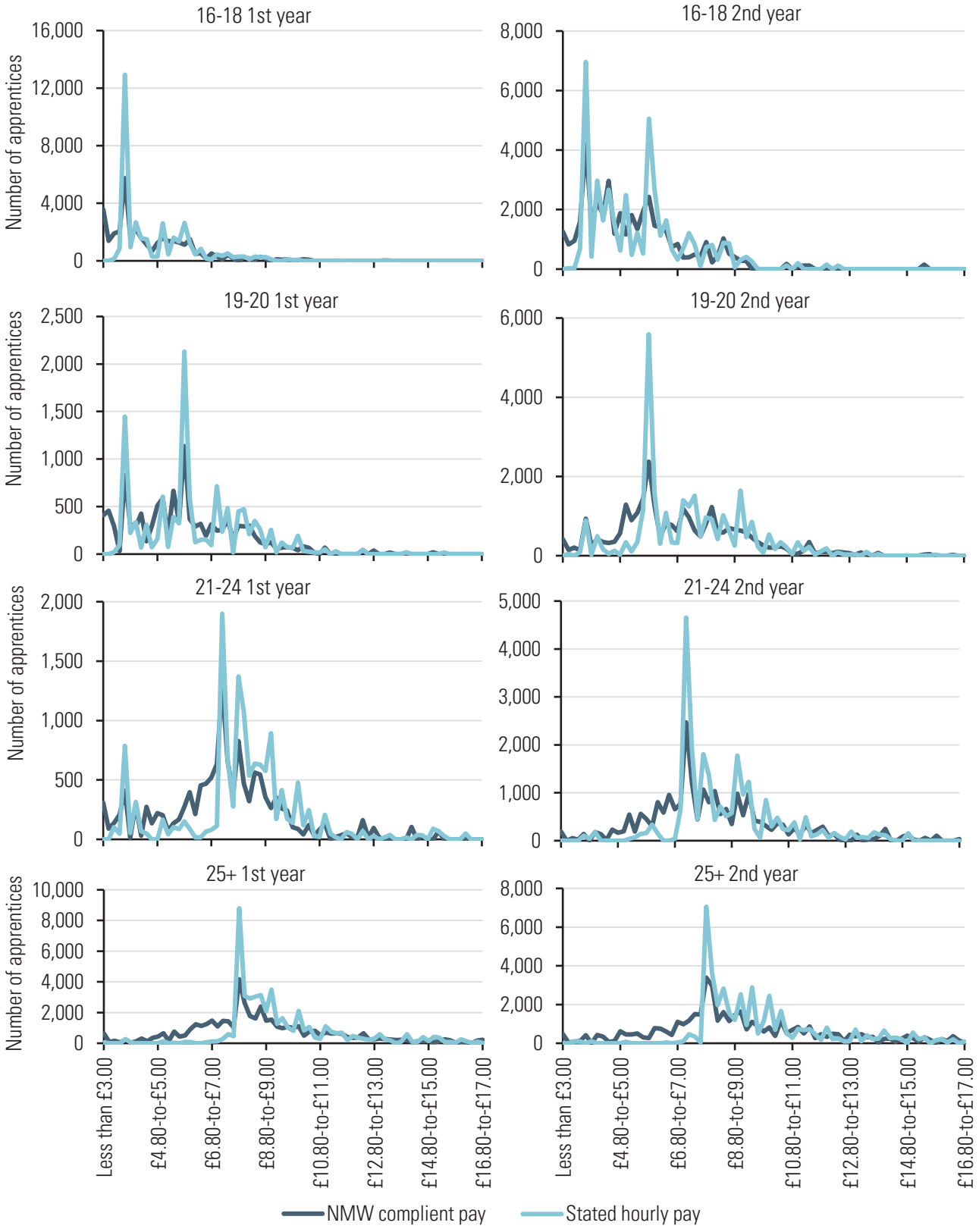
Example 2

A 30 year old works thirty-seven hours a week in a role where he is paid £9 per hour. He is offered the chance to undertake a two-year level 4 apprenticeship, which involves spending one seven-hour day a week at a local further education college, working a thirty-hour week in the remaining days.

His employer pays only for hours spent in the workplace and disregards the hours spent in college. In the first year of his apprenticeship, he receives £270 each week. This means his effective hourly rate is £7.30. His pay is compliant with minimum wage rules, as this is above the Apprentice Rate of £3.90.

In the second year of his apprenticeship, his hourly pay increases to £10 and he continues to work and study for the same number hours. His employer continues to pay for hours in the workplace only, and he receives £300 each week. This equates to an effective hourly rate of £8.11, less than the National Living Wage to which he is entitled. His pay is now non-compliant.

Figure 6.4: Comparison of pay distributions for calculated hourly pay versus stated hourly pay, GB, 2018



Source: LPC estimates using APS, GB, 2018.

6.14 As already noted, these high levels of non-compliance remain the major challenge around the Apprentice Rate, for several reasons. Most obviously, apprentices are not receiving the full amount which is owed to them. But it also indicates that some employers are taking advantage of the implicit discount in the Apprentice Rate while avoiding their side of the bargain, the concomitant requirement to pay for their apprentices' training hours. The degree of non-compliance undermines the key data on apprentice pay, since we mainly rely on the calculated hourly rates set out in APS, which reflect the reality of what apprentices are receiving – but not what they should be receiving. But more fundamentally, non-compliance makes it more difficult to understand the impact of the rate on employment. The evidence over recent years suggests that increases in the rate have not affected numbers of apprenticeship starts, but this may just reflect the fact that a proportion of employers are not paying their apprentices for all of the hours they should. This complicates setting future rates.

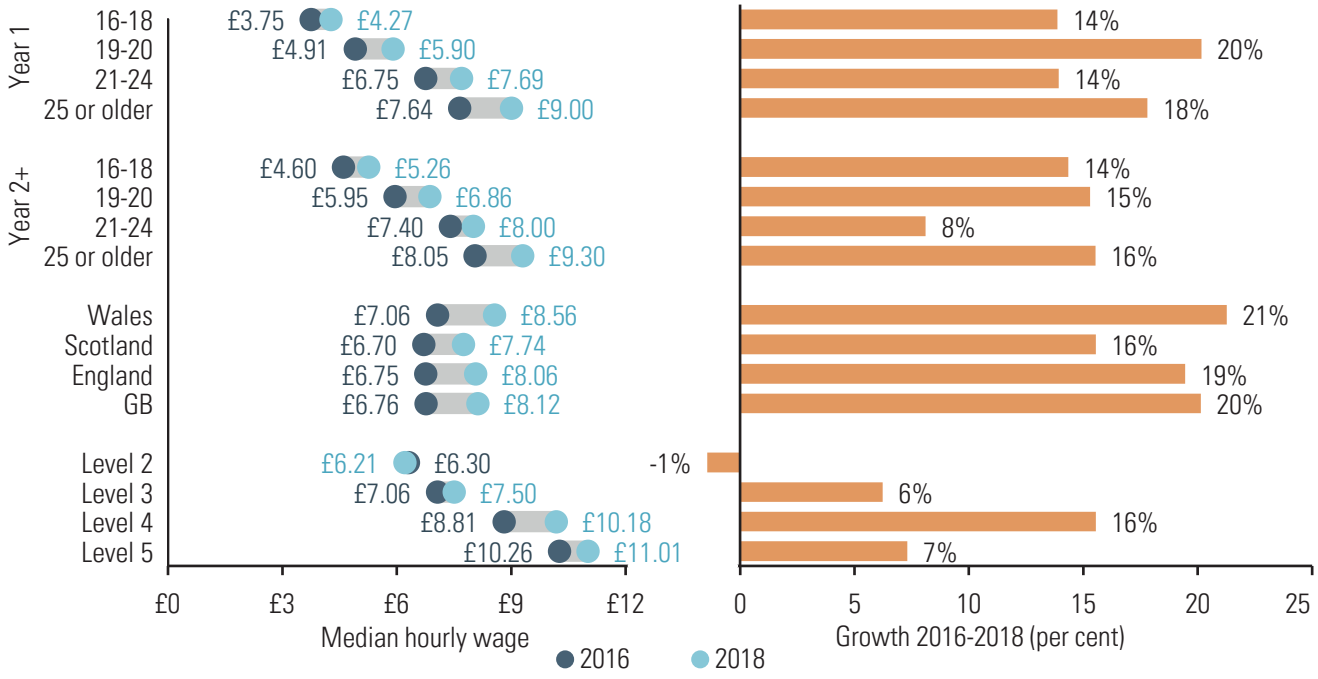
6.15 It is hard to say to what extent such behaviour is a product of knowing non-compliance as opposed to ignorance of the rules. DfE told us in their evidence that there are safeguards in place, in the form of apprentice agreements and online information, to ensure employers, apprentices and training providers are aware of both minimum wage rates and the requirement to pay for all hours of training. This reflects much of what we have heard from employers and training providers on visits. But the data nevertheless shows a high degree of non-compliance. Ultimately, the correct responses are likely to lie in promotion and enforcement of the rules, and this is an area we will come back to in our further review of the Apprentice Rate next year.

Trends in apprentice pay

6.16 We now move on to look at what APS and ASHE say about trends in average pay. Figure 6.5 summarises the APS data on median pay in the 2016 and 2018 surveys by nation, level, age band and time on course. The two surveys took place around two and a half years apart (fieldwork took place in June-July 2016 for the former and from November 2018 to March 2019 for the latter). Overall median pay growth was strong over this period, at 10.5 per cent. Pay growth was significantly weaker in England than Scotland or Wales over this period; pay at level 2 actually went backwards, while growth was modest at level 3 and stronger for higher levels. Broken down by age band and time on course, there was relatively strong growth over two years for most of the groups involved. The lowest median, for 16-18 year olds in the first year of their course, implies a bite of 87 per cent (against the then-current Apprentice Rate of £3.70). But, as noted in Figure 6.4 above, the medians recorded here reflect calculated rates of pay which are likely to include a large amount of underpayment, and so the bite is less useful as a measure of the pressure the Apprentice Rate creates for employers. Overall pay growth was similar to the levels found in ASHE over the same period, although tended to be flatter across the distribution.

6.17 Declining median pay at level 2 reflects a change in the composition of the apprentice population at that level, rather than falling levels of pay for apprentices. As we go on to show, between 2016 and 2018, the number of starts at level 2 fell significantly in England, with some apprenticeship frameworks falling particularly sharply. As a product of this upheaval, the composition of the 2018 APS sample includes more low-paying level 2 frameworks (hairdressing, construction, customer service) and fewer of the better-paying ones (retail, management, health and social care). In consequence, although pay in individual level 2 frameworks may have risen over the period in question, because of changes in the sample, the net effect was a fall at the median.

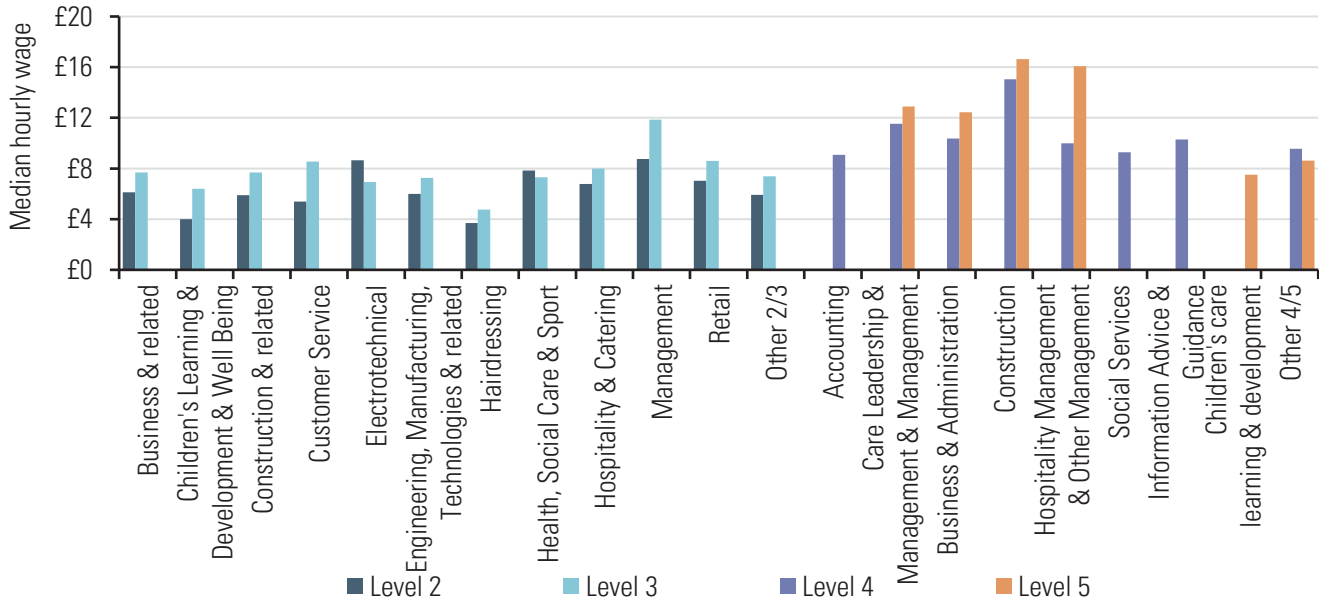
Figure 6.5: Median apprentice pay in 2018 and pay growth, 2016-2018, by age, nation and level, APS, GB, 2016-2018



Source: LPC estimates using APS, GB, 2016-18.

6.18 APS also allows us to look at how median pay varies by level and framework. Figure 6.6 shows this breakdown; the lowest-paying frameworks are hairdressing (with median hourly pay of just £3.70 at level 2 and £4.75 at level 3), childcare (£4.00 and £6.41), customer service (£5.40 and £8.55) and construction (£5.89 and £7.70). The median figures for 16-18 year old apprentices tend to be lower still; for childcare, construction and hairdressing, calculated median pay for these younger apprentices was level with or (in the latter case) less than the prevailing Apprentice Rate of £3.70. These low-paying frameworks are also those where apprentices are most likely to be underpaid.

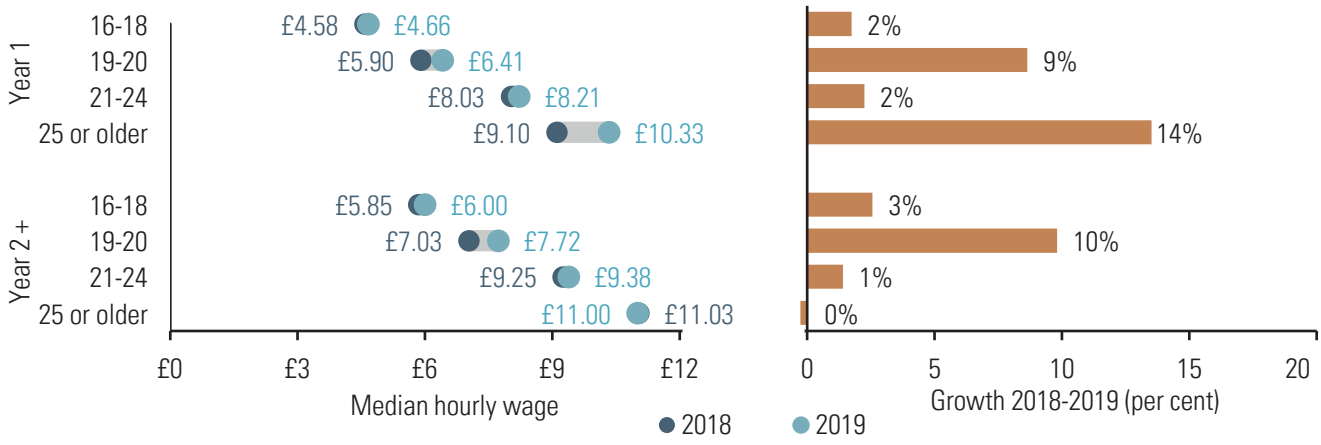
Figure 6.6: Median pay by framework and level, APS, GB, 2018



Source: LPC estimates using APS, GB, 2018.

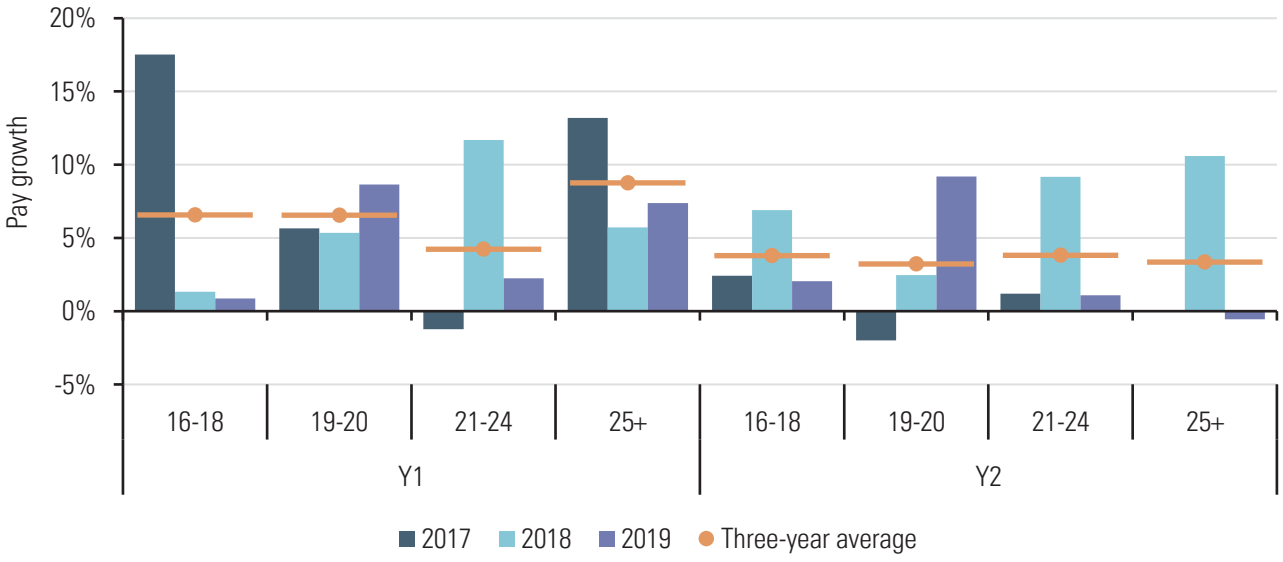
6.19 We now turn to look at pay growth in ASHE. Median pay levels for the different age groups in ASHE, set out in Figure 6.7, are uniformly higher than those in APS. In part, this may reflect the difference in timing between the two surveys, with APS preceding and ASHE following the 2019 uprating. But it is also likely to be a product of differences in their respective methodologies, with ASHE underestimating the numbers of apprentices in the total workforce and collecting pay information from employers, which may be more analogous to the higher 'stated pay' distributions in APS. Figures for pay growth in ASHE tend to vary between more age groups than those in APS and, as Figure 6.8 shows, often move considerably between years. They are more evenly spread between groups when averaged over the three-year period – for second-year apprentices, growth for all groups is between 3 and 4 per cent per year. But there are still disparities which are hard to account for – for example, pay growth for first-year apprentices aged over 25 being more than double that of their counterparts aged 21-24.

Figure 6.7: Median apprentice pay and pay growth by age band and time on course, ASHE, UK, 2018-2019



Source: LPC estimates using ASHE, standard weights, UK, 2018-19.

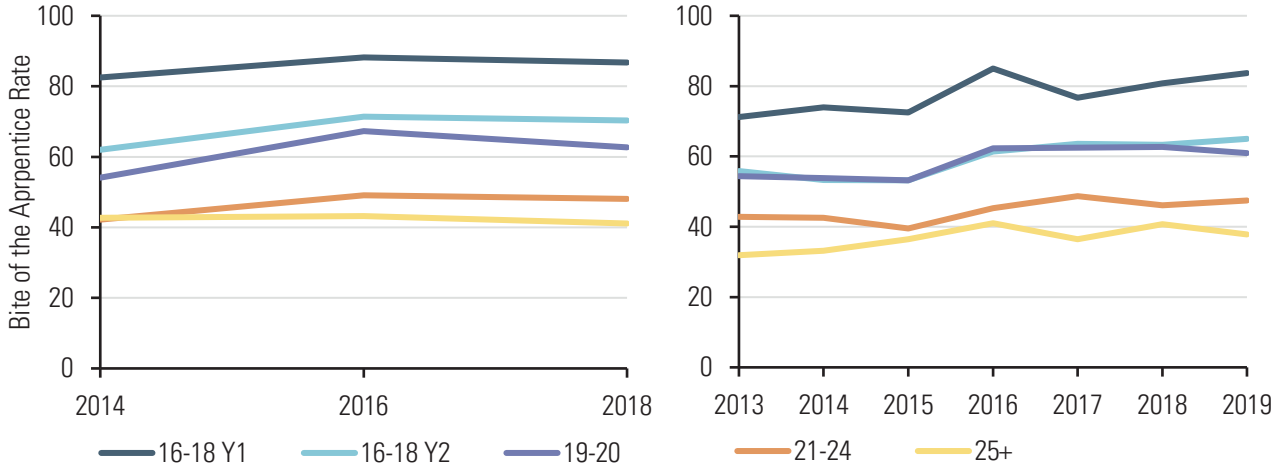
Figure 6.8: Pay growth by age band and time on course, ASHE, UK, 2017-2019



Source: LPC estimates using ASHE, UK, 2017-2019.

6.20 As Figure 6.9 shows, looking across comparable years, APS data tend to give us lower median pay and higher bites than equivalent data in ASHE. The bite of the rate in 2018 for 16-18 year olds in the first year of their course, for example, was 86.7 per cent in APS and 80.8 per cent in ASHE. This is the highest bite by some distance, and reflects the Apprentice Rate's importance for this group above all others. For second-year 16-18 year olds, and for 19-20 year olds, the bite is over 60 per cent in both surveys, and lower for older apprentices. The bite for all groups has been relatively flat in APS, however, across three surveys. In ASHE too, the bite has been flat for most groups, with the exception of 16-18 year olds, for whom it has risen again in the 2019 data to 83.7 per cent. The bite for this group is still short of its previous peak, however, of 85 per cent in 2016.

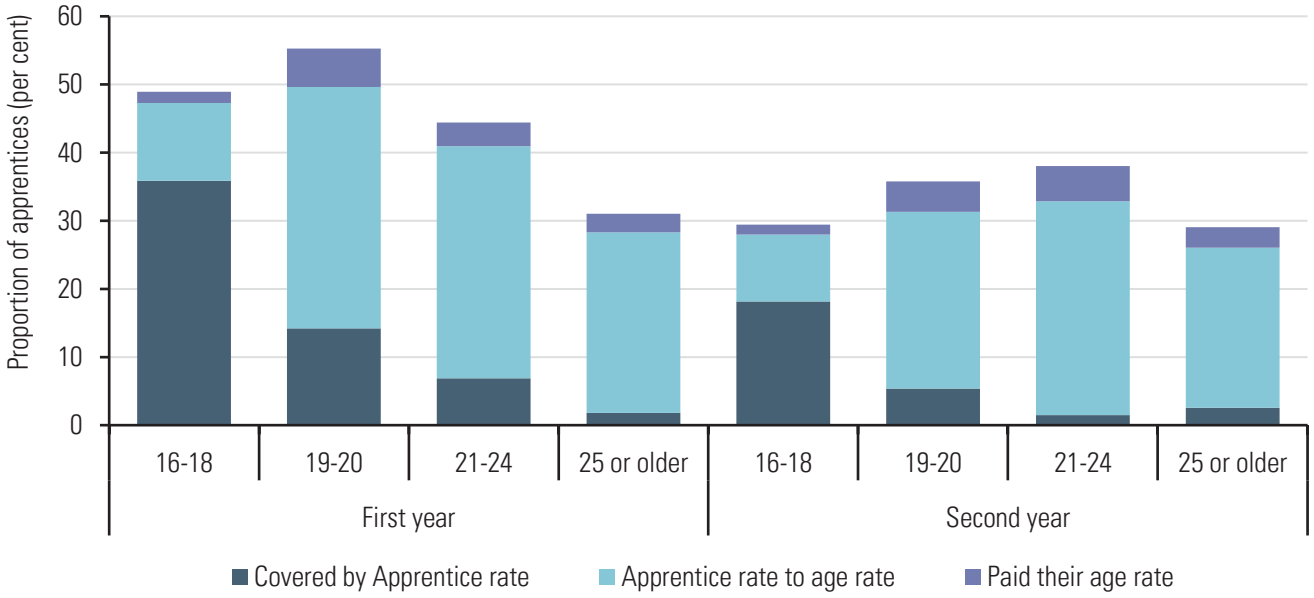
Figure 6.9: Bite of the Apprentice Rate by age band and time on course, APS (LHS), GB, 2014-2018 and ASHE (RHS), UK, 2013-2019



Source: LPC estimates using APS, GB, 2014-2018 (LHS). LPC estimates using ASHE, UK, 2013-2019 (RHS).

6.21 We now return to APS, to look in more detail at coverage and use of the Apprentice Rate. Figure 6.10 shows that coverage of the rate (including underpayment) is highest for 16-18 year olds, at 36 per cent for those in the first year of their apprenticeship and 18 per cent for those in the second year. Coverage falls steeply for older apprentices, such that only 2 per cent of those aged 25 or older (around half of all starters) are covered in their first year. However, although very few older apprentices are paid at the floor, employers still make use of the rate, by paying their apprentices below the age-appropriate NMW/NLW rate. Only 7 per cent of 21-24 year old apprentices are covered by the Apprentice Rate in their first year, but an additional 34 per cent are paid between the Apprentice Rate and the 21-24 Year Old Rate. Similarly, 26 per cent of those aged 25 and above are paid above the Apprentice Rate but below the NLW in their first year.

Figure 6.10: Distribution of apprentice pay by age band and time on course, APS, GB, 2018



Source: LPC estimates using APS, GB, 2018.

Apprenticeship starts and policy

6.22 We track the number of apprenticeship starts each year for two main reasons: to assess the impact of changes to the Apprentice Rate on the supply of apprenticeship places from employers; and to understand the contextual factors which could affect how upratings are received. This job has been complicated in recent years. The introduction of the Apprenticeship Levy in England in mid-2017, and the associated introduction of co-funding for smaller employers, fundamentally changed the way employers fund and approach apprenticeships. The reforms were preceded by a sharp spike in the number of starts and followed by a deep fall, subsequent depression and slow ongoing pick-up. More than two years on from those reforms, the effects of those changes are still arguably working their way through the system, and further reforms are on their way which will continue to alter the landscape.

6.23 In particular, the transition from apprenticeships based on frameworks to those based on standards will accelerate in the next year, as the remaining frameworks are 'switched off' in summer 2020. In the 2018/19 academic year, 63 per cent of all starts were on apprenticeship standards, suggesting steady progress in the move away from frameworks. However, frameworks still make up 52 per cent of starts at level 2, and among the smaller, non-levy paying employers, the figure is over 60 per cent. This suggests that even where equivalent apprenticeship standards have been developed and approved to replace the disappearing framework, there is still the potential for disruption.

6.24 Another policy change which may pose challenges for employers and training providers is the move for non-levy paying employers to transition to the same digital Apprenticeship Service currently used by levy-payers. Although there are advantages to moving to this service, the experience of levy-paying employers shows the risks in asking providers to adapt to unfamiliar systems. These ongoing changes are likely to continue to influence the supply of apprenticeships in England. Two-thirds of starts for under-19s came via non-levy funded employers, rising to 71 per cent for level 2, indicating this additional change is likely to affect the groups most likely to be paid the Apprentice Rate.

Apprenticeship starts

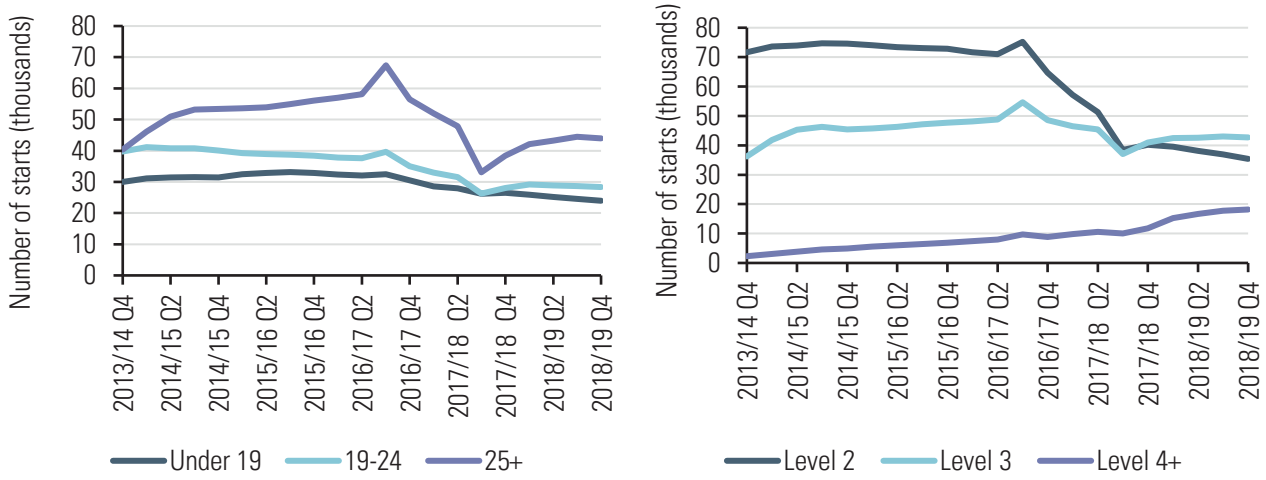
6.25 We now look at apprenticeship starts for each of the home nations, starting with England. Table 6.1 breaks down the number of starts, and year-on-year changes by group, in the most recent twelve months for which data is available. Overall, the system is producing around 25 per cent fewer apprenticeship places than it was before the introduction of the levy, and most of this decline has been concentrated at level 2, which has moved from making up the majority of the programme pre-2017 to less than 40 per cent now. Starts at level 4 and above have continued to be the area of fastest growth. The impact by age group has been less pronounced, and the overall composition remained relatively steady; but starts among apprentices aged under 19 have continued to decline. Figure 6.11 illustrates these trends over a slightly longer timeframe.

Table 6.1: Summary of apprenticeship starts in England, 2016/17-2018/19

	Academic year			Change	
	2016/17	2017/18	2018/19	Over 12 months	Over 24 months
				per cent	per cent
Level 2	258,600	160,900	141,600	-12	-45
Level 3	194,400	164,000	170,600	+4	-12
Level 4+	35,200	46,900	72,700	+55	+107
Under 19	122,000	106,000	95,800	-10	-21
19-24	140,300	112,200	113,300	+1	-19
25+	225,900	153,600	176,000	+15	-22
Total	488,200	371,800	385,100	+4	-21

Source: LPC estimates using statistics from Department for Education, Apprenticeship and levy statistics, moving four-quarter average.
Notes:
a. Data is produced in academic years (August to July).
b. Figures for Q4 2018/19 are based on provisional data released in October 2019 and may be adjusted once final data is released.

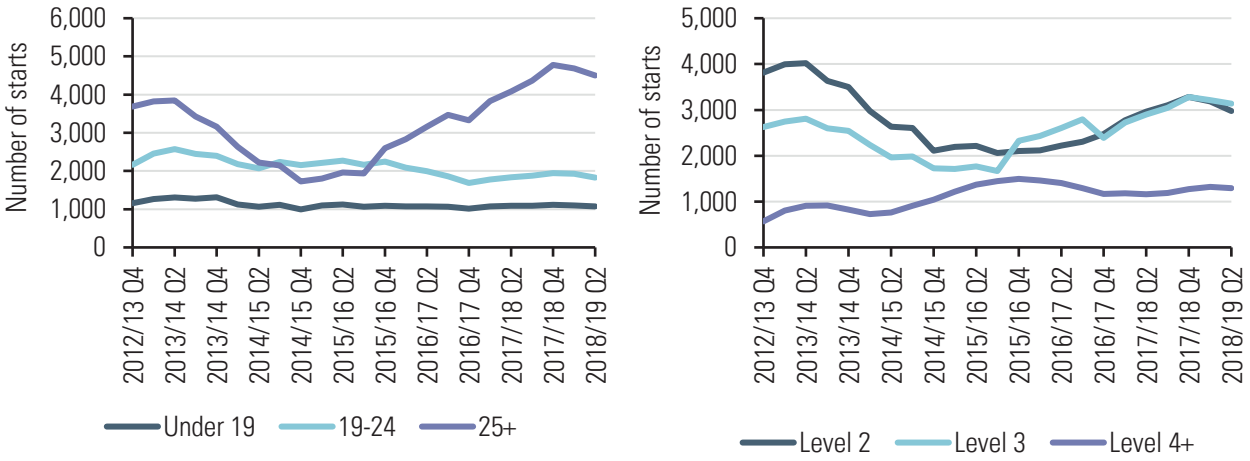
Figure 6.11: Apprenticeship starts in England by age and level, 2013/14 Q4-2018/19 Q4



Source: LPC estimates using statistics from Department for Education, Apprenticeship and levy statistics, moving four-quarter average, 2013-2019.
Notes:
a. Data is produced in academic years (August to July).
b. Figures for Q4 2018/19 are based on provisional data released in October 2019 and may be adjusted once final data is released.

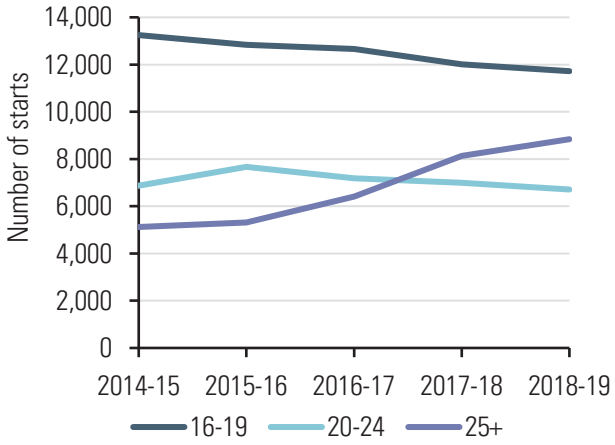
6.26 In Wales, Scotland and Northern Ireland (Figure 6.12, Figure 6.13 and Figure 6.14 respectively) there has been greater stability in the numbers of starts, which gives some reassurance that volatility in England has been a product of policy reform rather than changes to the Apprentice Rate. In Scotland, the total number of starts in the year to April 2019 increased slightly, from 27,145 to 27,270, while the share of apprentices aged 25 and over continued to increase. Because of changes in the reporting on qualification levels, comparable year-on-year data were not available, but the Scottish Government reported that 72 per cent of starts were at SCQF level 6 and above, equivalent to the English level 3. In Wales, the number of starts continued to increase following a dip in 2014/15. The first two quarters of the 2018/19 academic year represented a slight dip on the previous year's figures, but this predated the 2019 Apprentice Rate uprating. The most recent picture in Northern Ireland was also one of relative stability and modest growth, although it should be noted that the available data only extends to October 2018.

Figure 6.12: Apprenticeship starts in Wales by age and level, 2012/13 Q4-2018/19 Q2



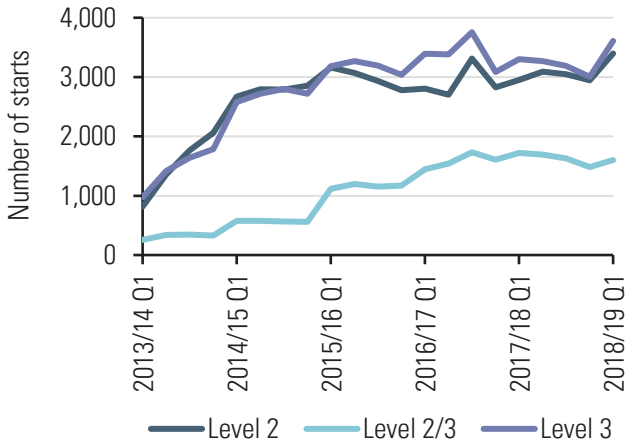
Source: LPC estimates using statistics from The Welsh Government (StatsWales), moving four-quarter average, 2012-2019.
Note: Data is produced in academic years (August to July).

Figure 6.13: Apprenticeship starts in Scotland, 2014/15-2018/19



Source: LPC estimates using statistics from Skills Development Scotland, 2014-19.
Note: Data is produced in financial years.

Figure 6.14: Apprenticeship starts in Northern Ireland, 2013/14 Q1-2018/19 Q1



Source: LPC estimates using statistics from the Department for the Economy, Northern Ireland Executive, 2013-19.
Note: Data is produced in academic years (August to July).

Conclusions

6.27 Although the apprenticeship programme and numbers of starts are more stable than in recent years, it remains challenging to unpick the effects of the Apprentice Rate. Our preferred data source, APS, shows strong levels of pay growth, both overall and for the majority of individual frameworks, and stakeholders in most (but not all) sectors tell us the rate is not a primary factor in decisions over recruiting apprentices.

6.28 It is clear that the rate is still the main driver for the pay of 16-18 year old apprentices, for whom the bite of the rate has been over 80 per cent for several years. Apprenticeship starts among this group have continued to gradually decline, and although APS shows their pay growth as relatively healthy, it has been weak in ASHE data for two years in a row.

6.29 For older apprentices – particularly those aged 21 and over – coverage of the Apprentice Rate is significantly lower. But employers continue to take advantage of the lower pay floor in the first year of the apprenticeship to set wages under the age-related NMW rates.

6.30 Large numbers of apprentices continue to be underpaid, and we believe this to be a consequence of employers not following the rules on the payment of apprentices' training hours. Until this rule is more widely understood, enforced and followed, the purpose of the Apprentice Rate and efforts to push up apprentices' pay will be undermined.

Chapter 7

Other impacts on employers and workers

7.1 As discussed in Chapter 4, while some employers may have reduced employment and hours in response to National Living Wage (NLW) increases, in aggregate there do not appear to have been any substantial falls in employment or hours worked. Employers tell us that they adjust to increases in the minimum wage through a variety of measures. Those most commonly mentioned are: accepting lower profits; increasing prices; making cuts to non-wage labour costs; restructuring their workforce and pay structures; increasing output through improved productivity and work intensification; and through reducing use of labour, either by reducing hours or hiring. Although some firms have removed non-wage benefits, as explored in Chapter 4, these changes do not seem large or uniform across the employers affected by the minimum wage.

7.2 In this chapter we therefore look at how employers have responded to the rising minimum wage through changes to prices, profits, productivity and investment. We also look at how business demography – the births and deaths of businesses – has changed since the NLW's introduction. In employer surveys, profit reductions or price increases have consistently been among the most common responses to the NLW, although it is difficult to establish the magnitude of any changes. Evidence from stakeholders on productivity responses is less clear, though there were signs that approaches differ between small and large firms. Many of these changes, particularly around productivity and automation, also affect workers. We report here on the ways that workers told us their jobs had been changed by their employers' responses to the NLW.

7.3 It is important not to consider the minimum wage in isolation. Businesses consistently tell us that the NLW is one of a range of rising costs that influence decisions. Broader policy issues also affect employers in different sectors, most notably those that rely on public funding like adult social care and childcare. Equally, we continue to hear about policy changes affecting workers, such as the rollout of Universal Credit (UC), as well as problems with insecure work and one-sided flexibility. Some issues, while not directly related to the minimum wage, are relevant to both workers and employers; for example, the availability and cost of transport, which affects workers' options and employers' access to labour.

Research findings

7.4 This year we commissioned two qualitative research projects to investigate employers' responses to the NLW. Riley et al. (2019) undertook analysis of the Chartered Institute of Personnel and Development's (CIPD) Labour Market Outlook (LMO) surveys conducted in 2015, 2018 and 2019, which asked employers' views on the NLW. They also conducted ten case-study interviews with low-paying employers. The researchers find that the most common responses to the NLW have been taking lower profits, raising productivity and raising prices. When looking at responses by industry, they note that employers' responses in the wholesale and retail sectors appear to have focused more on headcount, overtime and bonuses, whereas those in hotels, catering and leisure seem to have focused more on price rises. The researchers also report that the data suggests that many employers have responded to the NLW by intensifying work or reorganising hours, rather than other ways of increasing productivity. They are matching the survey data to company accounts data and will use this to examine the effect on the employers' productivity, capital intensity and profitability. We aim to publish this alongside our report next year.

7.5 Adascalitei, Crockett, Heyes, Newsome and Yates (2019) undertook research into the impact of the NLW on retail and hospitality businesses in the Sheffield City Region and Greater Manchester. They surveyed 55 establishments and interviewed 41 owners/managers. The research found that the increase in the NLW in April 2019 led to an increase in pay, with 70 per cent of businesses saying this had negatively affected their profits (25 per cent said the effect was large, 45 per cent said it was small). The survey suggested the NLW had had little effect on pay structures, with the most common response in this space being the narrowing or removal of wage differentials. There was some evidence of substitution of older workers by younger workers, to exploit lower minimum wages for young people. Half of the firms in the survey said the NLW had led them to increase prices, but others emphasised that their ability to raise prices was constrained by market pressures. A quarter of respondents increased the pace of work, and a fifth introduced new technologies.

Prices

7.6 One way for employers to mitigate the cost of the NLW is to pass some or all of it on to consumers through increased prices. Employer surveys have consistently found this to be a common response, but some employers tell us they do not have the power to pass on increases to their customers. The two most common reasons given are that firms are 'price-takers', whose customers have a high level of market power (this includes firms selling to the Government or to large supermarkets); or that there is a high level of competition in their industry.

7.7 In this year's consultation we heard more reports of employers using price rises to offset the cost of the NLW compared with previous years. This included sectors where stakeholders had previously told us that competitive markets prevented businesses raising prices. Raising prices was the most common planned response in business surveys from both the British Chamber of Commerce (BCC) and the Confederation of British Industry (CBI). In the latter's survey, the proportion of respondents affected by the NLW who planned to raise prices grew from 21 per cent in 2017 to 33 per cent in 2018.

7.8 The British Retail Consortium (BRC) thought that 'Raising prices [was] becoming (slightly) more likely as a future response' for retailers. The Association of Convenience Stores (ACS) detected an increase in their members raising prices. 43 per cent of respondents had done so in the survey by the National Hairdressers Federation (NHF), despite the body having previously told us that hair and beauty customers were particularly price sensitive. In hospitality, UK Hospitality thought many members had been able to raise prices, but the British Beer and Pub Association (BBPA) said that prices had not kept pace with rising costs.

7.9 A survey by the Federation of Small Businesses (FSB) found a higher proportion of respondents reporting price responses than other organisations' surveys, perhaps reflecting the limits small and medium-sized employers may face in their adaptation strategies; they may lack the economies of scale to make meaningful changes to workforce or pay structures, and may not have the funds to invest in productivity improvements. The differences in productivity responses between small and large businesses are discussed below, although it should be noted that price rises were also the most common planned response from CBI members, who tend to be larger employers. This may indicate, as we have heard from some retailers, that firms have delayed price increases for as long as possible but are no longer able to do so.

7.10 While the BRC thought price rises could become more common in the future, individual retailers still told us that this was a difficult action to take. Some retailers argued that their response to the NLW took the form of maintaining prices, where in other circumstances they would have cut them. The Federation of Wholesale Distributors (FWD) thought its members had struggled to raise prices.

7.11 Among those we describe as 'price-takers', adult social care and childcare employers have been most vocal about their lack of ability to raise prices. This is because many are heavily reliant on government funding, which in many areas has not risen in line with employers' statutory costs. Where possible, some adult social care providers have increased their share of private clients and raised rates for these places to 'cross-subsidise' losses on local authority funded places. Some childcare providers have increased fees for paid hours of childcare or introduces charges for certain added services, though others including the EYA told us they were opposed to the latter approach. The wider policy issues in these sectors are examined in paragraphs 7.45 to 7.50.

7.12 It is difficult to assess the impact of the NLW on prices from the raw data. Inflation is affected by a range of factors of which the minimum wage is only one. However, we see some evidence of a 'spike' in inflation around the introduction of the NLW in prices in goods and services where minimum wage labour is a larger determinant of output. At this point, prices of these goods and services were growing faster than prices in the economy more generally. However, we have not seen equivalent evidence of such 'spikes' for subsequent upratings. This could be because the minimum wage has not led to further price increases in these areas, but it may be due to businesses spreading price increases throughout the year. It may also be the case that minimum wage-led price rises simply cannot be clearly identified among all the changes that appear in the inflation data. We have commissioned a research project to examine the effect of the NLW on prices which will be published next year.

7.13 If firms are unable to pass on increased NLW costs to their customers via price increases, then they will either need to increase output through higher productivity, reduce other costs – perhaps through scaling back of investment – or accept lower profits. In the next section we look at the NLW's impact on profits and business demography.

Profits and employer demography

7.14 One of the key economic rationales for a minimum wage is to stop employers exploiting monopsonistic labour market power. Employers can exploit labour market frictions – such as lack of information and the costs of changing jobs – to gain labour market power and then exploit this to pay their workforce less. Employers could therefore make excess profits by paying their workers less than their contribution to the output of the firm. Consequently, lower profits could be viewed as an accepted trade-off from the NLW.

7.15 Employers have told us that the most common effect of the NLW, apart from increasing pay bills, has been to reduce profits. In most survey evidence we received from stakeholders, the most common response to the NLW was to absorb some or all of the cost through reduced profits though in many cases this will not be the only change they have made.

7.16 It is not possible to discern the size of effects on profits from either surveys or anecdotal evidence. For many, reduced profits will be part of a varied strategy of adaptation to the NLW. Unions argued that the NLW's effects on profits are insignificant. The Trades Union Congress (TUC) argued that profits have remained healthy, stating that 'UK based private sector non-financial companies enjoyed a near record net return of 12.2 per cent last year, compared with 10.7 per cent a decade earlier.' It also noted the growth in dividends, which has exceeded growth in wages since 2009. In retail, Usdaw described profitability and expansion plans in a range of retailers – despite concerns for employment in the sector, it refuted the idea that store closures have been linked to the NLW.

Case study: Profits and prices in a small retail business

A clothing retailer with three shops in South Wales, employing eight people, told us that the NLW had affected the business's profits.

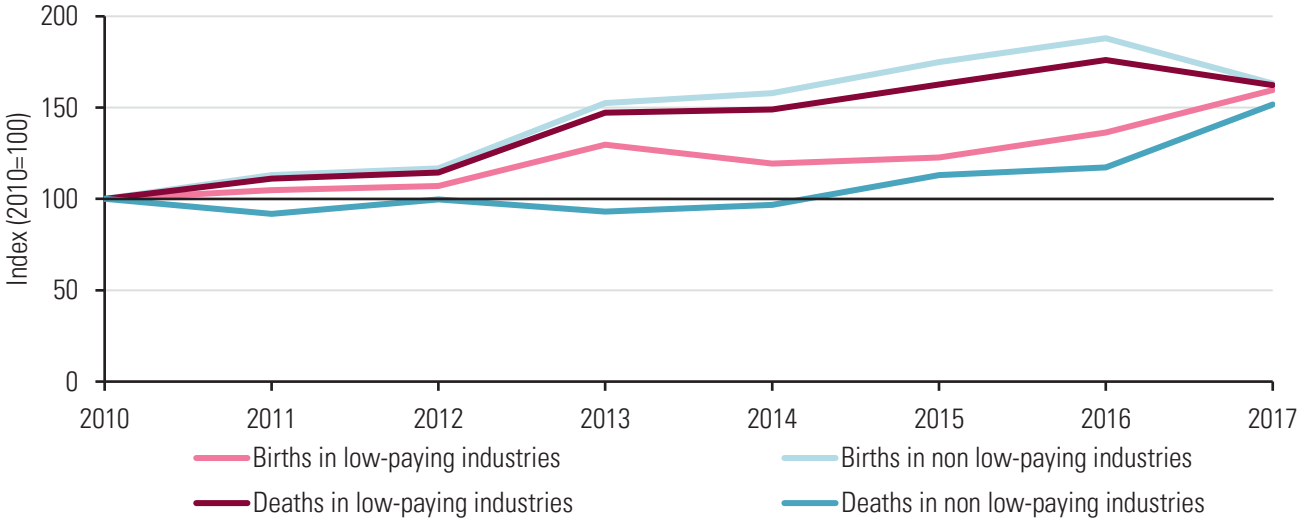
Even with a small number of part-time staff, the 2019 NLW increase was set to cost £7,000 over the year, and that it would be difficult to recoup much of this. Price rises on most products were difficult, as there was a perception that shoppers were focused on specific price points, though the margin on some items had been raised. It had been possible to absorb the cost of the NLW so far, but future increases could lead to staff not being replaced when they leave and the owners instead working more hours themselves. The business lacked ways to increase productivity, we heard, and the NLW has not led to increased worker effort.

7.17 We lack good profit data at a level that would enable us to monitor the effects of NLW increases on the profits of those firms most affected. Instead we can construct a proxy for profits by using approximate gross value at basic prices minus total employment costs from the Annual Business Survey (Office for National Statistics, 2019b). The data suggest that profits in hospitality increased slightly between 2015 and 2017 (the most recent year in the data set) but decreased in retail and food processing in the period. Profits in the economy as a whole were up on this measure.

7.18 If the NLW reduces profits, this could result in increases in the number of firms where profits are not high enough for them to continue operating. Lower profits could also lead to lower rates of entry of new firms into the market, if entrepreneurs decide that the lower rewards from a less profitable business are no longer worth the risks. We have therefore studied the rate at which businesses are created and cease trading.

7.19 Figure 7.1 shows how the numbers of business births and deaths have changed across sectors in the period 2010-2017. Both births and deaths in low-paying industries grew in 2016, the first year directly affected by the NLW; on the other hand, in 2017 deaths fell back to the level in 2015, while births continued to increase. On this measure, there does not seem to have been a large effect from the NLW on births and deaths. This approach does not, however, allow us to directly isolate the effect of the NLW on business creation, as other issues may have had a larger effect on firm births and deaths. The currently available data only covers up to 2017 so will not include the effects of the more recent closures in retail organisations and the effect of the 'casual dining crunch'. It is also worth noting that the data are not weighted by size, so closures of large businesses, which will have a significantly bigger effect on employment levels than smaller employers, will not affect the index any more than those of micro-firms.

Figure 7.1: Business births and deaths by industry, UK, 2010-2017



Source: LPC analysis using ONS data on business demography (2018b), UK, 2010-2017.

7.20 When we look at an individual industry level, we can see than business deaths in social care have increased significantly in the two years following the introduction of the NLW, but that deaths in other low-paying industries have been reasonably flat over the period. Similarly births in social care have fallen in the last year while they have increased in other low-paying industries.

7.21 We have heard about business failures – not necessarily related to the NLW – in some sectors including social care, childcare, agriculture and hospitality. Employer representatives have told us that consolidation can occur in these cases as larger businesses take up the demand left by those that fail. This may be a route to higher aggregate productivity, but at the expense of variety in these markets. For example, hospitality employers in Glasgow and Cardiff told us that the polarisation of the sector between high-end and budget offerings has continued, with few middle-market options now remaining. Reallocation of workers in this way to larger, higher productivity firms would be consistent with research on the introduction of the minimum wage in Germany, as described in paragraph 4.86.

Productivity and Investment

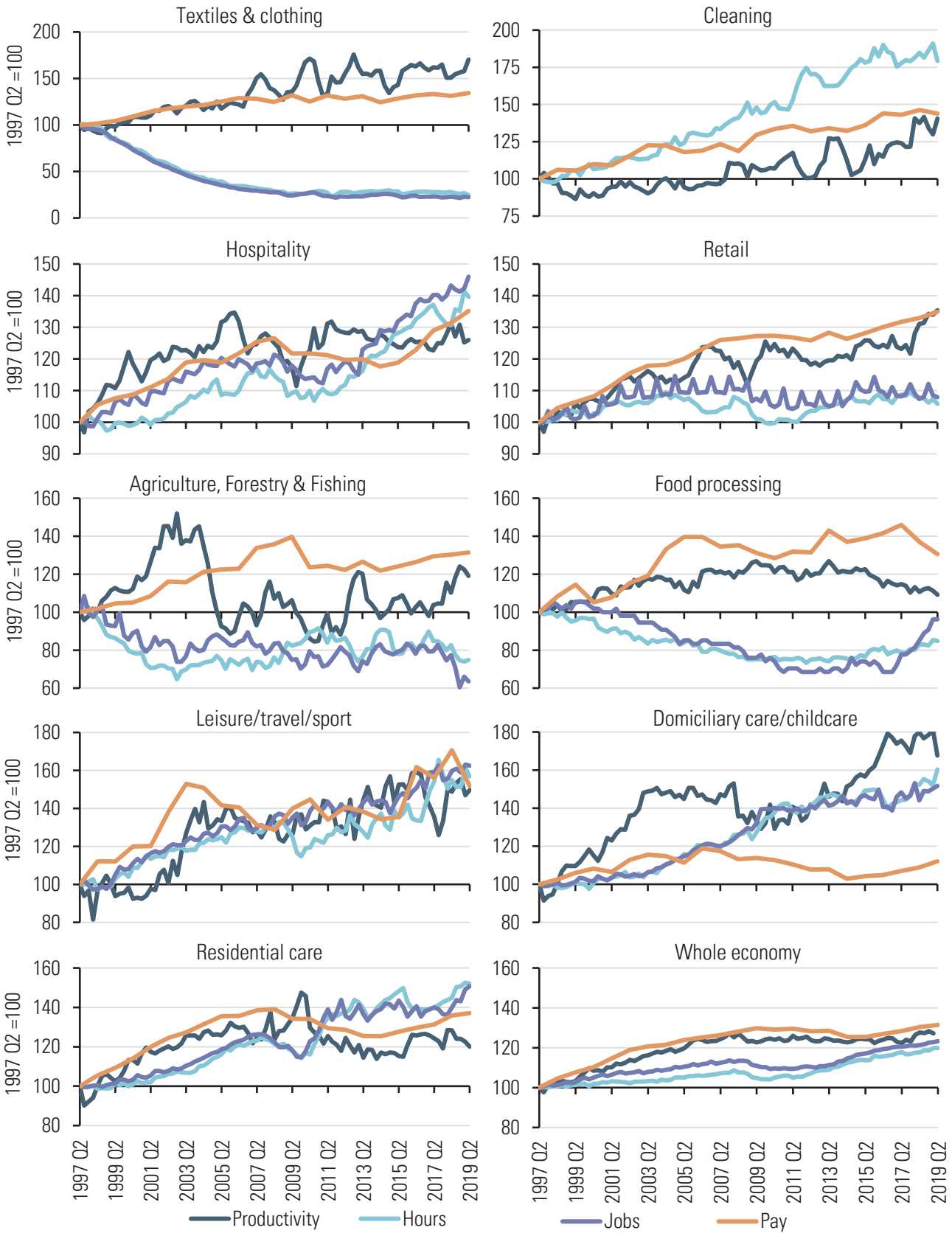
7.22 The level of labour productivity in an economy is a vital determinant of wage levels in the long-run. If workers are more productive then employers will not only be able to afford to pay more, but will be forced to do so in a competitive labour market, as otherwise competing employers will offer higher wages to these more valuable workers. Employers will be able to afford the higher NLW if the productivity of the lowest-paid workers grows at least as quickly as their wage costs, such that these workers' higher output offsets the impact of higher pay.

7.23 The relationship between productivity and wages is not clear-cut and could potentially flow both ways. The standard economic theory is that increases in productivity from higher skills or better technology lead to increases in wages, as firms have to pay workers more or they will move to a firm that will reward their higher productivity. However, there are also theories that argue that higher wages can lead to faster productivity growth. The theory of wage-led growth and its impact on productivity has been explored in the economic literature (for example in Lavoie and Stockhammer, 2013, and Stockhammer and Onaran, 2012). It argues that higher wages change the risk-reward balance for employers in investing in productivity improvements to offset higher costs, and higher wage growth can therefore lead to higher productivity growth. Efficiency wage theory states that higher pay can induce more effort from workers, resulting in higher levels of output.

7.24 We do not have the data to examine the productivity growth of minimum wage workers, but can instead look at productivity growth in industries that have a high prevalence of minimum wage workers. Figure 7.2 shows how average pay per hour, employment and output per hour have changed since 1997 in nine low-paying industries: agriculture, forestry and fishing; cleaning; domiciliary care/childcare; food processing; hospitality; leisure/travel/sport; residential care; retail; and textiles and clothing; and across the economy in total. It should be noted that output per hour worked is not purely a measure of labour productivity (the additional output from each extra hour of labour) – it includes contributions from capital and total factor productivity.

7.25 There are three types of outcomes in productivity and pay across the nine industries. The first type is the three industries, cleaning, leisure/travel/sport and retail, where productivity and wages grew by similar amounts, which suggests that wages are about as affordable as they were in 1997. The second type comprises two other industries, domiciliary care/childcare and textiles and clothing, where productivity growth outpaced wage growth, which indicates that higher wages may be more affordable now than before the NMW was introduced. However, it should be noted that measuring productivity in public services like childcare or social care is very difficult, and so these figures should be taken with caution. The final type contains the industries where wage growth outpaced productivity growth, suggesting that wages may have become less affordable. This third group contains the remaining industries: agriculture, forestry and fishing; food processing; hospitality; and residential care. Overall output per hour grew by slightly less than 30 per cent over the period, which was faster than all low-paying industries, with the exceptions of retail, hospitality and textile manufacturing.

Figure 7.2: Real pay, productivity, hours and jobs, by industry, UK, 1997-2019



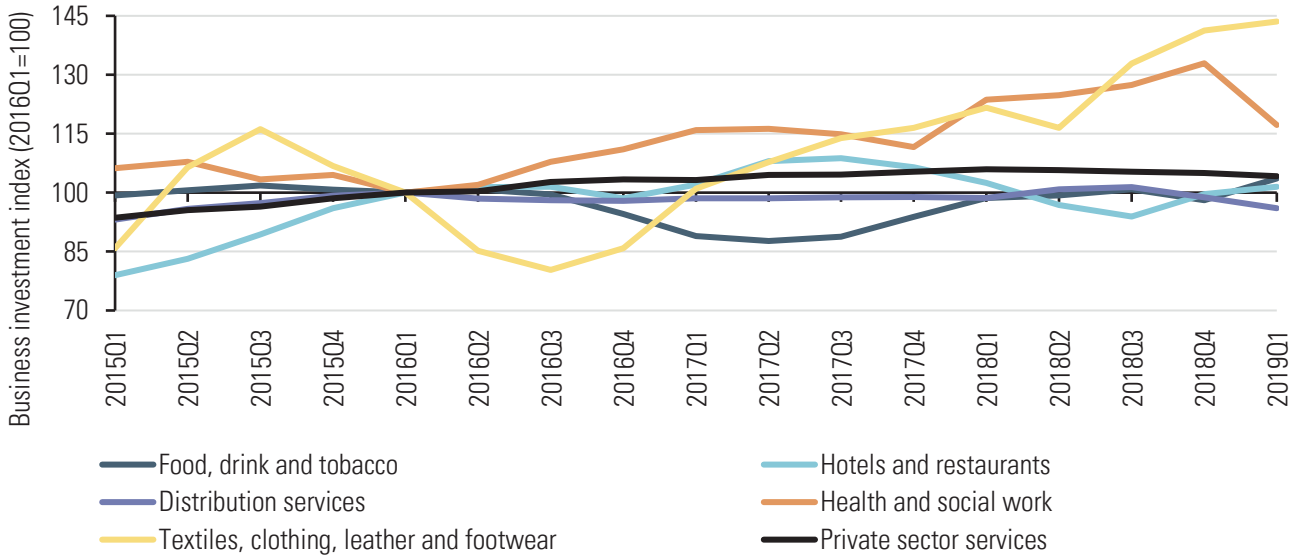
Source: Source: LPC analysis using ONS figures on productivity (current prices) and hours (2019h), jobs (2019e), pay (2018a) and GDP deflators (2019f)., 1997=2019.

Note: Productivity and hours figures are seasonally adjusted, job figures are not. Pay data is on an annual basis.

7.26 There are two possible ways that the NLW could influence employers' investment decisions, the higher wage costs from the NLW could induce employers to aim to cut other spending – including investment – in other areas, or it could induce employers to invest in labour replacing technology to cut their wage bills. Firms' response could be influenced by the availability of capital to invest, the applicability of technology to replace low-paid workers and the size of the firm, with larger firms having more ability to identify opportunities for investment, as well as having more access to capital.

7.27 As we did with productivity, we can examine the way that investment by businesses in industries that are more exposed to the NLW has changed over the recent period. This uses slightly different industry definitions. Figure 7.3 shows how investment has changed since 2015. The data suggest that over the period investment in the manufacturing of textiles, clothing, leather and footwear and health and social work services have grown quickly. However, investment in hotels and restaurant services, distributional services and food, drink and tobacco manufacturing has been behind the growth in total private sector services investment, which suggest that the NLW may have depressed investment in that sector.

Figure 7.3: Business investment, by industry, UK, 2015-2019



Source: LPC analysis using ONS data (2019c)[3] chained volume measures, food, drink and tobacco (DS4T), hotels and restaurants (DS86), distribution services (DS7K), health and social work (DSA3), textiles, clothing, leather and footwear (DS4X), four quarter average, seasonally adjusted, UK, Q2 2014-Q1 2019.

7.28 Employers often tell us about the importance of raising productivity to make minimum wage increases sustainable, and although stakeholder evidence sheds some light on how employers have sought to do this, in many cases this has not moved beyond a general desire, with few specific examples. There is some evidence that employers misunderstand productivity; the CIPD's survey asked respondents two sets of questions, one on productivity and one on specific changes they had made in the past year. This revealed that although businesses had introduced changes to work processes, they had not necessarily recognised them as specifically connected to productivity. This may be why the most common way we hear about businesses increasing productivity remains work intensification.

[3] The data has been subsequently updated but an error has been discovered in the calculation of the estimates, and we have therefore decided to use data from the previous release

7.29 Employer surveys show a clear divide between small and large firms in how they have responded to the NLW through investment and productivity improvements. Overall, 24 per cent of affected firms in the CIPD's 2019 survey had raised productivity since 2016, around the same as last year. When looking at SMEs, however, this fell to 19 per cent, compared with 29 per cent for large employers. In the FSB's survey, only 12 per cent of respondents reported raising productivity in the last year.

7.30 Some of this can be explained by divergences in investment between small and large employers. Twice as many (13 per cent) SMEs had cancelled or scaled down investment in response to the NLW according to the CIPD. 29 per cent of affected firms in the FSB's survey had done so, with just 5 per cent having invested more in machinery, equipment or technology. In the BCC's survey, as many (12 per cent) affected respondents planned to scale back investment plans as increase investment in automation (13 per cent). The ACS reported that investment in the convenience sector, which is mainly made up of SMEs, has fallen over the last 18 months, though a challenging trading environment and uncertainty were major factors in this.

7.31 As discussed in Chapter 4, small businesses appear more likely to have responded to the NLW by accepting reduced profits or increasing prices. Small business groups tell us that SMEs often lack the funds, economies of scale or knowledge to make more systematic changes. The BCC argued that employers lack money to invest in productivity improvements because of the cumulative impact of up-front costs; and that a lot of businesses do not know what tools, services and funds are available. The CIPD agreed that there is a lack of support available to businesses to improve management practices and technology.

7.32 Looking at specific ways employers have raised productivity, the CIPD once again sounded a note of warning that some have focused on increasing worker effort (23 per cent of private sector firms affected by the NLW and 30 per cent in the public sector). Respondents also reported giving staff extra tasks (25 per cent), requiring more flexibility on hours (23 per cent), tightening restrictions on absenteeism (9 per cent) and increasing the pace of work or raising performance standards (14 per cent). More encouragingly, it told us that that 21 per cent have sought to build on the morale boost of higher pay by trying to improve motivation and 18 per cent have improved business practices. Even so, it concluded that 'the survey responses suggest that some efforts to raise productivity may be restricting improvements and could even be counter-productive'.

7.33 UKHospitality wrote that there had been greater focus on productivity in the sector but accepted that for some of its members this was partly about expecting greater worker effort or flexibility. Redesign of job roles was also common in a range of sectors, sometimes involving staff taking on tasks previously carried out by management. From employers we met, it was not clear that such changes were always reflected in increased pay. Indeed, we heard from workers that changes to job roles and the attendant intensification of work can adversely affect workers. Some thought it risked compromising quality of service – for example in social care – or even worker safety.

Case study: work intensification

An Usdaw member who works in a supermarket petrol station told us that her employer has recently increased the demands on workers.

She told us there had been an increase in lone working, often in excess of the four hours per day stipulated by the company's guidelines. Working alone has meant being expected to perform extra tasks, which is not always possible at busy times when workers are expected to man the tills and assist customers. This has led to criticism from managers.

We also heard that lone working can put workers in potentially dangerous situations, especially during night shifts when workers have to leave the till and are alone with customers. She had raised this with managers, saying that it has affected her mental health, but no adjustments have been made.

7.34 As discussed above, larger employers were much more likely to have invested in automation. In the CBI's survey, it was one of the most popular responses, with 31 per cent of affected firms having done so and more planning to. The CBI told us that manufacturers were especially interested in investing in automation. In retail, too, the BRC told us that the NLW has contributed to a shift to automation and more use of technology in some parts of the industry, especially larger retailers. The proportion of respondents to its survey who had invested in technology in past year had fallen, but the BRC expected automation to continue.

7.35 Not all retailers felt able to benefit from changes in job roles and investment in automation. The ACS has repeatedly told us that convenience stores, especially independents, cannot access economies of scale that larger firms can, with smaller stores leaving fewer avenues for investment and long opening hours required. There were, however, exceptions, where convenience retailers had invested in increasing productivity through diversifying services and upgrading facilities.

7.36 The CBI told us that it had some concerns about the potential effect of automation on employment. They also argued that it would be undesirable if the NLW caused employers to rush into automating without consulting staff. The Scottish Women's Convention told us that the growing risk of automation leaves many women at risk of job loss and underemployment. There are feelings of anxiety and fear around the threat of this type of work. Investing in skills and development for women in order to combat the negative effects of ongoing automation must be considered when looking at NLW upratings, it thought. In research for the LPC, Lordan (2018) found that increases in the minimum wage led to small decreases in the employment and hours of workers in automatable jobs. These effects were largest in manufacturing. Lordan noted that in the past jobs lost to automation have been more than replaced by new jobs but stressed the need to be prepared for future effects.

7.37 Another possible difference between small and large employers is propensity to invest in training. In the CBI's 2018 NLW survey, this was the most popular response from affected respondents, suggesting that larger employers are looking to upskill staff. Indeed, this is consistent with what we hear from large retailers. On the other hand, the largest notable change in the FSB's surveys since 2016 is the increase – from 4 per cent of those affected by the NLW in 2016 to 15 per cent in 2019 – in respondents saying that they have 'cut back on training expenditure'. It is worth noting, however, that 'invested more in training' was not an option in the FSB's survey and so the numbers taking the inverse approach are not recorded. There was a small rise in the number of BCC members planning to cut back on training, although from a low base: almost one in ten (9 per cent) respondents said they would reduce staff training budgets as a response to increases in the NLW.

Related policies and issues

7.38 Businesses have always stressed that the NLW is not the only factor in their decisions on investment, employment, pay and prices, and not the only cost pressure employers have to contend with. Many who had made changes told us it was the cumulative cost burden – described by more than one employer representative as a 'cauldron of costs' – that spurred the decision. The CIPD acknowledged this, and the Institute of Directors thought that the total burden of regulatory costs, rather than just the NLW, was an issue for some of its members. There were also ongoing issues for childcare and adult social care providers, with both sectors describing a funding 'crisis'.

Business costs

7.39 Employers cited costs including business rates, pensions auto-enrolment, National Insurance contributions, the Apprenticeship Levy, statutory sick pay, energy costs and general inflation, as well as some sector-specific regulatory costs. This year, employers also mentioned the rising cost of recruitment, as they struggled to fill vacancies.

7.40 Several stakeholders noted that the cost of the NLW was compounded by additional employment costs. The ALP gave a breakdown of the cost to its members of supplying labour to include the social costs of national insurance, holiday pay, apprenticeship levy and pension auto-enrolment costs. The extra 38 pence per hour on basic rates to NLW workers in 2019 resulted in a total wage increase to employers of 55 pence per hour or 5.8 per cent on 2018. The Scottish Grocers' Federation also stressed that the true cost of labour exceeds the NLW, and presented a report produced by the University of Stirling showing cumulative increases in a range of costs. Pension auto-enrolment was commonly cited as a major cost, with employer contribution rates having risen to 3 per cent of qualifying earnings this year. Among large employers, the Apprenticeship Levy continues to be seen by some as a 'stealth tax'.

7.41 The BCC told us that small businesses are more vulnerable to the increased administrative costs of changes in regulation, giving the example of making tax digital. The ACS echoed this, citing the incoming plastics deposit return scheme as a new cost. A small cleaning company from Northern Ireland warned that companies there faced higher Corporation Tax and energy costs than competitors in the Republic.

7.42 The FSB's Impact of Government Policy Index (Centre for Economics and Business Research, 2019) details the cost implications of taxes and regulations, including the NLW. The 2019 research found that the 'cost of doing business' for small businesses rose by around 15 per cent between 2011 and 2017 (the most recent data available), with around half of this increase coming between 2015 and 2017. This is equivalent to £60,000 per business.

7.43 The FSB found that half of micro businesses and all small and medium-sized businesses had been affected by what it classed as 'social policy-related costs', which include the NMW/NLW as well as National Insurance and pension auto-enrolment. However, it is notable that over the period studied, costs increased less overall in key low-paying sectors. Wholesale and retail saw a 10 per cent increase (all since 2015) while transportation and storage, and accommodation and food services saw little increase. This suggests that there have been some offsetting tax and regulatory savings for these sectors. However, at oral evidence the FSB maintained that new and rising costs outweigh the benefits of any reductions, for example in Corporation Tax.

7.44 Retailers and hospitality employers in particular specified business rates as a problem. In August a group of retailers wrote to the Chancellor requesting action on business rates. The CIPD too cited the tax as a key issue in retail. Usdaw agreed that retailers needed support in this area.

Social care

7.45 Adult social care organisations continued to describe the sector as 'in crisis'. We presented an overview of the issues in the sector in our 2018 Report, concluding that the NLW exacerbates issues caused by funding and commissioning problems. These issues have not abated, stakeholders told us. Providers and their representatives lamented that the rates paid by local authorities for all types of care do not keep up with increases in the NLW, a major issue when wages are the largest cost for most providers. The Association of Directors of Adult Social Care estimated that £3bn is needed next year to meet the sector's commitments and shortfalls. A further complaint was the lack of a long-term funding solution in the absence of the long-delayed social care green paper.

7.46 Last year we reported on emerging research that quality of care had been affected by funding shortfalls and the cost pressure of the NLW (Datta, Giupponi and Machin, 2018). This year, in their evidence to us, employers and sector representatives recognised this risk. We also heard specific examples of the stress providers are under affecting quality. A provider in Hertfordshire admitted that workers could be made to do back-to-back shifts either side of a sleep-in shift due to staff shortages. Worker representatives we met told us that in many cases providers were still engaged in a 'race to the bottom' on price which was then reflected in their treatment of workers and quality of care. UNISON officials in Wigan told us about frequent examples of unpaid travel time, basic underpayment of wages and insecure work arrangements.

7.47 We heard evidence from GMB and academics at Sheffield Hallam University on the pressure on pay and working conditions for care workers transferring from local authority employment to private providers (Prowse, Prowse and Snook, 2019). We also heard extensively from worker representatives about the prevalence of underpayment of workers in the care sector. UNISON argued particularly strongly that the widespread failure of many employers in the sector to keep adequate records was at the heart of non-compliance in the sector and represented a major barrier to the enforcement of workers' claims.

7.48 Although sector representatives lamented funding issues and problems with commissioning, some commissioners and providers offered reasons to be more hopeful. Examples were highlighted in the Care Quality Commission's (CQC) 2019 State of Care report. It praised cases of innovation in the use of technology, processes and partnering to improve care outcomes and value for money. We saw an encouraging example of this at Greater Manchester Health and Social Care Partnership (see case study below). However, the CQC noted that the systems do not exist to support the adoption of such approaches on a wider scale. Instead, they rely on individual organisations and networks taking initiative and risk.

Case study: Greater Manchester Health and Social Care Partnership

Social care commissioners from Greater Manchester Health and Social Care Partnership (GMHSC), who we met on our visit to the city, told us they were working to integrate health and social care, upskill staff and increase pay.

Their focus was on improving quality of care, promoting independent living and in the long term aiming to drive down demand for services through improved health and care outcomes. This, they predicted, would deliver better value for money but required investment and presented risks.

The starting point for this was transforming job roles and enhancing care staff's skills to create more 'blended' care and health roles. As well as leading to better outcomes for people supported, these new roles also mean better career pathways, improved terms and conditions and better pay for employees, moving up to £9 per hour. Staffing is one of the key strands of this, with higher pay supporting a more skilled care workforce that is easier to recruit and retain.

Childcare

7.49 This year the childcare sector was particularly vocal about the pressures faced by providers. The Early Years' Alliance (EYA) and National Day Nurseries Association (NDNA) were deeply concerned that the Government's commitment to 30 hours of free childcare for three and four year olds was not being funded properly. The EYA provided evidence that the rates for the 30 hours were based on a 2015 report using analytical data from 2012-13, and that no increases had been forthcoming since the introduction of the policy. While both squarely blamed the funding situation, the EYA told us that the rising NLW exacerbated funding problems and could be 'critical'. The FSB also specified childcare as a sector that is struggling with cost increases and funding issues. Both the EYA and NDNA reported a rise in provider closures, the latter finding they had risen by 66 per cent.

7.50 The Commons HCLG Committee's report on local government finance and the 2019 spending review (HCLG, 2019) came to worrying conclusions concerning the state of the sector. Indeed, the Minister for HCLG noted to the committee that 'over the last year the most acute pressures seemed greater in children's services than in adult social care'. The Committee also cited analysis from the Bureau of Investigative Journalism which found that 'in-year budget monitoring reports showed nine out of ten councils were predicting an overspend on children's services that year'. In terms of the overall level of overspend the Bureau's work had found that in recent years children's services was becoming the greatest pressure. It explained that 'adjusted for changes in costs, the overspend across all councils on children's social care reached £655m in 2016–17, while it was £536m for adult social care. The evidence we heard this year reflects these pressures; childcare is a sector we will look at particularly closely in the future.

Policies and issues affecting workers

7.51 Just as the minimum wage is only one of several costs which businesses must manage, wages are just one part of the picture when it comes to the working lives and personal finances of workers. We heard extensive evidence this year from workers and trade unions – in our written consultation but above all in regional visits – about the range of factors alongside the minimum wage which influence individuals' quality of life and work. In some areas, the current record employment levels nationally are felt remotely if at all, and levels of unemployment are such that the level of the minimum wage can feel like a marginal concern. In other areas, despite stronger local employment, there remains persistent and

widespread in-work poverty, in which the benefit system, rising living costs and insecure working conditions all play a part. We set out some of the factors which contribute to the rising cost of living in paragraph 4.11.

7.52 Universal Credit (UC) was criticised by several stakeholders and individuals, both in terms of the level of provision available and practical issues in accessing it. Citizens Advice Scotland reported a considerable rise in advice on food banks and other forms of crisis support since 2012 – driven by the benefits freeze, the roll-out of UC, and rising housing, transport and energy costs. The Scottish Women's Convention made the same link between UC and rising food bank use, as did hospitality workers we met in Manchester.

7.53 In Hartlepool we heard about specific earnings cut-offs including free prescriptions causing high taper rates for some on UC. The Low Incomes Tax Reform Group gave extensive evidence on such issues, arguing that raising the NLW risked exacerbating the problem. Also in Hartlepool, support centre the Annexe told us that young people living at home were discouraged from taking work because it affects household earnings and therefore UC claims. We continued to hear evidence of one-sided flexibility adversely affecting low-paid workers, and that volatile hours could cause issues with UC calculations. The Welsh Government highlighted their concern that wage increases are not benefitting those in most need of financial help. They argued that any changes to the NLW and NMW should be considered alongside changes to the welfare system which have resulted in a rise in levels of in-work poverty. In-work poverty is high, it said, and those on low incomes are likely to also be in receipt of in-work benefits. We consider the effects of planned changes to the tax and benefit system on minimum wage workers in detail in the following chapter (paragraphs 8.46 to 8.49). We also look at the tax and benefit implications of our recommended rates in Chapter 9 (paragraph 9.30 onwards).

Case study: Universal Credit issues

Both managers and workers at a hospitality business told us that people can have problems managing work and benefits, and that this can have a serious detrimental effect on their lives.

They felt that inflation and Universal Credit taper rates meant that workers did not feel the full benefit of recent 'welcome' minimum wage increases. They described an increase in friends and colleagues using food banks as a result. We heard that such issues can be particularly problematic for parents, who also have to contend with rising childcare fees. This further cost pressure is most acute during school holidays, when we visited.

There was a perception that not enough guidance and support is available for UC claimants. Government guidance should be clearer, we heard from workers. The business agreed, telling us that it had investigated how it could best support its workers with benefit claims. We heard that some people felt discouraged from taking work or progressing in their careers due to fears of how this might affect their claims. Managers had taken it upon themselves to support staff through this process but regretted the lack of an authoritative source of information.

7.54 Last year we highlighted transport costs as a major issue for some low-paid workers, notably but not exclusively those in rural areas. This year we once again heard from workers and employers in almost every location we visited about how transport time and cost limit people's opportunities and prevent them accessing larger job markets which may be relatively close by. This also affects employers' labour availability, as highlighted by a small manufacturer in Swansea who lamented that his workers effectively needed to own a car to get to work.

Case study: Transport limitations

Young people we met with the Prince's Trust unanimously cited transport as an impediment to finding suitable work. Both cost and availability were issues.

Buses in Swansea cost £4.50 per day. Especially for workers on the youth minimum wage rates, this can be a significant portion of their earnings. From neighbouring Llanelli, the bus journey would cost £10 each day and take between 40 and 60 minutes each way. Travel to Cardiff by train was prohibitively expensive for those in minimum wage jobs.

Beyond the cost, poor links to rural communities meant a smaller pool of options for those needing to travel into the city to work or travel out, for example to home care visits. We heard that it was not viable for minimum wage workers to have cars in these cases – the Prince's Trust had a programme providing mopeds, but this was a partial solution. Further demonstrating the area's poor transport networks, a local employer told us that his 50 minute drive to work would take over two hours by train and bus, and cost more than £10 each way.

Accommodation Offset

7.55 There is no data available on how many employers use the Accommodation Offset and as such we rely on stakeholder evidence to understand the impact of the recent increases. The offset has increased over 6 per cent a year since 2016, with the eventual goal of aligning it with the 21-24 Year Old Rate. The sectors where we most often hear about its use are agriculture and horticulture, where farmers in practice need to provide accommodation for their labourers; less often we hear from employers in the hotel sector about their use of the offset, particularly in rural locations; and occasional isolated incidences of its use in other sectors.

7.56 The rationale for recent increases in the rate has been to encourage the provision of higher-quality accommodation, and the NFU, the Association of Labour Providers (ALP) and UK Hospitality welcomed these increases and told us they had indeed enabled this. In their survey of their membership for our consultation, NFU found that 31 per cent of horticulture farms made use of the offset. For other farm types, the proportion was smaller; 8 per cent for poultry farms and 11 per cent for all other main farm types. They noted that these proportions had fallen in recent years. Of those using the offset, 51 per cent felt the current rate was sufficient. On our visits this year, we met with employers on farms who welcomed increases in the offset, but recognised that even without it they would have to invest in accommodation as they needed workers on-site, and needed high-quality accommodation to attract workers (particularly when the labour market for these workers was tightening).

7.57 The ALP argued that the offset was 'a blunt tool' which did not recognise the difference between situations where workers must live in employer-provided accommodation and those where they have a choice over doing so. UK Hospitality asked us 'to continue to look at the true commercial value of live-in accommodation in comparison to the private rental sector'.

7.58 Trade unions tended to oppose the principle of the offset. Unite told us they were opposed to charges for accommodation being deducted from the NMW as 'having workers accommodated on site is to the employer's benefit and therefore the employer should be fully responsible for the cost'. They also noted that the LPC's intention in first setting the offset had not been to reflect the actual value of renting accommodation, but 'to discourage employers from recouping the NMW paid to a worker by levying excessive accommodation charges'. The RMT criticised the use of the offset in shipping in particular and called for its abolition in the maritime industry, noting the lack of evidence on its use.

Conclusion

7.59 In Chapter 4 we showed that the NLW has raised hourly and weekly pay for minimum wage workers and those further up the pay distribution. There has been some degree of pay compression, which employers have dealt with in a range of ways. Our evidence suggests that, on average, firms have not responded to the cost pressure that the NLW and its spill over effects by reducing employment and hours, though examples of this have been found in our evidence gathering.

7.60 Instead, the most common responses to the NLW since 2016 have been to accept some reduction in profits or to raise prices, often in combination as part of a varied strategy. While it is difficult to discern changes to profits and prices in official data, survey evidence and what we have heard from stakeholders strongly indicate that many affected businesses have made changes. Effects on productivity and investment have also been common, but approaches in these areas differ by sector and size of firm. Smaller businesses reported cutting investment to manage the cost of the NLW, while larger firms were more likely to spend on training and technology to raise productivity. Some of the changes we heard about focused on work intensification, bringing into question the sustainability of productivity improvements and their effect on workers.

7.61 The minimum wage does not exist in isolation. Business costs other than the NLW are also a factor in these decisions. Some stakeholders again described a range of cost pressures creating a 'perfect storm'. Government policies also play a part in some sectors and affect how we evaluate the impact of the NLW. This is most notable in adult social care and childcare, where the funding 'crisis' continues to put pressure on providers. For workers, policies including Universal Credit, and general economic conditions, can affect the extent to which the NLW's positive impact is felt.

Chapter 8

Forecasts for the economy

Introduction

8.1 In contrast to the previous chapters that have generally looked backwards, this chapter looks ahead to the economic prospects for the UK over the next year or so. It assesses the outlook and summarises our evidence from various stakeholders on future rates and other regulatory costs facing business.

8.2 It should be noted that in making our recommendations in this report we used the data and information available to us up to 18 October 2019 and then confirmed these recommendations on Monday 21 October after taking account of announcements following the EU summit. These data sources included official data for GDP growth in the second quarter of 2019 published on 30 September; monthly GDP data up to August 2019 published on 10 October; labour market data that were released on 15 October; and price inflation data released on 16 October. We are grateful to the Office for National Statistics (ONS) for granting access to a pre-release of the 2019 Annual Survey of Hours and Earnings (ASHE), which was published on 29 October.

8.3 The most recent forecasts available were from the HM Treasury panel of independent forecasters (the short-term forecasts released on 16 October and the medium-term ones in August); the Bank of England August 2019 Inflation Report and the Office for Budget Responsibility's (OBR) Economic and Fiscal Outlook from March 2019. The information from the first estimate of GDP for the third quarter of 2019 published on 11 November was not available to us when we discussed and agreed our recommendations.

Economic prospects, low-paying sectors and low-paid workers

8.4 The economic prospects for the whole economy will influence the ability of firms to cope with minimum wage increases and affect the pay and employment outcomes of the lowest-paid workers (including women, young workers, older workers, part-time workers, migrants, those with disabilities and those with limited educational qualifications). As well as depending on the aggregate level of, and growth in, GDP, the economic outlook for the low-paying sectors and low-paid workers is also likely to be affected by variations across the main components of growth: consumer spending; government spending; investment and inventories; and trade. The largest of these components is consumer spending which accounts for up to around two-thirds of GDP. Although imports and exports both account for around 30 per cent of GDP, net trade is responsible for only around 1-3 per cent of GDP. With imports generally higher than exports since 2000, net trade has usually acted as a drag on growth. Government spending typically accounts for up to a fifth of GDP, while investment and inventories make up the rest (around 15-18 per cent). We can consider how these components of growth affect the economic prospects for low-paying industries noting that different sectors are affected differently by each component as outlined in paragraphs 3.9 to 3.13.

8.5 The strength of consumer spending will, to a large extent, determine the fortunes of those industries, such as retail, hospitality and leisure, that are consumer-facing. Consumer spending has helped drive growth in recent years and has been a major contributor to growth that has occurred so far in 2019. The outlook for consumer spending will depend on expected real incomes and confidence about the future. Real incomes have increased over the last two years as the pick-up in nominal wage growth has been reinforced by a slowing in inflation, driven by the reversal of upward pressures from currency depreciation and oil prices. Robust employment growth, low costs of borrowing and easy access to credit have also supported consumer spending.

8.6 Government spending is important for another group of low-paying industries – those directly affected by government funding, such as childcare and social care. As well as the level of government spending, which in turn reflects the fiscal position, these sectors will also depend on the strength of consumer demand and the ability of providers to raise prices. In our previous reports we have noted the real pressures on childcare and social care employers in the private sector, the voluntary sector and the public sector. The recommendations in this report were agreed after the Spending Round announcements but before any 2019 Budget. This report will therefore reflect changes made in the Spending Round 2019 regarding funding of childcare and social care but not any Budget 2019 announcements.

8.7 Another group of low-paying industries are more dependent on business-to-business activity, including cleaning and employment agencies. Demand for these services is likely to be closely related to the general performance of the economy – with all of the components of growth influencing the prospects for these industries. The extent of outsourcing and the contracting out of services will also be key. These have been instrumental in increasing demand in this sector in the recent past and those trends look set to continue, but there is anecdotal evidence that some companies have brought these services back in-house. Profitability of these sectors will also depend on the ability of companies to pass additional costs onto other businesses and, ultimately, consumers.

8.8 The prospects for trade will affect all low-paying industries to some extent but are particularly important to those sectors most exposed to international trade, such as textile manufacturing, agriculture and food processing. As we noted in paragraph 3.13, the fortunes of these industries will depend not only on domestic demand but also on demand from overseas. That in turn will depend on the strength of the global economy and the price of its products. Those prices will be affected by exchange rate movements. Changes in the value of sterling will also affect domestic demand for UK products (as it changes the relative price of domestic products compared with those from overseas) and the cost of imported inputs. Prospects will therefore depend on the sterling exchange rate and the strength of global demand, especially in those areas in which the UK conducts most of its trade, such as the EU and the US.

8.9 The outlook in terms of the affordability of minimum wage increases in all of these sectors will depend on: general demand in the economy; profitability; the ability to raise prices; non-labour costs; the ability to increase productivity; and the availability and cost of labour. These are considered alongside the implications of wider economic change, dominated by Brexit – an event that could have profound economic consequences for the UK economy in the short, medium and long term.

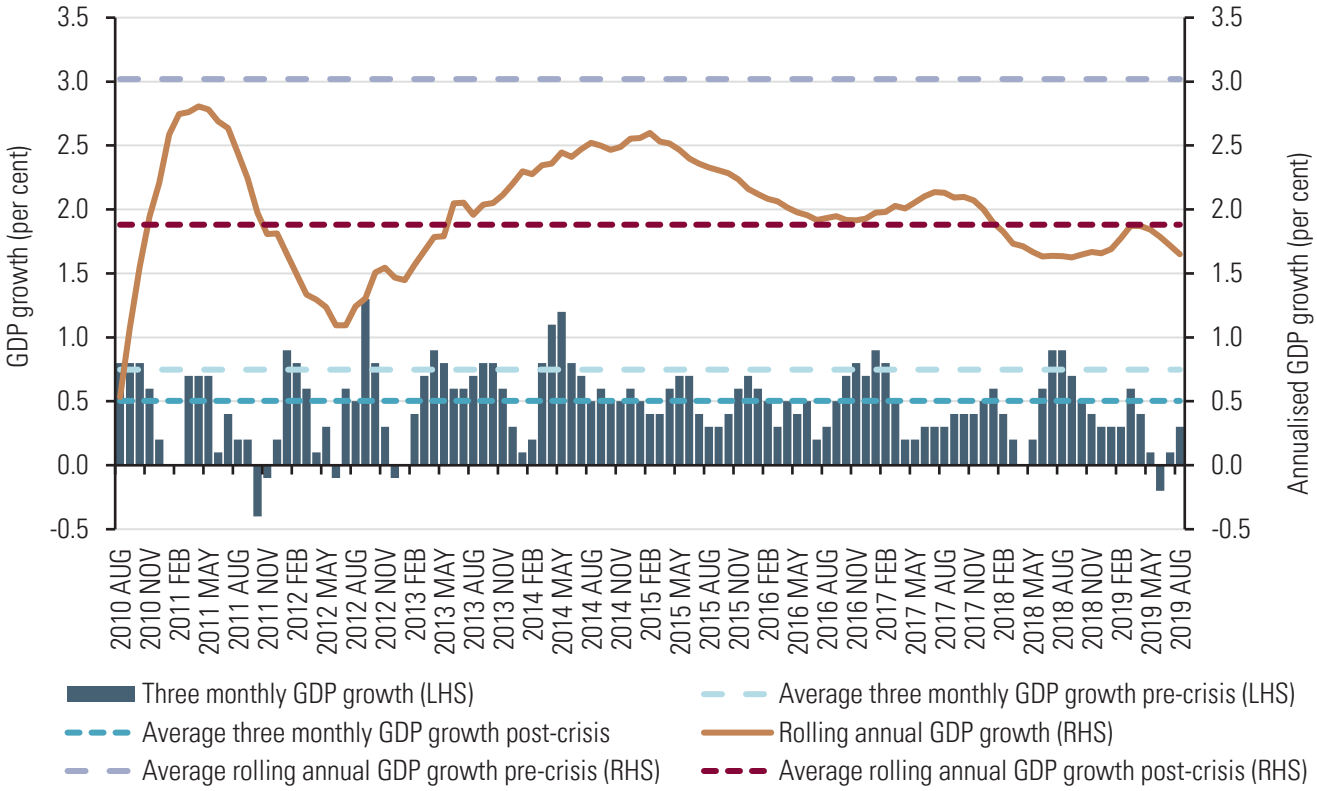
Prospects for sustained economic growth

8.10 We start by considering the prospects for sustained economic growth in general before going on to consider those for global growth and international trade, investment and business sentiment, consumer spending and consumer confidence, and government spending.

8.11 Although GDP growth has weakened since 2014, as we noted in Chapter 1, it has grown faster than our threshold for sustained economic growth – 1 per cent a year on a four-quarter rolling basis. Indeed, the last time it was below that threshold was in the third quarter of 2010, as the UK recovered from the financial crisis. This measure of GDP had fallen to 1.4 per cent at the end of 2018 but recovered to 1.6 per cent in the first half of 2019, albeit with some Brexit-related volatility. Increases in inventories boosted growth in the first quarter, as firms prepared for an EU exit, but then detracted from growth in the second quarter as these stocks were unwound.

8.12 That volatility has continued into the third quarter with growth of 0.4 per cent in the month of July followed by a fall of 0.1 per cent in August. The boost in July was quite broad with similar growth to the whole economy in services and manufacturing but a large increase from construction. However, construction and services weakened in August, while production (including manufacturing) fell sharply. The monthly growth rates are usually quite variable but even the three-month growth rates, as shown in Figure 8.1, have shown a lot of volatility in 2019. GDP grew by 0.3 per cent in the three months to August 2019, up from 0.1 per cent in the three months to July 2019. Although the level of GDP in August was only 0.2 per cent above that in February 2019, it was 1.2 per cent higher than in August 2018. On a rolling annualised basis, GDP growth was still 1.6 per cent in August 2019.

Figure 8.1: Monthly GDP growth, UK, 2010-2019



Source: LPC analysis using ONS data: Gross Value Added (ED3H), 3 month on 3 month growth, monthly, seasonally adjusted, UK, 2009-19.

8.13 That pick-up in the third quarter of 2019 was reflected in the National Institute of Economic and Social Research's (NIESR) GDP tracker (2019b), which was quite upbeat about the UK's prospects going forwards. Despite recent surveys suggesting that the particularly weak manufacturing data may have caused private sector output to fall in September, NIESR estimated that the economy had rebounded from the dip in the second quarter, with growth of 0.5 per cent in the third quarter as real wage growth helped boost household consumption, and that this was set to continue in the fourth quarter with growth of 0.3 per cent. That would be consistent with growth of around 1.3 per cent in 2019 – in line with the forecasts we had available last autumn and just below the growth recorded in 2018 (1.4 per cent). The Bank of England (2019b) judged that growth would be around 0.2 per cent in the third quarter of 2019 but would still record growth of 1.3 per cent in 2019 and 1.3 per cent in 2020.

8.14 In contrast, the median of the HM Treasury panel of independent forecasts was for growth to weaken further in the short term – falling to 1.2 per cent in 2019 and 1.0 per cent in 2020. Investment was expected to remain weak with business confidence declining due to trade tensions and increasing uncertainty, especially around the future relationship between the UK and the EU. Similar sentiments were echoed by the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF). The latter (IMF, 2019) forecast UK growth to be 1.2 per cent in 2019 and 1.4 per cent in 2020 as weaker global growth and Brexit uncertainty was offset by higher public spending. These were more optimistic than those made by the OECD (2019b), which forecast UK growth to slow to 1.0 per cent in 2019 and 0.9 per cent in 2020, but were made before public spending announcements by the Chancellor of the Exchequer. The Bank of England (2019c) estimated that the Spending Round 2019 announcements in September were likely to add 0.4 percentage points to growth and since then further spending commitments have been announced.

8.15 UK economic growth prospects for the rest of 2019 and beyond will depend on the strength of the global economy, the value of sterling, the extent to which uncertainty remains about our future relationship with the EU and its consequences for other trading relationships, business confidence and expectations about the resilience of the UK economy, consumer confidence about real incomes and the extent to which government spending is (no longer) bound by austerity constraints.

Global growth and international trade

8.16 Generally, there has been a marked increase in concern about trade and the geopolitical developments that had increased uncertainty. In its interim outlook, the OECD (2019b) expected global GDP growth to slow from around 3.6 per cent in 2018 to around 3 per cent in 2019 and 2020. It noted escalating trade tensions, with disruptions to international supply chains that had affected investment and weakened productivity growth. With business confidence falling, and China continuing its re-orientation towards consumption, investment had declined in many countries. The added uncertainty of Brexit additionally affected the EU and the UK. However, monetary policy across the globe remained accommodative and fiscal policy was assuming a greater role in the US and the UK.

8.17 Similar trends were also described by the IMF in its world economic outlook. IMF (2019) noted that growth had weakened across the globe but that the slowdown was more pronounced in emerging economies. It highlighted weaknesses in vehicle production and China's attempts to tackle corporate debts as well as trade and technology tensions as causes of the global slowdown. It was more optimistic than the OECD, forecasting global GDP growth to rise by 3.4 per cent in 2020 – up from 3.0 per cent in 2019 – as emerging market and developing economies had modest pick-ups against difficult headwinds.

8.18 These global concerns were supported by findings from the Deloitte survey of Chief Financial Officers (CFOs) in September 2019. As well as the effects of Brexit, CFOs were concerned about rising political risks worldwide, especially increasing US protectionism and the tensions in the Middle East following the attack on Saudi oil production. In the last three months concerns had grown about weakness in the euro area and the impact of the downturn in Germany.

8.19 In its latest quarterly Industrial Trends Survey, the CBI (2019b) reported that the outlook for exports had deteriorated as Brexit uncertainty weighed heavily. Many firms had become more worried about quota and licensing restrictions. Combined with uncertainty about political and economic conditions abroad, this led firms to expect exports would be limited in the next quarter.

8.20 Although sterling is still around 20 per cent weaker than it was at the end of 2015, its value against the dollar, the euro and a trade-weighted basket of currencies has fluctuated around the same level that it was at the end of 2016. The Bank of England (2019a) forecast growth in UK-trading countries would be weaker than global growth with the euro area's growth particularly modest. This would act as a drag on UK growth in 2019 but would lead to net trade contributing significantly to growth in 2020. That pick-up in trade would benefit those low-paying sectors that were dependent on exports.

Investment

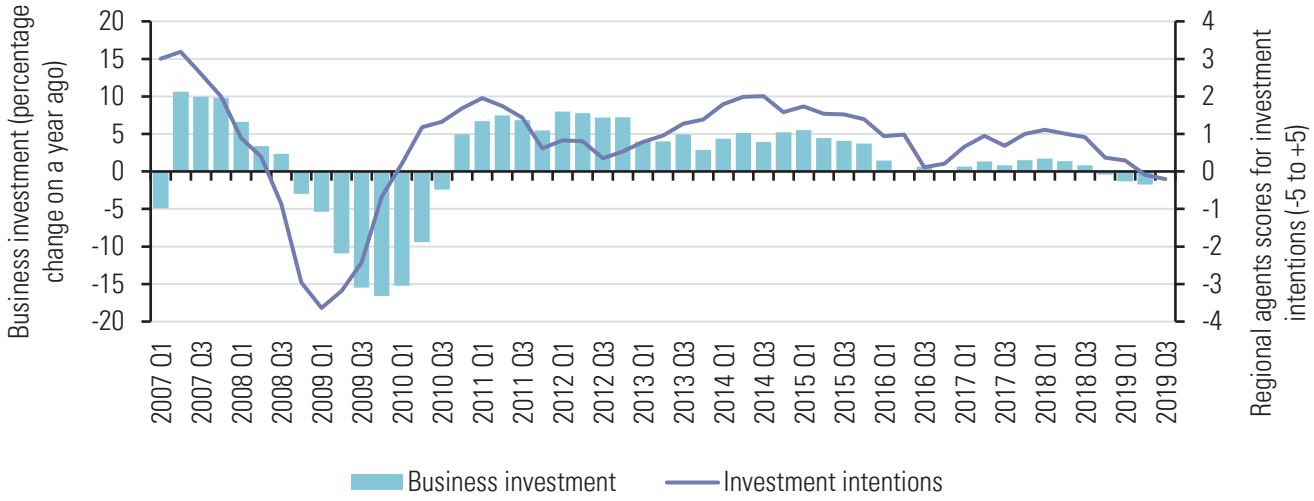
8.21 As we have noted, the weakness in global growth and increased uncertainty have led investment to decline across the globe. The UK is no exception. Total investment, including business and government investment, was lower in the second quarter of 2019 (£87.2 billion) than in the second quarter of 2017 (£87.6 billion). It has fallen in four of the last six quarters. That is despite general government investment in the second quarter of 2019 being 6.1 per cent higher than a year ago. Business investment has been particularly weak – falling in five of the last six quarters. It was 3.0 per cent lower in the second quarter of 2019 than in the fourth quarter of 2017.

8.22 This uncertainty and weak global growth continued to influence investment intentions. In its Voice of Small Business Index, the Federation of Small Businesses (FSB, 2019) reported that many business decisions were on hold, with 72 per cent of respondents not planning to increase investment. In its survey of CFOs, Deloitte (2019) reported that perceptions of uncertainty were at their highest since mid-2016 and that the persistence of the state of uncertainty was at its highest since 2011. In response to the global slowdown, both the US Federal Reserve and the European Central Bank had cut interest rates. According to the CFOs, credit in the UK was easily available and remained cheap for large corporations. However, despite half of those surveyed expecting credit to become even cheaper over the next year as interest rates fell, investment (capital expenditure) intentions had fallen. In addition, the CBI (2019b) reported that investment intentions had worsened with projected spending on physical capital (buildings, plant and machinery) and human capital (training and retraining) at their most negative since the financial crisis.

8.23 Evidence from the regional agents of the Bank of England (2019b), as shown in Figure 8.2, confirm this picture of falling investment intentions. Investment intentions started to weaken at the end of 2014 as economic growth slowed. As a result of the uncertainty about the UK's future relationship with the EU after the Referendum in June 2016, sterling depreciated. That gave a boost to some exporters and, along with a more resilient economy than had been forecast, investment intentions picked up. However, continued uncertainty and the expected impact of the final agreement, alongside weaker global growth, have led to more pessimistic sentiment about investment since the third quarter of 2018. Indeed, the latest investment intentions (for the third quarter of 2019) on this measure are at their lowest since the first quarter of 2010, when the economy was still emerging from the recession.

8.24 Investment intentions appear to be to a reasonably good predictor of actual business investment, as shown in Figure 8.2, with sharp falls in investment intentions tending to foreshadow reductions in business investment. Since the third quarter of 2018, investment intentions have fallen back and became negative in the second and third quarters of 2019, as reported by the regional agents of the Bank of England, presaging falls in investment.

Figure 8.2: Business investment and investment intentions, UK, 2007-2019



Source: Bank of England (2019b). Regional agents scores for investment intentions (old- aggregated series), quarterly and LPC estimates of change in business investment (NPEL), change on a year ago, quarterly, seasonally adjusted, 2006-19.

8.25 There had been some boost to the economy in the first quarter of 2019 as firms prepared for the possibility of disruptions from a no deal Brexit at the end of March. But with an extension agreed, these stocks were unwound in the second quarter. There does not yet seem to be much evidence of similar precautionary actions prior to the 31 October deadline. The lack of any evidence of stock-building could be a sign that the surveys that are available were conducted when it was still too early to start stockpiling or it could be that firms were waiting for greater clarity ahead of the October deadline. Further, (Bank of England, 2019b) had also reported that seasonal Christmas demand might reduce the warehouse space available from mid-October onwards. The Bank of England is expecting investment to remain subdued and will act as a drag on growth of around 0.2-0.3 per cent in both 2019 and 2020.

8.26 The falls in investment will constrain the capacity of the UK economy to grow in the future. This will likely have long-term impacts on productivity and the ability of firms to afford pay increases. Business sentiment will reflect the prospects of the economy and affect decisions to invest.

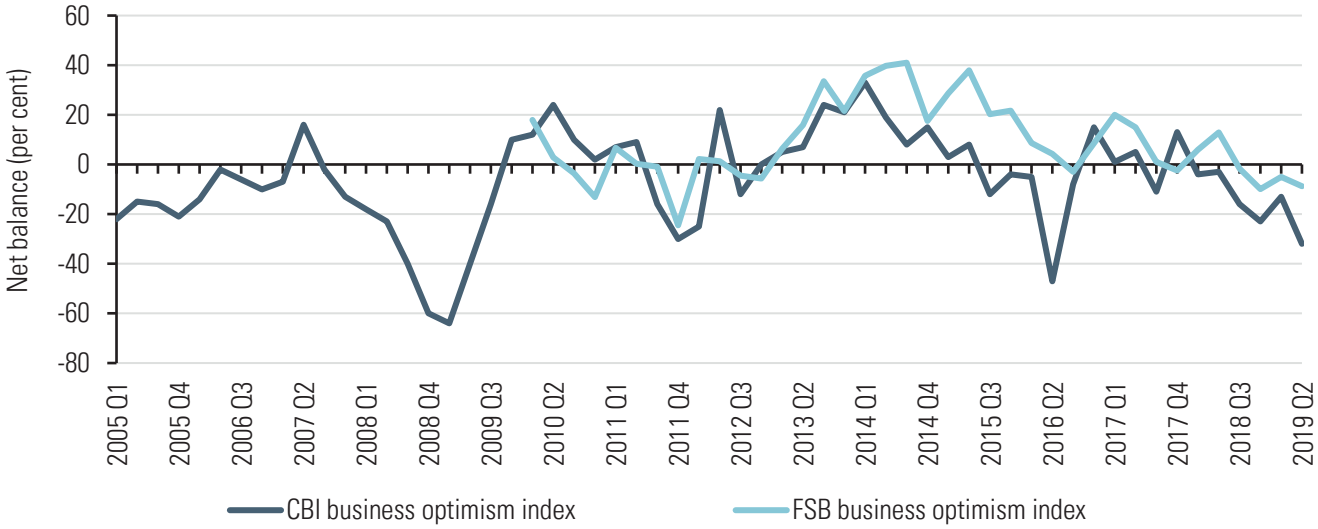
Business sentiment

8.27 Business sentiment indicators, reflecting the prospects of the economy, generally show a similar picture to investment intentions. Figure 8.3 shows that the CBI and FSB's business optimism indices generally follow similar trends. Both showed business confidence improving as the economy recovered from the recession but also showed how they had fallen since the end of 2014, reflecting the weakening in economic growth. There has been a noticeable downturn in both of these measures in recent quarters, reflecting increased uncertainty going forwards and weaker economic growth.

8.28 In its latest quarterly Industrial Trends Survey, the CBI (2019b) reported that business optimism was falling at its fastest pace since July 2016 (in the immediate aftermath of the EU Referendum). New orders in the third quarter of 2019 had fallen at a similar pace to the second quarter of 2019 but were expected to fall faster in the next quarter. Unlike before the 29 March Brexit deadline, there had been no sharp increase in stocks prior to the new deadline and few expected any further boost after 31 October.

8.29 The FSB (2019) recorded its largest annual decline in small business confidence since the middle of 2016, in the immediate aftermath of EU Referendum result. Confidence among small firms in accommodation and food services as well as among small retail and wholesale businesses improved in the second quarter of 2019 compared with the first quarter but, for wholesale and retail, it still remained well below the confidence recorded in the second quarter of 2018.

Figure 8.3: Business confidence, UK, 2005-2019



Source: CBI (2019c), UK, Q1 2005-Q2 2019 and FSB (2019), GB, Q1 2010-Q2 2019.

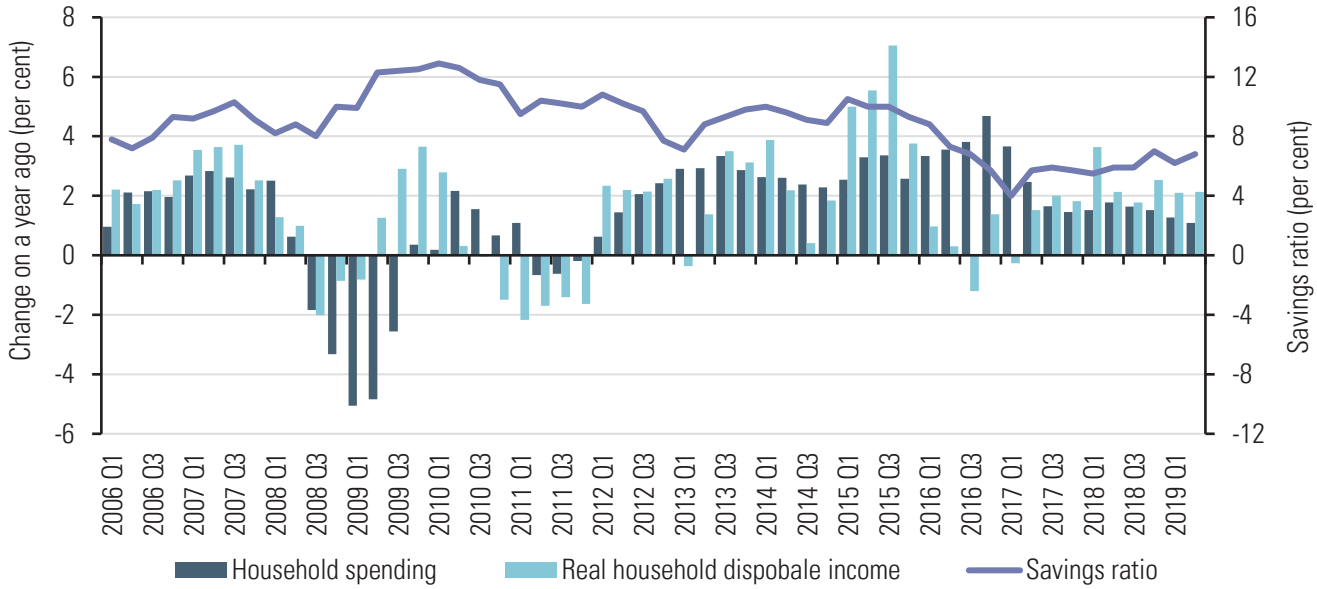
8.30 The Purchasing Managers' Index for services, construction and manufacturing have also weakened in the third quarter of 2019 suggesting weakness across the whole economy. This weakness is also reflected in the summary of business conditions reported by the Regional Agents of the Bank of England (2019b).

8.31 With business confidence and investment falling, it is left to the consumer and the Government to provide support for the economy.

Consumer spending

8.32 Having grown strongly in the first three-quarters of 2016 – averaging growth of around 1.3 per cent in each of those quarters, consumer spending growth slowed noticeably throughout 2017 and 2018 – with quarterly growth slowing to just 0.2 per cent in the fourth quarter of 2018. Indeed, growth in consumer spending was faster than the growth in real household disposable income in 2016 leading to falls in the savings ratio. With inflation falling, average wage growth picking up towards pre-crisis norms and employment growth continuing, real household disposable income has picked up since the start of 2017. As a consequence of the slowdown in consumer spending and increases in real incomes, the savings ratio has improved – although, at 7 per cent, it remains below its levels prior to the onset of the financial crisis (it averaged around 8.5 per cent in the decade up to the crisis).

Figure 8.4: Real household income growth, real consumer spending growth and the savings ratio, UK, 2006-2019



Source: ONS: LPC estimates using real housing spending (ABJR), real household disposable income (NRJR) and savings ratio (NRJS), seasonally adjusted, UK, 2005-19.

8.33 However, levels of household debt in the second quarter of 2019 remained high, growing by 3.5 per cent over the year to reach £1.785 billion. But, as incomes had increased faster, debt as a proportion of income had fallen to 125.0 per cent in the second quarter of 2019, down from 128.0 per cent in the third quarter of 2017 and well below its financial crisis peak of 146.8 per cent. Credit continued to be available and debt service costs (interest rates and charges) remained low making servicing those debts easier than during the financial crisis.

8.34 Regardless of the pick-up in real incomes, the CBI (2019a) recorded a fifth consecutive month of falling retail sales volumes but sales were expected to be broadly average for the time of year. Overall retail sales had been supported by internet sales but growth in those has eased and were expected to remain a bit lower than the long-run average. Sales had contracted across all sectors except furniture and carpet sellers, with clothing retailers and department stores faring worse. In contrast, wholesale volumes had increased in September, after a sharp decline in August, and future orders had also picked up. A similar picture was observed for motor traders' sales volumes with sales and orders rebounding in September after being depressed in August.

8.35 The CBI (2019c) reported the eleventh consecutive month of flat or falling volumes with falling retail sales and a decline in professional and business services driving the fall in September. Private sector activity was also expected to drop further in the coming quarter. Across the economy, growth had been volatile in the first half of 2019 but if a no deal Brexit was avoided the economy was expected to grow modestly as the pick-up in wage growth and low inflation led to rising living standards and sustained consumer spending.

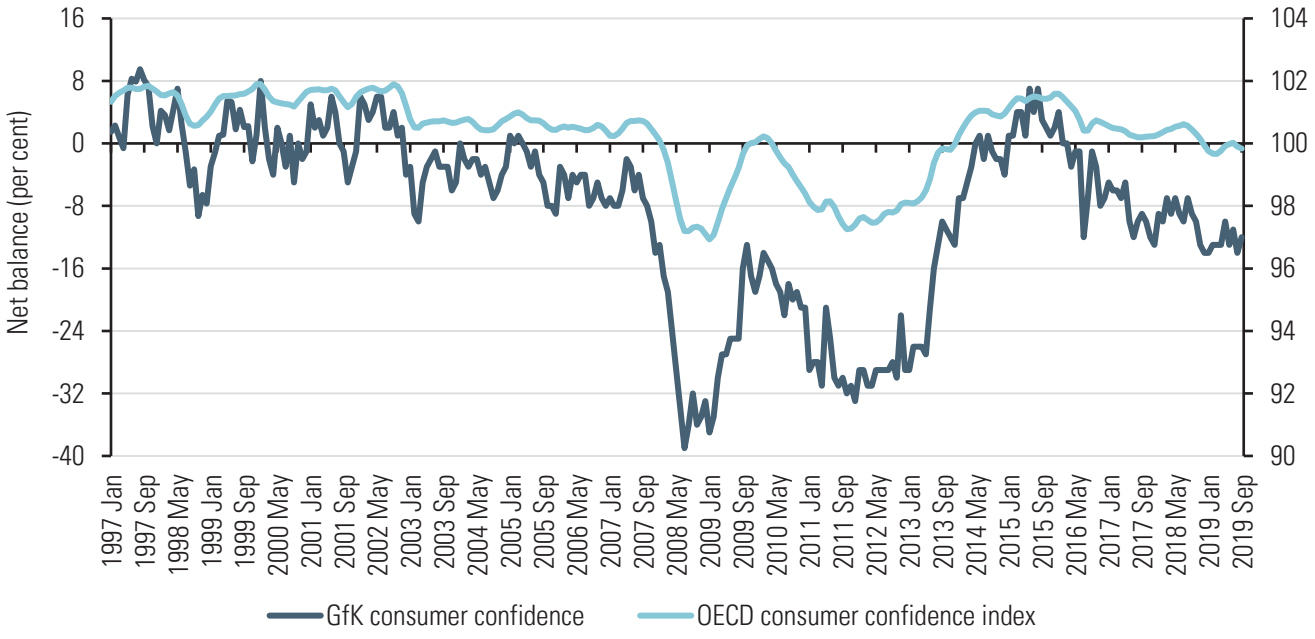
8.36 The British Retail Consortium (2019) noted that the 'spectre of a no deal' weighed heavily on consumer spending decisions. Many consumers had placed more focus on shopping for bargains or had held off on non-essential purchases, while the warmer weather in September had affected sales of new autumn clothes ranges. With spending on essentials, like-for-like sales were down 1.7 per cent on a year ago while total sales were 1.3 per cent lower but the twelve-month average growth was 0.2 per cent. Even internet sales had slowed, growing by just 0.7 per cent. Food and grocery sales had returned to normal, growing by 1.2 per cent in the three months to September.

8.37 Retailers are facing tough conditions which have been exacerbated by the pressures from the depreciation of sterling and the uncertainty around potential tariffs and supply lines in the event of a disorderly departure from the EU. Business rates and the Apprenticeship Levy were also proving challenging.

8.38 However, retailers were hoping that the Rugby World Cup would kick start sales and bring momentum as retailers looked to continue that with Halloween and Guy Fawkes Night before consumers turned to Black Friday and Christmas. Despite that, BRC analysts forecast that total sales would grow by only 0.6 per cent in 2019 with food sales growing by 2.0 per cent but non-food sales falling by 0.6 per cent. Shop price inflation was 0.4 per cent in the year to July 2019 but was expected to slow to 0.2 per cent over the whole of 2019.

8.39 Consumer confidence has reflected the weakening in the economy rather than the increase in real disposable household income. Figure 8.5 shows two different indicators of consumer sentiment but both show very similar trends. Consumer confidence on both measures has fallen back since the end of 2015 and that weakening has continued into 2019. Although both measures are at around their lowest levels since the end of 2013, they have not deteriorated over the year, with consumer confidence in September 2019 similar to that recorded at the start of the year.

Figure 8.5: Consumer confidence, UK, 1997-2019



Source: GfK (2019) and OECD (2019c), 1997-2019.

8.40 Although, consumer confidence has weakened, the Bank of England (2019a) expects consumer spending to grow at around 1.5 per cent in both 2019 and 2020 – well below its growth in 2016 (3.8 per cent) and 2017 (2.3 per cent) but similar to that in 2018 (1.6 per cent). With real post-tax labour income growth expected to slow in 2020 as inflation picks up and employment growth slows, the Bank forecasts that its measure of the household savings ratio will fall from 4.5 per cent to 3.5 per cent. The median of the HM Treasury panel of forecasts has growth in real household disposable income slowing in 2020 (from 1.9 per cent in 2019 to 1.3 per cent in 2020) but growth in private consumption remaining at around 1.4-1.5 per cent. This implies some squeezing of savings. That modest growth in spending should be reflected in the prospects for retail, hospitality, leisure and other consumer-facing industries.

Government spending

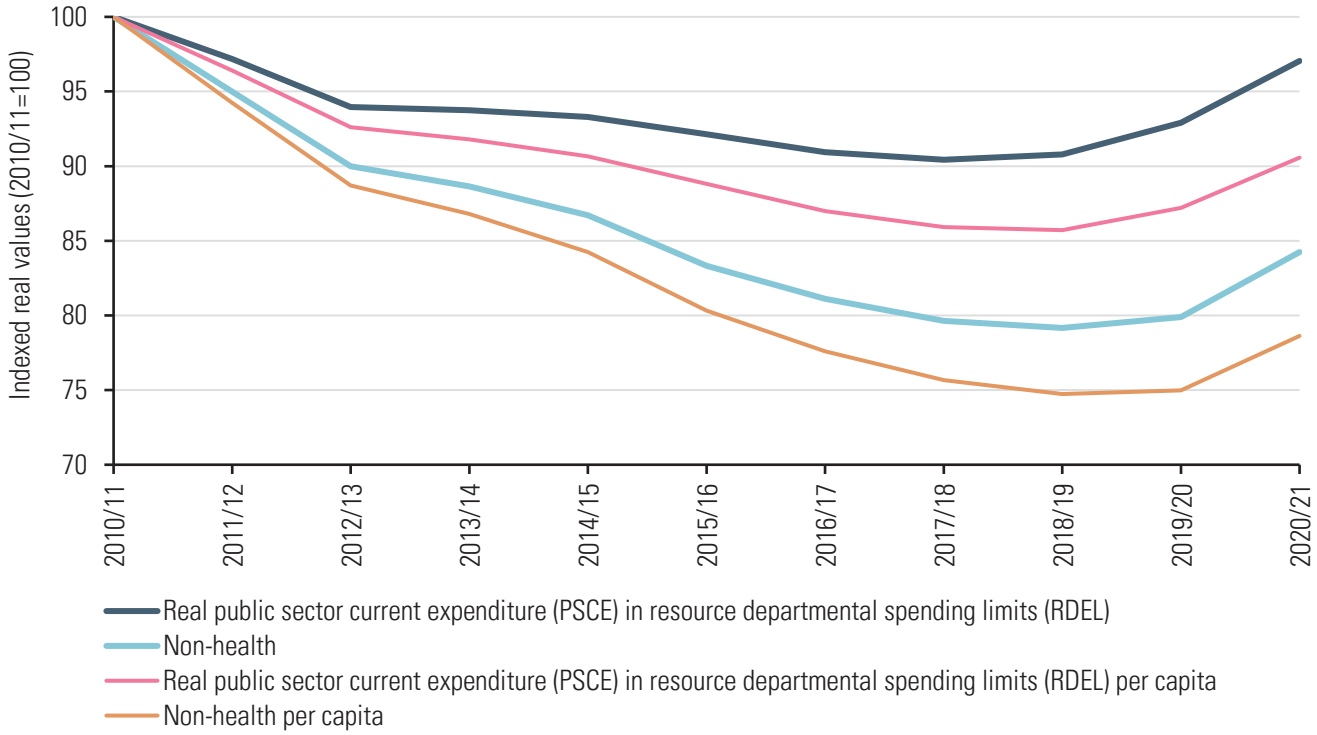
8.41 Our deliberations on the prospects for the economy took place in October 2019 and before any Budget 2019, which at the time of those discussions was scheduled for 6 November. Thus, the narrative that follows does not take account of any changes announced after October 2019 that affect the level of government spending or the impact of any tax and benefit changes. However, on 4 September the Chancellor announced the Government's spending plans for the next financial year (2020/21). HM Treasury (2019b) set out plans for the fastest real growth in day-to-day departmental spending in 15 years. Building on increases of 0.4 per cent in 2018/19 and 2.3 per cent in 2019/20, day-to-day departmental spending is now planned to grow at 4.1 per cent in real terms in 2020/21.

8.42 In the Spending Round the Government announced an increase of £4.1 billion in 2020/21 (or 3.1 per cent) for the Department of Health and Social Care, although this was already part of the five-year settlement that the former Prime Minister Theresa May had announced in June 2018. Day-to-day spending on non-NHS services, such as public health, is set to fall by 12.5 per cent in real terms in 2019/20 and 2020/21. However, the Spending Round 2019 also increased funding by £1.0 billion for adult and child social care through increased grant funding for local authorities. In addition, the Government announced it will consult on a further 2 per cent Council Tax precept that will enable councils to access a further £0.5 billion. The Government said it hoped that this would help support local authorities to meet rising demand and continue to stabilise the social care system. The Government will also increase early years spending by £66 million (around 2 per cent) to increase the hourly rate paid to childcare providers through the Government's free hours offers for three and four year olds. For context, a report for the Early Years Alliance by Ceeda (2019) identified a £662 million funding gap in the sector. In practice, the hourly funding rate for a three or four year old child in England will increase by a maximum of 8 pence in 2020/21.

8.43 In the second quarter of 2019, government consumption expenditure was 4.0 per cent per higher than in the same quarter a year ago. On this measure, growth was the highest it has been since the first quarter of 2006, when it was 4.8 per cent – marginally higher than the 4.0 per cent also recorded in the fourth quarter of 2008. This was more than double the average annual growth since 1956 (1.7 per cent) and considerably higher than the 0.9 per cent growth recorded between 2010 and 2015.

8.44 However, as shown in Figure 8.6, these proposed increases would still leave real total government spending 3 per cent below its level in 2010/11 and nearly 10 per cent below if taking population growth into account. Expenditure on health has been protected from these cuts. Real public day-to-day expenditure by all departments fell by nearly 21 per cent between 2010/11 and 2018/19 but is expected to increase by 5.5 per cent in 2020/21 after a 0.9 per cent increase in 2019/20. On a per capita basis real spending fell by over 25 per cent between 2010/11 and 2018/19 but by 2020/21 it is expected to have rebounded by more than 5 per cent from its nadir. That is a significant boost to the economy.

Figure 8.6: Day-to-day spending on public services over the past decade, UK, 2010/11-2020/21

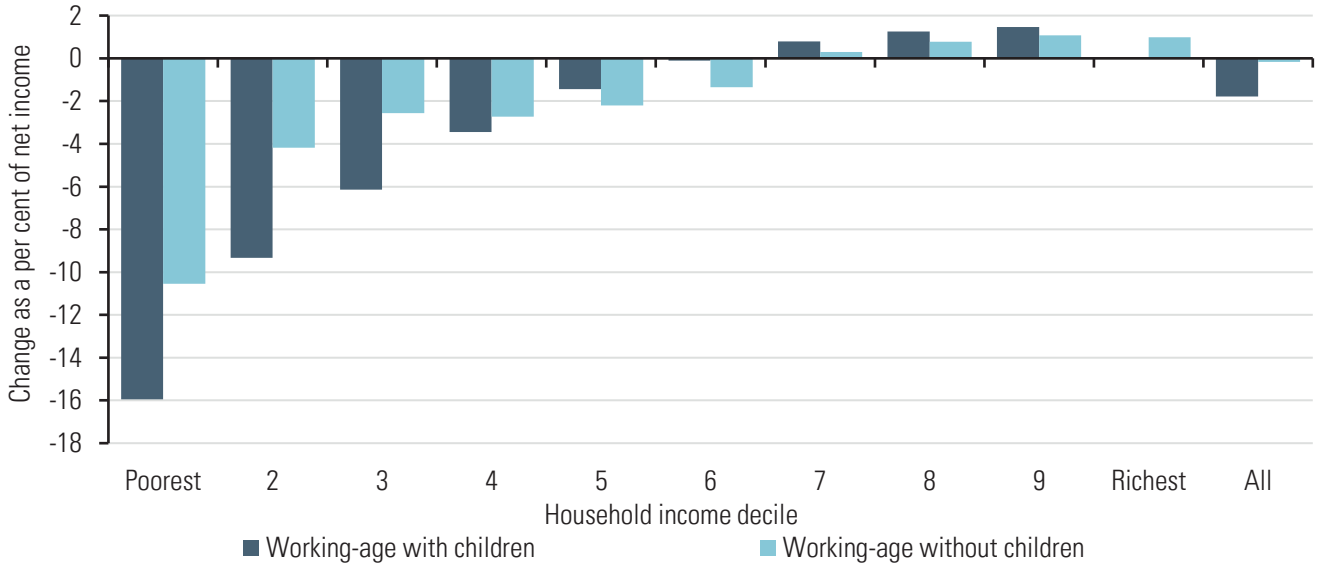


Source: Figure 6.3 in Crawford and Zaranko (2019). Authors' calculations using OBR Economic and Fiscal Outlook March 2019, various HM Treasury Public Expenditure Statistical Analyses, Spending Round 2019 and ONS population figures, 2010-21.
Note: Day-to-day spending refers to the OBR definition of public sector current expenditure in resource DEL, which differs from the Treasury definition of resource DEL excluding depreciation. Spending Round 2019 figures have been adjusted so as to be on a consistent basis with the OBR's historically consistent series for PSCE in RDEL and to strip out the effect of changes to public service pension contributions.

8.45 After many years of acting as a drag on growth, government expenditure is expected to raise GDP in 2020 and 2021. The Bank of England (2019c) estimated that the increases announced in the Spending Round 2019 could raise GDP by 0.4 per cent over the Monetary Policy Committee's forecast period (covering up to 2021). Since then, further spending commitments were made at the Conservative Party conference. These, if enacted, are likely to further boost growth in the coming year. The latest consensus forecasts, which may not have included these announcements, already had government consumption growing faster than household consumption in 2020 (around 2.2 per cent compared with 1.4 per cent).

8.46 However, the policies already announced by the Government, including the continuing roll-out of Universal Credit, will affect some households more than others. As shown in Figure 8.7, using analysis from Joyce (2019), the impact is greater on working age households with children than those without children. Between 2015 and 2022, changes to the tax and benefit systems will result in a net income loss of around 1.8 per cent for working age households with children and about 0.2 per cent for those without. The impact of the tax and benefit reforms are greater for the poorest households, with those households with children in the poorest decile losing 16 per cent of their net income and the poorest households without children losing 11 per cent of their net income. The four-year freeze on most working-age benefits, which has cut the real value of these benefits by around 6 per cent, will finally be lifted in April 2020 but some cuts and changes will continue to make their way through the system. These will cover child tax credits, the Employment and Support Allowance and Universal Credit.

Figure 8.7: Impact of tax and benefit reforms (including Universal Credit), May 2015 – April 2022



Source: Institute for Fiscal Studies analysis (Joyce, 2019) presented to the Low Pay Commission, 2015-22.
Note: Assumes full take-up of means-tested benefits and tax credits and all changes fully in place.

8.47 Since April 2016, extra tax credits for third and subsequent children have been abolished for new claimants and new births. In the long-run, around 550,000 families in work and 350,000 other families will lose on average about £3,700 a year. By 2020, only around half of those will have been affected. In addition, the per-family element of £545 a year will be removed for new claimants. This change is expected to affect around 4 million families in the long run. These changes are likely, however, to strengthen work incentives as child tax credits are means-tested.

8.48 Around 500,000 people – roughly a fifth of ESA claimants – will be affected by a cut of £30 a week as those assessed as less ill (new claimants in the Work Related Activity Group) will only be entitled to the same rate as Jobseekers' Allowance (JSA) claimants. The roll-out of Universal Credit has been subject to delays and is now not set to be fully in place until the end of 2023. For new claims it is already rolled out nationwide and covers around 2.4 million claimants. For existing claims, the managed migration is yet to come but the longer it is delayed the fewer cases will be left. Compared with the legacy system, there is a clear reduction in entitlements, mainly due to cuts in work allowances. It is unclear what impact the changes will have on take-up and work incentives. There are good reasons to think that take-up should increase, and that the new system does remove the weakest incentives.

8.49 Offsetting these benefit changes, there have been above-inflation increases in the income tax personal allowance. The Government's target of £12,500 was reached a year early but it has been frozen in 2020/21. This will reduce real net incomes in the coming financial year. During his leadership campaign, the Prime Minister stated that he wanted to increase National Insurance thresholds although he did not commit to when and by how much. Thus, we cannot assess any specific impact, but we note that National Living Wage (NLW) workers currently pay income tax if they work at least 29 hours a week every week of the year, but pay National Insurance if they work more than 20 hours a week. Any changes to the National Insurance threshold may therefore help the three-fifths of NLW who work at least 20 hours a week.

Prospects for the labour market

8.50 In Chapter 2, we noted that despite the strong performance of the labour market over the last year or so, there had been some signs of softening. Although the increase in workforce jobs (1.8 per cent) and employee jobs (1.6 per cent) had been strong over the year to June 2019, the pace of job growth on both measures had slowed in the last quarter to 0.3 per cent. However, historically, that is still reasonably robust growth (the long-term post war trend is for growth of around 0.13 per cent a quarter for both measures).

8.51 Total employment has grown by 282,000 (0.9 per cent) over the year – again above pre-crisis trend growth – but fell by 56,000 in the three months to August 2019. This softening in the most recent data was also observed for the number of employees, particularly those working part-time. The number of vacancies has fallen throughout 2019 so far, while the number of redundancies has increased very slightly. Despite this softening in recent months, the labour market remains on many measures close to record levels.

8.52 In Chapter 2 we identified how there is little capacity for unemployment to fall much lower than its current rate – its lowest for 45 years. However, we also identified underemployment as a measure of slack. This had been falling quite sharply since 2014 but that fall has slowed to a halt over the last year and still remains above its pre-crisis levels. This means that there is potential for slack to fall further and thus drive wage growth. However, whether this will happen or not is uncertain, particularly as we also observed in Chapter 2 that the decline in underemployment had slowed over the last year or so.

Employment and hiring intentions

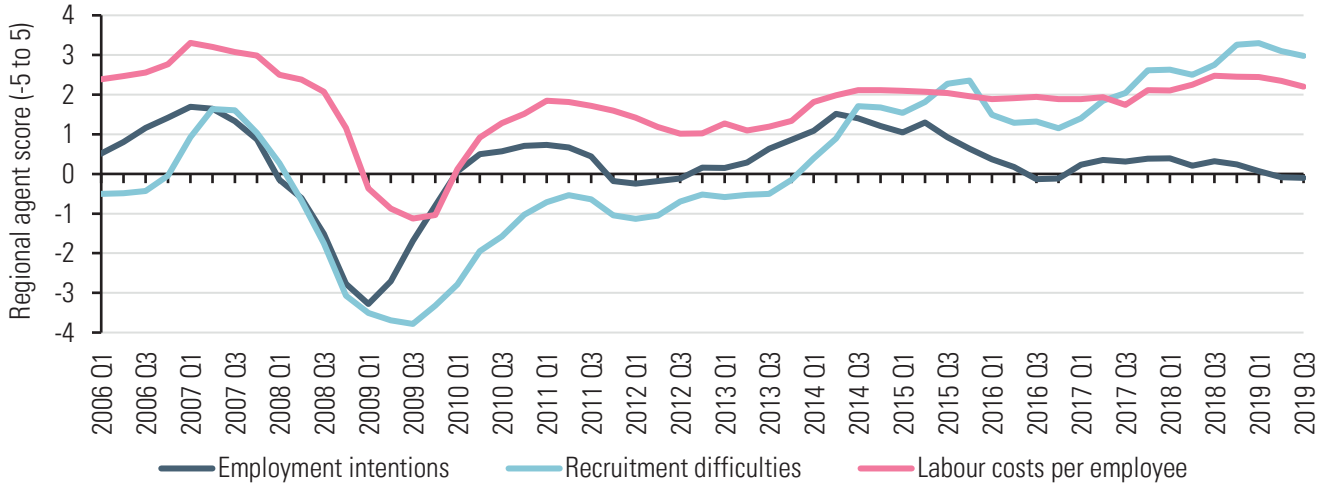
8.53 That softening of the labour market has been reflected in hiring intentions. Unlike last year, when the fall in business confidence did not appear to have affected hiring intentions, the latest business surveys – for example, the Bank of England (2019b) and the Recruitment and Employment Confederation (REC, 2019) – report a net balance of hiring intentions close to zero. That is, the number of firms expecting to increase employment over the next year is matched by the number of firms expecting to reduce their workforces. This contrast with the net positive balance seen in recent years but is suggestive of flat employment growth rather than contractions. NIESR (2019a) noted that many recruiters had mentioned Brexit as a factor in deferring hiring decisions. In its survey of CFOs in the second half of September 2019, Deloitte reported that around 70 per cent expected to decrease hiring compared with just 3 per cent expecting it to rise, as a sharper focus on controlling costs became apparent.

8.54 CBI business surveys suggest some softening. Its Industrial Trends Survey (2019b) noted that quarterly headcount in manufacturing was down and that firms were expecting a sharper reduction in the coming months. However, its Financial Services Sector Survey (CBI PwC, 2019) reported that in the third quarter of 2019, employment across the financial services had grown at its fastest pace over the year although that growth was expected to slow in the coming months.

8.55 Despite the softening, the REC (2019) reported that firms expected to increase their permanent and temporary workforces. Medium-sized firms (50-249 employees) were more optimistic than small or large firms in the autumn of 2019 but all were more pessimistic than the previous year.

8.56 As shown in Figure 8.8, the Bank of England (2019b) reported that employment intentions had weakened due to the economic uncertainty. It was the weakest its measure of employment intentions had been since the immediate aftermath of the EU Referendum but was still much higher than that recorded during the financial crisis. With a softening in employment intentions, recruitment difficulties and labour costs per employee had eased, although the latter remained elevated albeit still below pre-crisis levels.

Figure 8.8: Employment intentions, recruitment difficulties and labour costs, UK, 2006-2019



Source: Bank of England (2019b), UK, Q1 2006-Q3 2019., UK, 2006-2019.

Labour supply

8.57 Over the last decade, labour supply has mainly been driven by three factors: increased participation by older women; increased participation by mothers; and migration. In addition, increased full-time education participation has tended to reduce the labour supply from young people. These trends are likely to wane in the future and that may lead to some upward pressure on wages as employers face greater competition to retain and recruit workers.

8.58 The proportion of young people staying on in education appears to have plateaued. Further, the number of young people in the population has been falling and is expected to continue to fall over the next five years.

8.59 The roll-out of the equalisation of the State Pension age to 65 had encouraged women aged 60-64 to remain in the labour market. The employment rate for females aged 50-64 increased from 58.3 per cent in June 2010 to 68.6 per cent in August 2019. That compares with an increase for men from 71.2 per cent to 76.6 per cent over the same period. The move to 65 has now been completed. This increase in participation for older workers may continue to some extent as the State Pension age is increased to 66 and then to 67. That should help boost the employment rates of both men and women aged 65 and over. However, only 13.9 per cent of men aged 65 and over and 8.6 per cent of women aged 65 and over were in employment in August 2019.

8.60 The employment rate for women with dependent children has increased from around two-thirds in 2000 to just over three-quarters in June 2019. Since the onset of recession in 2008, the employment rate for women with dependent children has been consistently higher than that for those without dependent children. Prior to then, employment rates were generally higher for women without dependent children. In June 2019, the employment rate for women with dependent children was 75.1 per cent but only 70.6 per cent for those with no dependent children.

8.61 The other important factor in the increase in labour supply in the UK has been migration. Between the third quarter of 2014 and the second quarter of 2016, net annual migration averaged around 326,000. Since the EU Referendum in 2016, net migration has slowed but has still averaged around 250,000. The latest migration data shows that net migration has continued to slow – falling to 226,000 in the year to March 2019. Around 612,000 people migrated to the UK with around 385,000 leaving. EU migration to the UK has continued to fall and is at its lowest level since 2013 but net migration from the EU to the UK was still 59,000, albeit considerably below its peak of 219,000 in March 2015. Net migration from outside the EU was 219,000 in March 2019. That is considerably higher than the average of 146,000 recorded between December 2012 and June 2016.

8.62 Migration, in particular since 2004, has boosted labour supply in the UK. The latest data suggest that there were 2.4 million EU workers and 3.3 million non-EU workers out of a total of 32.8 million workers in the UK. In contrast to the migration data, the labour market data show that the growth in EU workers over the year to June 2019 was higher (3.8 per cent) than that for non-EU workers (2.8 per cent). The number of EU workers had been falling prior to the initial deadline for the UK exiting the EU (March 2019) but picked up as that deadline passed. The largest increase since then has been among EU8 migrants, who had previously been the most likely to leave. Evidence from stakeholders and on our visits suggest that EU8 and EU2 workers were returning to the UK (or remaining here) after March in order to supply seasonal labour to the agricultural and horticultural sectors.

8.63 Recent public announcements suggest that while the migration target of 'tens of thousands' may have been removed, the Government is still committed to policies that reduce net migration. This will affect not only the number of people coming to the UK but also its composition, with greater emphasis likely to be on more highly-skilled and highly-paid workers.

8.64 In summary, these labour supply trends may act as a drag on employment growth and boost the bargaining power of lower-skilled and lower-paid workers, as employers compete to recruit and retain workers from a workforce that is unlikely to be growing as strongly as in the recent past.

8.65 With the economy predicted to weaken and the growth in labour supply projected to ease, the Bank of England and the consensus from the HM Treasury panel of independent forecasters are expecting employment growth in 2020 to slow – growing by around 0.4-0.5 per cent – similar to the growth recorded in 2018. That growth is expected by the Bank of England to be sufficient to reduce unemployment further, but the median of the HM Treasury panel expects the unemployment rate to increase to 4.1 per cent in 2020.

Other prospects for the economy

Prospects for inflation

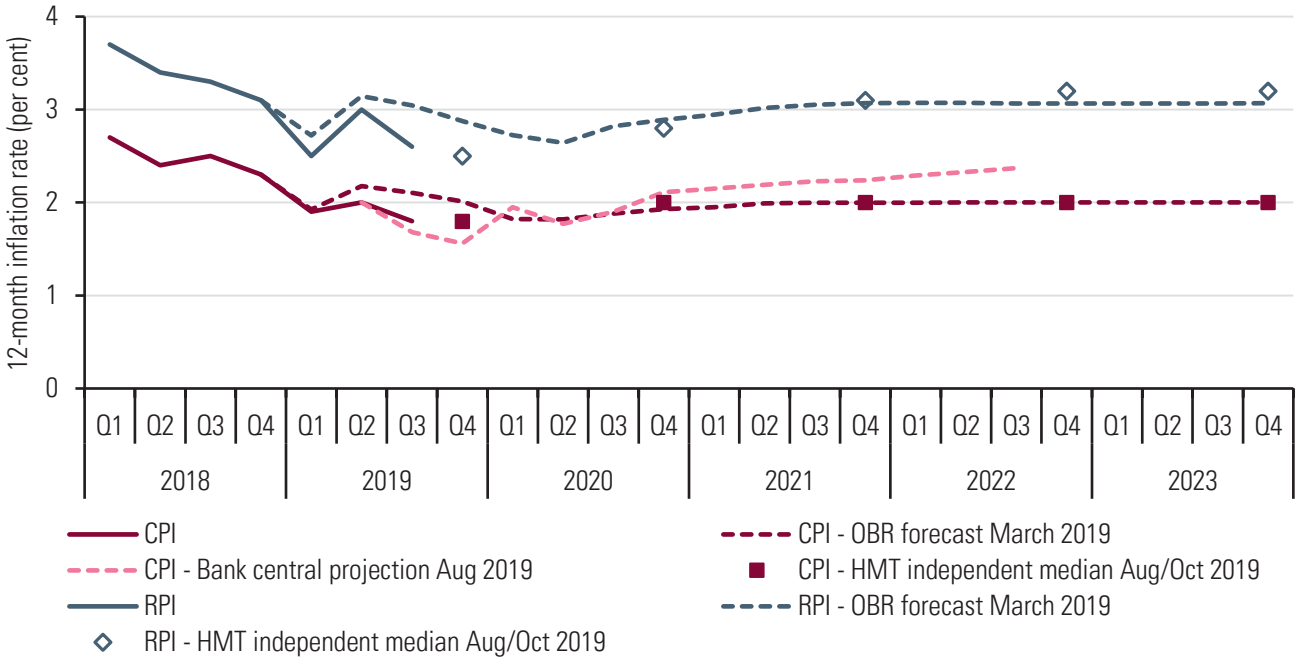
8.66 As we noted in Chapter 1, inflation has fallen back in recent months and the consumer price index (CPI) inflation measure remained at 1.7 per cent in September 2019. CPIH, the ONS headline inflation measure that takes account of housing costs, was also 1.7 per cent. Two other commonly used measures of inflation had also fallen back in the third quarter of 2019: the retail price index (RPI) and the retail price index excluding mortgage payments (RPIX) had both slowed from 3.0 per cent in April 2019 to just 2.4 per cent in September 2019.

8.67 In its monthly inflation tracker, NIESR (2019d) reported that the reduction in petrol and diesel prices had offset upward pressures from furniture, household equipment and maintenance. Just under a fifth of the 130,000 locally-collected goods and services prices had changed in September, implying an average duration of prices of around 5.4 months: 10.6 per cent were increases; 4.3 per cent were reductions due to sales; and 3.5 per cent were falls for other reasons. It noted that the underlying rate of inflation (excluding the highest and lowest price changes) was 1.0 per cent in September and varied little across the country (ranging from 0.8 per cent in the South East, South West and East Midlands to 1.2 per cent in Yorkshire and the Humber). It judged that that its underlying rate of trimmed mean inflation implied a CPI inflation rate of 2.1 per cent in September 2020 – close to the Bank of England's target rate.

8.68 Robust average weekly earnings growth alongside subdued productivity growth suggests that unit labour costs will remain elevated after hitting a ten-year high in the second quarter of 3.9 per cent. This could result in higher inflationary pressures if companies decide to pass these higher costs on to consumers.

8.69 As shown in Figure 8.9, the Bank and the median of the HM Treasury panel of independent forecasts show that most forecasters are expecting inflation to pick up and move back towards a level consistent with the CPI target of 2 per cent in 2020 and 2021. However, a few forecasters (such as Barclays Capital, Economic Perspectives and Heteronomics) are expecting CPI inflation to pick up towards 3 per cent or a little above in 2020. Although CPIH is now the official measure of price inflation in the UK, few forecasts include it. The Bank of England and the HM Treasury panel do not.

Figure 8.9: Inflation outturns and forecasts, UK, 2018-2023



Source: ONS CPI (D7BT) and RPI (CZBH), UK, Q1 2018-Q3 2019. Forecasts from HM Treasury (2019c) and Bank of England (2019a).

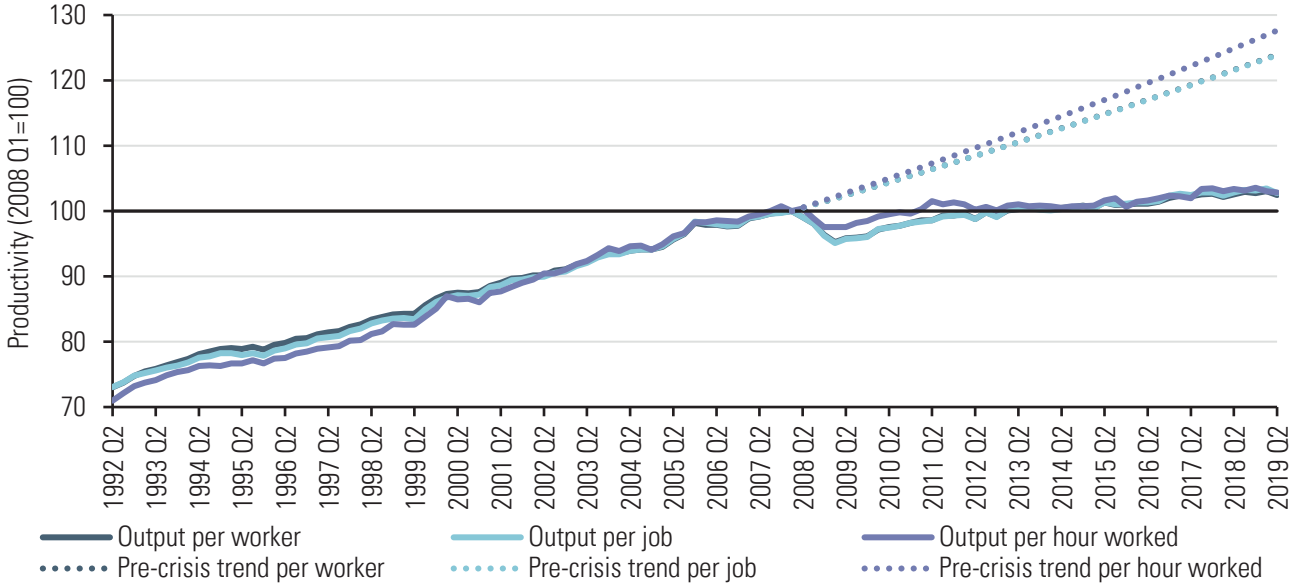
8.70 Although no longer a National Statistic, RPI inflation is still used as an indicator of the cost of living in some wage negotiations, although XpertHR (2019) noted that it was no longer the most commonly used measure of inflation for those purposes. More employers were now using CPI. That said, the OBR and the HM Treasury panel are forecasting that RPI inflation will remain below 3 per cent until mid-2021.

Prospects for productivity

8.71 With weak output growth and a strong labour market, productivity has performed poorly. Official statistics suggest that productivity as measured by output per hour fell by 0.5 per cent in the second quarter of 2019. Indeed, productivity growth – whether measured as output per hour, per worker or per job – has been anaemic since the onset of the financial crisis. On all three measures, the level of productivity has barely changed over the last two years and is only around 2 per cent higher than it was in 2008. Prior to then, productivity grew by close to 2 per cent a year.

8.72 That weakness is clearly shown in Figure 8.10, which shows that productivity on all three measures – per worker, per job and per hour – grew at a fairly consistent rate between 1992 and the onset of the recession in 2008. Data from 1955-1992 also show similar trends. That has not been the case since 2008. By the start of 2015, productivity on all three measures had barely recovered to their levels in 2008 and since then growth has been weak. Had productivity continued to grow in line with pre-recession trends, it would now be about 25 per cent higher on all three measures.

Figure 8.10: Productivity per worker, job and hour, UK, 1992-2019



Source: LPC analysis using ONS data: output per worker (A4YM), output per job (LNNN) output per hour (LZVB), quarterly, seasonally adjusted, UK, 1992-2019.

8.73 As well as concerns about weak demand in the UK and Brexit uncertainty, Deloitte (2019) reported that concerns about poor productivity and weak competitiveness had increased significantly in the three months to September.

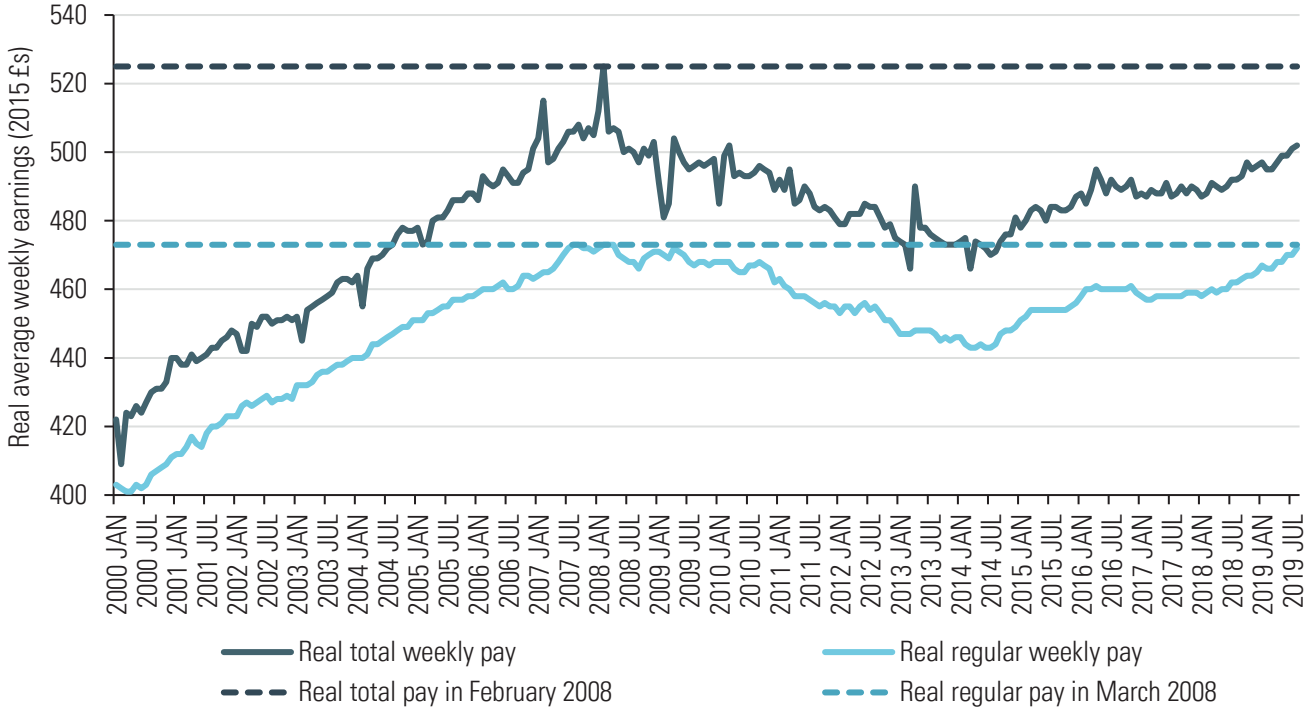
8.74 This weakness in productivity is reflected in the Bank of England's forecasts. It forecasts that productivity as measured by output per hour will fall by a quarter of a per cent in 2019 before picking up by 1 per cent in both 2020 and 2021. Productivity growth of that magnitude would still historically weak – the pre-crisis trend was around 2 per cent a year.

Prospects for pay growth

8.75 The latest official data showed that average earnings (including and excluding bonuses) in the three months to August 2019 grew by around 3.8 per cent compared with a year ago. With CPI inflation increasing by around 1.9 per cent over the same period, real wages also grew by about 1.9 per cent.

8.76 Despite that recent growth in real wages, they have still not returned to the levels observed in 2008, although as shown in Figure 8.11, real average weekly regular pay in August 2019 (£472) was only 0.2 per cent below its peak (£473) in March 2008. Real average weekly total pay in August (£502) was still 4.4 per cent below its peak in February 2008 (£522).

Figure 8.11: Real wages, UK, 2000-2019



Source: ONS: Real total weekly pay (A3WX) and real regular weekly pay (A2FC), monthly, seasonally adjusted, GB, 2000-19.

8.77 With wages growing at their fastest pace for over a decade and employment at record levels, labour costs were rising. In its survey of CFOs, Deloitte (2019) reported that controlling costs had become their top strategy, as margins came under pressure from increasing operating costs and softer revenue growth. As CFOs were also looking to increase cash flows and reduce leverage, there was a greater emphasis on strategies that defended market share rather than those that were looking to expand market opportunities. This focus suggested that the UK was set for weaker job and wage growth going forwards.

8.78 NIESR (2019c) indicated that regular earnings growth had stabilised at around 3.8 per cent in the third quarter of 2019 and was expected to be unchanged in the fourth quarter. Using its wage and GDP tracker, NIESR estimated that unit labour costs were expected to grow by around 3.5 per cent in the third and fourth quarters of 2019 while economic growth remained modest at best. It noted that while jobs were being cut in some sectors, the labour market faced shortages in others. It expected median pay settlements to remain unchanged going into 2020.

8.79 NIESR (2019a) also noted that substantial structural changes were affecting pay settlements and that many firms were targeting pay awards to those workers for whom retention and recruitment were more difficult. Although median pay settlement growth had settled around 2.5 per cent in 2019, there had been a notable increase in pay growth at the upper quartile in services, suggesting that businesses were increasing pay for staff where they could afford to do so.

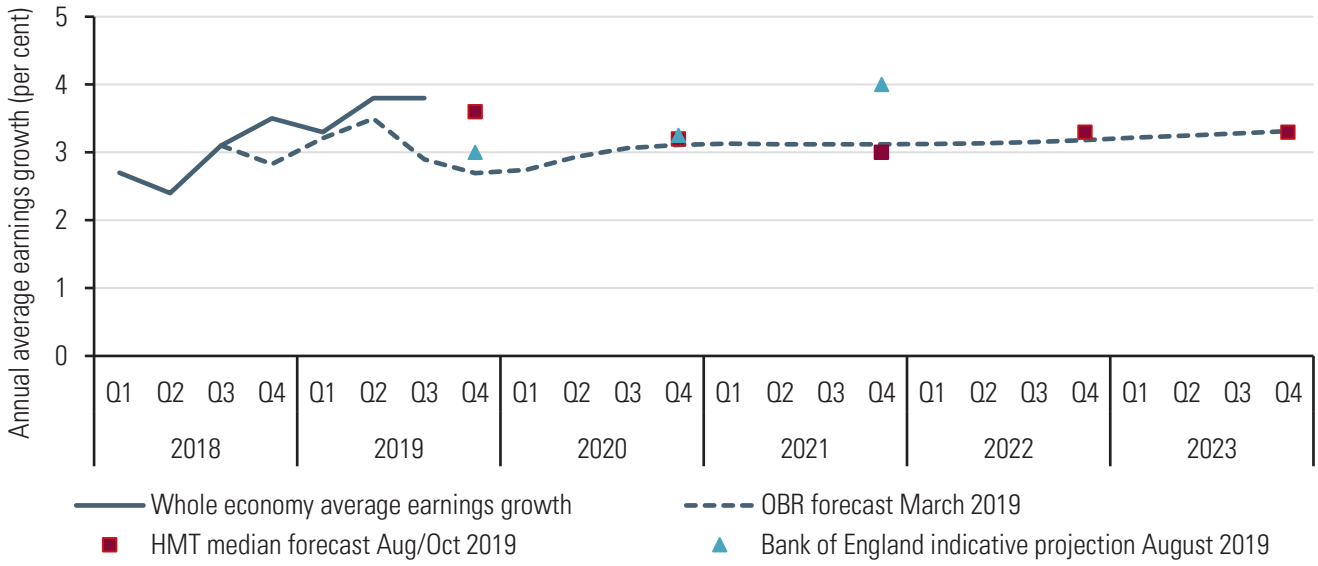
8.80 Public sector pay restraint (firstly as a pay freeze and then as a 1 or 2 per cent cap) had acted as a constraint on private sector pay growth even when the labour market had been reasonably tight. The ending of this policy meant that public sector pay was proving more influential on general pay growth than in recent years. Pay pressures were increasing but Incomes Data Research (2019) and XpertHR (2019) both reported that employers were not responding across the board but increasing pay for certain groups where skill shortages were most acute. Although the increases in public sector pay would attract prison officers and customs officers, they would not necessarily address the skill shortages for nurses and specialist teachers as these were more affected by the numbers trained.

8.81 Further, after years of restrictions on public sector employment, these have been relaxed in the last year or so. This recent increase in public sector employment may increase competition with the private sector for some workers and thus put further upward pressure on wages. In addition, at the time of making our recommendations, the recent commitments to higher public spending in the Spending Review and at the Conservative Party conference also looked likely to enable higher pay awards than in previous years.

8.82 In its Monthly Wage Tracker, NIESR (2019c) expects wage growth to stabilise at 3.5-4.0 per cent in the fourth quarter of 2019. The boost in real pay was not sustainable without a pick-up in productivity growth and NIESR judged that to be unlikely in the near term.

8.83 The forecasts for average earnings are mixed, with the Bank of England (2019a) expecting some weakening in the near term before picking up to 4 per cent by the end of 2021. In contrast, the median of the HM Treasury panel of independent economic forecasters (HM Treasury, 2019c) indicates a more gradual slowing but with average earnings growth remaining above 3 per cent out to 2023.

Figure 8.12: Average earnings growth out-turns and forecasts, 2018-2023



Source: ONS, Average weekly earnings (AWE) total pay (KAC3), quarterly, seasonally adjusted, GB, 2017-19; HM Treasury (2019a and 2019c), 2019-23; Bank of England (2019a), average weekly earnings projections, 2019-21; and OBR (2019) average weekly wage forecasts, 2019-23.

Summary of economic prospects

8.84 In summary, Table 8.1 shows that the consensus of forecasts for GDP growth in 2019 (1.2-1.3 per cent) and 2020 (1.0-1.3 per cent) are expected to be a little lower than growth in 2018 (1.4 per cent) but well below the growth in 2016 and 2017 (1.9 per cent) and 2015 (2.4 per cent). This would represent five consecutive years of growth below the average since 2011 (2.0 per cent a year) and well below the long-term average from 1955-2007 (2.7 per cent). Employment growth is expected to be more modest in 2020 at around 0.4-0.5 per cent – similar to that in 2018 but below the strong job growth experienced in 2019. That growth is not enough to prevent unemployment rising slightly, albeit remaining historically low.

8.85 With economic growth weak and the labour market resilient in the first half of 2019, productivity was also expected to remain weak. However, with employment growth slowing in 2020 and economic growth remaining modest, productivity growth is expected to pick up towards 1.0 per cent. Although that would have been an unexceptional performance prior to the financial crisis, when annual productivity growth was around 2.0 per cent, it would be the best annual performance since 2011 when it was 1.5 per cent.

Table 8.1: Forecasts for the economy, 2019-2020

	Actual	OBR forecasts				Bank of England forecasts		Median of HM Treasury panel	
		July 2015		March 2019		August 2019		October 2019	
	2018	2019	2020	2019	2020	2019	2020	2019	2020
GDP Growth (whole year)	1.4	2.4	2.4	1.2	1.4	1.3	1.3	1.2	1.0
Average Earnings AWE (whole year)	2.9	4.1	4.4	3.1	3.0	3.0	3.3	3.6	3.2
Inflation RPI (Q4)	3.3	3.1	3.2	2.9	2.8			2.5	2.8
Inflation CPI (Q4)	2.3	1.9	2.0	2.0	1.9	1.6	2.1	1.8	2.0
Employment growth (whole year)[3]	0.5	0.6	0.6	0.4	0.5	0.8	0.5	1.1	0.4
ILO unemployment rate (Q4)	4.0	5.4	5.4	4.1	4.1	4.0	3.7	3.9	4.1
Productivity (output per hour)	0.5	2.2	2.2	0.8	0.9	-0.3	1.0	0.2	0.7

Source: OBR (2015 and 2019); Bank of England (2019a); and HM Treasury (2019c); GDP growth (ABMI), total employment as measured by workforce jobs (DYDC), ILO unemployment (MGSC) and output per hour worked (LZVB), quarterly, and AWE total pay (KAB9), monthly, seasonally adjusted; RPI (CZBH) and CPI (D7G7), quarterly, not seasonally adjusted, UK (GB for AWE), 2018-20.
Note: Bank of England forecasts of ILO unemployment rates are for the third quarters, 2018-20.

8.86 CPI inflation, having fallen to 1.8 per cent in the third quarter of 2019, is forecast to gradually move back to target in 2020. With average weekly earnings remaining relatively robust at 3.2-3.3 per cent, real wages are again set to increase albeit more slowly (around 1.5 per cent) than currently (around 1.9 per cent).

Implications for the National Living Wage and the National Minimum Wage

8.87 As we have set out in our reports since 2016, our projection of the on-course NLW path to 2020 is based on the median hourly earnings excluding overtime for those aged 25 and over (and not in the first year of an apprenticeship) from the latest release of the ASHE; actual wage growth from the total pay series of Average Weekly Earnings (AWE) between that release and our deliberations; and the median of the average wage forecasts from the HM Treasury panel of independent forecasts and the Bank of England Inflation Report.

8.88 We estimate that the median in April 2019 was £13.82 an hour – an increase of 3.5 per cent on 2018. In our 2018 Report, we had estimated that the median for 2018 was £13.37. Using the latest data, we now estimate it to be £13.35. Last year, we projected that the 2019 median would be £13.74 – some eight pence lower than it turned out (with actual average wage growth greater than forecast adding ten pence but the lower median deducting two pence).

8.89 As we have just noted, our wage forecasts used to project the NLW are derived from the HM Treasury panel of independent forecasts and the Bank of England. The panel consists of 24 organisations that in the last four months (July-October) have all forecast average wage growth in 2019 and 2020. Of these, 13 have also made average wage forecasts for 2021.

Table 8.2: Variation in forecast earnings, UK, 2019-2021

Average wage growth forecasts	2019	2020	2021
Median	3.6	3.2	3.3
Mean	3.5	3.3	3.2
Interquartile range	0.4	0.4	0.7
Lower quartile	3.3	3.1	2.7
Upper quartile	3.7	3.5	3.4
Range	0.9	1.5	1.5
Minimum	2.9	2.6	2.5
Maximum	3.8	4.1	4.0
Count	24	24	13

Source: HM Treasury (2019a and 2019c) and Bank of England (2019a), 2019-21.

8.90 According to AWE total pay, average weekly wages for January-August 2019 were 3.6 per cent higher than in the same period a year ago – in line with the latest forecasts for 2019. Wage growth is expected to slow in 2020 with the median of the panel, including the Bank of England, at 3.2 per cent and the mean at 3.3 per cent. While the interquartile range of forecasts is quite narrow at 0.4 per cent from 3.1-3.5 per cent, the forecasts range from 2.6 per cent (CEBR, EIU and Heteronomics) to 4.1 per cent (Morgan Stanley). The Bank of England forecast average wage growth of 3.3 per cent in 2020.

8.91 In our last report, we projected that the NLW in 2020 would lie in a range between £8.58 and £8.65. However, wage growth in 2018 and 2019 has been higher than forecast. Thus, we now estimate our on-course target for the NLW to reach 60 per cent of median earnings in 2020 to be £8.72.

8.92 The Government has asked us to attain that target subject to sustained economic growth. Although there is much uncertainty in the economic forecasts for the UK in the year ahead, the consensus is that UK economic growth will just meet that threshold.

Stakeholder views on economic prospects and the rates

8.93 Our consultation this year asked businesses about both the impacts of the NLW meeting its target of 60 per cent of median earnings in April 2020; and the potential effects of a further NLW target set at two-thirds of median earnings, an ambition which the Chancellor had signalled in the autumn 2018 budget announcement. Most responses we received on future rates and economic prospects addressed these questions together. Our separate report on the NLW beyond 2020 (Low Pay Commission, 2019c) summarises stakeholder views on the future of the NLW after that date.

8.94 The other major theme of stakeholder evidence was uncertainty over the outcome of Brexit negotiations, and the possibility of a disruptive no-deal exit from the European Union. Stakeholders asked the LPC to consider carefully the impact of this uncertainty. The CBI in oral evidence told us they supported the NLW reaching the 60 per cent target except in the case of no-deal Brexit and if the prevailing forecasts proved accurate.

8.95 The majority of stakeholders accepted that the NLW was likely to meet its 60 per cent target in 2020. Employer representatives did not tend to argue against this outcome; some supported the NLW reaching its target, although others limited themselves to accepting this and setting out the potential impacts for businesses of the 2020 uprating. Major employer groups including the FSB and British Chambers of Commerce did not object to the on-course 2020 rate.

8.96 The REC thought that the target was 'achievable' but stressed the need to continue monitoring impacts, which it thought could be challenging in the context of Brexit-related uncertainty. UKHospitality thought that businesses had planned for the 2020 increase, but that it would still be 'the toughest step so far', and that this planning could be disrupted by a recession or other shock. The Association of Labour Providers, which operates in a sector that competes internationally for workers, thought that the UK should retain a minimum wage that is competitive with other countries. The Food and Drink Federation thought that negative effects of the 2020 rate would be 'minor' provided the UK avoided a significant economic shock (e.g. a no-deal Brexit). Make UK were also 'supportive' of reaching the target.

8.97 Other employer groups cited economic uncertainty as a reason to be more cautious on the NLW. The British Beer and Pub Association told us that pubs would struggle to continue absorbing increases. The Institute of Directors advised that in case of a no-deal Brexit, the 2020 uprating should be delayed to help businesses adjust to economic impacts. The National Farmers Union argued that 'in view of the increased political and economic uncertainty and low business confidence in the short to medium term that places continued growth under threat' the LPC should take a 'cautious and balanced approach' but did not recommend a specific rate.

8.98 A small number of employer representatives went further, recommending lower increases than forecast. The Federation of Wholesale Distributors asserted that the business conditions are not in place to allow a faster increase in wage rates beyond inflation. The National Hairdressers Federation did not explicitly recommend an increase below the on-course rate but told us that 45 per cent of respondents to its member survey thought a rate of £8.67 would be unaffordable. Social care organisations were worried about the potential effects of future increases. Care England told us that it thought some local authorities would fail to meet increased wage costs without more funding and worried the 2020 NLW rate may be a tipping point leading to more provider failures.

8.99 Unions, on the other hand, supported raising the minimum wage at least in line with the proposed path. The Trades Union Congress (TUC) argued that 'the prospects for further rises in the national minimum wage are good.' It thought that 'the time is now right to get to the 2020 NLW target' and reach the TUC's preferred £10 per hour as quickly as possible. UNISON recommended that the NLW at least reach its target in 2020. Usdaw agreed that 60 per cent was the minimum acceptable level and thought the LPC could go above this without affecting employment or competitiveness. The NLW's impact had been diluted by weak pay growth and high inflation, it argued, and the forecast 2020 rate was below the original forecasts that employers had budgeted for, leaving some headroom.

Youth rates

8.100 Unions called for various changes to the youth minimum wage system, but most appealed for all the rates to eventually be aligned with the NLW. UNISON in the short term urged more 'boldness'. It argued that in 2020 the rates for workers aged under 25 should be restored to their 2009 'real value'. RMT proposed a minimum wage of £10 per hour for all those over 21. Unite argued for a £10 an hour minimum wage rate for all workers aged 18 and over. The London Assembly also supported aligning the youth and apprentice rates with a higher NLW. Most evidence from employers on future rates for younger workers focused on the review of the youth rates we have been conducting for the last 18 months, and is summarised in that report (Low Pay Commission, 2019b).

Conclusion

8.101 While economic growth is again forecast to be relatively modest, it is expected to meet our threshold of sustained economic growth, with growth of around 1.2 per cent in 2019 and 1.0 per cent in 2020. Despite the expected GDP weakening, the labour market is expected to remain resilient with employment growth sufficient to keep unemployment low.

8.102 Inflation has fallen below the Bank of England's 2 per cent target but is expected to increase in the near to medium term towards the target. Average earnings growth has picked up towards rates not seen since before the financial crisis. However, there are signs of some softening in the labour market and forecasts suggest that wage growth might slow into 2020, albeit growing more strongly than in the recent past. With inflation around the target level, the relatively strong wage growth would sustain the real wage growth that we have seen in the last 18 months. Productivity continues to disappoint but forecasts suggest that some modest growth may occur in 2020.

8.103 We project the on-course path of the NLW to reach 60 per cent of the median to be £8.72 an hour. Among stakeholders there was little dissent on the NLW reaching its target in 2020, though some employers expressed concern about the implications of ongoing uncertainty. Unions backed reaching the target as a minimum, citing £10 per hour as an aspiration.

Chapter 9

Recommended rates and their implications

9.1 The chapters up to this point have set out the evidence that informed the recommendations for the rates to come into effect on 1 April 2020. This chapter sets out those recommendations and the rationale for each of them alongside some of the implications for the bite and household incomes

9.2 Our remit is to recommend the rate of the National Living Wage (NLW) consistent with reaching the target of 60 per cent of median earnings by October 2020, subject to sustained economic growth. For the other rates of the National Minimum Wage (NMW) our remit is to recommend as high a rate as possible without damaging employment. In making these recommendations we have taken into account the state of the economy, employment and unemployment levels and relevant policy changes. We have also spoken with a wide range of employers, workers and their representatives across the country. This is essential for understanding how employers are responding to the NLW and the impact it has on workers' lives.

9.3 We have concluded that the economic and employment picture, while less positive than for other recent rises in the NLW, was strong enough to justify moving to 60 per cent of median earnings in 2020. The bar of sustained economic growth was more narrowly reached than in previous years.

9.4 Our 'Retreat', the meeting where Commissioners agree the recommendations we are to make, took place against a unique backdrop: the negotiations for the UK's exit from the European Union. Our discussions this year took place at the same time as the EU Council meeting in mid-October 2019, and so we met in particularly uncertain times. During our deliberations the status of the UK's future trading relationship was unknown. In response to this uncertainty our letter of recommended rates to the Government made the following statement:

9.5 'There remains a possibility of a no deal Brexit which forecasts suggest could damage the economy. In the event of a no deal Brexit, the Government has stated that "action to support the economy, businesses and households" may be required promptly. In this case, we would advise the Government appropriately on minimum wage policy. As we set out in our advice to the Government for our remit beyond 2020, it is important that the LPC maintains the flexibility to respond to economic circumstances in an increasingly volatile global climate.'

9.6 Our advice on all the rates and their rationale is summarised below.

National Living Wage

9.7 The Government's objective is for the NLW to reach 60 per cent of median earnings by 2020, subject to sustained economic growth. Our core decision therefore is whether the sustained economic growth threshold has been met. This bar was more narrowly reached than in previous years. The Office for National Statistics data for GDP growth suggest that it has been reached, growing at a rolling four-quarter average of 1.6 per cent up to the second quarter of 2019, which is within the range of forecasts available last autumn (1.5-1.8 per cent).

9.8 As the year progressed and we approached the 31 October deadline for leaving the EU, global growth weakened and uncertainty about our future trading relationships adversely affected investment. However, the latest forecasts available to us suggest that GDP will have grown by around 1.2 per cent in 2019 and will continue to grow by 1.0-1.2 per cent in 2020 as consumer spending and increased government spending offset the effects of weaker global growth and Brexit-related uncertainty. We judged that this met the condition of sustained growth. We should note that these forecasts are based on assumptions of a Brexit deal with a smooth transition over the period in which our recommendations will apply.

9.9 The labour market has continued its strong performance, reaching record high employment rates and record low unemployment rates during the year. Growth in employment in 2019 has easily surpassed forecasts, with the number of jobs growing at 1.8 per cent against expectations of 0.4-0.6 per cent.

9.10 While the labour market has performed well, there are some areas where conditions are softening. Underemployment, where workers want more hours in their current role than are currently available, has fallen continuously for several years. Yet it remains above its pre-crisis level and its decline appears to have stalled in recent months. Furthermore, jobs growth has slowed and the number of job vacancies in the economy appears to have begun to fall across a range of different-sized employers.

9.11 However, our analysis and econometric research show that the NLW has led to a large increase in the wages of the lowest paid without significant negative effects on employment or hours. Instead, employers appear to have responded to the introduction and subsequent upratings of the NLW by increasing prices, accepting a squeeze on profits, and reducing differentials and non-wage benefits. In responses to our consultation, we heard that some businesses were finding the increased costs of the NLW particularly challenging and that small businesses in general may have less scope to manage these.

9.12 While employment levels have been a positive feature of the UK labour market for several years, earnings growth has not. Therefore, it is encouraging to see that over the last year or so there has been an increase in nominal pay growth so that it is now close to pre-financial crisis norms. According to the Annual Survey of Hours and Earnings (ASHE), hourly pay for those aged 25 and over (excluding first year apprentices) grew by 3.5 per cent. This is higher than last year's 2.5 per cent and very similar to the growth recorded by the ONS's Average Weekly Earnings measure of 3.6 per cent.

9.13 Growth in weekly pay, which is a better measure of living standards, also accelerated to 3.3 per cent. This was particularly the case for those at the lower end of the weekly pay spectrum. NLW workers saw their weekly pay increase by 6.2 per cent, which is higher than the increase in the NLW, suggesting that hours worked amongst this group also increased.

9.14 Over the last few years, pay has grown faster at the bottom of the pay distribution, driven by the higher (than average pay) increases in the NLW and their spillover effects to workers paid just above the NLW. However, this year the increase in pay has been much more broad-based, with less of a distinction between those at the bottom and those in the middle.

9.15 As forecast, the rate of inflation has fallen back as the effects of the depreciation of sterling in 2016 unwound. Indeed, the latest data suggest that it has fallen below target to 1.7 per cent. With nominal average earnings strengthening, real wage growth has increased to around 2 per cent. However, real wage levels still remain below their pre-crisis levels.

9.16 **Taking all of this into account, we recommend an increase in the NLW of 51 pence, or 6.2 per cent, to £8.72 to reach the target of 60 per cent of median earnings in 2020.** As the NLW follows a target based on median earnings, the improvement in earnings growth is the key driver behind the level of our recommendation for this rate.

National Minimum Wage

9.17 Young people continue to experience an improvement in their labour market position, with falling unemployment and rising employment rates since 2011. Their earnings have increased at the fastest rate for several years and, as with adult workers, this increase is seen across the earnings distribution. Overall, there is evidence of a shift, albeit slight, of young workers away from low-paying occupations. However, there is well-established evidence that young people are more vulnerable to economic downturns. In making our recommendations we have therefore balanced the positive indicators for young people we saw in the data available, with the weaker economic position we note above.

21-24 Year Olds

9.18 Earlier in the year we recommended that the age of eligibility for the NLW be reduced from 25 to 21 in two stages, moving first to 23 in 2021. We are pleased that the Government accepted this advice. The most recent evidence adds further weight to this recommendation. Growth in median hourly earnings for these workers was strong at 5.9 per cent, well above that for the rest of the workforce, and with a further reduction in the share of 21-24 year old workers paid at the NMW rate for their age. The employment rate for those outside of education remains at 80 per cent, higher than the pre-crisis norm, and there have also been recent increases in the share combining work with full-time education. Unemployment amongst those outside of education remains at the same levels as the pre-crisis lows.

9.19 Given the policy decision to bring 21-24 year olds into the NLW fold over the next few years, our view was that it made sense to maintain the relative gap between these two rates. **To that end we recommend an increase of 50 pence, or 6.5 per cent, to £8.20.** This is the final year in which we will recommend a rate for 21-24 year olds. Next year we will provide a recommendation for the new 21-22 Year Old Rate.

18-20 Year Olds

9.20 Similar to 21-24 year olds, workers in this age group saw rapid growth in earnings of around 6 per cent, which was again found across the whole distribution. However, unlike 21-24 year olds, the employment position of this group has softened slightly. We recognise the relatively weaker position of this group in the labour market and so recommend a slightly lower percentage increase than for 21-24 year olds, at 4.9 per cent, or 30 pence, to £6.45. This increase is larger than that recommended last year in recognition of the strong earnings growth we have seen.

16-17 Year Olds

9.21 The position of 16-17 year olds is similar to that of 18-20 year olds this year. They have seen weaker earnings growth at 4.2 per cent but their unemployment and employment position improved on last year. However, this group remains the most vulnerable of those covered by the NMW framework and our priority remains ensuring a successful transition from education into the world of work. So, on this basis we recommend an increase of 4.6 per cent, or 20 pence, to £4.55. Again, this increase exceeds the 3.6 per cent recommended last year.

Apprentices

9.22 The message we have heard most consistently from our stakeholders is that there is room for the Apprentice Rate to increase. Some representatives of workers and employers advocate an equalisation of the rate with the 16-17 Year Old Rate. However, this view is not consistently held, and we are in the midst of a review of the structure of the Apprentice Rate. To that end, we recommend an increase of 6.4 per cent, or 25 pence, to £4.15, which moves the rate part-way toward the 16-17 Year Old Rate. We note that we will complete our review shortly and may make recommendations for further change.

Accommodation Offset

9.23 Since 2013 we have had the aim of bringing the Accommodation Offset in line with the 21-24 Year Old Rate as long as that rate is rising in real terms. Last year we said we would close this gap over two years, with 2020 being the final year. To that end we recommend an increase of 8.6 per cent, or 65 pence, to £8.20.

Implications of the recommended rates

9.24 In this section we look at how the rates we have proposed may affect the bite of each minimum wage and the number of workers who will benefit from the increases. We also examine how the changes will affect the post-tax and benefit income for workers aged 21 and over.

Estimated bite of the recommended rates

9.25 As we have discussed previously in the report, the ratio between the minimum wage and the median wage – the 'bite' – is a widely used measure of the toughness of the wage floor. Therefore, to examine how our recommended minimum wages would change the bite we need to forecast the level of wage growth in the median wage. In this section we have done this in two ways. The first approach assumes that the median pay of all age groups follows that of the HM Treasury panel of independent forecasters' median pay prediction. The second approach assumes that median pay increases at the same level as it did last year. The benefit of the latter approach is that it recognises that pay growth at younger age groups has been faster in the last few years than increases for older workers.

9.26 Table 9.1 shows how the bite of each of our recommended minimum wages would change next year under each wage growth assumption. If we assume that median pay grows in each age band by the level forecast by the HMT panel then the bite will increase for all age groups, with the 21-24 Year Old Rate reaching a bite of 80 per cent. However, the picture would be more mixed if we instead assume that wage growth among younger workers matches the increases seen in the last year. In that case, the bite would actually fall for the rate that affects 18-20 year olds. The bite target for the NLW is measured in October, so the bite is slightly higher in April.

Table 9.1: Bite of the NMW/NLW and forecasts after uprating, UK, 2019-2020

Minimum wage band	Current			April 2020	HMT Panel		2018-19 growth	
	NMW/ NLW	Median wage	Bite (per cent)	NMW/ NLW	Median wage	Bite (per cent)	Median wage	Bite (per cent)
NLW	£8.21	£13.82	59.4	£8.72	£14.30	61.0	£14.30	61.0
21-24	£7.70	£9.90	77.8	£8.20	£10.25	80.0	£10.45	78.4
18-20	£6.15	£8.27	74.4	£6.45	£8.56	75.3	£8.73	73.8
16-17	£4.35	£6.21	70.0	£4.55	£6.43	70.8	£6.47	70.3
Apprentice	£3.90	£6.15	63.4	£4.15	£6.37	65.2	£6.47	64.1

Source: LPC estimates using ASHE 2010 methodology, standard weights, UK, April 2018-19. Forecasts are based on AWE total pay from ONS (2019i) and HM Treasury (2019c) and Bank of England (2019a) average weekly earnings predictions.

Number of jobs directly affected by the recommended rate increases

9.27 Another way that we can forecast the size of the impact of our recommended rates is by looking at the number of jobs that will be directly affected by the increases. This is the number of jobs whose pay would have to grow faster than it otherwise would to stay above the pay floor. Again, the level depends on what assumptions are made about wage growth in the absence of the increases and we use the same two assumptions for pay growth as we did in the previous section – the median of the HM Treasury panel of independent forecasters and the growth seen in the previous year.

9.28 The estimates in this part are not a prediction for the numbers of workers who will be paid the various rates next year. We have evidence that employers often choose to increase pay for some jobs to a larger extent than directly required to comply with a higher wage floor. They choose to do this for a variety of reasons: the main ones being to maintain differentials between different job grades, to recognise skills and to help recruitment. These 'spillovers' from the minimum wage mean that workers higher up the pay distribution benefit from increases in the floor, and that increases in the minimum wage do not cause all workers between the previous wage floor and the incoming one to be paid exactly the new minimum wage.

9.29 Table 9.2 shows the number of jobs that are likely to see a pay increase due to the higher wage floor. Using the HM Treasury panel of independent forecasters' median pay forecast we expect that over 2.8 million jobs will see a pay increase next year due to our recommendations. If we instead assume that growth for the lowest paid of each age group follow the increase in median pay next year, we still anticipate pay increases for over 2.7 million jobs due to the higher wage floors.

Table 9.2: Coverage of the NMW/NLW and numbers directly affected by uprating, UK, 2019-2020

Minimum wage band	April 2019 Coverage		Numbers directly affected assuming HMT Panel forecast		2018-19 pay growth	
	(thousands)	(per cent)	(thousands)	(per cent)	(thousands)	(per cent)
NLW	1,639	6.6	2,376	9.5	2,376	9.5
21-24	154	7.8	220	11.1	175	8.8
18-20	115	11.9	130	13.5	115	11.9
16-17	36	12.2	38	13.1	37	12.7
Apprentice	32	16.6	37	19.5	33	17.3

Source: LPC estimates using ASHE 2010 methodology, low-pay weights, UK, April 2018-19. Forecasts are based on AWE total pay from ONS (2019i) and HM Treasury (2019c) and Bank of England (2019a) for average weekly earnings.
Notes:
a. ASHE undercounts apprentices, so the number benefiting from the increase is likely to be larger than the estimate in the table.
b. If the increase in the minimum wage is below forecast earnings growth, we assume that the number affected is the same as current coverage

Impact on net earnings

9.30 What matters for the living standards of minimum wage workers is the total income received by the household. Therefore, it is important to understand the impact of other factors on household income, particularly the tax and benefit system. After-tax earnings vary according to household circumstances, with Universal Credit (UC) boosting the earnings of low-income households, but the amount of benefits paid is decreased as income increases, reducing the return to higher earnings, while Income Tax and National Insurance contributions (NICs) also reduce the take-home element of any increase in the NLW or NMW.

9.31 In April 2019, the personal tax allowance was increased to £12,500 a year. It will remain at this level for 2020-21, thereafter increasing in line with the Consumer Price Index (CPI). The National Insurance Primary Threshold, at which employees start paying NICs is £166 per week in the 2019-20 financial year.

9.32 Table 9.3 shows that, before any adjustment for tax and benefits, an NLW worker working 30 hours a week will see an increase of £15.30 in their weekly pay, assuming the NLW is increased from £8.21 to £8.72 in April 2020. Using HM Treasury estimates, a single NLW worker will keep most of the increase in the NLW. After adjusting for tax and benefits, their weekly household income will rise by £10.76 in April 2020. Their equivalent hourly income will rise by 45 pence from £7.85 to £8.20. Their after-tax pay will grow by 4.6 per cent, less than the 6.2 per cent increase to the NLW. The annual pay of a worker working 30 hours per week is above the income tax threshold in both years and so the whole value of the pay increase will be subject to taxation.

9.33 A married-couple household, with two children and only one parent working 30 hours per week, in receipt of UC, would see their weekly net income rise in cash terms by £10.73. This is equivalent to an effective increase in the hourly rate of 36 pence – from £14.21 to £14.57 per hour. Their after-tax pay will grow by 2.5 per cent, less than half the 6.2 per cent increase in the NLW. This is due to the combined effects of the increase in pay being above the income tax threshold, and the withdrawal of UC as they earn above the taper threshold.

Table 9.3: Impact of Personal Tax Allowance and benefit changes on household income of NLW workers, UK, 2019/20-2020/21

NLW worker, 30 hour week		2019/20	2020/21	Increase £	Increase per cent
Pre-tax hourly rate	**£**	**8.21**	**8.72**	**0.51**	**6.2**
Annual pay	£	12,842	13,641	799	6.2
Tax threshold	£	12,500	12,500	0	0.0
Taxable pay (annual)	£	342.08	1,141.57	799	233.6
Weekly pay before tax/NICs/UC	£	246.30	261.60	15.30	6.2
Single, no children					
Weekly household income after tax/NICs/UC	£	235.35	246.11	10.76	4.6
Post-tax/benefit change	£	-10.95	-15.49		
Post-tax/benefit change	%	-4.4	-5.9		
After-tax hourly rate	£	7.85	8.20	0.45	4.6
Married couple, one working, 2 children					
Weekly household income after tax/NICs/UC	£	426.30	437.03	10.73	2.5
Post-tax/benefit change	£	180.00	175.43		
Post-tax/benefit change	%	73.1	67.1		
After-tax hourly rate	£	14.21	14.57	0.36	2.5

Source: LPC estimates using HM Treasury data, October 2019.
Notes:
a. Estimates assume that the household is in receipt of Universal Credit with no housing costs.
b. Estimates exclude Council Tax Support.

9.34 Table 9.4 shows the same analysis for a worker on the 21-24 Year Old Rate. Before any adjustment for tax and benefits, a 21-24 year old working 30 hours a week on the 21-24 Year Old Rate will see an increase of £15 in their weekly pay, assuming the 21-24 Year Old Rate is increased from £7.70 to £8.20 (6.5 per cent) in April 2020. A single employee household with no children will keep most of that increase, with their weekly pay increasing by £12.31 or 5.5 per cent. A married-couple household, with two children and only one working parent, in receipt of UC, would see their weekly income rise in cash terms by slightly less, £11.30, or 2.7 per cent, due to the taper rate benefit reductions in UC, though their equivalised after-tax hourly rate will still be considerably above their pre-tax hourly pay.

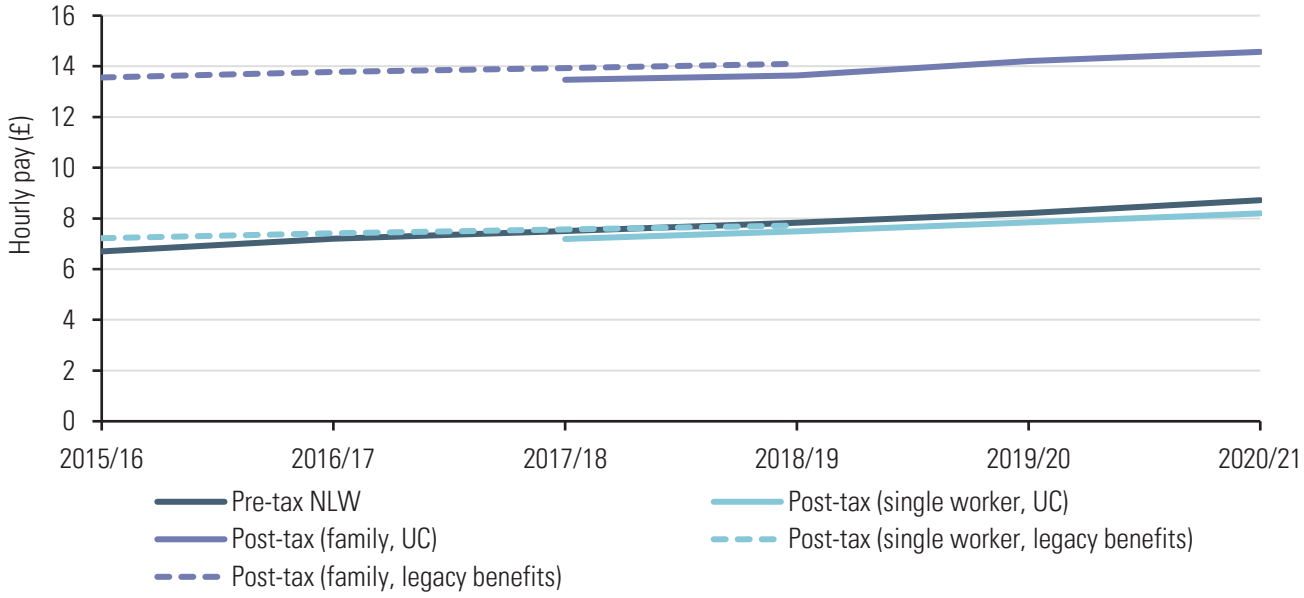
Table 9.4: Impact of Personal Tax Allowance and benefit changes on household income of NMW workers aged 21-24 years, UK, 2019/20-2020/21

21-24 Years, 30 hour week		2019/20	2020/21	Increase £	Increase per cent
Pre-tax hourly rate	**£**	**7.70**	**8.20**	**0.50**	**6.5**
Annual pay	£	12,044	12,827	799	6.5
Tax threshold	£	12,500	12,500	0	0.0
Taxable pay (annual)	£	0.00	327.14	327.14	-
Weekly pay before tax/NICs/UC	£	231.00	246.00	15.00	6.5
Single, no children					
Weekly household income after tax/NICs/UC	£	223.20	235.51	12.31	5.5
Post-tax/benefit change	£	-7.80	-10.49		
Post-tax/benefit change	%	-3.4	-4.3		
After-tax hourly rate	£	7.44	7.85	0.41	5.5
Married couple, one working, 2 children					
Weekly household income after tax/NICs/UC	£	421.81	433.11	11.30	2.7
Post-tax/benefit change	£	190.81	187.11		
Post-tax/benefit change	%	82.2	76.1		
After-tax hourly rate	£	14.06	14.44	0.38	2.7

Source: LPC estimates using HM Treasury data, October 2019.
Notes:
a. Estimates assume that the household is in receipt of Universal Credit with no housing costs.
b. Estimates exclude Council Tax Support.

9.35 Figure 9.1 shows the impact of tax and benefits on the hourly earnings of NLW workers since the NLW was introduced. Again, we assume that they are working a 30 hour week and model the impact on single workers, as well as families with two children where one parent is working. Over the period since the introduction of the NLW, many minimum wage workers have also been affected by a move from tax credits to UC. In general, net hourly earnings for these workers have increased over the period, but have not kept pace with increases to the NLW. For example, a single worker in receipt of tax credits in 2015 would have an effective net hourly pay that exceeded the NMW, while in 2020, a single NLW worker in an equivalent role would have an effective net hourly pay that is 52 pence lower than the proposed NLW. The stated NLW would have increased by just over £2, but their net hourly earnings would be less than £1 higher than at the start of the period.

Figure 9.1: Impact of Personal Tax Allowance and benefit changes on household income of NLW workers, UK, 2015/16-2020/21



Source: LPC estimates using HM Treasury data, 2015-21.

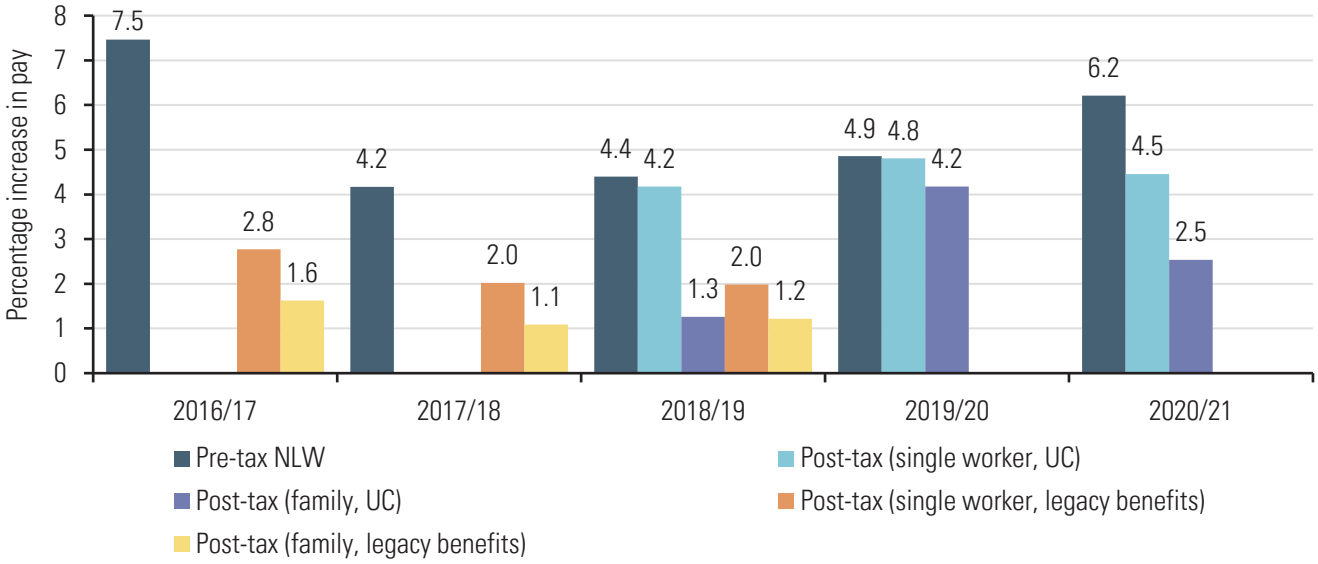
Notes:

a. Estimates assume the employee is working a 30 hour week. 'Single worker' denotes a single worker over the age of 25, 'family' denotes a family with two children where one of the parents is working

b. Estimates assume that the household is in receipt of Universal Credit with no housing costs and exclude Council Tax Support.

9.36 Figure 9.2 shows the effective pay increases before and after tax for NLW workers since the introduction of the NLW. In the year that the NLW was introduced, earnings increased by 7.5 per cent but net pay after tax and benefits increased by a fraction of this as benefits were withdrawn as workers earned more. For the last two years, single workers have seen most of the benefit of upratings to the minimum wage rates, while families saw a larger proportion of the increase to their pay in the last year. For 2020/21, we are recommending a substantially higher increase of 6.2 per cent to the NLW. However, after tax and benefits, NLW workers will receive a smaller proportion of these pay increases than in previous years, with single workers receiving an increase of 4.5 per cent and families with two children and one working parent receiving an increase of 2.5 per cent. Changes to the tax and benefit system would be necessary for households to keep more of these gains.

Figure 9.2: Impact of tax and benefit on effective annual pay increase for NLW workers, UK, 2015/16-2020/21



Source: LPC estimates using HM Treasury data, 2016-21.

Notes:

a. Estimates assume the employee is working a 30 hour week. 'Single worker' denotes a single worker over the age of 25, 'family' denotes a family with two children where one of the parents is working
b. Estimates assume that the household is in receipt of Universal Credit with no housing costs and exclude Council Tax Support.
c. Estimates using UC to calculate the impact on net incomes are not available for 2016/17 or 2017/18.
d. Estimates using legacy benefits to calculate the impact on net incomes are not available for 2019/20 or 2020/21.

Conclusion

9.37 Our recommended rates for the NLW and the other rates of the minimum wage reflect a considered assessment of the outlook for the economy and labour market. The labour market has been resilient and there has been an encouraging growth in nominal pay, but there remains a high level of uncertainty in the wider economy. On the basis of the evidence, we have judged that the sustained economic growth threshold has been narrowly met and we can justify increasing the NLW to reach the target of 60 per cent in 2020.

9.38 For young people, who have seen some of the strongest pay growth for several years, we are recommending larger increases than last year. Given our previous recommendation to bring 21-24 year olds into the NLW over the next few years, we have recommended the largest increase for this age group to maintain the relative gap between this rate and the NLW.

9.39 We estimate that more than 2.7 million people will directly benefit as a result of increases to the rates. Changes to the tax and benefit system will make it possible for workers to keep more of these increases in their pay.

Appendix 1

Consultation

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.

Adrian Lawrence
Association of Convenience Stores
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Association of Labour Providers
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Ayrshire Community Trust
B J English
Bridgewater Home Care
British Beer and Pub Association
British Chambers of Commerce
British Independent Retailers Association
British Retail Consortium
Burleigh House Residential Care Home
Camerons Brewery Ltd
Care England
Causeway Chamber of Commerce
CBI
Chartered Institute of Payroll Professionals
Chartered Institute of Personnel and Development
Citizens Advice
Citizens Advice Manchester
Citizens Advice Scotland
Cornwall Council
Derwent Stepping Stones
DHJ Weisters Ltd
Early Year Alliance
East of England Co-op
Equity
Federation of Small Businesses
Federation of Small Businesses Wales
Federation of Wholesale Distributors

Food and Drink Federation
Fusion Hair and Beauty Consultants Ltd
GMB
GMB (Yorkshire and North Derbyshire Region)
Great Yarmouth Borough Council
Greater Manchester Combined Authority
Greater Manchester Health and Social Care Partnership
Greggs
Hartlepool Borough Council
Hartlepool College of Further Education
Helpers Homecare Ltd
Hertfordshire Care Providers Association
Hertfordshire County Council
HfT
HM Government
Incomes Data Research
Institute for Fiscal Studies
Institute of Directors
Institute of Workplace and Facilities Management
Irish Congress of Trade Unions
Johnsons Hotel Linen
Joseph Rowntree Foundation
Jubilee House Care Trust Ltd
Labour Research Department
Lancashire Sock Manufacturing Company
Lilliput (Dunmurry) Ltd
Living Wage Foundation
Local Government Association
London Assembly Economic Committee
Londonderry Chamber of Commerce
Low Incomes Tax Reform Group
Macc
Make UK
MHA
Michael Berwick-Gooding
Michael Nisbet
Microclean Ltd
National Beauty Federation
National Care Association
National Care Forum
National Day Nurseries Association
National Farmers' Union
National Hairdressers Federation
National Institute of Economic and Social Research
National Union of Rail, Maritime and Transport Workers
National Farmers' Union Scotland

Neath Care
Neath Inspired
Nevin Economic Research Institute
NI Committee
North East England Chamber of Commerce
North Ayrshire Council
Paul Archer
PeoplePlus NI
Pinpoint Manufacturing Limited
Place UK Ltd
Portland Laundry Co Ltd
Recruitment & Employment Confederation
Red Dragon Flagmakers
Research and Innovation Group
Resolution Foundation
Retail NI
Royal Mencap Society
Sara's Tearooms
Scottish Grocers' Federation
Scottish Women's Convention
Sheffield Hallam University
South Wales Chamber of Commerce
Strabane BID
Sue Ryder
Swansea Council
The Prince's Trust
The Wharton Trust
Thirteen Group
Trades Union Congress
UK Fashion & Textile Association
UKHospitality
Union of Shop, Distributive and Allied Workers
UNISON
UNISON North West
Unite Great Yarmouth
Unite Hospitality
Unite the Union
United Kingdom Home Care Association
University of Bradford
Watford Mencap
Welsh Contact Centre Forum
Welsh Government
Whitbread
White Horse Child Care Limited
Wigan Metropolitan Borough Council
Wigan Youth Zone

Women Centre Derry
Women's Budget Group
XpertHR

Appendix 2

Summary of our commissioned research

A2.1 Since its establishment in 1997, research has been vital in informing the recommendations of the Low Pay Commission (LPC). Information and findings from research continue to play a key role in the evidence Commissioners consider when deciding on the recommended rates. We have sought to use the findings of both commissioned and independent research to better understand the impact of the minimum wage rates in the UK.

A2.2 Alongside this report, we are publishing seven research projects: one concerned with the impact of the National Living Wage (NLW) on employment and hours; two concerned with the impact of the NLW on pay and progression; two concerned with the impact of the minimum wage on businesses; an investigation of the factors affecting employers' pay-setting for young people; and an assessment of the impact of the minimum wage on young peoples' decisions to enter the labour market. Of these, five were commissioned last year and have finalised their findings for this report; one was commissioned this year and has submitted its final report and the other one was also commissioned this year and has submitted an interim report with early findings but its final report will not be published until next year. In addition, we have commissioned another research project on the impact on business for our 2020 Report. Table A2.1 summarises the objectives, methodologies and the findings of the commissioned research projects published alongside this report.

A2.3 The reports investigating the factors affecting employers' pay-setting for young people and assessing the impact of the minimum wage on young peoples' decisions to enter the labour market were commissioned as part of our review of the youth rates (Low Pay Commission, 2019b) and were published alongside it on 4 November.

Impact of the NLW on pay and progression

A2.4 We start with examining our research on the effect of the NLW on wage growth and the wage distribution. Avram and Harkness (2019a) used ASHE data and the geographic variation in minimum wage use across travel-to-work-areas (TTWAs) – which approximate local labour markets – to quantify the effect of the introduction and first two upratings of the NLW on the wage distribution, building on work by Stewart (2002), Dolton, Bondibene and Wadsworth (2012) and Butcher, Dickens and Manning (2012). They examined how the distribution of real hourly and weekly earnings changed across each area following the increases in the wage floor controlling for differences in gender, age, occupation, sector, firm size, industry, part-time rates and temporary contract rates across TTWAs. The authors look at direct effects and possible spillovers at the 5th, 10th, 15th, 20th, 30th and 50th percentiles.

A2.5 The researchers found evidence of significant spillover effects. They found that pay at the median grew faster in areas with high minimum wage shares with peaks at the 15th and 20th percentiles. When controlling for other variables, they found that real hourly wages increased by 0.5 per cent for each percentage point increase in the TTWA's coverage. The models suggested that growth was similar across all quantiles they examined, with the possible exception of the 30th and 50th percentiles in some specifications.

A2.6 The researchers found significant spillovers up to the 30th percentile, with a 1 percentage point increase in coverage associated with a 2.0-to-2.5 per cent increase in wages at the 5th percentile, 1.5-to-2.0 per cent increase at the 10th percentile and 1.0-to-1.5 per cent at the 30th percentile. They found that weekly earnings have also grown, but the growth has been less progressive than for hourly earnings. Areas with higher minimum wage shares experienced higher growth in weekly wages, with effects greatest at the 10th percentile and lowest at the median.

A2.7 After controlling for differences in TTWAs, in one specification they found that there was no evidence that TTWAs with high coverage saw different wage growth at different quantiles of the weekly earnings distribution, but in another specification there were some differences in pay growth across the distribution, with weekly pay growth peaking at the 10th percentile and some evidence of declines beyond that.

A2.8 In complementary research, Avram and Harkness (2019b) looked at the link between the NLW and progression out of minimum wage jobs. They again used ASHE data and the geographic variation in minimum wage use across TTWAs to instrument the effect of the NLW on progression out of minimum wage jobs. They used the UK Longitudinal Household Survey to examine transitions from minimum wage employment as it contained variables on other factors that could be associated with job transitions. They stratified jobs into three groups – minimum wage jobs; 'low-paid' jobs (those that are paid between the minimum wage and two-thirds of the median hourly rate); and 'high-paid' jobs (those that are paid more than two-thirds of the median hourly rate). The researchers controlled for gender, age, qualifications, household composition (including the presence of children and very young children), health status, ethnicity, immigration status, and previous experience of unemployment, and region in their estimations.

A2.9 The researchers found that around half of minimum wage workers transition into higher-paid employment within a year and of these, four-fifths progress to low-paid employment with the remaining fifth moving into high-paid employment. Transition rates over three years were only slightly higher. Minimum wage workers were more likely to transition to high-paid employment in areas with higher median wages, although that did not account for the impact from the different worker characteristics that were observed in higher-paying areas.

A2.10 The researchers found some evidence that the minimum wage upratings had decreased the probability for a minimum wage worker to transition into a higher-paid job and increased the probability of the worker remaining in a minimum wage job, with the results varying according to the specifications used. In one specification, they found that for a minimum wage with a 54 per cent bite, a worker in an area in the bottom quarter of coverage had a 5 percentage points lower probability of transitioning to a high-paying job, than a worker in an area that was in the third quarter of coverage. However, when the researchers allow the effect of minimum wage upratings to vary flexibly over time, they did not find any significant effects from the minimum wage on progression. They also failed to find any effects on the probability of progression to low-paid employment (above the minimum).

A2.11 The researchers found that workers with higher levels of education, who were working in the public sector and in large firms were more likely to progress into high-paid employment. Female employees, those with a history of unemployment, and those who work part-time were less likely to transition into high-paid employment. Spending more time in a minimum wage job was also associated with a lower likelihood of progressing into high-paid work, but the researchers argued that this could be due to some unobserved lower level of productivity, and not necessarily an effect of being on the minimum wage itself.

Impact of the NLW on employment and hours

A2.12 Next, we examine the report that looked at the impact of the NLW on employment and hours. Capuano, Cockett, Gray and Papoutsaki (2019) built on the difference-in-difference approach used in previous UK minimum wage studies, including Aitken, Dolton and Riley (2018) and Dickens, Riley and Wilkinson (2015), to identify the effect of the introduction of the NLW in 2016 and the upratings in 2017 and 2018 on employment retention and hours. A treated group was identified and the employment outcomes for these individuals were compared with a comparison group. The treated group were those workers who were directly affected by the change in the minimum wage as their hourly pay was below the incoming NLW in the period prior to the introduction/uprating, while the comparison group was defined as those whose pay was at, or up to 10 per cent above, the incoming NLW (a group that were closest to those on the minimum wage but not directly affected). Robustness checks including experimenting with an alternative definition of the comparison group (those earning 10-to-20 per cent above the incoming NLW) and weighting the treatment group according to the gap between their wage and the incoming NLW rate were used.

A2.13 The report used both the Annual Survey of Hours and Earnings (ASHE) and the Longitudinal Labour Force Survey (LFS) to examine the impact of the NLW. The effects were estimated for all workers and for full-time men (aged 25 to 64), full-time women (aged 25 to 59), part-time women (aged 25-59) and, in the ASHE specifications only, part-time men (aged 25 to 64)[4]. The analysis used control variables to try to isolate the effect of the NLW from other factors that may have been associated with both NLW coverage and differing labour market outcomes. For the LFS analysis there were three sets of regressions with different sets of controls used: a regression with no controls, a regression with basic controls (age, age-squared, gender and calendar year) and a full-set of controls (basic controls plus occupation, number of months in employment, region of residence, health status, education, ethnicity, British nationality and number of dependent children under the age of 16). The list of potential control variables available in ASHE was more limited but included age, age-squared, gender, occupation, industry and region.

A2.14 The researchers tested whether the common trends assumption underlying difference-in-differences analysis was met by conducting placebo tests for the 2014 uprating, a year where the minimum wage did not increase as significantly as in 2016. There was some evidence of uncommon trends in pay in one of the three specifications for full-time men, but not in the other specifications, nor for the other groups. For employment retention there was again evidence of uncommon trends for men working full-time (in two of the three specifications), and some evidence of uncommon trends for full-time women – but this was only in one of the specifications. For working hours, the common trends assumption was violated for women working full-time and women working part-time, but only in one of the three specifications.

A2.15 The researchers found that the introduction of the NLW increased real pay for the lowest paid by more than for those who were paid slightly above. The results held across all the sub-groups examined, with the exception of part-time men. When looking at the effects of the subsequent upratings the evidence suggested that for most subgroups pay grew by the same amount for both the control and treatment groups with the researchers suggesting that this indicated that "pay differentials with those higher up the wage distribution may were maintained following the later NLW increases".

A2.16 The researchers then looked at evidence on the effect of the introduction and upratings on employment retention. Employment retention measures the proportion of employees who are in employment in the period before the treatment (the increase in the minimum wage) who are still in employment after the increase in the minimum wage. This method does not assess whether the NLW led to an increase in the number of workers entering the labour market, or the effect on the number of minimum wage jobs in total over the period. The researchers found that the introduction of the NLW in 2016 appeared to reduce the likelihood of treated part-time male and female employees being retained in employment. Using ASHE, they estimated an elasticity for women working part-time of -0.56 per cent and for men working part-time of -0.72 per cent. They also found employment effects for these groups in one of their alternative regressions, where they weighted the treatment group by the individual's wage-gap to the incoming NLW. The researchers also found weak evidence of negative employment retention effects for part-time women in the LFS.

[4]The sample sizes were too small for separate estimates to be made for part-time men using the LFS.

A2.17 The researchers found no clear evidence of employment retention effects following the 2017 NLW uprating. They reported that the 2018 uprating did not have a clear impact on employment retention for any of the groups of employees considered. They also found little evidence of effects from the introduction, or subsequent upratings of the NLW on average hours worked. They did find limited evidence that hours decreased for full-time men following the introduction of the NLW, but this was only using the LFS data, which has a smaller sample size and may be more subject to measurement error than ASHE data.

Impact of the minimum wage on firms

A2.18 This year we focused our commissioned research on the effects of the minimum wage on businesses. We commissioned three projects: one providing qualitative research of two low-paying sectors in two cities; one that conducts econometric research; and one that makes use of both qualitative and quantitative research to understand the impacts on businesses. The former has reported in full this year, while the other two are ongoing with the latter project providing an interim report of initial findings for this report. The other project is at an initial stage and will report in full for our 2020 Report.

A2.19 Adascalitei, Crockett, Heyes, Newsome and Yates (2019) examined the impact of the NLW on retail and hospitality businesses in Sheffield and Greater Manchester. They surveyed 55 establishments and interviewed 41 owners and managers of retail and hospitality businesses in Sheffield and Manchester. As shown in Chapter 2, hospitality and retail are significant employers of minimum wage workers, while Sheffield and Greater Manchester are areas with poor levels of productivity and high levels of minimum wage workers.

A2.20 Over a third, 37.5 per cent, of establishments surveyed indicated that they paid the legal minimum (the rest paid slightly above), with wages in the fast food, pubs and restaurants sector tending to be lower than in the retail and hotel and leisure sectors, especially for workers aged below 21. All the firms interviewed paid the NLW or a slightly higher rate. The researchers found that the April 2019 uprating of the NLW led to an increase in pay rates in both sectors and cities, with a majority of respondents reporting that they increased pay rates for workers aged 25 years and over. The survey evidence suggested that the NLW and subsequent upratings have had little impact on firms' pay structures. Where changes have happened, the most common has been the narrowing or removal of wage differentials. The majority of respondents reported that they had not made changes to non-base pay in response to the NLW and its upratings, though some did say that they had cut paid breaks and subsidised meals.

A2.21 The researchers stated that 90 per cent of firms had made substantial changes to the workings of their firms due to the NLW. Almost half of the respondents reported that they had not replaced some job leavers in response to the NLW. When looking at staffing changes, the next most common response was increased use of variable hours contracts (two-fifths of firms), followed by reductions in the number of full-time workers (one-quarter) and increases in the number of part-time workers employed (slightly less than a quarter).

A2.22 Many of the employers who had made changes following the introduction of the NLW and its subsequent upratings had substituted older workers for younger ones, with some interviewees stating that they would consider favouring younger workers when hiring if business conditions were to become more challenging. Meanwhile, other managers preferred hiring older workers regardless of the NLW, as they had a need for experienced staff and were more concerned about worker retention.

A2.23 Around 70 per cent of firms reported that the NLW and its upratings had reduced profits, with a quarter responding that this was to a large extent. Most establishments stated that the NLW had not affected their incentives on the quality or quantity of their goods and services, but half noted that they had increased prices in response to the NLW, though the ability of other firms to do this was constrained by market pressures. The interviews suggest that most of the productivity changes that firms undertook followed a 'low-road' approach with increased work intensity. Employers that were interviewed were generally supportive of the NLW in principle, but expressed concerns about the potential impacts on their businesses.

A2.24 Riley et al. (2019) uses the Chartered Institute of Personnel and Development's (CIPD) quarterly Labour Market Outlook (LMO) survey to identify firms affected by the introduction and subsequent upratings of the NLW. The LMO is a quarterly survey of senior managers and HR professionals in a range of organisations using an online panel. The survey includes a range of questions about firms' intentions and experiences in the labour market. Three surveys, in Autumn 2015, Summer 2018 and Autumn 2019, included questions about their firm's exposure to the NLW and their views on how it would, or had, affected their organisations.

A2.25 The researchers plan to use three strands of evidence in their final report. These are: an analysis of responses to the LMO surveys; qualitative research of a small sample of organisations with high exposure to the NLW; and linking the survey responses to a data set of official company accounts to examine the comparative performance of firms that have different exposure to the NLW. The interim report provides initial findings of the analysis of the LMOs and 10 case-study interviews with low-wage employers, and a progress report on the data matching needed for the third type of evidence gathering.

A2.26 The different surveys reported similar proportions of firms (55-57 per cent) in each year stating the NLW will, or has, increased their pay bill. 16-19 per cent said that this was to a large extent, 21-23 per cent to some extent and 15-18 per cent to a small extent. The impact was slightly higher among larger firms.

A2.27 In 2015, employers were asked how they planned to respond to the NLW. Raising productivity was the most common anticipated response, with 30 per cent of employers stating that they planned to do this, while accepting lower profits was next at around 22 per cent, while 15 per cent planned to raise prices. When, in 2018 and 2019, organisations were asked what they had done, the most common response was to take lower profits at 31-34 per cent and then raise productivity at 24-26 per cent. Smaller organisations (with fewer than 50 employees) were more likely to take lower profits (42 per cent) than larger ones (26 per cent).

A2.28 Around 15 per cent of all NLW-affected organisations in 2018 and 2019 reported that they had reduced headcount and around 10 per cent had reduced hours. However, headcount and hours reductions were more common among organisations in which the NLW had raised the wage bill to 'a large extent': 20-22 per cent of these organisations had reduced headcount and 15-19 per cent had reduced hours, depending on the year. The analysis also showed sectoral differences, with employers in wholesale and retail focusing more on headcount, overtime and bonuses, whilst employers in hotels, catering and leisure more likely to raise prices. These findings are consistent with the analysis of employment retention in Aitken, Dolton and Riley (2018), who find that any negative effects on employment retention of the introduction of the NLW have been concentrated in the wholesale/retail sector.

A2.29 Further questions in the 2018 and 2019 LMO surveys asked about productivity-related responses in more detail. These indicated that many employers (68-75 per cent of those affected by the NLW) were taking productivity-related initiatives, even though they may not have recognised these actions as productivity-enhancing. Productivity increases were most likely to come from requiring staff to take on more tasks, or be more flexible over hours, than through increased training, or investment in technology.

A2.30 Around a third of firms had reduced their pay differentials between NLW staff and their supervisors, while around 30 per cent had maintained them, and 7 per cent had increased them – with the remaining 30 per cent unsure or hadn't increased wages due to the NLW. Firms with more exposure were more likely to have reduced differentials.

A2.31 In 2018, employers who reported that the NLW had had a large impact on their pay bill were more likely to respond to the minimum wage by reducing their demand for labour through cutting headcount or hours. However, they were less likely to accept lower profits or raise productivity, than organisations where the NLW had a smaller impact on their pay bill. The picture was similar in 2019. In 2018, reducing headcount and raising productivity, and cutting other pay costs were more common responses by wholesale and retail firms, while increasing prices was more common for hotel, catering and leisure firms. In 2019, the picture was similar, with the exception that wholesale and retail firms were now slightly less likely to raise productivity, and much less likely to accept lower profits. Productivity increases were most likely to come from requiring staff to take on more tasks, or be more flexible over hours, than through increased training, or investment in technology.

A2.32 The remaining research project, commissioned from Frontier Economics, is conducting an econometric analysis of firm data from the Business Structural Database (BSD), compiled by the Office for National Statistics, which has information on the number of businesses, employment and revenue by industry and geography. The researchers are using matched ASHE to classify businesses by their exposure to the NLW and compare the outcomes of firms that are more affected by the NLW with those that are less affected. They control for industry, geographical area, turnover, ownership, and the number of local units (large chain vs single premises). The outcomes they are planning to examine are survival rates, change in employment, change in turnover and change in turnover per employee (a proxy for productivity). The researchers have completed some data cleaning processes and conducted some initial analyses. Their findings will be presented in their final report to us in the autumn of 2020.

The minimum wage and wage setting for young people

A2.33 Alongside our main remit we have been examining whether the current youth rate structure is appropriate given the changes that have taken place since 2010, especially the introduction of the NLW and as a consequence a new youth rate for 21-24 year olds. As part of this review we commissioned two research projects examining how the minimum wage has affected firm and worker decisions. One report assessed the factors that influence the labour market decisions of young people and the other aimed to understand employers' use of the youth rates.

A2.34 Bowyer, Cerqua, Pietro, Gorman and Urwin (2019) used the Department for Education's Longitudinal Educational Outcomes (LEO) data set to analyse whether a higher minimum wage influenced young people's decision-making – in particular whether a higher wage floor would encourage them to leave full-time education and enter low-paid work. LEO is a combined data set that links together a series of administrative data sets to collate information on ex-school pupils in England from the National Pupil Database, data on all Higher Education enrolments from the Higher Education Statistics Agency, information on all Further Education enrolments from the Individualised Learner Record, HMRC employment data and DWP benefits information. The researchers used data on pupils who turned 16 in the academic years 2001/02 to 2008/09 to construct a data set allowing them to see if decisions around labour market entry were linked to minimum wage changes. The report also contained a review of major policy trends between 1999 and 2019 that might have influenced young people's decisions on whether to enter the labour market.

A2.35 The researchers first evaluated the effects of local labour market conditions on young people's decisions on whether to enter the labour market. They found that local wage and unemployment rates did not have a large effect on individuals' decisions on whether to remain in education. They found that minimum wage rates did not have a strong effect in determining whether 16 and 17 year olds remained in education or entered employment; but did have some positive effect on whether this age cohort combined education and part-time work. They reported that their evidence suggested that there was negligible impact from minimum wage increases on 18-20 year-olds' incentives to invest in learning.

A2.36 The researchers also found that there was a 'flattening' of the relationship between age and employment rates in the aftermath of the introduction of the NLW, which could point to some employment or substitution effects for workers aged between 25 and 30 in favour of younger workers.

A2.37 Hudson-Sharp, Manzoni, Rolfe and Runge (2019) aimed to get a better understanding of employers' use of the National Minimum Wage youth rates. The research examined how employers set the wages they paid to young workers, using information gathered through interviews with 19 employers across four industries that employed a high proportion of low-paid young workers and interviews with 8 representatives of employer bodies. The study also reviewed the policy frameworks around the transition of young people into employment.

A2.38 The researchers concluded that the policy landscape relevant to the UK youth labour market had undergone significant change since the introduction of the youth rates, initially in 1999 with subsequent structural revisions in 2004 and 2010. They noted that there were concerns regarding the quality and returns to vocational and technical education including apprenticeships and highlighted the limited involvement of employers in helping young people into work.

A2.39 From their interviews the researchers found that young workers were valued by employers in lower-skilled sectors, particularly for their flexibility, but also for their ability to cope with the physical demands of some jobs and their fit with the image that certain employers wanted to project. Some employers did not report any significant differences in productivity between workers of different ages, while others expressed concern about 'work-readiness' and the quality of young people's work. Employers reported that their pay setting was influenced more by competitors' pay rates and what was affordable, rather than by the age of the worker. Most employers who used the youth rates only used them partially, rather than in full, as they may group employees into two age pay bands, for example, rather than the four allowed by the NMW framework.

A2.40 Employers are often reluctant to differentiate pay by age due to concerns around 'fairness'. Some employers thought that using youth rates was justified in the case of very young and inexperienced workers, however differential age rates were seen as less applicable to employees aged over 18, and even more so for those aged 21 and over. Employers thought that pay should relate to the job and not the person, with many saying that it was morally wrong to pay younger workers less and that differing levels of pay between workers of different ages could cause grievances. However, some employers did use the youth rates to reduce wage costs.

Summary and future research

A2.41 Our previous research on the impact of the National Minimum Wage (NMW) had concluded that increases in the minimum wage had raised the hourly and weekly earnings of the lowest-paid workers without noticeable employment effects. Firms had instead absorbed the increases in the minimum wage by reducing pay hierarchies, removing pay premia, squeezing non-wage benefits, passing on the costs to customers, seeking to improve productivity and accepting smaller margins.

A2.42 The qualitative research and the initial econometric studies that have looked at the impact of the introduction of the NLW have come to similar conclusions. The lowest paid have seen large increases in their pay but that had not generally led to significant reductions in employment or hours. As with the introduction of the NMW, there were model specifications where negative employment effects had been found for women and men working part-time, though these were not in all specifications and the effects should be seen in the context of record high employment levels and rates in general and among those groups most vulnerable to the negative impacts of the minimum wage. Instead of reducing jobs or cutting hours substantially, firms had absorbed the minimum wage increases using the channels we had identified for coping with the NMW.

A2.43 The longer-term research that we have already commissioned for the 2020 Report focuses on the impact of the NLW on businesses, using econometric techniques to look at the impact on employment, productivity, profits and prices.

A2.44 Future minimum wage research will continue to monitor and assess the impact of all the minimum wage rates on a variety of economic outcomes. We will commission further research to complement the research we have already commissioned for the 2020 Report.

Table A2.1: Low Pay Commission research for the 2019 Report

Project title and researchers	Aims and methodology	Key findings
The impact of minimum wage upratings on wage growth and on the wage distribution **Silvia Avram** and **Susan Harkness** (Institute for Social and Economic Research, University of Essex and School for Policy Studies, University of Bristol)	This project assessed the impact of the NLW on earnings and pay differentials. It investigates the effects of increases in the NMW between 2010 and 2015 and the introduction of the NLW and the subsequent 2017 and 2018 upratings. Its aim was to examine whether the increases in the NLW had led to changes in the real hourly wage and weekly wage distributions. The research uses ASHE data and the geographic variation in minimum wage use across travel-to-work-areas (TTWAs) – which approximate local labour markets – to quantify the effect of the introduciton and first two upratings of the NLW on the wage disribution. The research examined how the distribution of real hourly and weekly earnings changed across each area following the increases in the wage floor controlling for differences in gender, age, occupation, sector, firm size, industry, part-time rates and temporary contract rates across TTWAs. The authors look at direct effects and possible spillovers at the 5th, 10th, 15th, 20th, 30th and 50th percentiles. It focuses on the pay of those aged 25 and over.	The key findings were: • Evidence of significant spillover effects from the NLW. Pay at the medain grew faster in areas with high minimum wage shares with peaks at the 15th and 20th percentiles. • Real median hourly wages increased by 0.5 per cent for each percentage point increase in the TTWAs coverage, contolling for other variables. • Growth was similar across all quantiles, with the possible exception of 30th and 50th percentiles in some specifications. • Significant spillovers up to the 30th percentile, with a 1 percentage point increase in coverage associated with a 2.0-to-2.5 per cent increase in wages at the 5th percentile, 1.5-to-2.0 per cent increase at the 10th percentile and 1.0-to-1.5 per cent at the 30th percentile. • Weekly earnings have grown less progressively than hourly pay, but that weekly wages at the 5th and 10th percentile grew faster in areas with a higher proportion of minimum wage workers than in areas with fewer minimum wage workers.

Project title and researchers	Aims and methodology	Key findings
The NMW/NLW and progression out of minimum wage jobs in the UK **Silvia Avram** and **Susan Harkness** (Institute for Social and Economic Research, University of Essex and School for Policy Studies, University of Bristol)	This project assessed the impact of the NLW on wage progression. It was an 18-month project that has presented its final findings. It investigates the wage progression of minimum wage job holders between 2009 and 2017. Its aims were to: • examine whether the increases in the minimum wage rate during this period affected progression out of minimum wage jobs; • investigate which individual and job characteristics are associated with progression out of minimum wage jobs. The research uses Understanding Society (the UK Longitudinal Household Survey, which evolved from the British Household Panel Study in 2009) – a survey of around 40,000 households providing information on individual characteristics, current job and employer, and previous work history (including periods out of work). The research used ASHE to determine the levels of coverage in different Travel to Work Areas and uses variation in median wages across areas to instrument the effects of the minimum wage. The research uses an imputation procedure to derive an hourly pay measure for those not paid by the hour. This creates an earnings distribution that better matches ASHE hourly wage distribution. They use this measure to define minimum wage jobs (those paid at or around the minimum wage and below the forthcoming minimum), low-paid jobs (those above the forthcoming minimum wage but below two-thirds of median hourly earnings), and higher-paid jobs (those paid more than two-thirds of the median). It focuses on the job transitions of those aged 25 and over.	The key findings were: • Over the period under consideration, the minimum wage increased considerably relative to median pay. • The share of workers earning below the low pay threshold (two-thirds of median earnings) but above the minimum wage fell. • Around half of minimum wage workers transition into higher paid employment in each year. Of these, four fifths progress to low-paid employment with the remaining fifth moving into high-paid employment. • Transition rates over three years are only slightly higher. • This finding is consistent with previous UK research on minimum wage transitions. • There is considerable variation in transition rates across geographies. Minimum wage workers are more likely to transition to high-paid employment in areas with higher median wages, although this does not control for differences in worker characteristics across areas. • There is some evidence that the higher minimum wage has decreased the probability for a minimum wage worker to transition into a higher-paid job and increased the probability of the worker to remain in a minimum wage job, with the results varying according to the specifications used. However, allowing the effect of minimum wage upratings to vary flexibly over time, they do not find any significant effects. • There are no effects from minimum wages on the probability to progress to low-paid employment (above the minimum). • Individual and job characteristics were important determinants of transitions out of minimum wage jobs. Workers with higher levels of educations, who are working in the public sector and in large firms are more likely to progress into high-paid employment. • Female employees, those with a history of unemployment, and those who work part-time are less likely to transition into high-paid employment. Spending more time in a minimum wage job is also associated with a lower likelihood of progressing into high-paid work, but this is not necessarily an effect of being on the minimum wage itself.

Project title and researchers	Aims and methodology	Key findings
The impact of the minimum wage on employment and hours **Stella Capuano, James Cockett, Helen Gray** and **Dafni Papoutsaki** (Institute for Employment Studies)	This project is an extended 18-month study investigating the impact of the NLW on employment and hours. It investigates the impact of the introduction of the National Living Wage in April 2016 and the subsequent upratings in April 2017 and April 2018. It investigates the following areas: • The impact of the introduction of the NLW and subsequent upratings on employment and hours for those aged 25 and over. • Whether the impact has differed by working hours (part-time and full-time), gender, and age (under-25). • Whether the impact has varied contract type and firm size. They use two methodological approaches: • The standard difference-in-differences approach comparing outcomes one year apart of a treatment group (those affected by the policy) with a comparison group (similar workers not affected) – falling before and after the introduction or uprating of the NMW/NLW. • A difference-in-difference-in-differences model that also exploits two comparison groups: an age comparison group (those aged under 25 and ineligible for the NLW, but earning less than the forthcoming NLW); and a wage comparison group (those aged 25 and over earning slightly more than the forthcoming NLW). They also attempt to address several methodological issues, including reporting confidence intervals and minimum detectable effects, and placing greater emphasis on the economic significance of the results The study uses five-quarter longitudinal Labour Force Survey (LFS) and the Annual Survey of Hours and Earnings (ASHE).	The report finds: • The introduction of the NLW increased real pay for the lowest paid faster than for those who were paid slightly above across all the sub-groups examined, with the exception of part-time men. • Following the upratings, pay grew by the same amount for both the control and treatment groups suggesting that "pay differentials with those higher up the wage distribution were maintained". • The introduction of the NLW in 2016 reduced the likelihood of part-time male and female employees being retained in employment. • An elasticity for women working part-time of -0.56 per cent and for men working part-time of -0.72 per cent. • The findings are supported in one of their alternative regressions, and for part-time women in the LFS. • No clear evidence of employment retention effects following the 2017 NLW uprating. • The 2018 uprating did not have a clear impact on employment retention for any of the groups of employees considered. • Little evidence of effects from the introduction, or subsequent upratings of the NLW on average hours worked – some limited evidence that hours decreased for full-time men in 2016, but only in the LFS. • Women working part-time in the public sector in particular appeared to experience the largest reductions in employment retention following the introduction of the NLW. • There were indications that the 2018 uprating had a positive impact on employment retention for women who worked part-time for private sector firms, compared with those in the public sector • Men who worked part-time were more likely to be retained following the 2018 uprating if they worked for a firm with 50 or more employees rather than a smaller organisation. • Men who worked full-time who were employed on a temporary contract experienced an increase in hours following the 2017 uprating of the NLW relative to those who were on permanent contracts.

Project title and researchers	Aims and methodology	Key findings
The Impact of the National Living Wage on Businesses: Retail and Hospitality in Two English Cities. **Dragos Adascalitei, Gareth Crockett, Jason Heyes, Kirsty Newsome** and **Edward Yates** (University of Sheffield, Management School)	The report examines the impact of the NLW on retail and hospitality businesses in Sheffield and Greater Manchester. The researchers surveyed 55 establishments and interviewed 41 owners and managers of retail and hospitality businesses in Sheffield and Manchester. The questionnaire contained items designed to capture information about businesses (size of the workforce; the profile of the workforce by age, hours, gender, pay structures) and the variables of interest (including: changes in the organisation of work, measures designed to increase productivity, changes in wages and pay structures and changes in employment and staffing composition). The sampling frame was drawn from the FAME database. A questionnaire was distributed via email to 2,621 companies. The sample was made up of 33 respondents from Greater Manchester and 22 from the Sheffield City Region. 28 were in the retail sector and 25 in the hospitality sector (10 in fast food, pubs and restaurants and 15 in hotels and leisure). The researchers also conducted semi-structured interviews with 41 business owners and senior managers of establishments. 20 hospitality firms (8 in Greater Manchester and 12 in Sheffield), 15 retail firms (7 in Greater Manchester and 8 in Sheffield), and 3 firms which operated in both the retail and hospitality sectors, which were counted separately in the results for reasons of anonymity.	The report finds: • All the firms interviewed paid the NLW or a slightly higher rate, with wages in the fast food, pubs and restaurants sector generally lower than in the retail and hotel and leisure sectors, particularly for workers aged under 21. • The April 2019 uprating of the NLW led to an increase in pay rates in sectors and regions, with a majority reporting that they increased pay for workers aged 25 and over. • The NLW has had little impact on firms pay structures. Where changes have occurred, the most common one has been the narrowing or removal of wage differentials. • The majority of respondents said that they had not made any changes to non-base pay in response to the NLW, though some did say that they had cut paid breaks and subsidised meals. • Almost half of respondents said that they had not replaced some job leavers due to the NLW. The next most common staffing change was to increase use of variable hours contracts (two-fifths of respondents), followed by reductions in the number of full-time workers (one-quarter) and increases in the number of part-time workers employed (slightly less than a quarter). • Many of the employers who had made changes following the NLW had substituted older workers for younger ones, with others stating that they would consider favouring younger workers if business conditions became more challenging. • Other managers preferred hiring older workers regardless of the NLW as they had a need for experienced staff and were concerned about worker retention. • 70 per cent of firms said the NLW had reduced profits, with a quarter saying that this was to a large extent. • Half said that they had increased prices in response to the NLW, though the ability of other firms to do this was constrained by market pressures. • The interviews suggest that employers' productivity responses have followed a low-road focusing on work intensification • Employers that were interviewed were generally supportive of the NLW in principle, but expressed concerns about the potential impacts on their businesses.

Project title and researchers	Aims and methodology	Key findings
The Impact of the National Living Wage on Businesses **Rebecca Riley, Andrew Aitken, Marta Paczos, Gerwyn Davies, Charles Cotton, John Boys** and **John Forth** (NIESR, Cass Business School and CIPD)	This information note is part of a project that will use the Chartered Institute of Personnel and Development's (CIPD) quarterly Labour Market Outlook (LMO) survey to identify firms affected by the introduction and subsequent upratings of the NLW. The final results will be published in 2020. The LMO is a quarterly survey of senior managers and HR professionals in a range of organisations using an online panel. The survey includes a range of questions about firms' intentions and experiences in the labour market. Three surveys, the Autumn 2015, Summer 2018 and Autumn 2019 ones, included questions about employers' exposure to the NLW and their views on how it would, or had, impacted their organisations. The authors plan to link the LMOs to the FAME data set of company accounts to examine the comparative performance of firms that have different exposure to the NLW. Performance will be measured in terms of productivity (value-added per employee and TFP), capital intensity and profitability (EBITDA margin) The information note also contains analysis of the LMOs and results from 10 case-study interviews conducted with low-wage employers.	The report finds: • The different surveys give similar proportions of firms (55-to-57 per cent) in each year saying that the NLW will, or has, increased their pay bill. • 16-to-19 per cent said that the impact on pay was to a large extent, 21-to-23 per cent said it was to some extent and 15-to-18 per cent to a small extent. The impact was slightly higher in larger employers. • In 2015 employers were asked how they planned to respond to the NLW. 30 per cent of employers said they would raise productivity with taking lower profits, the second most popular response at around 22 per cent. However, in 2018 and 2019 organisations were asked what they had actually done, 31-to-34 per cent had taken lower profits and 24-to-26 per cent had increased productivity. Smaller organisations (with fewer than 50 employees) were more likely to take lower profits (42 per cent) than larger ones. • Around a third of firms had reduced their pay differences between NLW staff and their supervisors, while around 30 per cent had maintained them, and around 7 per cent had increased them (30 per cent were unsure). Firms with more exposure were more likely to have reduced differentials. • Employers who said that the NLW had had a large impact on their pay bill were more likely to have responded by reducing cutting headcount or hours, and less likely to accept lower profits or raise productivity, than organisations where the NLW had a smaller impact on their pay bill. • Around 15 per cent of all NLW-affected organisations in 2018 and 2019 reported that they had reduced headcount and around 10 per cent had reduced hours. • Headcount and hours reductions were more common in employers where the NLW had raised the wage bill to 'a large extent', 20-22 per cent reduced headcount and 15-19 per cent hours. • Employers in wholesale and retail focused more on reducing headcount, overtime and bonuses, whilst employers in hotels, catering and leisure were more likely to raise prices. • 68-75 per cent employers affected by the NLW undertook productivity-related initiatives. However, these were most likely to come through requiring staff to take on more tasks, or be more flexible over hours, than through increased training, or investment in technology.

Project title and researchers	Aims and methodology	Key findings
Assessing Factors that Affect the Labour Market Decisions of Young People aged 16 to 24: Research Informing LPC Review of Youth Rates **Alex Bowyer, Augusto Cerqua, Giorgio Di Pietro, Emma Gorman** and **Peter Urwin** (University of Westminster)	This report commissioned to inform our Review of the Youth rates and was published alongside it in November. The aim of the report was to analyse whether a higher minimum wage influenced young people's decision-making – in particular whether a higher wage floor would encourage them to leave full-time education and enter low-paid work. The report used the Department for Education's Longitudinal Educational Outcomes (LEO) data set which combines a series of administrative data set to collate information on ex-school pupils in England from the National Pupil Database, data on all Higher Education enrolments from the Higher Education Statistics Agency, information on all Further Education enrolments from the Individualised Learner Record, HMRC employment data and DWP benefits information. The report uses data on pupils who turned 16 in the academic years 2001/02 to 2008/09. This enables the authors to construct a data set looking at whether or not the decisions of young people on entering the labour market are linked to local labour markets and minimum wages and how this alters across ages. The report also contains a review of major policy trends between 1999 and 2019 that could influence young people's decisions on whether to enter the labour market.	The report finds: • Local wage and unemployment rates do not have a large effect on individuals' decisions on whether to remain in education. • Minimum wage rates do not have a strong effect in determining whether 16 and 17 year olds remain in education or enter employment; but do have some positive effect on whether they combine education and part-time work. • There is negligible impact from minimum wage increases on 18-to-20 year-olds' incentives to invest in learning. • There was a 'flattening' of the relationship between age and employment rates in the aftermath of the introduction of the NLW, which could point to some employment or substitution effects for workers aged under between 25 and 30 in favour of younger workers.

Project title and researchers	Aims and methodology	Key findings
Understanding employers' use of the National Minimum Wage youth rates **Nathan Hudson-Sharp, Chiara Manzoni, Heather Rolfe** and **Johnny Runge** (NIESR)	The report aims to further understanding of employers' use of the National Minimum Wage youth rates and how employers set the wages they paid to young workers. The report uses information gathered through interviews with 19 employers across four industries that employ a high proportion of low-paid young workers and interviews with 8 representatives of employer bodies. The report also includes a review of the policy frameworks around the transition of young people into employment.	The report finds: • The policy landscape relevant to the UK youth labour market has undergone significant change since the introduction of the youth rates. • There are concerns regarding the quality and returns to vocational and technical education including apprenticeships and over the limited involvement of employers in helping young people into work. • Young workers are valued by employers in lower skilled sectors, particularly for their flexibility, but also for their ability to cope with the physical demands of some jobs and their fit with the image that certain employers wanted to project. • Some employers did not report any significant differences in productivity between workers of different ages, while others expressed concern about 'work-readiness' and the quality of their work. • Employers say that their pay setting is influenced more by competitors' pay rates and what is affordable, rather than the age of the worker. • Most employers who use the youth rates only use them partially, rather than in full. Employers may pay some younger workers less, but they would not have multiple different rates to take into account the full range of freedoms to pay less that the multiple youth rates allow them. • Employers are often reluctant to differentiate pay by age due to concerns around 'fairness'. • Some employers thought that using youth rates was justified in the case of very young and inexperienced workers. However, differential age rates were seen as less applicable to employees aged over 18, and even more so for those aged 21 and over. • Employers thought that pay should relate to the job and not the person, with many saying that it was morally wrong to pay younger workers less and that differing levels of pay between workers of different ages could cause grievances. However, some employers did use the youth rates to reduce wage costs.

Appendix 3

Main data sources

Introduction

A3.1 This appendix details the main data sources used in our analyses and outlines any major changes since our 2018 Report. We use three main sources of data to measure earnings: the Annual Survey of Hours and Earnings (ASHE), Average Weekly Earnings (AWE), and the Labour Force Survey (LFS). We use two main sources of employment information: the LFS and the employee jobs series produced by the Office for National Statistics (ONS). The LFS captures the number of people in employment, whereas the employee jobs series measures the number of jobs in the economy. This is an important distinction as a person can have more than one job.

A3.2 In addition to employment and earnings data, we also look at a wide variety 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 that ONS have made to GDP estimates.

Annual Survey of Hours and Earnings

A3.3 ASHE is the main source of structural earnings data in the UK and is regarded by 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, gender, age, geography, occupation and industry. It is a survey of employees completed by employers and conducted in April each year. The sampling frame consists of a 1 per cent sample of employee jobs in Pay As You Earn income tax schemes obtained from HM Revenue & Customs (HMRC). The self-employed are excluded.

A3.4 Employees not on an adult rate of pay are excluded from the headline ASHE earnings estimates produced by ONS, but we include them in our own analysis of earnings from ASHE. This means that our earnings estimates may differ from those of ONS. The 2019 ASHE was based on 183,000 returns and related to the pay period which included 10 April.

A3.5 From 2011, ASHE data have been reweighted to SOC 2010 codes. Thus, earnings estimates for 2011 onwards are not directly comparable with those prior to 2011.

A3.6 As a result of this and previous methodological changes there is no official, consistent, long-run time series of structural earnings in the UK. The best source available now consists of five overlapping New Earnings Survey (NES)/ASHE data sets: NES, 1975-2003; ASHE without supplementary information, 1997-2004; ASHE with supplementary information, 2004-2006; ASHE 2007 methodology, 2006-2011; and ASHE 2010 methodology, 2011 onwards. In order to produce a consistent series over time, we have used the annual increases in the older data series to adjust the level of earnings to make the previous series compatible with the current series. This generally has the effect of reducing the estimates of the mean and median in years prior to 2011, which increases our estimates of the bite (the minimum wage relative to the median or mean) for that period.

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 within subsequent reports i.e. for this report we received 2018 final data at the same time as receiving provisional 2019 ASHE.

Apprentices

A3.8 In 2013 two new questions on apprentices were included in ASHE as experimental statistics. These required employers to identify whether an employee was an apprentice and, if so, to record the date that their apprenticeship had commenced. The 2013 data were not fully validated and were not published by ONS. In the 2014 ASHE, the apprentice questions were fully validated by ONS. The data allow us to analyse underpayment of the Apprentice Rate and whether apprentices aged 19 and over beyond their first year of apprenticeship receive at least their entitlement to the age-related minimum wages. It also allows us to separately identify minimum wage jobs held by apprentices.

A3.9 Drew, Ritchie and Veliziotis (2015 and 2016) compared estimates of apprentice earnings from ASHE with estimates from the 2014 BIS Apprentice Pay Survey. Their findings suggested that ASHE data may produce an upper-bound estimate of apprentice pay and, correspondingly, a lower-bound estimate of non-compliance.

A3.10 The identification of apprentices also means that we can examine earnings and non-compliance separately for workers and apprentices. Until 2014 the grouping together of apprentices and non-apprentice workers had a downward effect on earnings for young people, as apprentices tend to have lower earnings. From 2014 onwards we can produce three distinct time-series: an adjusted time series from 1997 onwards, including both workers and apprentices; a series from 2013 onwards for non-apprentice workers only; and a series from 2013 onwards for apprentices only.

NLW alignment

A3.11 The introduction of the National Living Wage (NLW) in 2016 had important implications for our use, 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. In April 2017 all minimum wage rates were uprated to ensure alignment with the NLW. This introduced a break in the time series, with a jump in estimates of both the bite and underpayment.

A3.12 The increase in measured underpayment poses particular difficulties. In addition to a time-lag in implementing the new rates, employers are not legally required to increase pay to the new minimum wage until the first full pay period after the introduction of the minimum wage. Hence workers may be paid below the new rates, but their pay not considered to be non-compliant, provided they are paid at least the previous minimum wage. In order to identify these workers, ONS introduced a new question in the 2016 ASHE to identify the start date of the pay period, the results of which are shown in the variable 'ppstart'. The timing of the ASHE survey largely determines the number affected by this variable.

A3.13 In 2016 the ASHE survey used a pay reference period which included 13 April 2016, just two weeks after the introduction of the NLW. This identified around 175,000 workers aged 25 and over who were paid at or above the old minimum wage (£6.70) but below the NLW (£7.20) and whose latest pay period started in March and continued into April – hence spanning the introduction of the NLW on 1 April 2016. These cases are identified in the ASHE microdata by the variable 'nlpflag'. In 2017 only 32,000 flagged individuals were identified as a later pay reference period date for the ASHE survey of 26 April, meaning that most employees had already received pay for a pay period following the uprating. A move in 2018 back to a slightly earlier survey date of 18 April resulted in around 124,000 individuals captured by this flag. In 2019 an earlier survey date of 10 April was used due to the later than normal Easter school and bank holidays, resulting in 207,000 individuals being flagged.

A3.14 Since 2017 ONS have provided an additional variable which is related to both the pay period and how the hourly pay variable is derived. The 'pcflag' variable identifies those employees who have a monthly pay period that should have a derived rate of exactly the NMW or NLW but are slightly different because the employer or payroll provider has calculated the rate based on exactly 52 weeks per year rather than 52.18 (365.25/7) as used by ONS. A further addition to the data set was the variable 'hrpayx' which is the derived hourly rate used by both ONS and us for low pay estimates.

A3.15 An additional consequence of the change in our reporting cycle has been the impact on the timing of the publication of ASHE. Since 2016 to enable us to report to the Government in October as requested, ONS brought forward their release of the ASHE from mid-November to late October. This year ONS released their commentary on topics derived from ASHE on 29 October. We remain grateful for their help and co-operation.

Average Weekly Earnings

A3.16 AWE is the lead monthly measure of the level of average weekly earnings per employee in Great Britain, based on data from the Monthly Wages and Salaries Survey. 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. 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 compositional changes within the workforce.

A3.17 There have also been some changes to the data resulting from the reclassification of major employers between the private and public sectors, mostly in the aftermath of the 2008 financial crisis.

A3.18 In 2013 ONS released 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 2010, while public and private sector series are available from January 1990 to 2010. 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. 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 only available up to 2010, when the AEI was discontinued, there is no fully consistent complete time series for these data sets up to the present time.

A3.19 Further 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.

A3.20 The results of these reviews were released by ONS in March 2017 and January 2019 respectively. The 2017 results show that, while at the whole economy level (between July 2010 and December 2015) the trend in earnings remained similar, total pay levels had decreased by between £7 and £10 (1.6-1.9 per cent). At the sectoral level there were two distinct phases to the changes: the first covered July 2010-July 2015 (the last time the small business factors were modified), with the second covering the period post-July 2015. This step-change occurred due to inconsistencies introduced at the point at which the small business factors were last modified compared with the revised historical estimates. The 2019 results also showed similar trends in pay growth, with a maximum impact during 2015 to 2016 on the percentage change in three-month year-on-year total pay for the whole economy of 0.2-0.3 per cent.

A3.21 While these revisions specifically affected recent periods, the discontinuities introduced led to the whole series back to 2000 being revised.

A3.22 In 2017, the ONS released an article on ASHE and AWE presenting an overview of both measures. It highlighted which source was better for certain types of analysis and analysed movements of the whole economy series between 2005 and 2016. The article explained the differences in the headline measures and outlined the reasons for a divergence between the headline series in 2011 that has since continued.

Labour Force Survey

A3.23 The 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.

A3.24 Analyses of aggregate employment, unemployment and hours worked use seasonally adjusted monthly and quarterly LFS data published by ONS using the latest 2018 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 LFS microdata. In our analyses, we generally use 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. Consequently, our analyses based on LFS microdata may produce estimates of levels that differ from headline aggregates published by ONS.

A3.25 ASHE contains limited personal characteristic details – there is no information on disability, ethnic background, country of birth, nationality or education level. The LFS is our only timely source of data on earnings for disabled people, ethnic minorities, migrants and people with no qualifications. However, data on pay and hours in the LFS tend to be less reliable than in ASHE. Reasons for this include: a smaller sample; people answering the earnings questions without reference to pay documentation (although they are prompted to consult available documents); and some information being provided by proxy respondents. ASHE collects information from employers about employees' paid hours, whereas the LFS collects information from individuals about their actual and usual hours of work, which might include unpaid hours. This generally means that the derived hourly earnings variable in the LFS is lower than the derived hourly pay rate recorded in ASHE.

A3.26 For some workers, a stated hourly rate of pay is available in the LFS. For these workers, hourly pay is similar to that in ASHE. Where a stated hourly rate of pay is unavailable from the LFS, ONS has developed an imputation method using a nearest-neighbour regression model, which also takes account of information on second jobs in estimating the median earnings of various groups of workers. This methodology reduces the differences between hourly earnings estimates from the LFS and ASHE.

A3.27 We use this revised LFS imputation methodology when we estimate coverage of the NLW by worker characteristics. This differs slightly from the methodology we have used in previous reports in that during the data cleaning stage more individuals are excluded. If we were to compare levels, we would see a reduction when using the revised methodology. However, when looking at proportions of workers (as we do in Chapter 2) both methods produce very similar results.

Employee Jobs

A3.28 The employee jobs series provides a timely breakdown of jobs in the UK. A number of Short-Term Employer Surveys, which collect data from businesses across the economy, are used to compile the employee jobs series. Figures at a more detailed industry level, however, are available only for Great Britain and are not seasonally adjusted. We therefore use a four-quarter moving average in our analyses to remove some of this seasonality, in line with LFS microdata.

A3.29 In 2014 ONS revised estimates of workforce jobs, including the employee jobs series, back to 1981. These revisions were caused by benchmarking to estimates from the annual Business Register and Employment Survey (BRES), updating the seasonal factors and taking on board late information such as later responses to the survey. A consistent back-series, based on the Standard Industry Classification (SIC) 2007, is also available back to the second quarter of 1978.

Inflation

A3.30 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 Retail Prices Index (RPI).

A3.31 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. 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 only ever been revised in exceptional circumstances.

A3.32 Our 2017 report (Low Pay Commission, 2017) detailed the chronology from 2013 onwards concerning the push for ONS to make CPIH its main measure of inflation. This included its removal and re-designation of National Statistic status. 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.

A3.33 Our analyses in this report use RPI, CPI and CPIH as measures of current price inflation.

Gross Domestic Product

A3.34 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.

A3.35 In 2018 ONS introduced a new publication model for GDP, reducing the number of published estimates of quarterly GDP from three to two. The new model seeks to balance timeliness with accuracy of GDP estimates, with the aim of reducing the likelihood and frequency of revisions. The model also enables the publication of monthly estimates of GDP.

A3.36 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 will also contain information from the income and expenditure approaches two weeks earlier than the previous model although data for these measures will be lower than the former second estimate. A comprehensive (second) estimate of GDP will continue to be released as part of the Quarterly National Accounts, available 85 days after the end of the reference quarter as previous.

A3.37 Monthly GDP: 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.

A3.38 The new publication model hopes to achieve a balance between timeliness and accuracy. The previous model gave greater weight to output data in the early estimates as they are the timeliest and therefore provide the best short-term picture. The new model will still be balanced to the output estimate but will benefit from using more robust data from that source as a result of a two-week delay. This time lag also enables the measure to incorporate both income and expenditure data to quality assure the output GDP measure, ensuring a more reliable initial estimate.

Blue Book 2019 changes

A3.39 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. Revisions in the Blue Book 2019 mostly reflect the fundamental change to how GDP is now estimated in the UK, with greater emphasis on data confrontation in a Supply and Use Tables framework. This includes a rebalancing of GDP for all years from 1997 to 2016, while improving the consistency and coherency of how deflation is carried out. A full list of changes can be found in the Blue Book 2019 (ONS, 2019l).

A3.40 As a result of the total package of current price GDP improvements, the size of the economy increased by an additional £26 billion or 1.3 per cent of GDP in 2016. Average growth from 1998 to 2016 is revised up 0.1 percentage point to 2.1 per cent per year. The peak to trough fall of the financial crisis has been revised from 6.3 per cent to 6.0 per cent and the UK economy is now estimated to have returned to its pre-downturn levels one quarter earlier in Q1 2013.

A3.41 Current price estimates of gross fixed capital formation and business investment showed large upwards revisions for recent years, a result of using updated data from the Annual Business Survey as well as new improved estimates of own-account software.

A3.42 As a result of irregularities identified in the business investment by industry and asset data (chained volume measure series), Figure 7.3 of this report is produced using previously released unaffected data to 2019 Q1. ONS are working to resolve the issue.

Definitions of low-paying sectors

A3.43 Throughout this report we refer to the low-paying sectors. We define these as occupations or industries which contain a high number or large proportion of low-paid workers based on the Standard Occupation Classification (SOC) and Standard Industrial Classification (SIC) codes published by ONS. We have two distinct definitions of low-paying sectors, one based on industries and one on occupations. These definitions are used when conducting detailed analysis of low-paying sectors using ASHE or the LFS. Some sectors thought of as low-paying e.g. retail and hospitality will tend to include higher paid roles such as buyers and managers when looked at on an industry basis. On the other hand, there are some low-paying occupations i.e. cleaning which are found across different industries.

A3.44 In 2017 we reviewed the low-paying classifications to identify new low-paying sectors arising from the NLW, considering the 2020 NLW target of 60 per cent of median pay for workers aged 25 and over. As a result, we added two new groups to the industry classification: security and wholesale food (including agents), both of which included above average proportions of low-paying workers. Small changes were also made within the cleaning and maintenance and social care groups. We also added two new groups within the occupation classification: security and enforcement and call centres. As with the industry classification we also made several small changes within some of the other occupational groups.

A3.45 Our 2017 report (Low Pay Commission, 2017) provides full details on the review including new definitions of each low-paying occupation and industry based on the latest SIC 2007 and SOC 2010 codes. Table A3.1 shows our revised list of low-paying sectors defined by SIC 2007 and SOC 2010 respectively.

Table A3.1: Definitions of low-paying industries and occupations, by SIC 2007 and SOC 2010

Low-paying industry/occupation	Current industry definition (SIC 2007)	Old industry definition (SIC 2007)	Current occupation definition (SOC 2010)	Old occupation definition (SOC 2010)
Retail	45, 47, 77.22, 95.2	45, 47, 77.22, 95.2	1254, 5443, 7111,7112,7114, 7115, 7123-7125, 7130, 7219, 925	1254, 5443, 7111,7112,7114, 7115, 7123-7125, 7130, 7219, 925
Hospitality	55, 56	55, 56	5434, 5435, 9272-9274	5434, 5435, 9272-9274
Social care	86.10/2, 87, 88.1, 88.99	86.10/2, 87, 88.1	6145, 6146, 6147	6145, 6147
Employment agencies	78.10/9, 78.2	78.10/9, 78.2	-	-
Cleaning and maintenance	81, 96.01	81.2, 96.01	6231,6232, 6240, 9132, 9231, 9233-9236, 9239	6231,6240, 9132, 9231, 9233-9236, 9239
Leisure, travel and sport	59.14, 92, 93	59.14, 92, 93	3413, 3441, 3443, 6131, 6139, 6211, 6212, 6219, 9275, 9279	3413, 3441, 3443, 6131, 6139, 6211, 6212, 6219, 9275, 9279
Food processing	10	10	5431-5433, 8111, 9134	5431-5433, 8111, 9134
Wholesale food incl. agents	46.1, 46.2, 46.3	-	-	-
Childcare	85.1, 88.91	85.1, 88.91	6121-6123, 9244	6121-6123, 9244
Agriculture	01, 03	01, 03	5112-5114, 5119, 9111, 9119	1213, 5112-5114, 5119, 9111, 9119
Security	80.1	-	7122, 9241, 9242	-
Textiles and clothing	13, 14	13, 14	5411, 5414, 5419, 8113, 8137	5412-5414, 5419, 8113, 8137
Hairdressing	96.02, 96.04	96.02, 96.04	622	622
Office work	-	-	4129, 4133, 4216, 7213, 9219	4129, 4216, 7213, 9219
Non-food processing	-	-	8112, 8115-8116, 8119, 8121, 8125, 8127, 8131, 8134, 8139, 9120, 9139	5211, 5441, 8112, 8114-8116, 8125, 8131, 8134, 8139, 9120, 9139
Storage	-	-	9260	9260
Transport	-	-	5231, 8135, 8212, 8214	5231, 8135, 8212, 8214
Call centres	-	-	7113, 7211	-

Note: '-' denotes not applicable.

Table A3.2: Definitions of low-paying industries for ONS employee job series, by SIC 2007

Low-paying industry	SIC 2007
Textiles, clothing	13, 14
Retail	45, 47
Hospitality	55, 56
Cleaning	81, 96.01
Hairdressing	96.02
Agriculture	01, 03
Food processing	10
Leisure/travel/sport	92, 93
Employment agencies	78.2-3
Residential care	87
Domiciliary care/childcare	88

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